

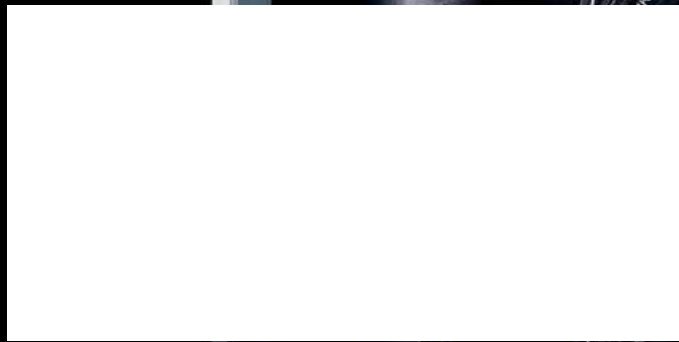
WIRED

test

300+

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- Cell Phones
- DVRs
- Camcorders
- MP3 Players
- Universal Remotes
- Gaming PCs
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- Vacuums
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REVEALED!
**The Best Gadget
 of All Time**

IFRAUD
**Essential Tips
 for Spotting
 Counterfeit Gear**

GO BIG
**Widescreens
 at Small Prices**

WINTER 2008

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The Wired Ultimate Gadget Tourney

Sixty-four gadgets fought for ultimate techno superiority. There were run-away blowouts by fan favorites but also surprising victories by unheralded underdogs. In the end, only one survived all seven rounds of competition to emerge as the single greatest gadget of all time. Our special foldout shows each tournament head-to-head and reveals which gizmo came out on top. BY CHRISTOPHER NULL



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58 Videocams

Home movies? How about hospital-baiting parkour clips? Choose the tape-based cam, DVD model, or hard-drive storage monster that best suits your action.



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COVER Photographed for WIRED by Andrew Zuckerman. Styled by William Ladd.

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I HAVE THE MOST awesome mobile phone. You wouldn't believe the sick stuff it can do. There's a webcam for videoconferencing, email, a full browser, and instant messaging. I can install whatever apps I want—Rhapsody's music service, SSH clients, document and spreadsheet editors, even software to access my desktop machine remotely. Oh yeah: It also makes free voice-over-IP calls. It cost \$400. It *incinerates* the iPhone.

The only catch: I had to build it myself.

My "phone" is actually a pimped-out Nokia N800, a pocket-sized tablet computer. Technically, it's not a phone at all, but because it's Linux-based and has built-in Wi-Fi, it can run tons of great software. I loaded Skype, and presto—voice-call functionality whenever I'm near a wireless network, which nowadays is basically always.

So why can't your handset work this way, too? If the hardware and software are all available to make these incredible do-it-all phones—how come the wireless carriers aren't rolling them out?»

Phone Freaking

All the technology exists to build the super phone of the future, but the carriers won't do it. You can. **by Clive Thompson**

WIRED

ILLUSTRATION BY Harry Campbell

WIRED TEST 0 1 5

Because the wireless mobile industry is the laziest and least innovative sector of the entire high tech world, full stop. It's more interested in preserving its old-school profit mechanisms than in breaking new ground.

Cellular-industry critics have been complaining about this for years. As they point out, phone companies rake in millions by overcharging for things that cost little to provide—a buck or two for a ringtone or TV-show snippet here; a few cents for extra text messages there. Much like the record labels with CDs, they're wringing all the money they can from these old economics.

Only a few high-end smartphones can be customized with software you select. With virtually every other phone, you're stuck with those apps the wireless companies will permit you to download via their network—for a tidy fee, of course. Why would they let you download freeware games when they can ding you \$7 to play a *Tetris* rehash?

This is also why so few phones have Wi-Fi. If they did, you'd simply tap into free nodes instead of suffering through your mobile carrier's glacially slow data network. It was a minor miracle that AT&T let Apple put Wi-Fi into the iPhone—though notice they're

certainly not letting anyone install Skype on it. AT&T's creaking, 1980s-era business model must be protected at all costs, no matter how much it makes your phone suck.

Wireless executives have many excuses for their paternalistic behavior. They need to keep phones locked down, they claim, because if customers downloaded all sorts of freeware, it could wreak havoc with their network.

The various components for killer phones all exist. The sole obstacle is the wireless carriers' desire to protect an antediluvian business that its customers loathe.

I don't buy it. Indeed, I could disprove it with a simple hack. Verizon offers a laptop card for \$60 that lets you access unlimited high-speed data anywhere Verizon covers. I could rebroadcast that signal via Wi-Fi or Bluetooth to my N800—and then use Skype to make phone calls on Verizon's wireless network. The only thing I'd be hurting is the bottom line.

It's a kludge, but such a setup shows that the various components for killer phones—fast networks, free software, cheap hardware—all exist. The sole obstacle to their being assembled is the wireless carriers'

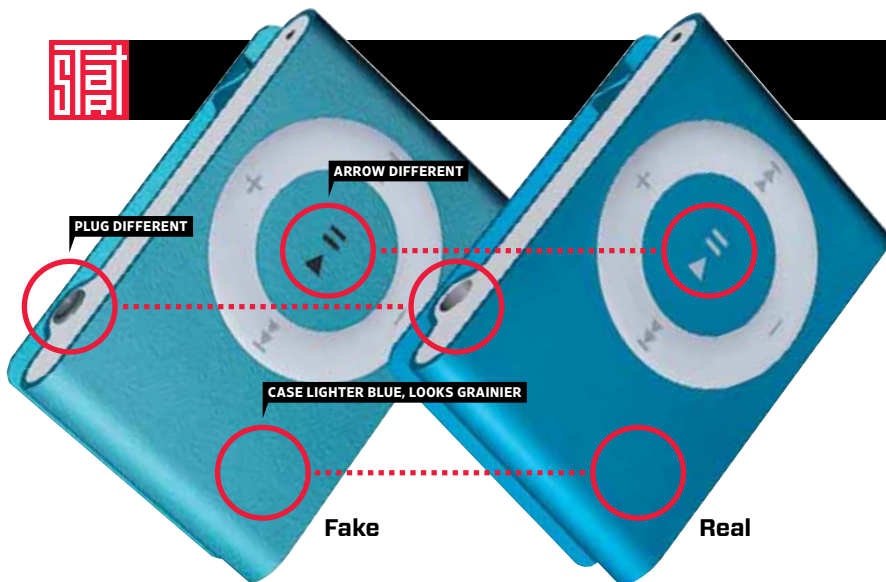
desire to protect an antediluvian business that its consumers loathe.

So, is there hope? The OpenMoko project is working on an open source, Wi-Fi-enabled phone that works on any GSM network. That's pretty cool. In my more feverish dreams, the government actually grows a pair and realizes that we, the public, own the airwaves that the wireless companies so might-

ily abuse—and the FCC simply forces the carriers to open up their services to true smartphones. (Google's lobbying for this, with no success yet.) Or here's an even more delirious vision: A venture capitalist funds a next-generation mobile-phone carrier that blankets the nation in Wi-Fi, then uses that as a backbone for truly PC-like handsets.

I can dream, I guess. Until then, if you want a phone of the future like mine, you'll have to build it yourself. ■

CLIVE THOMPSON (clive@clivethompson.net) writes a column for WIRED.



- The top five most-frequently faked gadgets: MP3 players, portable memory, handheld game systems, cell phone and laptop batteries, and portable hard drives. Is it small and popular? Then it's ideal to fake.
- Do some homework before you buy. Manufacturers release counterfeit alerts online. Often, they also list approved resellers and information about security tape or labels on packaging.
- If the product costs less than 80 percent of the manufacturer's suggested retail price, you can almost guarantee it's counterfeit.
- Of all the fakes US Customs seized last year, 81 percent were from China. Don't buy products shipped directly from that country, and avoid seller Web sites written in poor English.
- Signs of a fake: Your gadget stops working inexplicably; the box has logos and graphics that look out of place; the manual desperately needs a proofreader. Report the impostors to the manufacturer or the customs department, or online at netenforcers.com.

Avoid a Faux Pod

GOT A NEW IPOD? Are you sure? It may actually be a well-crafted fake. Copying a page from their brothers in the fashion industry (Prada bags for \$60!), electronics counterfeiters are raking in the cash: US Customs and Border Protection estimates that fake gear seized last year was worth \$21.3 million. Consumers manage to identify their purchases as bogus only about 1 percent of the time. To protect yourself, consider these tips before dropping your hard-earned cash on a pseudo gizmo. —ERIN BIBA

The Best Obsolete Technologies

Newfangled baubles come and go quickly; today's Blu-ray is tomorrow's VHS. Certain technologies long ago left behind by fashion, however, will always occupy a special place in our geeky hearts. —MATHEW HONAN



Ditto machine

Not to be confused with a mimeograph, Ditto Inc.'s spirit duplicator used ether and purple ink to reproduce documents on a hand-cranked contraption. It was a favorite of teachers everywhere, as well as the millions of schoolkids who hoped for cheap highs from its off-gassing freshly printed pages.

Flash powder

Typically made from magnesium and potassium chlorate, flint-ignited flash powder helped photographers illuminate their subjects. But it was of limited use indoors—imagine the toxic puff of smoke—and was eventually replaced by the electric flashbulb. Still, for accidental explosions it couldn't be beat.

Laser Disc

Predating even the compact disc, the album-sized laser disc was the format of choice for everybody's favorite stoner uncle. His *Star Wars* "LD" wowed the Walkman set for more than a decade before smaller, all-digital DVDs sent the analog beasts to the curb.

Plate armor

The Greeks and Romans used metal plates as armor, but full-body protection vanished in the early Middle Ages and didn't reappear until European knights donned it in the 13th century. For the next 300 years, it was the ultimate in personal security—until firearms made it nothing more than a weighty encumbrance.

Punch cards

First used in the 18th century to control automatic looms, machine-readable punch cards transformed how we store data—freeing it from hand entry into ledgers and, ultimately, from human input. Popularized by the 1890 Census, punch cards held sway for more than 100 years and gave rise to IBM.

Slide rule

The slide rule was once the proudest possession of every engineer. With it, geeks of yore could perform advanced mathematical equations lightning fast, without the benefit of a scientific calculator. It has, sadly, gone the way of the pocket protector.

Steam engine

Heron of Alexandria conceived of steam power in the first century AD, yet not until 1765 was it made practical, by James Watt. The internal-combustion engine killed it, but watery-eyed nostalgia has given rise to modern-day steampunks' fanciful creations.

Stock ticker

Forget Larry Ellison and Mark Cuban. For the ultimate in arrogant affluence, nobody could touch tycoons like J. P. Morgan or Jay Gould. And for the newly minted magnate, nothing said "robber baron" like an Edison stock ticker in his wood-paneled library. The rapidly scrolling data ribbons led to everything from ticker-tape parades and teletypes to the Fox News crawl.

Sundial

Ancient Egyptians developed some of the first proper sundials, whose use lasted into the modern era. The Greeks refined the solar timekeeping devices, as did the Romans, followed by medieval Muslims. The latter used it to calculate prayer times and developed the design that likely adorns your garden path today.

Telegraph

In 1844 Samuel Morse posed an open question STOP ·-·-·-·- / ····-·-·- / -·-·-·-·- / ·-·-·-·-·-·-·-·- / STOP Translation: What hath God wrought STOP Instant communication, it turns out STOP Telegraph service survived onslaughts from the telephone and fax machine until Western Union cut the wire in 2006, unable to compete with Internet messaging STOP

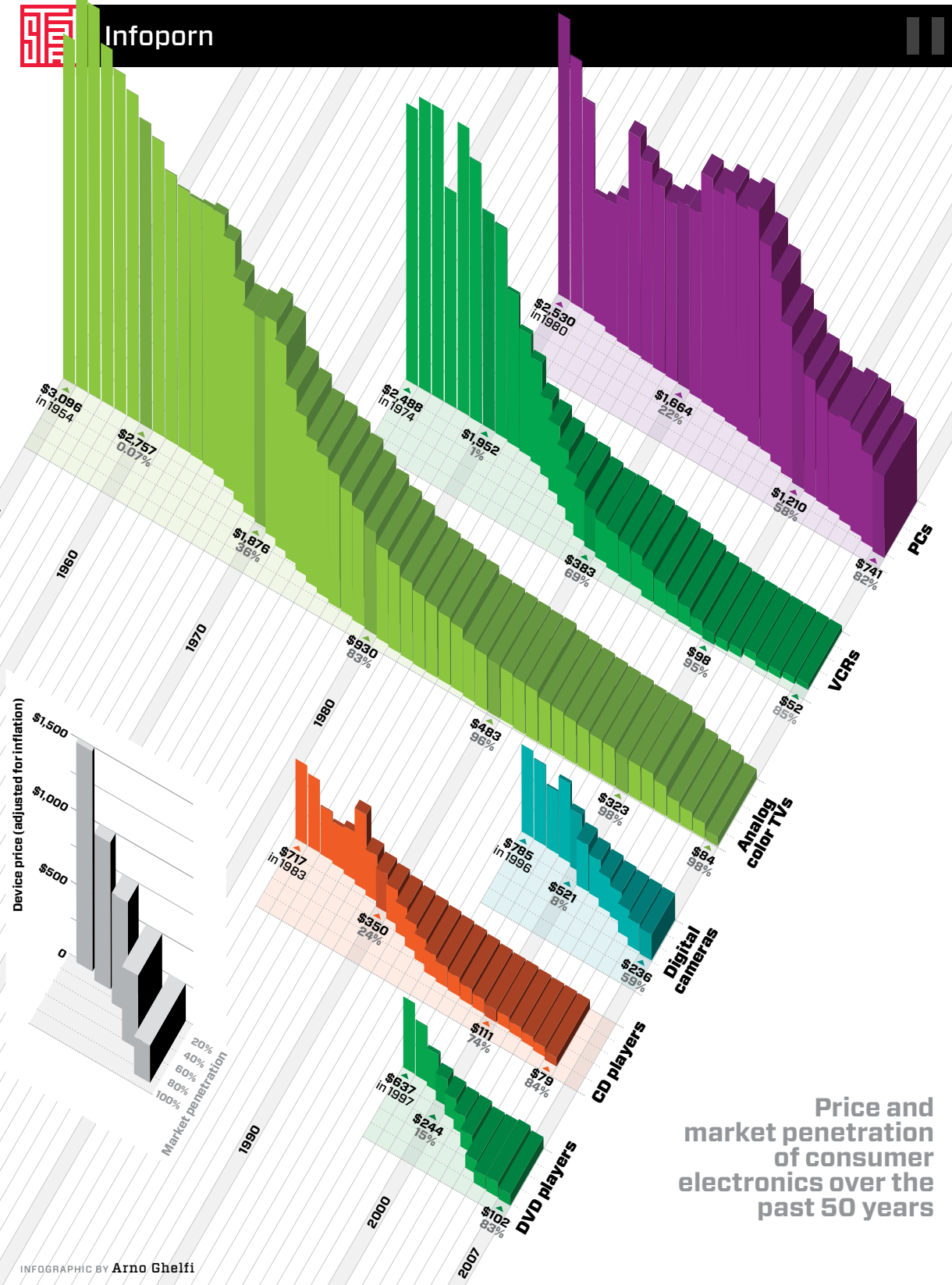
Geekiness at Any Price

Fortunately for you, the cost of gadgets keeps falling.

Historically, Americans have taken their time getting comfortable with new technology before forking over serious cash for it. When color TVs came out in the 1950s, consumers were entranced. But it took another 20 years for half of US households to ditch their B&W sets; two decades later, DVD players hit that benchmark in just six years. If you think those flatscreen HDTVs are pricey, consider this: They cost about the same, adjusted for inflation, as the first color TVs. Here's a look back at what we've paid for gadget lust. —PATRICK DI JUSTO



Infoporn



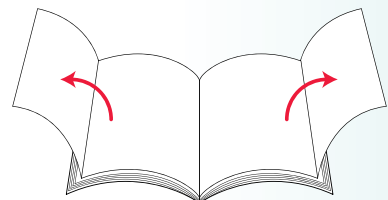
Price and market penetration of consumer electronics over the past 50 years

SOURCES: CONSUMER ELECTRONICS ASSOCIATION, US BUREAU OF LABOR STATISTICS, CD PLAYER DATA NOT AVAILABLE FOR 2006 AND 2007.

THE WIRED ULTIMATE GADGET TOURNEY

WHENEVER GEARHEADS GATHER, the same debate rages: Which one of the many pieces of singular equipment out there has most influenced our lives? Is it the mighty iPod, popularizer of digital music? Or maybe the sextant, which guided explorers around the world? Only one way to settle this: with a battle to the death—Gizmodome, if you will. 64 gadgets enter, one gadget leaves. You'll never believe what came out on top.

Open foldout next page >



W

We picked 64 of

the top gadgets of all time and put them in a single-elimination, March Madness-style tournament. It wasn't easy to come up with the top seeds in each group, but the Apple iPod, the RCA CT-100 color television, the compass, and the Motorola StarTAC phone got our nod.

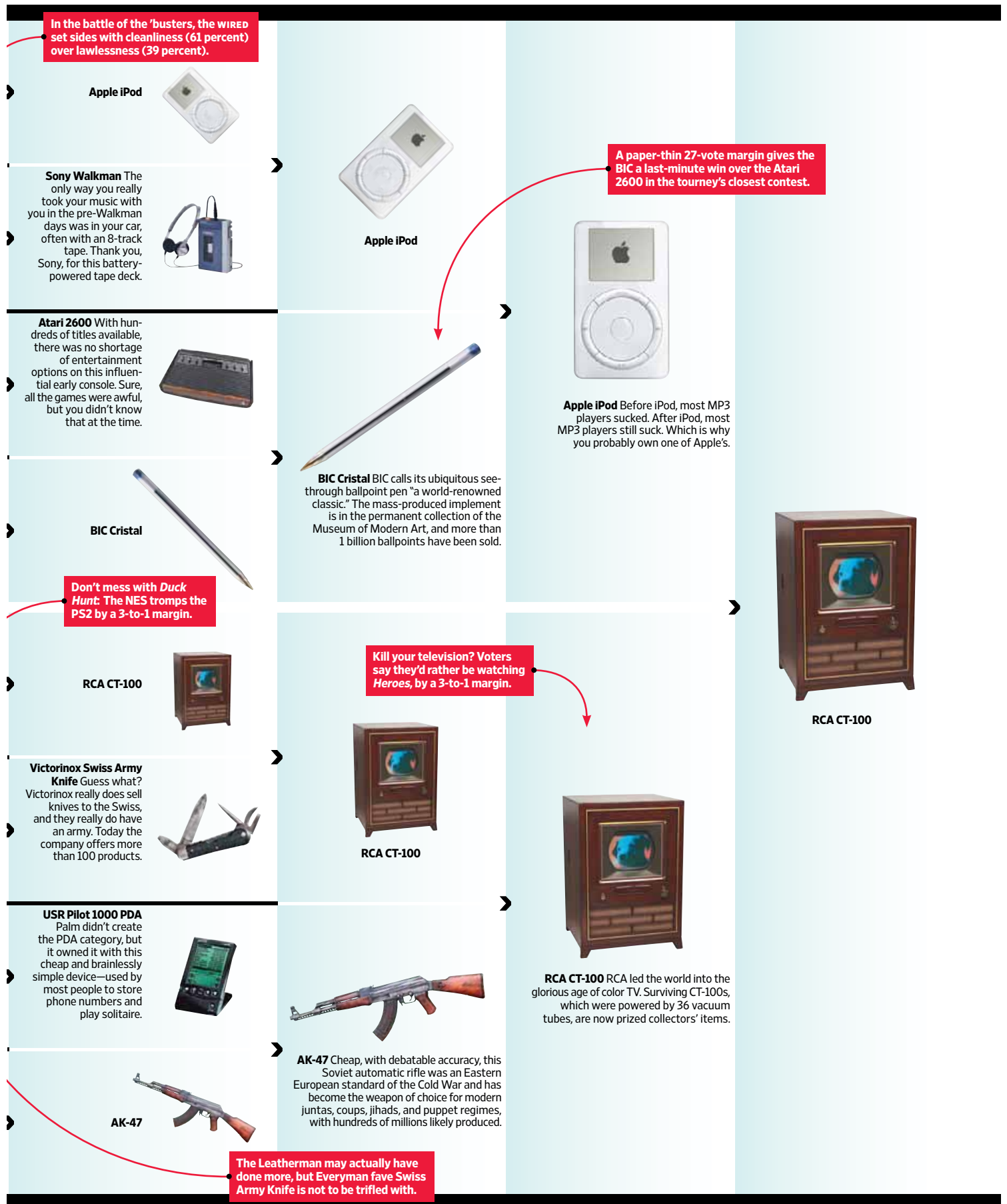
Then, thousands of rabid gear hounds visited *wired.com/greatestgadget* to pick the winner of each matchup. Their votes pushed some products forward toward the ultimate prize and sent others home in humiliating defeat—including the compass, which was told to get lost in the first round.

There were blowouts, like the Nintendo Game Boy's rout of the Interplak electric toothbrush, 92 percent to 8. Sony's original CD player vacuumed up the Roomba with 88 percent of the match vote. And upsets abounded, as well: The 15th-seeded BIC Cristal pen survived to the final eight, and the John Bird sextant, a number eight seed, made it all the way to the final face-off.

In the end, the title match went to the RCA CT-100 in a 60 percent to 40 percent victory. The radiant idiot box stands alone at the top of the gadget heap, having vanquished all rivals as the greatest gadget of all time.

—CHRISTOPHER NULL

01	Apple iPod 2001	Apple iPod
16	Apple iPhone 2007	Apple iPhone
08	Black & Decker DustBuster 1979	Black & Decker DustBuster What the consumer needed was a low-power, handheld vacuum cleaner that could push Cheerios into the corner more handily than a whisk broom.
09	Fuzzbuster 1968	Fuzzbuster
05	Pickett N600-ES Slide Rule 1960s	Texas Instruments TI-30 Reportedly the most popular TI calculator ever made, the TI-30 sported a full range of scientific functions and could be had for less than \$25.
12	Texas Instruments TI-30 1976	Texas Instruments TI-30
04	Sony Walkman TPS-L2 1979	Sony Walkman
13	Mr. Coffee 1972	Mr. Coffee
06	Sony Handycam CCD-M8 1985	IBM ThinkPad 700C Not the first color laptop, but this ThinkPad had the largest screen of its era and launched the love-it-or-hate-it pointing stick.
11	IBM ThinkPad 700C 1992	IBM ThinkPad 700C
03	Atari 2600 1977	Atari 2600
14	JVC HR-3300 VCR 1976	JVC HR-3300 VCR
07	Polaroid SX-70 1972	Polaroid SX-70 Printer of that famous positive that developed before your eyes—whether you shook it or not.
10	Sony Digital Mavica MVC-FD7 1997	Sony Digital Mavica MVC-FD7
02	Leica A 1925	Leica A
15	BIC Cristal 1950	BIC Cristal
01	RCA CT-100 1954	RCA CT-100
16	Nintendo Wii 2006	Nintendo Wii
08	Sony PlayStation 2 2000	Nintendo Entertainment System Leveraging its success with Donkey Kong and other arcade titles, Nintendo muscled its way into some 60 million homes with the NES.
09	Nintendo Entertainment System 1985	Nintendo Entertainment System
05	Apple II 1977	Apple II Now celebrating its 30th birthday, the Apple II was many users' first foray into computing outside the workplace.
12	Apple Macintosh Plus 1986	Apple Macintosh Plus
04	Victorinox Swiss Army Knife 1897	Victorinox Swiss Army Knife
13	Leatherman 1983	Leatherman
06	Apple Newton 1993	Apple Newton The much-maligned device has been hacked to work as a Web server, and its OS to run on Linux-based PDAs. Neither recognizes your handwriting very well.
11	Diamond Rio PMP300 1998	Diamond Rio PMP300
03	USR Pilot 1000 PDA 1996	USR Pilot 1000 PDA
14	Mattel Electronics Football 1977	Mattel Electronics Football
07	AK-47 1947	AK-47
10	W. E. Bassett TRIM nail clipper 1947	W. E. Bassett TRIM nail clipper
02	IBM 5150 PC 1981	Commodore 64 If you couldn't persuade Mom to buy you an Apple, this dirt-cheap PC (which eventually sold for 200 bucks) is what you got.
15	Commodore 64 1982	Commodore 64



The Best Gadget of All Time



RCA CT-100



John Bird sextant



Western Electric 500 Few households of the 1950s and 1960s were without a Western Electric 500, the mass-produced telephone that became such a standard that the basic design is still in use. Rotary dialing, fortunately, is not.



Western Electric 500



John Bird sextant



Zenith Space Commander Zenith invented the first practical wireless remote control with this device, which let you switch back and forth between the two channels your TV set received.

The first DVD player gets shut out early in a surprise rout by the microwave oven, with nearly four times as many votes.



Sholes & Glidden Type Writer The first typewriter had no Shift key and wrote only in capital letters, but it heralded a glimpse of a future in which machines, instead of human hands clutching quill pens, would imprint letters on paper.

Our most lopsided first-round matchup, of votes going to the Game Boy. Note to Dr. Mario does not, in fact, protect you f

A surprise win for the sextant over the original remote control as it continues its run toward the finals. History rules!

John Bird sextant One of the most important navigational tools ever invented, the sextant (and its ilk) measures the angle between the horizon and an object in the sky to help people determine their geographic location. Sextants are still readily available—and don't require satellites or batteries.

 <p>Sholes & Glidden Type Writer</p>	 <p>E. F. Johnson Messenger III CB This '70s classic gave bored truckers and road-trippers something to do when radio channels were wracked by static and all the 8-tracks had been played.</p>	 <p>Brunton 9077 compass 2007</p>  <p>E. F. Johnson Messenger III CB 1972</p>	<p>01</p> <p>16</p>
 <p>Regency TR-1 transistor radio Out with the vacuum tube, in with the transistor. Regency's battery-powered portable radio was the first ever sold, paving the way for the Walkman, the iPod and, of course, the boom box.</p>	 <p>Sholes & Glidden Type Writer</p>  <p>Regency TR-1 transistor radio</p>	 <p>Magellan NAV 1000 GPS 1989</p>  <p>Sholes & Glidden Type Writer 1874</p>	<p>08</p> <p>09</p> <p>05</p>
 <p>Zippo For 75 years, the iconic Zippo has been the coolest way to start a fire, as well as one of the most reliable.</p>	 <p>Sony CDP-101 CD player One of the first systems to play the new digital music compact discs, which fans laud for their high fidelity and longer lifespan. (Sorry, LPs.)</p>  <p>Zippo</p>	 <p>Regency TR-1 transistor radio 1954</p>  <p>Fahrenheit thermometer 1700s</p>	<p>04</p> <p>13</p> <p>06</p>
 <p>Western Electric 500</p>	 <p>Tivo DVR A VCR without tapes? How could that possibly work?</p>  <p>Western Electric 500</p>	 <p>iRobot Roomba 2002</p>  <p>Zippo 1933</p>	<p>11</p> <p>03</p> <p>14</p>
 <p>John Bird sextant</p>	 <p>Amana Radarange Bacon, popcorn, TV dinners—is there anything the modern microwave oven can't cook with the power of ... radio waves?</p>  <p>Western Electric 500</p>	 <p>Toshiba SD-3000 DVD player 1996</p>  <p>Amana Radarange 1967</p>	<p>07</p> <p>10</p> <p>02</p>
 <p>Nintendo Game Boy Arguably the best-selling portable game console ever made. Tetris alone sold more than 32 million copies for the Game Boy.</p>	 <p>Motorola StarTAC Motorola's greatest hit in the pre-RAZR era, the StarTAC made cell phones sexy, creating an entire class of "stylish" handsets.</p>  <p>John Bird sextant</p>	 <p>Western Electric 500 1949</p>  <p>Fender Telecaster 1950</p>	<p>01</p> <p>16</p> <p>08</p>
 <p>Zenith Space Commander</p>	 <p>RIM 850 Inter@ctive Pager RIM invented the smart pager category with this watershed device, designed for those who absolutely can't bear to be disconnected, ever.</p>  <p>Nintendo Game Boy</p>	 <p>Toshiba SD-3000 DVD player 1996</p>  <p>Amana Radarange 1967</p>	<p>01</p> <p>16</p> <p>08</p>
 <p>Black & Decker Electric Drill Inspired by the Colt 45, Black & Decker's first compact electric drill kicked off the modern era of portable power tools and DIY-induced emergency room visits.</p>	 <p>Schick electric dry shaver Colonel Jacob Schick was so obsessed with electricity-powered shaving that he reportedly mortgaged his home to finance his invention.</p>  <p>Zenith Space Commander</p>	 <p>RIM 850 Inter@ctive Pager 1999</p>  <p>Palm Treo 600 2003</p>	<p>05</p> <p>12</p> <p>04</p>
 <p>Black & Decker Electric Drill</p>	 <p>Schick electric dry shaver Colonel Jacob Schick was so obsessed with electricity-powered shaving that he reportedly mortgaged his home to finance his invention.</p>  <p>Zenith Space Commander</p>	 <p>Motorola RAZR V3 2004</p>  <p>Schick electric dry shaver 1931</p>	<p>06</p> <p>11</p> <p>03</p>
<p>Black & Decker Electric Drill</p>	<p>Pulsar digital wristwatch The Pulsar was the first watch to tell the time without hands. At \$1,370 in today's dollars, it had a NASA-worthy price, too.</p> <p>Black & Decker Electric Drill</p>	<p>Zenith Space Commander 1956</p> <p>Carterfone cordless phone 1959</p>	<p>14</p> <p>07</p> <p>10</p>
<p>Black & Decker Electric Drill</p>	<p>Pulsar digital wristwatch The Pulsar was the first watch to tell the time without hands. At \$1,370 in today's dollars, it had a NASA-worthy price, too.</p> <p>Black & Decker Electric Drill</p>	<p>Compaq Portable 1983</p> <p>Pulsar digital wristwatch 1972</p>	<p>02</p> <p>15</p>

with 92 percent of geeks: Playing from cavities.

The world's first IBM clone is KO'd in seconds by the first "solid-state time computer."



Mobile Phones

- 32 MULTIMEDIA PHONES
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Apple iPhone

Yeah, yeah, the iPhone isn't perfect. But even with a few missing features—like 3G connectivity, video recording, IM, and MMS—it's still the most awesome cell phone ever. The multitouch screen is amazingly responsive and easy to navigate; even typing works decently, once you start trusting the auto-suggest feature. The bright, 3.5-inch widescreen display made this the first iPod really built for watching videos, and YouTube support puts more entertainment at your fingertips. The voicemail, which lets you access each message individually, is simply brilliant. Like a second slice of cheesecake, you don't *need* the iPhone, but you want it anyway. —EVAN SHAMOON





FINGERTIP JUKEBOX

Apple's intuitive Cover Flow interface changes the way you interact with your music. Just slide your finger to flip through album artwork, then tap to reveal an interactive song list. Three words, people: Best. iPod. Ever.

IT LIVES!

An accelerometer detects when you rotate the iPhone from portrait to landscape, a light sensor dims or brightens the LCD automatically, and a proximity sensor shuts off the display when the phone nears your face, so you don't accidentally hang up on Mom (it saves power, too).

WIDESCREEN WEB

Despite lacking Flash support (for now), the iPhone's Safari browser flawlessly calls up most of your favorite Web haunts—and the gesture interface makes it easy to zoom in and out. AT&T's poky EDGE network slows load times, but thankfully there's Wi-Fi.

REAL SIMPLE

The optical-grade glass, though smudge-prone, enhances the super-sharp display, and the minimalist design (there are buttons for menu, power, volume, and ringer-muting—that's it) makes other phones look like Vegas showgirls. At 4.5 x 2.4 x 0.5 inches, it's not tiny, but it is thin enough for back pockets. Just don't sit on it.

A SYNCING FEELING

The iPhone interfaces seamlessly with iTunes for loading up media, while a new Info tab in the software helps you manage your contacts, calendars, bookmarks, and mail accounts.

\$399 with two-year contract • apple.com





Sony Ericsson W580i

\$129 with two-year contract • sonyericsson.com
 If it weren't for the you-know-what-Phone, Sony Ericsson's latest would be the music mobile to beat. Though not as graphically inspiring as its sleek rival, the music player functions very well and even outdoes Apple's device thanks to its FM radio, stereo widening, and much louder speaker. A pedometer plus fitness software for measuring distance, calories burned, and lap times make it the perfect exercise buddy. Only major flaw is its undersize keypad, which seems to have been designed for baby Smurfs.
WIRED Half-inch thin. Super light (3.3 ounces). Browser provides easy Gmail and Google Maps access. 256-MB memory card in box. Unique extras like TrackID, mini music sequencer, and video editor.
TIRED No camera flash. Sorta pointless shuffle feature requires you to press a button, then shake.



Multimedia Phones

If you're toting enough gadgets to make you seriously consider a manny pack, stop! Try one of these combo communicators instead. —E.S.

Helio Fin

\$175 with two-year contract • helio.com
 It's not the freshest-looking phone around, but with a 0.5-inch profile, the Fin is at least slimmer than some competitors. Images and videos captured with the 3-megapixel camera can be uploaded straight to Flickr or YouTube; despite being relatively hi-res, however, shots appear grainy. GPS plus Google Maps is cool, but for real-time, turn-by-turn directions, you have to pony up \$2.99 a day. Worse, the buttons are flat and squishy, and the directional pad is impossibly clumsy.
WIRED Sturdy feel. Vivid 2.3-inch screen. Built-in email clients for all the biggies (Gmail, Yahoo, Windows Live). Access to mobile MySpace and Helio's music store.
TIRED Keypad is frustratingly unresponsive. Tinny speaker. Measly three-hour-plus talk time. No memory card.



LG Chocolate VX8550

\$150 with two-year contract • lgusa.com
 After a somewhat lukewarm response to the original Chocolate, LG returns with an update. The successor is a better-looking piece of plastic (though decidedly still plastic), and the sucky touch-sensitive navigation pad has been replaced by a more usable, iPod-style scroll wheel with buttons. Music playback and speakerphone have also improved. But not all is well: We found ourselves accidentally activating the touch-sensitive buttons that surround the wheel.
WIRED Handy sliding unlock button. Loud, clear speakerphone. Smart upgrades (like a relocated speakerphone key). V Cast music and video access.
TIRED Chubby (0.7-inch). Three-hour talk time. BYO memory card and USB cable. It's a fingerprint magnet.



LG VX9400

\$150 with two-year contract • lgusa.com
 LG's black and silver beauty is one of the flagship phones for Verizon Wireless' V Cast mobile television service. The VX9400's main attraction is a vivid 2.2-inch screen that rotates 90 degrees so you can watch *CSI* the way it's meant to be viewed—horizontally. Gripes: At 4 x 1.9 x 0.7 inches, it's clunky for a phone, and constantly turning the screen to access the keypad gets to be annoying.
WIRED Friendly interface. Pleasant, rubbery feel. Sharp photos from 1.3-megapixel cam. Mobile TV looks crisp and clean—*The Daily Show* on the toilet? W00t!
TIRED Cramped keypad. Weak speaker volume. TV antenna looks ridiculous when extended. No memory card or USB cable included. TV service available in limited areas; signal can be inconsistent.





Nokia N95

\$749 • nseries.com

The N95 is one of the most feature-packed phones money can buy. Its biggest asset is a 5-megapixel camera with Carl Zeiss optics for taking the sharpest, most vivid pics you'll get from a phone (though autofocus is quite slow). Also notable is the Transformer-esque two-way slider design—a keypad glides out of the bottom, and music controls slip out the top—for switching between phone and media player (and for making you feel like Morpheus).

WIRED Huge 2.6-inch screen. Records 30-fps video. Extras galore: 3.5-mm headphone jack, TV output connector, infrared port, Wi-Fi, GPS, FM radio, and 1-GB memory card.

TIRED Fattest in this bunch (0.8 inch). Lags when you open media player. Standby mode saps battery charge. And you thought the first iPhones were expensive?



Samsung UpStage

\$150 with two-year contract • samsung.com

The least pocket-filling of all the phones we checked out, the 0.4-inch-thin UpStage uses a two-faced design: a keypad on one side, media player on the other. But some of the phone tasks (dialing, texting, entering contacts) must be handled on a minuscule 1.3-inch screen, and the constant flipping, just to go from playing a tune to dialing a call, gets tiresome.

WIRED Tiny and light (2.6 ounces). Decent 1.3-megapixel camera. Included battery pack doubles as protective case. Access to Sprint TV and its Music Store; 99-cent song downloads on the go.

TIRED Weak speaker. Must exit music player to access most other functions. Flipping back and forth grates, as does having to press a special button to switch between sides.



Sanyo Katana DLX

\$180 with two-year contract • sanyokatana.com

Sanyo's newest weapon in the mobile phone wars has a decidedly old-fashioned design. Looks aside, it's a passable multimedia phone: The interface is efficient, and built-in GPS serves up turn-by-turn directions that beat static, collision-inducing Google Maps. Support for Sprint's TV and music services means you'll never be bored at the DMV again. It also comes in pink, if that's how you roll.

WIRED Easy-to-carry, 0.6-inch-thick design. Sharp QVGA screen. Sensible button layout. Keys have nice bounce. Included 128-MB microSD card is better than nothing.

TIRED Kinda fugly. Uninspiring build quality. Mediocre 1.3-megapixel camera. No external music controls. Rather pricey considering what you actually get.



Sony Ericsson K850i

\$399 • sonyericsson.com

Weight-conscious gadget lovers have long sought the ultimate cell phone/digital camera combo. Sony's forthcoming Cyber-shot call-and-shoot may just be it. The K850i boasts a 5-megapixel autofocus camera complete with xenon flash. Besides snapping stills, it shoots 30-fps QVGA video and can send photos and clips to your blog. No optical zoom, but it does include Sony Ericsson's BestPic feature, which lets you take multiple photos in rapid succession, then pick the best of the lot.

DUE ON SHELVES December 2007
WORTH THE WAIT? If the shutter speed and image quality are indeed up to Cyber-shot standards, we're sold.



EDITORS' PICK

Samsung SCH-u740

\$180 with two-year contract • samsung.com

The SCH-u740 has a long leg up on its svelte competition: A dual-flip hinge lets you use the phone in either portrait or landscape mode, in which you have access to a full QWERTY keyboard. It's a surprisingly elegant solution, and the raised keys make texting and emailing easy. Though the (overly) touch-sensitive music controls didn't work as well as we'd hoped, it's a terrific phone for those who prefer to express themselves with their thumbs.

WIRED Keyboard is great for knocking out SMS and email. V Cast music and video support. Vivid, colorful 2.2-inch display.

TIRED Unimpressive 1.3-megapixel cam. No external camera button; no included memory card. Though highly pocketable, 0.6-inch bod not quite as thin as the competition.



Fashion Phones

With skinny trousers still in—damn you, Franz Ferdinand—slim cells are a must for style mavens. —E.S. AND CHRISTOPHER NULL

LG VX8700

\$200 with two-year contract • lgusa.com

LG's RAZR clone is a well-sculpted piece of stainless steel hardware. The quality of our calls was equally good, and the 2-megapixel camera snapped more-than-credible photos. We have a few grievances—namely, that typing is tricky on the flat keypad, and the microSD card slot is harder to get into than MIT. Still, built-in GPS and intuitive menus make the VX8700 one of the more attractive ultraslim phones on the market.

WIRED Supermodel slender (0.5 inch). Crisp screen. V Cast music and video support. Construction feels solid in the hand—no plastic here.

TIRED Lacks external music controls. Slot for microSD card stuck behind battery. No memory card or USB cable included.



Motorola RAZR2 V9

\$300 with two-year contract • motorola.com

How do you follow up an iconic phone like the RAZR? If you're Motorola, you inundate the market with your own knockoffs. The RAZR2 is nearly identical in form to the original, though the camera gets a boost to 2 megapixels, and 3G is now standard (good for watching clips via AT&T's video service). The phone is still shiv-like (0.5 inch), but at 4.4 ounces, it's also a whopping 31 percent heavier than the original.

WIRED Nice paint job. Large, touch-sensitive external screen with haptics feedback. Improved talk time (more than six hours). Noise-reducing technology works fairly well.

TIRED MP3 player stuttered on playback for us, and phone choked on USB file copies. Overly heavy and expensive.



Nokia N76

\$500 • nseries.com

Nokia has finally entered the anorexiphone market. The half-inch-thin N76 comes with an MP3 player, FM radio, dedicated music buttons, and a standard headphone jack. Unfortunately, said jack is located on top of the phone—meaning it gets in the way every time you flip the thing open—and the flat buttons aren't easily pushed by normal fingers. Red version goes well with Lamborghini phase of midlife crisis—or with Google options vesting.

WIRED Bright 2.4-inch screen. Excellent speaker. Nice interface for music and video player. Above-average camera.

TIRED Opening phone requires two hands or long nails. Screen smudges easily. Pricy, given lack of 3G support and no memory card.



Smartphones

These high-IQ phones combine Internet smarts with thumb-friendly keyboards, multimedia savvy, and enough megapixels for satisfying snapshots. —RICK BROIDA



test Mobile Phones

Helio Ocean

\$295 with two-year contract • helio.com
The Ocean does so much slipping 'n' sliding, you'd think it was made by Wham-O. Slide the front panel up to reveal a numerical keypad, or sideways to access the QWERTY. It also packs a 2-megapixel camera, a 2.4-inch screen, and some of the best email and instant-messaging tools this side of your PC. Plus, Helio's Sprint-powered EV-DO network is zippy enough to keep up with the social lives of teens and twentysomethings—clearly the intended audience. **WIRED** GPS for navigation, tagging photos, and locating friends. Instant messaging via AIM, MSN, and Yahoo. Support for AOL, Gmail, Windows Live, Yahoo, and other POP/IMAP email accounts. **TIRED** Bulky and heavy (5.6 ounces). Top row of keyboard crowds phone's body. So-so antenna. No Wi-Fi. Screen nearly unreadable outdoors.



Motorola Q 9h

\$300 with two-year contract • motorola.com
A pretender to the BlackBerry throne, the new Q rocks at messaging and editing, thanks to its tactile keyboard and superior Documents To Go software, which syncs desktop files and lets you create new ones. You can give Internet Explorer the heave-ho in favor of the worthier Opera browser. Alas, these efforts can't rescue the phone from the clumsy, touchscreen-less version of Windows Mobile 6; it turns elementary tasks into aggravating affairs. **WIRED** Lean half-inch-thick bod. Speedier than most Windows Mobile phones. Support for GPS nav and stereo Bluetooth. Streaming music and video applets keep you entertained. Feels a bit faster than other WinMo phones. **TIRED** Large-boned in other directions (4.6 x 2.6 inches). Choppy video. No Wi-Fi. Nonstandard USB port.



LG enV

\$150 with two-year contract • lgusa.com
Some phones just feel right in your hand. The enV is one of them. And with its long, narrow body (4.6 x 2.1 inches), it's also a pleasure to hold alongside your head. The keyboard, accessed by flipping open the phone, approaches perfection: It's wide, spacious, and equipped with a dedicated number row. Now, if only more of the phone's functions were available via the external screen: You'll often find yourself flipping when you don't want to. **WIRED** Navigable menu system. Loud, clear speakerphone. Flash-equipped camera snaps sharp photos. V Cast music and video support. **TIRED** Video playback is rough. Internal 2.2-inch screen seems disproportionately small. No Wi-Fi. IM software treats each message as SMS, which could lead to huge bills. GPS and POP email services cost extra.



Nokia E61i

\$456 • nokiasusa.com
Howdy, big boy! At 4.6 x 2.8 x 0.6 inches, the E61i dwarfs most handsets. Luckily, you won't care: Its roomy 2.8-inch screen and comfy keyboard make excellent companions to the fast Symbian OS, which puts Windows Mobile to shame by loading apps almost instantly. The browser stomps others in usability, too, and feels speedy even when tethered to the plodding EDGE network. And since the E61i also has Wi-Fi, you can always find a hot spot instead. **WIRED** Handy thumbnail-driven history viewer in browser. Streams Flash and other videos. Nice collection of business and media apps, including a project team manager and RealPlayer. Almost 11 hours of talk time. **TIRED** So wide it barely feels like a phone. Accessing the microSD slot requires removing backplate. No stereo Bluetooth. Proprietary headphone jack.





Palm Treo 755p

\$300 with two-year contract • palm.com
 Palm's latest Treo improves upon its predecessor, the 700p, by slimming down, ditching the antenna nub, and adding instant messaging and push email. Granted, you can almost see the mold on the ancient Palm OS, which remains a multimedia and multitasking weakling, but its well-oiled design affords snappy operation and arguably the simplest interface of any smartphone. At 0.8 inch, the 755p is a little thick around the middle, but otherwise it's a stunner in blue or burgundy. **WIRED** Dedicated ring/vibrate switch. Bundled Documents to Go software excels at creating and syncing Office files. Huge third-party software library. **TIRED** Still no Wi-Fi. Weak video, mediocre music apps. IM doesn't support Gtalk, Jabber, or ICQ. Lacks stereo Bluetooth.



RIM BlackBerry 8830

\$300 with two-year contract • blackberry.com
 All work and no play makes a phone a BlackBerry. At least the 8830 adds video and music (but no camera) to RIM's robust communications mix. Unfortunately, messaging suffers from a crowded, shallow keyboard, which we found too easy to fat-finger and too hard to read in dim conference rooms. It's just as well you can't edit Office documents on it. **WIRED** Powers up in a flash. Solid speakerphone. Backlight levels adjust automatically to ambient light. Still-unrivaled mobile email. It's a world phone: Budapest, here we come! **TIRED** Wide 2.6-inch body. No Wi-Fi or Bluetooth stereo. Music player doesn't do DRM. New trackball, which might come as a shock to BlackBerry diehards, can be imprecise.



Sprint Mogul

\$400 with two-year contract • sprint.com
 The successor to last year's wildly popular PPC-6700 sports a similarly splendid slide-out keyboard, three flavors of wireless (Bluetooth, Wi-Fi, and EV-DO), a 2-megapixel camera, and the Windows Mobile 6 touchscreen version. But like most WinMo phones, the Mogul feels a bit sluggish. At least the 4.3 x 2.3 x 0.7-inch body houses a big battery: We managed nearly six hours of talk time. **WIRED** Mobile Office apps let you create and edit docs. Phone doubles as wireless modem. 512-MB microSD card included in box. **TIRED** Frequently turns itself on for no apparent reason. Scattered controls result in accidental presses (especially when using camera). Speakerphone sounds crummy on other end. Camera snaps look fuzzy.



T-Mobile Sidekick id

\$100 with two-year contract • t-mobile.com
 It's easy to see why MySpace moppets love the Sidekick: It's cute, uncomplicated, and cheap. It's also an IM addict's dream: The wide, tactile keyboard lets thumbs fly with precision, and the chat client offers simultaneous access to AIM, Microsoft Messenger, and Yahoo. Add push email, swappable color plates, and that nifty myFaves thing for easy BFF dialing, and OMG, it's just so kewl! Too bad it doesn't do much of anything else. **WIRED** Trackball and icon-based interface make for blissful navigation. Decent gameplay with D-pad. Nearly eight hours of talk time. **TIRED** No camera, Wi-Fi, Bluetooth, memory card slot, or audio player. Stuck in slow gear on GPRS network. Just had its cool factor stolen by iPhone.



Cell-Phone Accessories

Add-ons for your mobile—like these whiz-bang headsets, speaker-phones, and chargers—can be both functional and fun. —R.B.



Aliph Jawbone Bluetooth Headset

\$120 • jawbone.com

Finally, a Bluetooth headset that doesn't look like a Borg implant. The Jawbone combines Prada styling with killer noise canceling. You can call your boss from the bowling alley and he'll never guess. Getting a comfy fit can be tricky, though, and the invisible, barely tactile controls take time to master.



BQ Wireless BlueQ

\$40 • bqwireless.com

How many booty calls have you missed because you couldn't hear your phone ring or feel it vibrate? This rubbery band straps on your wrist and shimmies when a call comes in. Not the hippest look, but you can print a custom look, and you can fly your geek flag high. Only problem: It's too small for burly retrosexual wrists.



Callpod Chargepod

\$60 • callpod.com

One ring to charge them all. That's the idea behind the Chargepod, which can juice up to six phones, headsets, and other gadgets from a single outlet. One adapter (your choice) is included; additional ones cost \$10 a pop. But they aren't labeled—an annoying oversight—and the pod doesn't indicate when devices are done charging.



Jabra BT8010

\$149 • jabra.com

Plug in a second earpiece to make this headset stereo (provided your phone supports stereo A2DP Bluetooth). Both earpieces fit comfortably and sound spectacular. A jog wheel and bright OLED make it easy to surf music and contacts, though they're obviously useless when the Jabra's strapped to the side of your head.



Motorola Mini H9 Bluetooth Headset

\$150 • motorola.com

The H9 calls to mind those impossible über-gadgets Jack Bauer wears in 24. The tiny 0.3-ounce headset nestles right inside your ear canal. Noise reduction was decent, though callers complained about excessive ambient sound from our end. A charging station takes some of the sting out of the steep price.



PhonePlash

\$30 • phoneplash.com

Weekend stalkerazzi will love this LED that attaches to your cell phone's back or hangs from a strap and compensates for its anemic (or nonexistent) flash. Just press the button to light up the club and improve close-quarters photos. (It's great for finding keys, too.) Be careful not to blind your subjects—it's that bright.



Spark SwizzleStik

\$50 • swizzlestik.com

Stick the SwizzleStik in your phone and it quickly backs up contacts, photos, and music. Plug it into your PC to sync with Outlook or offload snapshots. Pop it back in your cell to upload new ringtones. And so on. Basically, it's a flash drive for your phone, and a handy one at that. Additional tips for different phones are \$10 apiece.



Tekkeon ezSpeak

\$80 • tekkeon.com

Tired of jamming a headset in your ear? Try the other hands-free alternative: a Bluetooth speakerphone. The ezSpeak has a backlit LCD, voice-dialing capability, and nine-number recall. Sadly, though, the included charger works only in the car, and the speaker lacks noise-canceling wizardry. Even so, conversations sounded loud and clear.



Scorecard

	Model	Price	Carrier	Connectivity	Talk Time (hrs:min)	Size (inches, H x W x D)	Weight (ounces)	Camera (megapixels)	Memory	Rating
FASHION PHONES	Samsung SCH-u740	\$180*	Verizon Wireless	CDMA, EV-DO, Bluetooth	4:10	3.8 x 2 x 0.6	3.7	1.3	60-MB internal, microSD slot	8
	LG VX8700	\$200*	Verizon Wireless	CDMA, EV-DO, Bluetooth	4:00	3.8 x 2 x 0.5	3.8	2	44-MB internal, microSD slot	7
	Motorola RAZR2 V9	\$300*	AT&T	GSM, EDGE, HSDPA, Bluetooth	6:20	4.1 x 2.1 x 0.5	4.4	2	45-MB internal, microSD slot	6
	Nokia N76	\$500	No exclusive carrier	GSM, EDGE, Bluetooth	4:20	4.2 x 2.0 x 0.5	4	2	26-MB internal, microSD slot	4
MULTIMEDIA PHONES	Apple iPhone	\$399*	AT&T	GSM, EDGE, Wi-Fi, Bluetooth	7:05	4.5 x 2.4 x 0.5	4.8	2	8-GB internal	9
	Sony Ericsson W580i	\$129*	AT&T	GSM, EDGE, Bluetooth	6:50	3.9 x 1.8 x 0.5	3.3	2	12-MB internal, 256-MB Memory Stick Micro	8
	Helio Fin	\$175*	Helio	CDMA, EV-DO, Bluetooth	3:14	4.1 x 2 x 0.5	3.6	3	100-MB internal, microSD slot	7
	LG Chocolate VX8550	\$150*	Verizon Wireless	CDMA, EV-DO, Bluetooth	3:00	3.9 x 1.9 x 0.7	3.2	1.3	82-MB internal, microSD slot	7
	Nokia N95	\$749	No exclusive carrier	GSM, EDGE, Wi-Fi, Bluetooth	5:50	3.9 x 2.1 x 0.8	4.2	5	160-MB internal, 1-GB microSD card	7
	LG VX9400	\$150*	Verizon Wireless	CDMA, EV-DO, Bluetooth	4:10	4 x 1.9 x 0.7	4.1	1.3	60-MB internal, microSD slot	6
	Sanyo Katana DLX	\$180*	Sprint	CDMA, EV-DO, Bluetooth	3:30	3.7 x 1.9 x 0.6	3.5	1.3	32-MB internal, 128-MB microSD card	6
	Samsung UpStage	\$150*	Sprint	CDMA, EV-DO, Bluetooth	3:10, 5:25 with battery pack	4.1 x 1.7 x 0.4	2.6	1.3	45-MB internal, 64-MB microSD card	5
	Sony Ericsson K850i	\$399	No exclusive carrier	GSM, EDGE, UMTS, HSDPA, Bluetooth	—	4 x 1.9 x 0.7	4.2	5	40-MB internal, 512-MB Memory Stick Micro, microSD slot	—
SMARTPHONES	Nokia E61i	\$456	No exclusive carrier	GSM, EDGE, HSDPA, Wi-Fi, Bluetooth	10:40	4.6 x 2.8 x 0.6	5.3	2	50-MB internal, microSD slot	8
	Helio Ocean	\$295*	Helio	CDMA, EV-DO, Bluetooth	5:05	4.3 x 2.2 x 0.9	5.6	2	200-MB internal, microSD slot	7
	LG enV	\$150*	Verizon Wireless	CDMA, EV-DO, Bluetooth	4:50	4.6 x 2.1 x 0.8	4.6	2	64-MB internal, microSD slot	7
	Sprint Mogul	\$400*	Sprint	CDMA, EV-DO, Wi-Fi, Bluetooth	5:50	4.3 x 2.3 x 0.7	5.8	2	64-MB internal, 512-MB microSD card	7
	Motorola Q 9h	\$300*	AT&T	GSM, EDGE, UMTS, Bluetooth	5:30	4.6 x 2.6 x 0.5	4.7	2	96-MB internal, microSD slot	6
	Palm Treo 755p	\$300*	Sprint	CDMA, EV-DO, Bluetooth	4:20	4.4 x 2.3 x 0.8	5.6	1.3	60-MB internal, miniSD slot	6
	RIM Black-Berry 8830	\$300*	Verizon Wireless	GSM, CDMA, EV-DO, Bluetooth	5:05	4.5 x 2.6 x 0.6	4.6	No camera	32-MB internal, microSD slot	5
	T-Mobile Sidekick iD	\$100*	T-Mobile	GSM, GPRS	7:45	5.1 x 2.5 x 0.9	6.2	No camera	64-MB internal	5

*With two-year contract

Mobile Phones

How We Tested Mobile Phones

■ EVERYDAY USE

We carried phones around in our pockets for several days to see how well they fit and felt. During that time, we placed calls, added contacts, and tweaked settings to judge how easy they were to use and navigate.

■ BATTERY LIFE

To determine talk time, we placed and received calls through each handset until its battery ran out. Most of the phones lasted for about four to five hours of continuous yapping—but some lived much longer.

■ MUSIC

Phones were loaded with tunes like “Champion Sound,” by Jaylib, and “The End of It All,” by John Tejada. We looked for crisp highs, solid mids, and undistorted bass, while judging each handset’s music player and controls.

■ IMAGE QUALITY

Small lenses and imaging sensors can make pics look grainy or faded, especially if there’s no flash or LED. We snapped photos under a variety of conditions—from daylight to dark dives—then evaluated contrast, color, and clarity.

■ DATA SERVICES

We surfed loads of sites, including Wired.com and Lifehacker. We also set up POP3 email accounts, traded text, and IM’ed friends. When the phone supported it, we tested streaming video for smoothness and audio clarity.

■ PDA FUNCTIONS

For smartphones, we filled calendars and to-do lists. Any included software was installed on Windows Vista to see how easily the phone synced with our Microsoft Outlook data. We also perused and edited Word and Excel files.



Apple iTunes Store

\$2 for TV shows, \$10–15 for movies • apple.com

Want to watch more than YouTube videos on your iPhone? The iTunes Store has a vast array of TV shows, though movie selection is limited. Some forethought is involved, since you have to buy, download, then sync. But that means video playback is smoother, too.



AT&T Cellular Video

\$20 per month • wireless.att.com

AT&T has HBO exclusives like *Big Love* and *Entourage*. But you get mostly clips, and it costs \$5 extra a month. You can also watch live TV, like Animal Planet and Bravo (\$10 monthly through MobiTV). Shows usually stream fine, but at times they putter along looking pixelated or even vanish for a few seconds.



Sprint TV

\$15–20 per month • sprint.com

Smooth playback, loads o' content. It's a TV addict's dream. We enjoyed full episodes of *Lost*, then tuned to simulcasts (via MobiTV) of *Planet Earth* and History Channel fare. But the various subscription levels are confusing, as is the video interface, and some channels cost extra.



CAST

Verizon V Cast Mobile TV

\$15 per month, per service • verizonwireless.com

Verizon makes up for its paltry eight live-TV channels with a tidy grid interface and crisp picture (when you can get reception, that is). The live service is limited to certain cities, but those in Peoria can still watch on-demand news, talk shows, comedy, and other clips via V Cast Videos (\$25 for both services).



Burning Question:

What's the Best Mobile Video Service?

D

READ THAT LONG, tedious commute each day? Tune in to your cell phone. Taking advantage of faster networks and fancier handsets, mobile video plans are serving up more quality content than ever.

For most people, the main option is to subscribe to your carrier's mobile video service. If you have an iPhone, you can buy TV episodes or movies over the Internet—no subscription required, and you own the content. The hassle is that you must download shows from the iTunes Store on your computer, then sync them to your iPhone. With a mobile service, you can watch on a whim—videos are streamed over the air.

Of the major carriers, T-Mobile is the only one currently lacking a video service. If you want to channel surf on AT&T, Sprint, or Verizon Wireless, you'll need to buy a compatible phone and shell out monthly access fees ranging from \$15 to \$25. (The difference is due to premium channels, which often cost extra.)

There are two types of programming: live and on-demand. With live TV, you can tune in just as you would at home, though sometimes on a program schedule that's different from what you're used to. Carriers tend to offer the same channels: Comedy Central, MTV, Nickelodeon, and the major networks. AT&T and Sprint have a greater selection but focus more on cable fare. Sprint streams MSNBC, TLC, and Discovery; AT&T airs HBO Mobile plus additional channels through MobiTV. Though Verizon gives you fewer choices, it does broadcast primetime shows like *CSI: Miami* and *Bones* (but only clips from ABC and CNN).

On-demand programming consists mainly of video snippets—comedy, sports, music videos. The exception is Sprint, which serves up full episodes of ABC faves, including *Lost*, *Grey's Anatomy*, and *Desperate Housewives*, whenever you want.

So is the video actually watchable? It varies. Sprint and Verizon generally have the best quality, thanks to their widespread 3G networks. "On average, you can expect 10 to 20 frames a second," says Lewis Ward, research manager for IDC mobile consumer services. Verizon's live TV service boasts even faster frame rates, "typically 20 to 30 frames," Ward says. But the service is still getting off the ground and available only in certain areas, like New York City, Los Angeles, and ... Spokane, Washington. AT&T's video playback is decent if you can get a strong 3G signal, but coverage is spottier.

Cell phones will never displace your 50-inch plasma, but they'll entertain on the go. And the experience will keep improving. Picture quality will progress, streaming will become more instantaneous, and "subscription fees should come down to about five to seven bucks," Ward predicts. Until then, mobile video is a splurge, to be sure. But that's the price you pay for keeping boredom at bay on the bus. —GRACE AQUINO



VoIP Services

If you've been skeptical about deep-sixing your landline, it's now time. Talk is cheap, and call quality is fab ... mostly, anyway. —AOIFE M. MCEVOY

8x8 Packet8 Digital Phone Service

\$25 per month • packet8.net

The company sent us a sweet \$300 video phone, but the hardware wasn't enough to mask intermittent problems. Call quality on our end was generally fine; however, our gabbing partners often groused about a loud crackling noise. Plus, the Web-based account manager is obtuse, requiring multiple clicks to access features like call forwarding and logged calls.

WIRED Quick and easy setup. Monthly fee covers calls to US and nine other countries. Optional \$199 annual contract offers \$100 savings. Tango videophone we tested had a 5-inch LCD and nifty rotating camera.

TIRED Inconsistent voice quality. Online layout is drab and uninviting.



SIPphone Gizmo Project

Free computer-to-computer calls; various prepaid rates and per-minute rates for calls to landlines or cells in and outside the US • gizmoproject.com

Break free from the Skype-using herd! Unlike Skype, Gizmo Project is based on an open standard, which means you can connect with other networks, such as AIM and MSN Messenger. A cool Account Snapshot spots missed calls, accesses your profile, and keeps tabs on your balance.

WIRED Clear-as-a-bell calls. Free voicemail. Voice messages delivered via email. Ability to record calls to hard drive. Competitive international rates for calls to landline and mobile numbers.

TIRED No all-you-can-talk plan. Dialing on the fly involves multiple clicks.



AT&T CallVantage

\$25 per month • attcallvantage.com

Hats off to AT&T for its all-around solid service. Setup was a snap—we were ready to make calls in about six minutes, and the phone's friendly beep indicating successful installation was a nice touch. The online account manager is as efficient as can be: You can access a host of settings, such as call waiting and voicemail, with just one click.

WIRED Excellent call quality—no echoes, choppiness, muffling, or background interference. Before placing the first call, Ma Bell asked us to confirm our address for Enhanced 911, saving a trip to the Web site.

TIRED Area code required for local dialing. Monthly fee covers calls to the US, Canada, and Puerto Rico only.



Skype

Free Skype-to-Skype calls; \$30 per year for landline or cell calls in the US and Canada • skype.com

With a reported 220 million-plus users, even the most socially impaired can find somebody to talk to on Skype. Yet call quality falls a hair short of Gizmo's, with words occasionally getting clipped. The main interface feels a bit overcrowded, too, though we like how easy it is to hop between tasks, whether dialing, adding a contact, or using SkypeFind to locate a café.

WIRED Flat yearly rate for unlimited phoning to numbers in the US and Canada; competitive rates for the rest of the planet.

TIRED Voicemail costs \$20 a year, unless you have a Skypeln number (\$60 per year). Standard conference calls limited to nine people plus host.



Comcast Digital Voice

\$45 per month • comcast.com/comcastdigitalvoice

Comcast's service is the priciest one we considered, by a long shot. And that hefty fee only buys you calls to the US, Canada, and a few US territories. At least call quality was terrific most of the time, although a handful were choppy—as if a blustery wind were whipping through the wires—and one connection was mysteriously dropped. One perk: no wrestling with installation. Comcast sends a tech to do the honors.

WIRED Online account is easy to navigate. Quick pickup by tech support.

TIRED Company offers a discount on service only if you're a cable and high-speed Internet customer. The savings: a measly \$5. Pay as you go for all calls to numbers abroad. Bulky 8 x 7 x 1.9-inch box.



Verizon VoiceWing

\$25 per month • voicewing.com

Verizon's VoIP service is not for the impatient. Setup was the most cumbersome of all the services we tested. After logging in to the VoiceWing site, we had to register the telephony adapter's MAC address (twice), click through a series of screens while hooking up cords, then wait a few more minutes. Once up and running, call quality was impressive for domestic connections but sounded slightly muffled on overseas calls.

WIRED Compact adapter (4 x 4 x 1 inches). No wait time for tech support.

TIRED Fee covers only the US, Canada, Puerto Rico, and other US territories. Cluttered online account manager makes accessing billing info a chore. No discount for existing Verizon Wireless customers.



Lingo

\$22 per month • lingo.com

Looking for a bargain? Lingo's low monthly fee covers unlimited calling to the US, Canada, Puerto Rico, and more than 20 other countries, including Australia and most of western Europe. Although we initially encountered an annoying echo with overseas connections, after contacting the company for help, the problem went away. Domestic calls were superb, soundwise.

WIRED Most inexpensive plan. Tidy online account manager. No hold time for tech support. Optional mobile plan lets you save big bucks when making international calls on your cell phone. (First dial a designated number to connect with Lingo, then make your international call.)

TIRED Some cable-futzng required during setup.



Vonage

\$25 per month • vonage.com

Enough already with the insufferable ad campaign. But we'll grudgingly forgive Vonage because it delivers the goods. Call quality is first-rate, account management is a breeze, and the service boasts some unique features: You can limit how much bandwidth gets doled out to calls while keeping sound quality optimized, and Vonage will convert your friends' rambling voicemails to text and deliver them via email for 25 cents a pop.

WIRED Setup takes just minutes. Monthly plan covers calls to US, Canada, Puerto Rico, and five European countries. Short hold time for phone support.

TIRED Sometimes had trouble accessing voicemail via Vonage's portal. One conversation partner grumbled about an annoying "paper crinkling" sound.





VoIP Accessories

Begone, chintzy mics and desk leash. The latest softphone accessories refine and widen your VoIP world. —A.M.M.

Belkin Wi-Fi Phone for Skype

\$180 • belkin.com

This handset lets you make Skype calls from any hot spot, including Boingo. Consistency, however, is not its strength. It logged on to our own and public wireless networks fine, yet despite identifying Boingo hot spots, it connected with only one. Call quality is solid overall, but the cramped keys aren't digit-friendly.



Jabra GN9350

\$349 • jabra.com

Landline or PC, this wireless headset doesn't discriminate. Connect the base station to a USB port and phone jack, then tap the phone or PC button to select your dialing mode. Calls come in smoothly, barring some background hum. Despite the headset's scant weight (0.9 ounce), we could never get it to sit just right.



Linksys Dual-Mode Internet Telephony Kit CIT400

\$150 • linksys.com

Get Skype and a landline rolled into one. Connect the base station to a phone jack and router, and enter a few settings into the handset. As you dial, select SkypeOut or landline. Number buttons are well spaced, and calls sound crisp, particularly on the landline.



Logitech ClearChat Pro USB Headset

\$50 • logitech.com

Though it features a cushiony headband and earpads, this headset still feels stiff on the noggin. But you won't mind the pinch once the talk starts flowing. Voices seem incredibly close and pristine, and volume controls are easily accessed by just tapping the right headphone.



Panasonic Wi-Fi Phone for Skype Executive Travel Set (KX-WP1050)

\$400 • panasonic.com

This CFO-priced bundle includes a router and Wi-Fi phone for roaming Skype calls. But the handset takes eons to power up, and you must enter encryption info at every location (unless at a public hot spot). A pain in our executive neck.



Philips VOIP841

\$199 • philips.com

Like the Linksys CIT400, this wireless handset handles landline and Skype calls. Setup is equally simple, powering up and connecting to Skype is wicked fast, and all of our powwows with pals came through loud and clear. The spacious keypad and large rocker button are particularly accommodating to chubby fingers.



Plantronics Audio 480 Virtual Phone Booth

\$90 (\$110 with USB adapter) • plantronics.com

In-ear buds aren't everyone's cup of tea, but Plantronics' have a pleasingly snug fit, though the boom mic kept slipping out at first. Sound was crystal clear, and in-line volume and mute controls are within easy reach.



SanDisk Cruzer Contour

\$190 • sandisk.com

Traveling sans laptop? You can still VoIP when you arrive. Plug this 8-GB USB 2.0 stick into any PC, and a few clicks later you'll be running Skype. (A 4-gig version is half the price.) Bonus: A cool slider mechanism hides and reveals the USB connector, so there's no cap for you to lose.





Western Electric 500 Telephone

Once upon a time, whenever someone referred to “the telephone,” they meant the Western Electric 500. Debuting in 1949, this simple, sturdy rotary-dial desk-top phone became the iconic image for all telephones, and rightly so. Like Ford’s Model T, it was wildly popular. Five years passed before the model saw its first innovation: five additional colors. Not until touchtone was introduced in 1963 did the 500 even begin to seem outdated. Though the original Western Electric is long gone, the 500 was produced until a year ago, and most automated voice systems still support its rotaryness.



1949

Digicams

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Olympus E-510

The E-510 nudges digital single-lens reflex cameras another step closer to capturing reality as faithfully as your retinas. Standard analog SLR features are still here, of course, like an optical viewfinder, zero shutter delay, and lens swappability. But the 10-megapixel E-510 busts out some advances not yet common among its DSLR brethren, such as a live histogram—to remind you to turn off spot-metering *before* taking your pale-as-a-newt cubemate's Match.com pic, say. Image quality, with fine details chiseled into place and minimal noise or grain, resembles film prints and rivals pro models costing hundreds more. —ZACK STERN





LIVE TO SHOOT

Real-time LCD preview deactivates the optical viewfinder and shows the scene on the back of the camera. This pocket-cam display style is great for low-to-the-ground or surreptitious shooting, and for previewing regular shots.

DUST IN THE WIND

The image sensor has a mind—and body—of its own. It shakes off dust every time it turns on, and it tilts to counteract hand movement, keeping photos sharp even at $\frac{1}{5}$ -second exposures.

PICK A CARD, ANY CARD

One slot's dedicated to the typical DSLR CompactFlash card, but an additional slot accommodates xD cards, too. That means you can shoot with two cards at once, filling one then the other, or copy photos in-camera.

ALL KITTED OUT

The two-lens kit starts with a wide, 14–42 mm (equivalent to a film camera's 28–84 mm) and adds a 40–150 mm zoom (80–300 mm) for telephoto shots. Crisp optics make these lenses stand out from the usual kit glass.

FAST ACTION

Only 1.6 seconds from Off to On to shooting. And uncommonly fast processing records almost 20 photos in 10 seconds, so you won't have to wait for the camera to catch up with the action.

\$1,000 •
olympusamerica.com





Digital SLRs

With bright, 2.5-inch LCDs now standard for DSLRs, the race is all about live image preview, sensor cleaners, and stabilization. Video? Maybe next year. —z.s.

How We Tested Digital Cameras

■ **QUALITY** We shot people, flowers, and color charts indoors and out to compare the accuracy of hues in printed and onscreen images. We zoomed in close to scrutinize photos for texture reproduction, looking for even gradations, noise, and bright colors that bled over their borders.

■ **SHOOTING SPEED** To detect any pauses in Burst mode, we fired as many images as possible in 10 seconds at the camera's highest-quality settings. For pocket and ultrazoom cameras, we also measured the delay between pushing the shutter button and snapping the image.

■ **STARTUP** From powering up to focusing and shooting an image, a few lost seconds can cost you the perfect pic. At the highest-quality settings, we timed that process with a stopwatch to see which cameras go from zero-to-photo the quickest.

■ **STABILIZER** Now common on pocket and ultrazoom cameras, stabilizers claim to keep hand-held shots still and blur-free. We put them to the test by zooming in on distant subjects and holding the shutter open for ever-longer exposures to see just how much shake these cams can withstand.



Canon Digital Rebel XTi

\$900 • usa.canon.com

The Digital Rebel XTi is the gateway camera your parents and teachers warned you about, bound to get you hooked on DSLR photography until you're scoring CF cards on the corner. Its friendly auto modes give it the ease of a point-and-shoot. Although it's a leap up in clarity from its pocketable Canon cousins, its 10.1-megapixel sensor produces inconsistent colors for a DSLR, and contrasty compositions lack detail.

WIRED Powers up and shoots rapidly. Eye sensor turns off LCD when you sight through the camera. Sensor cleaner keeps dust from marring shots.

TIRED No RAW format available in auto modes. Bright colors and edges bleed slightly. Shadows show excess noise. Flash leaves dark edges around shots.



Fujifilm FinePix S5 Pro

\$1,999 (body only) • fujifilmusa.com

Under certain conditions, the FinePix S5 Pro's images look great, but throw it a lighting curveball and they turn ugly. With close inspection, distant shots jumble together details and textures. Close-up subjects are more defined, but shadows are a swirl of noise and grain. While it's easy to be attracted to the camera's solid frame and well-positioned buttons, photo quality often only hints at the shot you could've had.

WIRED Uses Nikon F mount for wide lens selection. Captures eight photos in 10 seconds. Multiple-exposure mode overlays two shots for creative twist.

TIRED Live LCD preview lacks histogram. 12.3-megapixel resolution relies on interpolating two 6.17-megapixel sensors.



Leica Digilux 3

\$2,495 • leica-camera.us

There's a good digital camera lurking inside the retro-styled, 7.5-megapixel Digilux 3, but an odd interface and awkward manual knobs obscure its best features. While the Digilux's excellent optics take sharp shots, its shutter-speed knob and on-lens aperture control look better than they work. The LCD preview frames overhead shots and lists exposure details, and an in-lens stabilizer keeps shaky hands from ruining photos.

WIRED Special bounce-flash mode angles light off the ceiling. Versatile Four Thirds lens mount. Vibrant colors in all kinds of light.

TIRED Small viewfinder difficult to monitor. Can't keep up with rapid shooting. Shadows are noisy. Sloppy shutter button has a mind of its own.



Nikon D40x

\$800 • nikonusa.com

The D40x looks nearly identical to its x-less predecessor. The changes are all inside: a higher-resolution, 10.2-megapixel sensor and quicker reaction speeds. Responding as fast as we could compose and snap, this camera turns out daylight images with strong colors. First-time DSLR owners may eventually want to upgrade to something with more manual options and better imaging—shadows are sometimes crunchy.

WIRED Bright LCD shows settings clearly. Flash lights full frame evenly and with crisp colors. Intuitive menus include thumbnails to demonstrate settings.

TIRED Colors in low-light shots look too cool. Occasional edge bleed in bright, high-contrast areas. Small body feels cramped in large hands.



Samsung GX-10

\$800 •

samsungcamerausa.com

The 10.2-megapixel GX-10 has a comfortable grip and nails detailed images. Bright sun occasionally washes out colors, and hues look cool in the shade, but extensive manual controls enable experienced photographers to make the best of any difficult lighting situation—even delivering noise-free night shots. Meanwhile, the solid-body GX-10 also gives those who are ready to learn room to grow.

WIRED Auto cleaner rumbles loose dust off sensor. Dedicated RAW button instantly switches from JPEG mode to uncompressed. Optical stabilizer keeps action steady with any lens.

TIRED Rear LCD can't display exposure info while shooting. Uneven flash creates bright centers and dark edges. Colors occasionally vary among auto settings, while bright colors can bleed together.



Nikon D80

\$1,100 • nikonusa.com

A step up from Nikon's D40x, also 10.2 megapixels, the D80 offers a few subtle upgrades for the extra money. Images maintain bright colors in direct sunlight, but the white balance cools off too severely in the shade. Aperture and speed are easier to set independently using a secondary wheel under your right index finger; that and other manual controls make the extra cost worthwhile for intermediates and quick-learning beginners.

WIRED Almost always ready for the next shot, thanks to speedy burst and recovery. Quick power-up takes about a second. Well-defined edges on bright shapes.

TIRED Flash shots exhibit noise in close review. LCD can't show exposure info while composing shots. Bright colors occasionally bleed over edges.



Pentax K100D Super

\$600 • pentaxslr.com

Pentax's entry-level DSLR is one of the best digicam bargains around. A subtle update to the K100D, which won Best of Test last year, the new Super has a dust-shaking sensor and is compatible with the latest fancy features on Pentax lenses. The plastic housing—also unchanged—feels substantial and weighty. The camera's 6.1-megapixel images showed surprisingly sharp close-range detail, although distant objects melted together.

WIRED Outdoor and flash-lit colors pop without sacrificing accuracy. Smooth, glowing skin tones. Built-in flash lights entire scene evenly.

TIRED Darker shots were soft and noisy. Colors got hot at slower shutter speeds with no flash. Rapid shooters may be forced to pause while camera catches up.



Sony Alpha A100H

\$1,100 • sonystyle.com

Sony's first DSLR is a strong offering. The A100 captures outdoor photos with accurate color reproduction (including skin tones) and minimal glow in bright areas. Images are sharp with the long, 18–200 mm Minolta AF-mount lens, although its loud motor and slow focus make it feel like a first effort. Pixel noise and unwanted grain creep into shadows, but the A100's shots in good lighting compensate for those shortcomings.

WIRED LCD automatically dims when using viewfinder. Detailed texture and pattern reproduction. Sensor cleaner.

TIRED Time from power-up to shoot merely average. Flash doesn't flip up automatically. Minolta accessory shoe doesn't support generic flashes.



Pocket Cameras

These shiny, go-anywhere shooters are part gadget, part bling. —Z.S.



Canon PowerShot SD850 IS

\$400 • usa.canon.com

The 8-megapixel SD850 is all icing and no cake. It captures bright colors, but noise lurks in most photos, along with noticeable grain. You're paying for secondary features rather than top-of-the-line imaging. An optical stabilizer counteracts shaky hands, and the shutter button snaps shots with almost no delay. But without the image quality to back it up, the price tag seems a little steep.

WIRED Captures detailed textures under even lighting. Smooth flash fills the scene. Skin tones glow evenly. Quickly fires 14 shots in 10 seconds.

TIRED Bright subjects wash out badly. Awkward button layout is a pain to navigate. Lacks standard manual exposure settings.



Canon PowerShot TX1

\$500 • usa.canon.com

The PowerShot TX1 looks like it was assembled by a misanthrope. Its viewfinder juts awkwardly out of the camera's body, twisting to accommodate extreme angles and self-portraits. The counterintuitively placed shutter button demands agile fingers. One bonus: Under-thumb movie trigger instantly records high-resolution, 720p video. The TX1's best photos are bold and clear, but its tragic shape makes it more toy than tool.

WIRED Images sport bright colors and sharp details, even in full 10X optical zoom shots. HD video quality matches stand-alone camcorders'.

TIRED Low-light shots look noisy and undefined. Tiny, 1.8-inch LCD. Buttons are hard to reach when shooting vertically.



Casio Exilim Zoom EX-Z1200

\$400 • casiousa.com

The speedy EX-Z1200 fires almost instantaneously, so you can bag that bicycle-kick goal or passing pelican. It's also quicker in burst mode than most other pocket cameras we tested, capturing 9 photos in 10 seconds. We could live without the camera's barely functional face-recognition technology, but its antishake mode works brilliantly, counteracting movement to take stable pictures at slower shutter speeds.

WIRED Screen auto-adjusts brightness for easy viewing. Manual overrides for capturing difficult shots. Live histogram.

TIRED Focus sometimes favors backgrounds over close subjects. Small, sloppy directional button muddles the interface. Choppy 20-fps movies.



HP Photosmart R937

\$300 • hp.com

The R937 is full of interesting features. Its 3.6-inch LCD, the largest we tested, relies on tapping prompts with a tethered stylus instead of a joystick. An in-camera photo tagging feature assigns keywords to pictures for quick sorting on your PC, while a help system offers shooting tips and explains advanced options. But image quality only barely matches that of similar cameras, with extensive noise in most situations other than direct sunlight.

WIRED Antishake option saves handheld shots. Thumbnails show how settings will change photos. Instantly fixes red-eye in people and pets ...

TIRED ... which is good, because flash shots are plagued by red-eye. Touch-screen ignores finger taps. Only one tag at a time supported while shooting.



Digital Trends



Nikon Coolpix P5000

\$400 • nikonusa.com

The 10-megapixel P5000 is both impressively fast and unforgivably slow. It fires nearly instantly when the shutter is depressed, but only if it's rested since the last image—a three-second pause between shots makes this a bad choice for active, moving subjects. And wildly inconsistent colors in different lighting conditions turn even well-timed shots into iffy propositions.

WIRED Large buttons are easy to navigate. Captures intricate details with even lighting. Small optical sight helps frame shots. External flash mount.

TIRED LCD hard to see in bright light. Details jumble together in bright or dark conditions. Stabilizer works only in dedicated antishake mode.



Nikon Coolpix S50c

\$350 • nikonusa.com

The S50c camouflages its weaknesses with showy flourishes. Its 3-inch LCD fills almost the entire back surface, built-in 802.11g Wi-Fi emails pictures, and a unique animation mode generates stop-motion movies, outlining the previous image while you prepare the next shot in the series. But the S50c's picture quality is poor; we wish Nikon had concentrated more on photography and less on fancy extras.

WIRED In-camera slide-show feature automatically mixes images and music. Time-lapse mode is neat. Flash throws a wide light.

TIRED Image texture is muddy, and details lack definition. Inconsistent, confusing menu system. Stop-motion movies are limited to 640 x 480.



Olympus Stylus 770 SW

\$380 • olympusamerica.com

The sporty little 770 SW loves swimming, snowboarding—you name it. The waterproof, armored camera bounces back from 5-foot falls and withstands extreme pressure. We dropped the camera on concrete and even stood on the LCD. The body was scuffed, but it shot just fine. Its imperviousness inspired new ideas for unusual photos, like trolling it while fishing (it's rated for 33 feet) or playing catch with it while recording video.

WIRED Svelte buttons and case respond as well as less rugged cameras. Bright, clear LCD easily lines up shots. Red-eye reduction works great.

TIRED Colors look too muted and cool. Shots lack sharp definition. Worse-than-average shutter delay of 1/3 second.



Panasonic Lumix DMC-FX100S

\$400 • panasonic.com

Attention DSLR addicts looking for a high-end point-and-shoot: This is your camera. Panasonic's collaboration with Leica results in a handsomely designed lens that produces sharp, clear images. Stunning daylight photos boast vibrant colors and crisp background details. Comprehensive manual settings and 20 photo modes for tackling tough shots. With its palm-friendly chassis, it's always just a pocket away.

WIRED Shoots with no noticeable delay. Macro mode captures close-up details flawlessly. Live histogram. 12.2 megapixels!

TIRED LCD washes out in direct sun. Shadows look pixelated under close scrutiny. HD video at 15 fps? What a tease.



Ultrazoom Cameras

Combining massive zoom lenses with point-and-shoot simplicity, these snappers may not fit in your pocket, but they won't empty it, either. —Z.S.



Fujifilm FinePix S700

\$250 • fujifilmusa.com

With its 10X optical zoom, superbright screen, and full manual controls, the 7.1-megapixel S700 boasts some high-end features at a ridiculously low price. The solid, compact design and intuitive interface make most options easily accessible. But once you shoot with the S700, it's clear where Fuji cut costs. Skin tones seem a bit blah, and there's occasional color bleed, as well as poor performance in high-contrast lighting situations. Still, even with those concerns, there's ample value here.

WIRED Fast power-up, minimal shutter lag. Pop-up flash gets red-eye-free shots. Competent macro mode.

TIRED Uses disposable AA batteries, which is convenient but oh so eco-unfriendly. Tiny digital viewfinder is nearly useless. No stabilizer—antishake mode merely increases shutter speed.



Digicams



Leica V-LUX 1

\$850 • leica-camera.us

The 10.1-megapixel V-LUX 1 has obvious DSLR aspirations, and it matches those cameras in size and cost—but not in results. The admittedly impressive Leica lens, with its precision zoom and focus rings, can't compensate for inconsistent images: It captures true skin tones, but other colors lack pop. Great optics may be the core of any good camera, but the V-LUX 1 needs to focus more on its photo processing.

WIRED Sharp LCD rotates for self-portraits. Digital eyepiece provides bright, clear view of the shot. Optical stabilizer works as advertised.

TIRED With a 0.1-second shutter delay, it lacks the instant response of competing ultrazooms. Often adds slight glow to edges of objects. Burst mode works only with JPEGs.



Olympus SP-550 UZ

\$500 • olympusamerica.com

The SP-550 UZ's 18X lens, fully zoomed, brings the whole package to a whopping 5.5 inches and is perfect for bird-watching. (Either kind.) Pulled back, it's wide-angled enough to squeeze in all your birthday dinner guests. Macro shots brim with rich detail. The camera's images disappoint, however: Bland colors are the norm, hues bleed together in bright light, and busy backgrounds splotch together like gobs of paint.

WIRED Barely noticeable shutter delay. Fast JPEG recycle time for next shot. Mechanical stabilizer holds longer exposures fairly still.

TIRED RAW shots take more than 8 seconds to process, and high-speed shooting mode doesn't work with RAW at all. AA batteries are convenient but invite scorn of green friends.



Sony DSC-H9 Cyber-shot

\$480 • sonystyle.com

The DSC-H9 is mighty fast, blasting more than 18 JPEGs in 10 seconds, with no shutter delay for single shots—great for sports and outdoor snaps. But this speedy camera also blurs life's details: Object edges glow and colors bleed on nearly every photo, distracting from otherwise accurate hues. And put it away if the clouds start to gather: Low-light areas get grainy, and noise creeps in like ants ruining a picnic.

WIRED LCD tilts up and down for extreme-angle shots. Face-recognition technology is smart enough to fire fill-flash in harsh sunlight. 15X optical zoom.

TIRED Tiny viewfinder nearly useless. No RAW support. Shadow details can be grainy even in daylight. Noise ruins darker shots.



Epson PictureMate Dash

\$100 • epson.com

Able to print vivid 4 x 6 photos with almost no setup, the PictureMate Dash is a welcome guest at any family gathering. Just shove in a photo-filled flash card (all major formats) or connect a PictBridge camera: It prints bright, bold, glossy photos in 45 seconds for about 25 cents each. Optional battery (\$50) makes it portable.



Fromm Works Quik Pod Pro+

\$30 • quikpod.com

Who will snap your photo at the summit of that solo K2 climb? You could ask a Yeti ... or bring along a Pro+, which attaches to a camera's tripod socket and telescopes 18 inches. Then your timer-mode photos will show both shoulders, instead of that lean-away-from-the-camera pose. Includes a mini tripod stand.



Kata GDC Elements Cover E-690

\$45 • kata-bags.com

When the skies open up and day-shooters go home, a rain cape turns an ordinary photographer into a superhero. The weatherproof E-690 wraps around small DSLRs to protect them from hazards ranging from light mist to pitter-pattering drops.



Lexar Professional UDMA 300x CompactFlash Card

\$130 • lexar.com

Flash memory speed matters almost as much as capacity. This 4-GB card saves time when uploading photos to a computer and even accelerates in-camera processing; our tests clocked it at 23 percent faster than budget cards, making it great for UDMA cameras.



NRD FireFly Digital Sensor Cleaner

\$200 • nrdfirefly.com

Static cling often holds dust to a DSLR sensor, adding permanent specks to each photo. Regular air bulbs will puff some grime away, but the FireFly, a bulb retrofitted with "advanced ionizing technology," charges air to break that dust bond. Perfect for in-field fixes.



Ogio Atiba Mini

\$98 • ogio.com

To hoodwink thieves, tote your high-end equipment in a low-profile bag. From the outside, the plain Atiba Mini is an ordinary backpack. Inside, 11 lightly padded Velcro dividers partition the space, with room for DSLR lenses, flashes, and even a 12-inch laptop.



Pantone Huey Pro

\$129 • pantone.com

A camera, monitor, and printer may reproduce the same image with very different hues unless all are properly calibrated. This dead-simple USB color tuner attaches to CRTs and LCDs to gauge and change colors. Peeled off a display, the squidlike arm even measures ambient room light and updates the screen automatically.



Accessories

Photography is not for cheap-skates. A digicam is just the starting point—you'll need the rest of this gear to boost your pics from good to great. —Z.S.

SR Digi-Slave Deluxe 3000

\$130 • srelectronics.com

This accessory strobe waits for the exact moment a camera flash fires to add its own, superior light. Think of it as your wingman, swooping in on the cross to nail a shot in the far-off corner. It works with the majority of point-and-shoots, eliminating red-eye problems, and even syncs with most DSLR hot shoes for mounted shots. Manual flash and camera settings take practice but are worth learning to punch up pictures.



Image-Editing Apps

Import, organize, and process your pics with these one-stop photo shops.

Model	Price	Free Trial Length	What It Offers	RAW Support	OS Support	Rating
Adobe Photoshop Lightroom 1.1 adobe.com	\$299	30 days	Powerful image-correction tools and a suite of complete import, edit, and export steps could make this your primary image application. It even has a clone brush to clean camera dust. Photoshop CS3, you're on notice.	Extensive	Mac OS X, Windows XP, Vista	8
Apple Aperture 1.5.4 apple.com	\$299	30 days	Aperture's Mac-friendly interface breezes through imports, comparisons, corrections, and exports. Smart Albums feature automatically sorts new photos by metadata and keywords.	Most common cameras	Mac OS X	7
ACDSystems ACDSee Pro 2 Photo Manager acdseepro.com	\$130	30 days	Like an international buffet, Pro 2 is cluttered and disorganized but still offers tasty morsels if you know where to snack. Editing tools are on par with other apps, but impatient users should dine elsewhere.	Most common cameras	Windows 2000, XP, Vista	6
Google Picasa picasa.google.com	Free	Eternal	This glossy program welcomes beginners with clear, simple commands. (And experts will be surprised by its vast RAW support.) It's free, but you pay by giving up more complex photo-tuning tools.	Extensive	Linux, Windows 2000, XP, Vista	6
Microsoft Expression Media microsoft.com	\$299	60 days	Formerly iView MediaPro, this app was bought and renamed by Microsoft. Lacks obvious features like the ability to see a catalog of filmstrips in editing mode. It just doesn't stack up to the competition.	Most common cameras	Mac OS X, Windows XP, Vista	4



Digicams



Scorecard

	Model	Price	Megapixels	Included Lens	Memory Card Type	Aspect Ratios Supported	LCD Size (inches)	Stabilizer	Live Preview Modes	Rating	
DIGITAL SLRS	Olympus E-510	\$1,000	10	14-42 mm, 40-150 mm	CompactFlash, xD	4:3	2.5	Mechanical, in-camera	Composition with histogram, shutter release	8	
	Samsung GX-10	\$800	10.2	18-55 mm	SD	3:2	2.5	Optical, in-camera	None	8	
	Nikon D80	\$1,100	10.2	18-55 mm	SD	3:2	2.5	None	None	7	
	Pentax K100D Super	\$600	6.1	18-55 mm	SD	3:2	2.5	Mechanical, in-camera	None	7	
	Sony Alpha A100H	\$1,100	10.2	18-200 mm	CompactFlash, Memory Stick Pro	3:2	2.5	Mechanical, in-camera	None	7	
	Canon Digital Rebel XTi	\$900	10.1	18-55 mm	CompactFlash	3:2	2.5	None	None	6	
	Fujifilm FinePix S5 Pro	\$1,999	12.3*	Body only	CompactFlash	3:2	2.5	None	Composition only	6	
	Nikon D40x	\$800	10.2	18-55 mm	SD	3:2	2.5	None	None	6	
	Leica Digilux 3	\$2,495	7.5	14-50 mm	SD	16:9**, 4:3, 3:2**	2.5	Optical, in-lens	Composition with histogram, shutter release	5	
	Model	Price	Megapixels	Optical Zoom	Memory Card Type	Image Format	Aspect Ratios supported	LCD Size (inches)	Stabilizer	Movie Format	Rating
POCKET CAMERAS	Casio Exilim Zoom EX-Z1200	\$400	12.1	3X	SD	JPEG	16:9, 4:3, 3:2	2.8	Mechanical	H.264	8
	Panasonic Lumix DMC-FX100S	\$400	12.2	3.6X	SD	JPEG	16:9, 4:3, 3:2	2.5	Optical	QuickTime	8
	Canon PowerShot SD850 IS	\$400	8	4X	SD	JPEG	16:9, 4:3, 3:2	2.5	Optical	AVI	6
	Canon PowerShot TX1	\$500	7.1	10X	SD	JPEG	16:9, 4:3	1.8	Optical	AVI	6
	Nikon Coolpix S50c	\$350	7.2	3X	SD	JPEG	16:9, 4:3	3	Optical	QuickTime	6
	Olympus Stylus 770 SW	\$380	7.1	3X	xD	JPEG	16:9, 4:3	2.5	Digital	AVI	6
	HP Photosmart R937	\$300	8	3X	SD	JPEG	4:3	3.6	Digital	AVI	5
	Nikon Coolpix P5000	\$400	10	3.5X	SD	JPEG	16:9, 4:3, 3:2	2.5	Optical	QuickTime	5
		Fujifilm FinePix S700	\$250	7.1	10X	SD, xD	JPEG	4:3, 3:2	2.5	None	AVI
	Olympus SP-550 UZ	\$500	7.1	18X	xD	JPEG, RAW	16:9, 4:3, 3:2	2.5	Mechanical	AVI	6
	Sony DSC-H9 Cyber-shot	\$480	8.1	15X	Memory Stick	JPEG	16:9, 3:2	3.0	Optical	MPEG	5
	Leica V-LUX 1	\$850	10.1	12X	SD	JPEG, RAW	16:9, 4:3, 3:2	2.0	Optical	QuickTime	4

*Two 6.17-megapixel sensors, layered **Only in LCD-shooting mode



Lensbaby 3G

\$270 • lensbabies.com

The 3G doesn't like sharp objects, and that's the point: It selectively highlights part of an image and blurs the rest. Squeeze the accordion-like lens body to set the focus, then guide that point to any part of the frame by bending the lens. A built-in locking mechanism holds the position for fine-tuning or multiple exposures. Fits Canon, Nikon, Olympus, Pentax, Samsung, and others.



Sigma 18-200 mm F/3.5-6.3 DC OS

\$820 • sigmaphoto.com

No more fumbling for the right lens—this versatile barrel handles everything from wide-angle family reunions to end-zone catches. When the lens is zoomed to telephoto, an optical image stabilizer keeps the camera steady and assists with long exposures. Fits Canon and Nikon.



Tamron SP AF 11-18 mm F/4.5-5.6 Di II LD

\$569 • tamron.com

On a 35-mm camera, this ultrawide lens would create a fisheye-like effect, but it's nearly distortion-free on DSLRs. Perfect for shooting parties in your tiny apartment without having to climb out on the fire escape. Note: Large-diameter end can cause built-in flash to cast a shadow on close shots. Fits Canon, Nikon, and Sony.



Burning Question

How Do I Pick a Lens for My DSLR?

IN THE CONTINUOUS RACE for more megapixels, there will never be a winner. Fantastic optics are what you want for a shooting marathon. The great thing about a DSLR is that you're not stuck with just one lens but can choose the right glass for any situation.

Which lens to buy depends on the lens mount your camera uses. There are several different connectors, and they're specific to each maker. The Canon EF mount, Nikon F mount (also used by current Fuji DSLRs), Pentax K mount, Sigma SA mount, and Minolta AF mount (used by Sony) are all physically and electronically incompatible with each other. Leica, Panasonic, and Olympus use the Four Thirds system for a more universal approach.

You can often save a chunk of change by buying a nondigital lens: Old-school SLR lenses generally function just fine on DSLR cameras as long as the mounts match up. Make sure the lens you want will work on your camera before spending money, however. Small alterations to DSLR bodies may leave an SLR lens with autofocus problems and other difficulties. Check your camera manual or ask the manufacturer, and test the lens with your camera in the store to avoid trouble later on.

Next, take into account the magnification factor. The image sensors on most DSLRs are smaller than a 35-mm negative. Because lens measurements are based on the 35-mm standard, all the numbers on the side of your lens may be misleading. For example, a lens labeled "18-mm ultrawide" could be the equivalent of a 29-mm lens when mounted on a digital camera. As a rule of thumb, multiply the 35-mm zoom measurement by a factor between 1.5 and 2, depending on the type of camera, to estimate the measurement for your digital camera.

Almost everyone except specialty shooters (like bee portraitists, say) will want a medium-distance lens for general shooting, sometimes called a standard lens. Most starter lenses included with DSLR kits are in this range. If your body came naked, pick a lens that zooms between 28 mm and 70 mm (after considering the magnification factor) for versatility. For indoor shots, stay wider—that means lower—than 40 mm.

Finally, consider the aperture range that works best for you. Aperture, measured by *f*-stop ratings, describes how much light passes through the lens. Smaller numbers—*f*/2.8 compared with *f*/8, say—connote bigger openings. A lens with a lower aperture number can compensate for darker indoor shots, like at a concert, because the aperture lets in more light. A high aperture, like *f*/22, requires brighter light. Aperture settings also affect depth of field, or how much of an image is in focus. Ultralow apertures such as *f*/1.4 might not keep both a subject's nose and eyes sharp, while higher apertures can render both foreground flowers and distant trees with equal crispness. —z.s.



Polaroid SX-70 Land Camera

Remember film? Loading it, shooting it all too quickly, driving to the Fotomat—lots of delayed gratification and blurry prints. Before digital banished those bad memories, there was Polaroid, whose SX-70 was the first mainstream instant camera to develop photos with no chemical bath—or film-peeling—required. A smashing success, the camera made Polaroid synonymous with automatic film development and became such a staple of '70s life that at one point, Americans reportedly spent more money on Polaroid film than on toothpaste. The product also endured through the company's 2001 bankruptcy: Film for the SX-70 was discontinued only a year ago.



1972

Videocams

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**BEST OF
test**

Canon HV20

With its jaw-dropping hi-def picture, the HV20 can make even the cheesiest cat video look like it belongs on Discovery's HD Theater.

This 1080i HD video powerhouse has a trim, 1.2-pound body that's comfortable to tote casually.

What's more, it's relatively easy on the wallet. If the HV20 has one notable flaw, it's that it records footage to old-school tape instead of nonlinear media such as DVDs, hard drives, and memory cards.

We had hoped to leave tape behind in 2007, but if it's tape the HV20 needs, then it's tape the HV20 gets. —HELMUT KOBLER





HEAVENLY 1080i

Even though it records the same number of pixels (1,920 x 1,080) as other HD camcorders, the HV20's picture looks sharper. Its colors are also dead-on—vibrant, but without that oversaturated, radioactive look.

STIRRING, NOT SHAKEN

The HV20 has the best optical image stabilization of any camera we tested, keeping handheld shots smooth and steady. Autofocus is near-instantaneous, too, so you capture everything as it happens.

AWESOME AUDIO

Most onboard camcorder microphones are mediocre at best, but the HV20 is one of the few consumer cams that let you attach a better mic, along with a pair of headphones to monitor audio as you record.

SCORSESE STYLE

A special mode captures video at a film-quality rate of 24 frames per second. This doesn't mean your footage will look just like *Taxi Driver*, but it can give it a richer, more cinematic feel.

CUT AND RUN

The HV20 records in the HDV format, which many video-editing programs support right out of the box. That's not always the case: Some camera formats need conversion before editing, while others aren't editable at all, depending on your software.

\$1,099 • usa.canon.com



HD Camcorders

With pictures up to 4X sharper than their standard-definition cousins, HD cameras make your home movies Sundance-worthy. Costly? Sure. But that video of you on the half-pipe? Priceless. —H.K.

JVC GZ-HD7

\$1,700 • camcorder.jvc.com

The HD7's big jet-black body looks serious because, well, it is. It stores a whopping five hours of hi-def to its 60-GB hard drive (and up to seven hours at lower quality). Unfortunately, its oversaturated colors look a little cartoonish, its autofocus lags, and its image stabilization left plenty of jitter in zoomed-in handheld shots. Low-light performance was unimpressive, producing a dim picture with an annoying tangerine cast.

WIRED Big, easy-twisting focus ring is great for perfectionists.

Connector for external mic. Also records to SD cards.

TIRED Expensive given its picture problems. Built-in lens cover must be toggled manually. No headphone jack.



Panasonic HDC-SD1

\$1,000 • panasonic.com

The sleek SD1 is the smallest HD camcorder we tested, because it records to superslim SD cards. And yet it's awkward to hold, requiring a death grip to keep steady; at least its optical image stabilization reduced the shake from most handheld shots. Ergonomics aside, it picked up lots of fine detail with its three CCDs, even in low light, and rendered balanced colors.

WIRED Über-zoomy 12X lens. Built-in 5.1-surround-sound mic, plus a jack for external add-ons. Near-instant autofocus. Cheap for an HD cam.

TIRED Just 40 minutes of hi-def video on a 4-GB card. No headphone jack. AVCHD format doesn't work with many editing apps (yet).



Sanyo Xacti VPC-HD2

\$700 • sanyodigital.com

The HD2 claims to be an HD camcorder, but we're dubious. It records to an SD or SDHC memory card using 720p resolution, and static shots show some of HD's crispness, but even slow pans and tilts made things so fuzzy you might mistake its picture for standard definition—if that. And while the HD2 has image stabilization, it seemed stiff and produced a robotic-looking sense of movement in many handheld shots.

WIRED Pocket-size body. 7.1-megapixel stills match some digital cameras'. Convenient buttons for switching modes easily.

TIRED Picture lacks crisp, sharp look of HD. Dim, noisy low-light shots. Annoying to have to use included dock for recharging.



Sony HDR-UX5

\$900 • sonystyle.com

The UX5's picture has the crispness you expect from HD, along with bright, realistic colors. Unfortunately, there's an irritating hitch: You can't put your HD disc in a regular DVD player. Instead, you need a Blu-ray player that supports AVCHD, or else you have to attach the cam to your TV. We loved the UX5's video—we just wish it were easier to view.

WIRED Smooth slo-mo video effects. Touchscreen LCD makes menu-surfing easy. Super NightShot mode captures detail in darkness. Snaps 4-megapixel stills while recording.

TIRED DVDs hold just 60 minutes of video. LCD attracts fingerprints. AVCHD video format not widely supported.





MiniDV Camcorders

With their clunky old tape media, MiniDV cams are a tad on the dowdy side, yet they're great for breaking into video without busting the budget. —H.K.



EDITORS' PICK

Panasonic PV-GS320

\$500 • panasonic.com

The GS320 is about as good as it gets when it comes to MiniDV's. With three image sensors, it delivers an unexpectedly sharp and colorful picture, matching more expensive DVD and tapeless models. Compared to its MiniDV brethren, its optical image stabilization is smoother and captures the best picture in low light. Is the GS320's premium price worth it? Despite tape's limitations, yes.

WIRED Adjusts focus, exposure, and white balance about a second faster than lower-priced competition. Quiet tape drive doesn't affect audio recording (not true of all MiniDV models). Accessory shoe for add-on light.

TIRED Gargantuan chassis won't fit in a coat pocket. No input for external mic or headphone jack. USB and FireWire ports positioned behind battery; using them means removing it and plugging in the included AC power adapter.



Canon ZR850

\$329 • usa.canon.com

Priced slightly higher than the cheapest models, this Canon captures good detail and accurate color in close-ups and wide-angle shots. At 10X and higher magnification, the stabilization technology produced a jittery picture, but it genuinely improved our handheld shots at lower zooms. In poor light, the 850 delivers a dim picture with moderate noise, yet it's still brighter and clearer than others tested.

WIRED Good compromise between quality and price. If you've got a tripod, 35X zoom looks great. Pint-size body easy to carry around.

TIRED Noisy tape drive audible on soundtracks. 0.8-megapixel stills are worse than those taken by most phonecams. Ineffective onboard video light.



JVC GR-D750

\$250 • camcorder.jvc.com

The second-cheapest camcorder in our roundup, the JVC GR-D750 is unfortunately the worst. Its picture is noticeably fuzzier than other low-priced models, and its image stabilization is shaky at best. In low light, it struggles to keep the subject in focus and records a very dim image with an ugly orange cast. Avoid this camera unless one shows up under the Christmas tree for you (and maybe even then).

WIRED Cut-rate price. Built-in mic captures loud audio. 34X optical-zoom lens works well when mounted on a tripod. Battery lasts about two hours.

TIRED Worst image quality in its league. Takes grainy 640 x 480 stills. Bottom-mounted tape-release switch inaccessible when you use a tripod.



Samsung SC-D372

\$230 • samsung.com

Rejoice, bargain hunters! The most inexpensive camcorder in our lineup is perfectly serviceable. The D372's image isn't very sharp or colorful, but it beats the competition in its price range. Image stabilization barely works when you're zoomed in, and in low light the picture quickly loses color, detail, and focus while gaining a lot of noise. Still, you can get solid results by shooting in broad daylight and going easy on the zoom.

WIRED Decent picture quality under right conditions. Zoomy 34X lens. Bargain-basement price. Palm-size wall charger no trouble to bring along.

TIRED Tape-drive whirring ends up on recorded audio. Doesn't take stills. Playback controls are on left side, blocking view of LCD.



DVD Camcorders

Ready-to-play DVD media makes these cams convenient—if you don't mind keeping your home movies under an hour. —H.K.



Canon DC50

\$799 • usa.canon.com

The DC50 performed the best of our DVD cams, with the sharpest picture, most vibrant colors, fast autofocus, and optical image stabilization that kept handheld shots steady throughout its zoom range. But it's far from perfect. Like other Canons, it fumbles in low light, picking up a lot of noise, and its high price rivals some HD cameras. If you really prefer DVD to HD, however, the DC50 is worth a look.

WIRED Starts up quickly. 5-megapixel stills almost match digicams'. Small body for a DVD camcorder. Built-in, automatic lens cover.

TIRED Adjusts slowly to brightness changes. No accessory shoe or connectors for external mics or headphones. Weak 10X zoom.



Panasonic VDR-D210

\$350 • panasonic.com

Not only does the D210 get you into a DVD camcorder for very little cash, it includes such full-price features as 32X optical zoom and optical image stabilization. What the D210 does skip on is image sharpness: Its shots just aren't as crisp as those from other DVD models, even when recording in its high-detail mode (which fits only 18 minutes of video on a single-layered disc).

WIRED Zoom lens great for nature, sports, and spy work. Low-light shots relatively clean. Accessory shoe for onboard light.

TIRED LCD offers limited viewing angle. Slow (10-second) startup. Image stabilization shaky at 10X zoom and higher. No still photos.



Samsung SC-DC173U

\$350 • samsung.com

The best thing we can say about the DC173U is that it's one of the cheapest DVD camcorders we tested. But the price doesn't buy you much. Its image was as blurry as shooting through a dirty glass, and it was hard to keep handheld shots steady even when using just a fraction of the 34X zoom magnification. In low light, footage loses most of the already poor color and fills up with noise.

WIRED Almost cheap enough to be disposable. Optical zoom works great when mounted on a steady tripod. Also records to SD cards.

TIRED Short (40-minute) battery life. Sluggish seven-second startup time. DVD drive spins loudly. Ineffective onboard video light.



Sony DCR-DVD408

\$650 • sonystyle.com

Sony's DVD408 is alone in recording 5.1 surround sound, thanks to a mic built into the front. Just don't expect the audio to rival the *Master and Commander* soundtrack—the effect is nearly undetectable even on a high-end home theater system. The picture is sharp and colorful, but image stabilization and low-light recording are unreliable. We'd go for a cam with a better picture, even if it has weaker audio.

WIRED Automatic lens cover. Fast autofocus. Accessory shoe for onboard light. NightShot mode captures detail in near dark.

TIRED Focus wavers at 10X zoom (its max). Image stabilization reduces picture quality. Doesn't support headphones.



Tapeless Camcorders

No more fumbling to find a blank tape or DVD—these models record straight to flash memory or hard drives. —H.K.



test

Videocams

JVC GZ-MG255

\$700 • camcorder.jvc.com

At a sprightly 2.8 x 2.6 x 4.4 inches, the MG255 is small for a hard-drive cam. It tucks comfortably in a roomy pocket, so you can carry it around easily, which means you're more likely to actually use the thing. The trade-offs: Colors lack vibrancy, and it doesn't balance highlights and shadows well. Its *f*/1.2 lens captures low-light shots without much noise, yet indoor scenes can have a sickly orange tint. **WIRED** Included dock is great for transferring video and charging. Drive stores up to 37 hours. Bright LCD works well in sunlight.

TIRED No connectors for external mic or headphones. Battery lasts just 75 minutes. 2-megapixel stills aren't cause for celebration. Image stabilization reduces sharpness, especially at 10X zoom.



Panasonic SDR-H200

\$700 • panasonic.com

With three CCDs, the Panasonic records a sharp, colorful image, showing fine detail in light and dark areas simultaneously. Its optical image stabilization steadies the picture without affecting crispness. A little chunkier than other models at 1 pound, the H200 still fits in a coat pocket, but you'll notice the extra weight if you're carrying it around all day.

WIRED Nice price for a three-CCD cam. Two-and-a-half-hour battery life. Built-in lens protector opens and closes automatically. Records up to 27 hours of video to its hard drive.

TIRED No external mic or 'phones connector. Must remove battery (and use wall adapter) to access USB port for downloading to your PC.



Samsung SC-X300L

\$480 • samsung.com

The ready-for-action X300L is made to shoot anywhere. It's the tiniest camcorder we've seen, and you can even record hands-free, thanks to a second, detachable lens. Just mount the lens to a helmet or other surface, tuck the X300L safely away, then press the button on the 5-foot connector cable for on/off. Perfect for skydivers, rock climbers, or anyone into extreme video. Records an hour of HD-quality video per GB on an SD or MMC card.

WIRED Rubber-coated body eases shock. Powerful 10X optical zoom. Effective image stabilization takes the jitter out of handheld shots.

TIRED Even moderate camera movement results in blocky, pixelated images. Detachable lens responds slowly to lighting changes.



Sanyo Xacti VPC-CG6

\$330 • sanyodigital.com

Offering tapeless convenience on a tape budget, Sanyo's CG6 is small enough to be quite portable, and its image quality is surprisingly solid: You'll see pixelation in movement-heavy shots, but a steady hand can capture a crisp picture. Low-light image isn't too dim or noisy. Uses SDHC and SD cards, which hold roughly an hour of TV-quality video per gig of memory.

WIRED MPEG-4 recordings play on PCs, Macs, iPods, and other gadgets. Simple 6-megapixel still mode: Just press Camera button and shoot. Built-in flash.

TIRED Wimpy 5X optical zoom. Aggressive image stabilization creates stiff, unnatural movement. Annoying voice prompts. Uninspired stills, even with 6 megapixels.





Accessories

Turn that *American Geek* audition into a winner with polished production values courtesy of these mics, lights, and other videocam add-ons. —H.K.

How We Tested Videocams

■ COLOR QUALITY / FIDELITY We shot brightly colored objects—from green grass and blue skies to loud fabrics—in a variety of lighting conditions, then compared the footage to the original objects to see how well each camcorder captured their true hues.

■ SHARPNESS AND STABILITY We focused on a variety of finely detailed subjects (textured walls, tree bark, the fur of household pets) from near and far to see how sharply they would render. To judge image stabilization, we went handheld, zoomed in, and tried to keep subjects steady in the frame.

■ ACTION SHOTS Filming fast-moving targets—like running children and rushing water—we tracked how long it took each camera to adjust its focus. We also looked for noise and artifacts, which commonly show up in footage with swift movement.

■ LIGHTING TESTS We shot in a dimly lit room to see how each camera picked up detail and color, looking for grainy noise and artifacts in the shadows.

■ SOUND QUALITY Our testers recorded conversations indoors and on the street to assess how well each cam's microphone captured dialog and filtered out background noise.



EffectsLab Pro

\$150 • fxhome.com

James Cameron wannabes need explosively over-the-top, Hollywood-style f/x, and EffectsLab is here to help. Offload your footage onto a PC or a Mac and then superimpose muzzle flashes, lightsabers, laser beams, smoke, rain, and more. The effects aren't exactly ILM-caliber, but they're not half bad (and neither is the software's learning curve).



LoweL Ego

\$125 • lowel.com

The Ego won't light up a dark room, but it will cast a soft, pleasing fluorescent glow on subjects a few feet away. It's perfect for lighting head-and-shoulders portraits and still shots, which makes it a must-have for serious video bloggers. Mount it to a standard tripod, or place it on a table and adjust its base so it points light where you need it.



Photoflex MultiDisc 5'n1 Kit

\$220 • photoflex.com

Natural light is plentiful and free, but it's not very customizable. Fortunately, the MultiDisc reflector kit directs and adjusts it for you: Cover the 42-inch collapsible hoop with one of five included materials to bend the sun to your will, adding color and controlling brightness. Ask a buddy to hold the reflector, or use the stand that comes with the set.



Rode Stereo VideoMic

\$149 • rodemics.com

If you've shelled out for HD, don't skimp on the audio. Snap this little plug-in mic onto your accessory shoe and it handily beats your built-in. For best results, mount it to a cheap microphone stand and position it close to your subject (but just out of frame, duh). The included wind sock will also significantly cut down on any noise outdoors.



EDITORS' PICK

Sennheiser MD 46

\$260 • www.sennheiserusa.com

Designed for man-on-the-street interviews, this handheld wired microphone is a great choice for vloggers hoping to break out of YouTube. Its narrow pickup pattern can home in on the speaker's voice while tuning out the rest. It's better than your typical studio mic at eliminating noise from wind and handling, and the metal case can take a beating.





Sima Ultra Bright Video Light SL-20LX

\$80 • simaproducts.com

This Sima light gets almost an hour from its rechargeable battery, thanks to its energy-efficient LEDs. But it's not quite as bright as we'd like, and the narrow beam can leave the sides of your picture shadowed in darkness unless you zoom in. Also, its LED light is more likely to impart a slight bluish or greenish tint to shots.



SteadyTracker UltraLite

\$199 • steadytracker.com

Your camcorder's image stabilization may be good, but it's no match for the bumpy motion of walking shots. The SteadyTracker can ease that jarring effect, with counterweights on the bottom that keep the rig steady as you walk, tilt, and pan. It won't eliminate *all* the movement in handheld shots, but it definitely makes the ride more of a glide.



Sunpak ReadyLite 20 Video Light

\$90 • tocad.com

Attach this battery-powered light to your accessory shoe to help in dim settings. Burning at 15 watts, the small ReadyLite nicely illuminates subjects up to 6 feet away. The hitch: The built-in battery lasts just 15 minutes and takes hours to recharge fully. However, it's so cheap you can afford to buy a second one for backup.



Scorecard

	Model	Price	Optical Zoom	Still Resolution (megapixels)	Dimensions (inches, H x W x D)	Weight With Battery (ounces)	LCD (inches)	Image Sensor	Rating	
DVD	Canon DC50	\$799	10X	5	3.5 x 2.4 x 5.1	18.4	2.7	1/2.7-inch CCD	7	
	Panasonic VDR-D210	\$350	32X	No stills	3.4 x 3.8 x 6	18.8	2.7	1/6-inch CCD	5	
	Sony DCR-DVD408	\$650	10X	4	3.5 x 2.9 x 5.6	20	2.7	1/3-inch CMOS	5	
	Samsung SC-DC173U	\$350	34X	0.5	3.4 x 2.1 x 4.8	14.4	2.7	1/6-inch CCD	3	
HD	Canon HV20	\$1,099	10X	3.1	3.2 x 3.5 x 5.4	19.2	2.7	1/2.7-inch CMOS	9	
	Panasonic HDC-SD1	\$1,000	12X	2.1	2.9 x 2.6 x 5.4	18.2	3	Three 1/4-inch CCDs	7	
	Sony HDR-UX5	\$900	10X	4	3.3 x 3.3 x 5.6	21	2.7	1/3-inch CMOS	7	
	JVC GZ-HD7	\$1,700	10X	2.1	3 x 3.6 x 7.4	27.2	2.8	Three 1/5-inch CCDs	6	
	Sanyo Xacti VPC-HD2	\$700	10X	7.1	4.7 x 3.1 x 1.4	8.3	2.2	1/2.5-inch CCD	4	
MINI DV	Panasonic PV-GS320	\$500	10X	3.1	3.3 x 3 x 5.8	17.4	2.7	Three 1/6-inch CCDs	8	
	Canon ZR850	\$329	35X	0.8	3.6 x 2.2 x 4.7	15.2	2.7	1/6-inch CCD	7	
	Samsung SC-D372	\$230	34X	No stills	3.4 x 2.1 x 4.8	14	2.7	1/6-inch CCD	5	
	JVC GR-D750	\$250	34X	0.3	3.8 x 2.4 x 4.5	17	2.7	1/6-inch CCD	4	
TAPELESS	Panasonic SDR-H200	\$700	10X	3.1	3.3 x 3 x 4.8	16	2.7	Three 1/6-inch CCDs	Hard drive; 7:00 to 27:00	8
	Sanyo Xacti VPC-CG6	\$330	5X	6	4 x 2.7 x 1.4	5.9	2.5	1/2.5-inch CCD	SDHC or SD; 1:00 SD video/GB	7
	JVC GZ-MG255	\$700	10X	2	2.8 x 2.6 x 4.4	14.2	2.7	1/3.9-inch CCD	Hard drive; 7:10 to 37:30	6
	Samsung SC-X300L	\$480	10X	No stills	3.7 x 2.4 x 1.2	8.6	2	1/6-inch CCD	SD or MMC; 1:05 HD video/GB	5

Televisions

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Olevia 747i

Those kids of yours, the ones you're always bragging about? This 47-inch LCD is better than them. It's smarter, with a killer video-processing chip that helped it ace all our tests, syncing up and smoothing out the noisiest screwball video we threw its way. The set's better looking than your brats, too: Our Blu-ray movie was theater-quality, with a sharp-yet-natural, noise-free picture and vivid, well-balanced color. We loved its default settings, but Olevia's myriad picture, audio, and setup controls make home-schooling this baby a breeze. And, unlike your spoiled spawn, it listens. Even its sound impressed us, a rarity for flatscreens. But then, your kids can probably really crank up the volume, too. —CHUCK CAGE





PRETTY, TOUGH

A thick sheet of glass covers the entire front of the set, giving it a slick appearance and protecting the LCD panel beneath. Best of all, you can clean it with Windex.

REAL SPEAKERS—OR NONE Two full-size speakers mounted underneath deliver deeper bass and fuller sound than any TV in our test. In tabletop mode, they look built-in. But they're removable if you've got better ones.

PRECISE CONTROL Olevia's creative 3-D rolling-hexagon menus not only look impressive, they also offer easy and quick access to crazy-detailed configuration options. You can even adjust picture/audio timing to sync up those old John Wayne flicks.

MAGIC WAND The programmable remote can control a DVD player, VCR, audio tuner, and set-top box, plus three other user-selectable pieces of gear. And you'll have no trouble finding its large, backlit buttons in the dark.

\$2,499 • olevia.com





Under 38 Inches

Yesterday's Big Poppa is today's budget flatscreen. With prices dropping faster than Glocks at a busted-up sit-down, even \$650 can buy a lot. —c.c.



HP LC3272N

\$800 • hp.com

Our DVD movie looked great on this affordable contender from HP, marred only by harsh whites and oversaturated colors. Both problems are correctable, but you will sacrifice some clarity. A grainy picture from our Blu-ray movie, on the other hand, proved that noise reduction was a no-show. And its utilitarian, industrial case design left us thinking more of TPS reports than Harry Potter.

WIRED Simple menus make setup and source selection a breeze. Cheapest model to offer three HDMI inputs.

TIRED Poor HD source-conversion shows candy-cane-like moiré distortion in some 1080i sources.



LG 37LB4D

\$1,500 • lge.com

TruMotion Drive, LG's name for this TV's 120-Hz refresh rate, transforms angled-edge jaggies into arrow-straight lines and renders glass-smooth motion. Though the set's whites are a bit stark, its spectacularly clear and detailed overall picture belies the 720p resolution. It delivers top-shelf performance, for which you pay a top-shelf price.

WIRED Three HDMI ports. Side-mounted USB and A/V inputs are blissfully easy to reach.

TIRED LG's noise reduction looks OK, but you can't adjust it to correct sources with more or less noise. Not for the faint of wallet.



Philips 32PFL7332D/37

\$1,160 • philips.com

Our test movie looked passable on this 32-incher, but the set bombed every category of our video-processing tests. Jagged diagonal lines were more prevalent than on any set we tested. Worst of all, its dynamic contrast feature darkened the picture, further diminishing detail. Brightening it with the set's simple picture controls was easy but produced a lame, low-contrast image.

WIRED Two-channel Ambilight rocks. **TIRED** Noise reduction: ineffective. Processing: hacky. Picture: dim. 32-inch LCD: a lot of coin when the best image of all gets projected on the wall behind it.



Polaroid 3211-TLXB

\$699 • polaroid.com

Watching this 32-incher is like slow-dancing with your first prom date: solid performance, quite a few bumps. The set's heavy-handed noise reduction caused annoying flickering, and its uncorrectable red-biased tint made everyone look sunburned. The picture was sharp, however, with lots of contrast. And unlike most thin TVs, the onboard speakers sound decent, with clear highs.

WIRED Downward-pointed rear jacks simplify cable routing, and picture-book connector labels are visible from above. Inexpensive.

TIRED Prepare to spend a lot of time tweaking color settings.





Samsung LN-T3253H

\$1,100 • samsung.com

This 32-inch LCD's film-like color and natural-looking noise reduction together create an eye-popping movie experience. It's gamer-friendly, too: A game mode eliminates annoying HDTV processing delays to keep your *Rock Band* timing on track. And its impressive 8,000:1 contrast ratio serves up enough detail to target your frag-ready buddies even in the darkest shadows.

WIRED Lots of ports, including side-mounted A/V jacks for easy camcorder access. Rotating base.

TIRED Struck out on one of our processing tests, failing to deliver full resolution from a 1080i source.



Sharp LC-37D43U

\$1,600 • sharpusa.com

Its candy-coated case only hides the off-flavor center until you hit the power button. Sharp's 37-incher failed to re-interlace some HD sources correctly in our tests, which led to ghosting and annoying visual artifacts. It smoothed some noise out of our Blu-ray movie but produced an overly black picture that lacked detail, knocking its movie-watching scores down to average.

WIRED Virtual surround sound great for minimalist bedroom installations.

TIRED We expect more for this kind of scratch. Spenny features like a low-glare screen are wasted when you have to boost brightness to get a decent picture.



Toshiba 32HL67U

\$950 • toshiba.com

Embarrassing its 42-inch big brother, this Toshiba turned in the poorest movie performance in our test, converting an expensive Blu-ray disc into Loch Ness Monster footage. Even the distracting automatic backlight adjustment couldn't bring definition to the inky-black pools in its dark picture. Meanwhile, poor video processing yielded fuzzy, blurred edges. At least it's not budget-busting.

WIRED Easy-access side A/V ports. CE-link feature controls certain Toshiba HD DVD players via HDMI cable.

TIRED Failed to keep the beat in some 24-fps film sources, generating ugly patterns. Miserable noise reduction.



Vizio VX32L

\$650 • vizio.com

Vizio's low-budget 32-incher falls below the \$700 barrier, bestowing HD glory on the PBR crowd. After we added contrast and dimmed the backlight to correct the washed-out default image, it delivered a notably good movie-watching experience. But Donkey Kong-like menu icons and stair-stepped diagonal lines remind you you're watching a Hyundai, not a Lexus.

WIRED Good noise reduction smooths out crappy video sources. \$650 price tag could possibly cure cancer.

TIRED Ugly: The LCD panel says 2007, but the thick, gray plastic case screams "1997 computer monitor."



38 to 49 Inches

With 42 inches of full-res 1080p and mind-blowing contrast for around two grand, you can finally trade in your rear-projection mastodon for a sleek panther—without moving home to Mom and Dad's. —C.C.



Panasonic TH-42PZ700U

\$2,200 • panasonic.com

We'd love this 42-inch plasma if we couldn't buy Toshiba's set *and* a newly discounted iPhone for the same price. Our Blu-ray movie looked great on it, with rich colors and lots of contrast. But we found Panasonic's noise reduction heavy-handed, creating blocky image artifacts. Thankfully, it's easily disabled, leaving a good—if slightly noisy—picture.

WIRED Displays photos and plays music from USB drives and camera-friendly SD memory cards.

TIRED Back-breakingly heavy. Can't find cadence of all HD sources, which can lead to loss of resolution. Stand is a bitch to assemble.



Philips 42PFL7432D/37

\$1,800 • philips.com

She's purdy, but kinda dumb. This 42-inch LCD 1080p failed three of our five processing tests. We saw jaggies in angled lines, and when presented with HD sources that originated at 24 fps, the set came up with moiré and flashing. It also turned dark colors black, yielding an inky picture. Add brightness to compensate and you lose contrast.

WIRED Ambilight. Three HDMI ports.

TIRED Complex menus. Maximum noise-reduction setting turns picture plasticky; other modes are indistinguishable. Can't sync up cadence of all HD sources. Disappointment shouldn't be this pricey.



Polaroid TLA-04011C

\$899 • polaroid.com

Offering 720p in this size category is like bringing a knife to a gunfight. Still, our Blu-ray movie looked decent on Polaroid's low-buck machine. But as Momma told us, you get what you pay for. (Or was it that girl we met on Nerve.com?) Adjustment couldn't clear up its color problems fully, and its noise reduction created a distracting pulsing effect in some video. We also saw ghosting, indicating poor motion processing.

WIRED 40-inch flatscreen for well under a grand? Twist our arm.

TIRED Mediocre performance in video-processing tests; pixel interpolation yields artifacts. Lots of jagged diagonal lines.



Samsung LN-T4065

\$2,699 • samsung.com

Though it delivers a well-balanced movie picture requiring almost no tinkering, the Samsung 40-incher's colors were a little subdued for our taste. The set performed admirably in our gauntlet of signal-processing tests and offers a slew of digital and analog source inputs, but at this price, we'd get a 47-incher and suffer the plug-swapping.

WIRED Good noise reduction. 15,000:1 contrast delivers dark blacks but not a dark picture. Swivel stand. Plays media via USB.

TIRED Couldn't catch the cadence of some HD sources, producing a ton of jaggies and visual artifacts.





Sony KDL-46W3000

\$3,100 • sonystyle.com

Sony's 46-inch set has some issues and is expensive as hell, but it's also gorgeous, so you'll want one anyway. While colors were perfect out of the box, you can adjust them with a system that smacks of \$10K-plus custom-install projectors. Its metallic earth-tone case may set it apart from the masses, but it flunked all but one of our processing tests.

WIRED Hi-res menus slide in and fade out like videogame effects.

Does a great job of scaling up standard-def TV and old DVDs.

TIRED Expensive. Clumsy noise reduction produces a swirling effect. Lots of jaggies and moiré in 24-fps HD test sources.



Toshiba 42HL167

\$1,800 • toshiba.com

A harmonious balance: Blacks are warm, and whites aren't blinding. Colors are muted (but accurate) and promote a very clear image.

Though its noise-reduction software doesn't clean up as much graininess as other TVs in our test, the overall result is subtle and pleasing. It was good enough that we almost enjoyed our test flick, *Eragon*.

WIRED 1,920 x 1,080 native resolution means you see true 1080p. Second-highest overall score on our processing tests.

TIRED Mishandles some film-based HD sources, which could spell lost resolution.



Vizio VX42L

\$945 • vizio.com

The 42-inch Vizio's low price doesn't quite excuse its limitations. Even after we adjusted the hell out of it, our test model's picture remained slightly oversaturated and red-tinted. Harsh blacks and whites also detracted from the viewing experience. However, the Vizio's noise reduction was surprisingly smooth and natural.

WIRED Love it/hate it glowing Vizio logo. Inexpensive. Remote is easy to use. Picture-in-picture.

TIRED Love it/hate it glowing Vizio logo. Had trouble displaying 24-fps sources smoothly—despite boasts to the contrary. 720p.



Westinghouse TX-47F430S

\$1,700 • westinghousedigital.com

Hey now! Westinghouse has a lot more to brag about than just irons and lightbulbs. Its 47-inch LCD cleaned up and correctly displayed a wide range of HD sources. But it took some work: After we removed a drop of contrast, added a smidge of brightness, and adjusted tint, oversaturated colors and darkness gave way to a great image.

WIRED Top scorer on video-processing tests. Great price-to-performance ratio. Slick basic case looks hot and will age well.

TIRED Laggy menus reminded us of the dialup days. Noise reduction isn't adjustable, but menu transparency is—huh?



50 Inches and Up

Regretfully, the 1080p revolution has yet to reach the largest sets—where it's most needed. Half the televisions in our test still sport 720 horizontal lines. On the plus side, big screens have never been cheaper. —c.c.



EDITORS' PICK

LG 60PY3D

\$5,400 • lge.com

You could buy a decent used car for less than LG's 60-incher—granted, few craigslist clunkers will deliver this level of sophistication. The face of its sleek case is devoid of buttons, but power it on and touch-sensitive controls light up the shiny black surface (yes, exactly like *Star Trek*). An LCD in the base provides channel and adjustment info. The set displays accurate color, too, and a soft yet contrasty picture that breathed much-needed life into our Blu-ray test flick.

WIRED It's freakin' huge, man! Unless you're buds with Mark Cuban, you'll own bragging rights. 1080p was born to live in sets like this. Menus and icons look like you paid big bucks ... which you did.

TIRED Can't sync up some HD sources. Jaggies and moiré on some test video.



Televisions



Hitachi P50T501

\$2,300 • hitachi.com

Though a huge sticker claims "HD 1080," Hitachi boosted only the vertical resolution to 1080 specs, giving this 50-inch plasma a weird 1,280 x 1,080 native resolution. The resulting picture is noticeably clearer than 720p but not as sharp as full 1,920-pixel horizontal resolution. Its image was also overly dark, requiring us to add brightness and lower contrast to find the sweet spot.

WIRED Black case has gravitas. Nice menus. Easy channel programming. Priced like a 720p set, but with 360 bonus lines of vertical resolution.

TIRED We thought our test set was DOA. Turns out that the adult-proof master power switch is hidden underneath—and completely unlabeled.



HP PL5072N

\$1,500 • hp.com

HP's bargain 50-inch plasma delivers a lot of bang—and size—for under two grand. Colors are soft and accurate, though the picture is a bit dark. Our biggest gripes: We couldn't detect any noise reduction, and we saw moiré patterns way too often. But our Blu-ray test movie looked pretty good, especially when we realized we take home the movie, the player, and the HP for the price of most of our other 50-inch-plus test subjects.

WIRED Cheap. Good with difficult interlaced sources, such as old movies.

TIRED 720p. Chunky black case would be more at home in an airport waiting area than in a living room.





Pioneer PDP-5080HD

\$3,500 • pioneerelectronics.com

Pioneer's video processor virtually eliminates jaggies, and it ran our HD test-source obstacle course with ease, posting great scores in most categories. Once we dialed out some contrast and added a little brightness and color, we almost enjoyed its dark-but-clear image enough to forget we were watching a 50-inch picture at only 720p resolution.

WIRED Stately black case. Attractive menus. Easy setup. Noise reduction cleaned up messy sources without removing much detail. Four HDMI jacks.

TIRED Automatic picture-adjustment mode pulsed the display distractingly; we disabled it. Three-plus Gs for 720p is just offensive.



Samsung HP-T5054

\$2,499 • samsung.com

A jack of almost all trades, Samsung's 50-inch plasma couldn't master the art of re-interlacing 24-fps HD video in our tests. Still, we loved its soft, natural colors and crisp blacks, which made it a Blu-ray movie favorite among testers—actors' skin tones looked particularly realistic. Its simple styling won't compete with your movie for attention, and the easy-to-understand menus let you swap sources and picture settings quickly.

WIRED Antiglare coating works well in bright rooms. Good color. High contrast. Noise reduction cleans up picture without being intrusive.

TIRED No USB connection for music or photos, a staple in this category.



Sharp LC-52D92U

\$4,500 • sharpusa.com

Kudos to Sharp for producing the only LCD in our big-and-tall category—a feat. The 52-inch set's 120-Hz refresh rate helped it lock on to the toughest of our crazy-cadence HD test sources, and it's tops in smoothing out grainy video noise. But the otherwise great processing left lots of jaggies, and we couldn't completely ditch its slightly oversaturated reds and oranges.

WIRED 1080p gives great viewing resolution at living-room-couch distance. Thin case looks very modern.

TIRED Good processing doesn't cover up bad color. All but the lowest level of noise reduction did more harm than good.



Vizio VM60P

\$2,500 • vizio.com

At less than half the price of our test's other 60-inch plasma, the VM60P is a great value. And it scored high in our processing tests, rendering difficult sources well. But bargain hunters gotta compromise: Vizio shorted this set in the color department—no amount of twiddling will tame the oversaturation. It's like *Playboy*: perfect for the man interested only in size.

WIRED Ten inches larger and about \$500 cheaper than many 50-inch sets. Case is only 5 inches thick.

TIRED Big screen does no favors for Vizio's trademark 8-bit, game-style menus. At 60 inches, 720p resolution looks like a Lite-Brite.



Projectors

If you really want to feel like you're in a theater, you're gonna need a projector (and a big-ass room). Luckily, you can have a sweet one for about three grand. Or, spend \$25K and achieve movie-watching nirvana. —c.c.



Epson PowerLite Home Cinema 1080

\$3,100 • epson.com

At first the picture was a tad dark. But after cranking up the brightness and contrast, it looked every bit as good as any LCD or plasma we tested—and almost as good as projectors clocking in at many times the price. We also appreciated its two-way lens adjustment, which simplifies off-center and short-throw installations. But what really kills is the price: \$3K for righteous 1080p.

WIRED Simple, useful menu system. Excellent video processing, which means a great picture from just about any HD source. Quiet.

TIRED Cream-colored case looks like a relic from an '80s boardroom. Thankfully, it'll likely end up ceiling-mounted and out of sight.



Meridian D-ILA1080 MF1

\$25,995 • meridian-audio.com

Like a Shelby Mustang, this projector starts life as a stocker (from JVC). Then Meridian soups it up with a Faroudja onboard video processor and tunes it to perfection by color-correcting its three LCDs pixel by pixel. It even ships with an "optimization report" from the tech who hand-tweaked it. The result: pleasingly accurate color and spot-on performance from any HD video source.

WIRED Full-res HD (1080p). Aced every single one of our video-processing tests. Picture looked clear even four feet from our 110-inch test screen.

TIRED Offers single component and DVI inputs—and that's it, no HDMI. But if you have the roll to score this rig, you can afford a digital switchbox, too.



Sharp XV-Z20000

\$9,000 • sharppusa.com

Sharp's flagship DLP home-theater projector delivers what you'd expect for \$9K: a bright, clean picture, noticeably smoother than most 1080p projectors we tested. Color wasn't perfect out of the box, but with easy-to-navigate menus, which offer more adjustments than any other projector—or TV—in our test, we quickly fixed it. It's smart, too, handling off-kilter HD sources with ease.

WIRED Image looks great even at arm's length. Separate picture-setting memory for each input, of which there are plenty. Remarkably quiet.

TIRED Overly simplistic remote buries basic functions beneath several menus. Similar-quality LCD light-thrower costs much less.



ViewSonic ViewDock PJ258D

\$999 • viewsonic.com

Despite its 1,024 x 768 native resolution and packaging boasting that what's inside "supports multiple HDTV formats," the ViewDock offers only component, composite, S-video, and VGA inputs. That means no HD for you, Hoss. But if you're looking for a projector that can have some fun, you're in luck. Drop your iPod into the built-in dock and play iTunes videos on the big screen.

WIRED It's light, portable, and comes with a carrying case. Football games and iTunes downloads on the wall—this would make the perfect frat-house player.

TIRED 4:3 aspect ratio. Video-processing power? Nope. Projector remote will control docked iPod, but interface is counterintuitive.



Scorecard

	Model	Price	Technology	Screen Size (inches)	Resolution	Inputs	Rating
UNDER 38 INCHES	Samsung LN-T3253H	\$1,100	LCD	32	720p	3 HDMI, 2 component, 2 S-video, composite, VGA	8
	LG 37LB4D	\$1,500	LCD	37	720p	3 HDMI, 2 component, 2 S-video, 2 composite, VGA, USB	7
	Vizio VX32L	\$650	LCD	32	720p	2 HDMI, 2 component, S-video, 2 composite, VGA	7
	Polaroid 3211-TLXB	\$699	LCD	32	720p	2 HDMI, 2 component, S-video, 2 composite, VGA	6
	HP LC3272N	\$800	LCD	32	720p	3 HDMI, 2 component, 2 S-video, 2 composite, VGA	5
	Sharp LC-37D43U	\$1,600	LCD	37	720p	2 HDMI, 2 component, S-video, 2 composite, VGA	5
	Philips 32PFL7332D/37	\$1,160	LCD	32	720p	2 HDMI, 2 component, S-video, 2 composite	4
	Toshiba 32HL67U	\$950	LCD	32	720p	3 HDMI, 2 component, S-video, 2 composite, VGA	4
38 TO 49 INCHES	Olevia 747i	\$2,499	LCD	47	1080p	2 HDMI, 3 component, 2 S-video, 2 composite, VGA	9
	Toshiba 42HL167	\$1,800	LCD	42	1080p	3 HDMI, 2 component, S-video, 2 composite, VGA	8
	Westinghouse TX-47F430S	\$1,700	LCD	47	1080p	4 HDMI, 2 component, S-video, composite, VGA	8
	Panasonic TH-42PZ700U	\$2,200	Plasma	42	1080p	2 HDMI, 2 component, 3 S-video, 3 composite, VGA	7
	Samsung LN-T4065	\$2,699	LCD	40	1080p	3 HDMI, 2 component, 2 S-video, 2 composite, USB	7
	Sony KDL-46W3000	\$3,100	LCD	46	1080p	3 HDMI, 2 component, S-video, 3 composite, VGA	7
	Vizio VX42L	\$945	LCD	42	720p	2 HDMI, 2 component, S-video, composite, VGA	6
	Polaroid TLA-04011C	\$899	LCD	40	720p	2 HDMI, 2 component, S-video, 2 composite, VGA	5
	Philips 42PFL7432D/37	\$1,800	LCD	42	1080p	3 HDMI, 2 component, S-video, 2 composite	4
50 INCHES AND UP	LG 60PY3D	\$5,400	Plasma	60	1080p	3 HDMI, 2 component, S-video, 2 composite, VGA	8
	Samsung HP-T5054	\$2,499	Plasma	50	720p	3 HDMI, 2 component, 3 S-video, 3 composite, VGA	7
	Sharp LC-52D92U	\$4,500	LCD	52	1080p	3 HDMI, 2 component, 2 S-video, 2 composite, VGA, DVI-I, RS-232c	7
	Hitachi P50T501	\$2,300	Plasma	50	1080p	3 HDMI, 2 component, S-video, 4 composite, VGA	6
	HP PL5072N	\$1,500	Plasma	50	720p	3 HDMI, 2 component, 2 S-video, 2 composite, VGA	6
	Vizio VM60P	\$2,500	Plasma	60	720p	4 HDMI, 2 component, 2 S-video, 2 composite, VGA	6
	Pioneer PDP-5080HD	\$3,500	Plasma	50	720p	4 HDMI, 2 component, S-video, 3 composite, USB, Ethernet	5
	PROJECTORS	Meridian D-ILA1080 MF1	\$25,995	3-LCD	N/A	1080p	Component (BNC), S-video, composite, RGB
Epson PowerLite Home Cinema 1080		\$3,100	3-LCD	N/A	1080p	HDMI, 3 component, S-video, composite, VGA, D4/SCART, RS-232c	7
Sharp XV-Z20000		\$9,000	DLP	N/A	1080p	2 HDMI, DVI, 2 component, S-video, composite, RS-232c	7
ViewSonic ViewDock PJ258D		\$999	DLP	N/A	Standard def	S-video, component, composite, VGA, iPod dock	4

How We Tested TVs

■ GET ACQUAINTED

After unpacking each model and studying its looks, we spent some quality time with the remote to see what the TV could do—features, functions, et cetera—and how easily.

■ VIDEO PROCESSING

We used HQV's Blu-ray benchmark disc to test each set's ability to improve low-quality video and display a variety of sources, from new hi-def formats to old home movies.

■ TASTE THE RAINBOW

We used standard color bars to evaluate color accuracy. When a particular hue is out of whack, its corresponding bar appears dimmer or brighter than the rest.

■ ERAGON ... 100 TIMES

The movie was sent to us as a joke, but we were too cheap to buy something better. The scene we used (Chapter 12, "Finally Flying") is a good practical trial of a TV's capabilities.





Burning Question

720p, 1080i... What Does It All Mean?



Aluratek 4-Port HDMI Video Switch w/Remote

\$100 • aluratek.com

Having to unplug a wire every time you jump from Xbox 360 to PS3 can really mess with your game.

The Aluratek offers a cost-effective yet cool solution, switching up to four HDMI inputs to a single output, all via remote control. And we had no trouble loading its IR codes into a programmable remote, making the integration seamless.



Monster Cable 4-foot Ultra 1000 Advanced Cable for HDMI

\$130 • monstercable.com

Do you really need a \$130 cable to get the most from your Blu-ray player and HDTV? We couldn't see a difference between this 4-foot cable and a generic Chinese model of the same length. But after some use, the casing fell off the end of our cheap cable. OK, OK, we'll pay up.



Silicon Optix Blu-ray HD HQV Benchmark Disc

\$20 • HQV.com

Even a total video neophyte can separate performance wheat from marketing chaff. Pop this benchmark disc in a player and it brings you up to speed with a "video processing for dummies" bit. Then it drives your gear through a battery of test clips crafted to expose the TV's limitations. We ran all the TVs in our test through this process.



S

ITTING IN YOUR GRANDPARENTS' BASEMENT, staring at *M*A*S*H* reruns on their old tube TV, you were watching standard definition—480 lines stacked on top of one another to make up the picture. That's about the same as a DOS-era computer monitor or a 0.3-megapixel camera phone. And though their set refreshed its picture 30 times a second, it lacked the horsepower to process the full image on each scan. So it just drew every other line, updating the remaining ones on the next refresh. The images flitted on and off the screen so fast that your brain stitched the two sets of lines together. It's called interlacing, and that set's

display properties would be classified as 480i: 480 lines, interlaced.

High definition boosts resolution to 720 lines or more and can update every line in each refresh pass: *progressive* scan. The latest TVs can display 1080p—progressive video at 1,080 lines of resolution. But can you really tell the difference? Just as with a photograph, the answer lies in how big you want the picture to be and how close to it you sit.

A 20/20 human eye can't recognize details smaller than 1/60 of a degree of arc. Don't worry, you don't have to understand that. With a little math, though, we can use this number to find the distance beyond which the eye has trouble distinguishing one pixel from another. It turns out to be 137 percent of the diagonal measurement of any 16:9 widescreen: around 38 inches from a 32-inch TV. So if you're sitting 5 feet away, you'll never notice the difference between 720 and 1,080 lines of resolution. But if you trade up to a 60-inch screen, that distance jumps to almost six feet. Better push the couch back.

Even if you spring for a 1080p set, you'll need 1080p sources to take full advantage of it. Right now, those are limited to Blu-ray and HD DVD players and a couple of game consoles. DVD players without add-ons output only 480p, and though satellite and cable services offer HD channels, these top out at either 720p or 1080i.

The larger number might suggest a better picture, but 1080i comes with baggage, too. LCD and plasma sets always display progressive video. When faced with an interlaced signal, they either combine every two half-resolution frames to make a single complete one or show each half-resolution frame and fudge the missing lines. So there's a sacrifice: You lose either half the resolution or half the frame rate.

When the action speeds up, it gets even trickier: TVs use complex algorithms to account for fast-moving objects that change positions between frames, guessing which part of the image changed. A wrong guess leads to visual artifacts and ghosting. That's why many sports channels like ESPN HD opt for 720p over 1080i.

Of course, a late-night rerun will still look just as bad—until the network remasters the show and releases it on Blu-ray. — C.C.



Video Gear

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Vudu

At the intersection of laziness and instant gratification beckons a set-top box called Vudu. Grab the remote, select a movie, agree to the rental fee (from \$1 to \$4, billed to your credit card), and without further ado you're watching it in HD. Vudu has all seven major studios, plus 20 independent and foreign studios and distributors, signed up to provide films—5,000 of them, constantly updated, from recent blockbusters to classic kung-fu epics. The box automatically assesses your TV's display capabilities and pumps out a picture that's as hi-res as your set can handle, all the way up to 1080p. Hope you didn't make any plans for next year. —JOE BROWN





CALLED VUDU FOR A REASON Its special upconverting sauce turns files no larger than iTunes videos into massively awesome-looking movies, complete with Dolby 5.1 surround sound.

PLAYS IT COOL The engineers who designed the first TiVo were behind this box, and to keep it from overheating, they modeled every possible airflow scenario before the first piece of metal was cut.

COMPUTING PEDIGREE Instead of using a central server to push out flicks, Vudu's programmers took a lesson from the minicomputers of the 1970s: Every box stores a tiny piece of each movie on its hard drive, and sends that bit out to other users when called upon.

REMOTE PARADISE With five buttons and a scroll wheel, the super-ergonomic RF remote takes about 10 seconds to memorize, 20 seconds to master, and 30 seconds to love.

\$399 • vudu.com





Video Gear



Media Streamers

Free your tunes, TV shows, movies, and more from the prison of your PC. These devices will beam the good stuff straight to your home-theater system. —R.B.

Sonos Digital Music System Bundle 130

\$999 • sonos.com

The Sonos Digital Music System streams music from your PC and the Internet to any room with a base station, a pair of which come in the Bundle 130. A kick-ass wireless remote determines which music goes where—you can queue up different tunes for different rooms. And if you're sick of your iTunes collection, Sonos also integrates with Pandora Internet radio, Rhapsody, and Sirius and supports other services. Your home has never rocked so hard.

WIRED Plucks music from multiple PCs. Works with various online music stores. You can serve up to 32 rooms by buying more receivers. iPod-inspired remote simplifies navigation.

TIRED Two years old and it's *still* a thousand bucks? Won't play DRM-protected iTunes purchases, only WMA format. Pandora might disappear owing to newly imposed royalties; thank you, Copyright Royalty Board.



Apple TV

\$399 • apple.com

Apple's cute little silver box bridges the gap between your PC and your home theater. It sets up in minutes and pipes iTunes music, videos, photos, and podcasts, as well as YouTube content, into the living room. Gone is the original model's paltry 40-GB hard drive; the new Apple TV sports four times the storage, enough for 200 hours of video. But, oh, the sting: You can't order new episodes of *Lost* from the comfort of your couch. iTunes shopping requires a computer.

WIRED Blissfully easy to set up. Supports both wired and wireless network connections. Syncs automatically with iTunes. YouTube from the couch!

TIRED Teeny, underpowered remote is easily lost among sofa cushions. Requires a widescreen TV. Video looks a bit soft. No DVR capabilities.



Netgear Digital Entertainer EVA8000

\$349 • netgear.com

This bulky box sends all kinds of media from your PC to your TV—even protected iTunes and Windows Media music. Unfortunately, standard-def video stuttered like a nervous date when sent just one floor up across our 802.11g Wi-Fi network; we shudder to think what HD would look like. Wired Ethernet saved the day for this feature-rich streamer, which lets you plug in cameras and iPods to access mobile media.

WIRED Comes with HDMI and analog cables. Record and play TV shows (if your PC has a tuner). Streams Internet radio, YouTube, and Flickr galleries.

TIRED Nearly as large as a cable box. Ugly interface is no match for Apple TV. Queued media starts slowly. Doesn't auto-update when you add media to your PC.



Sling Media Slingbox Pro

\$230 • slingmedia.com

Placeshifting is just a fancy word for pretending you're in your living room when you're not. The Slingbox furthers the make-believe by sending video from your home theater to other PCs and even mobile phones. You enjoy total control over your TV, cable box, DVR, DVD player, and the like—just as though you were parked in your fave recliner. Watch local sports from your Shanghai hotel room. Catch last night's episode of *Heroes* on the train to work. Fly, little sofa spuds! Be free!

WIRED Excellent setup instructions and desktop software. Good software controls. Supports up to four video sources. No monthly fees. Solid video quality.

TIRED Special software needed to access the Slingbox from your PC. People actually at home have to watch what you're watching. Network lag hobbles playback.



TiVo HD

\$300 plus \$17 per month • tivo.com

A year ago, we gave the \$800 TiVo Series3 our Best of Test award. Now, you can get most of its top-of-the-line features for \$500 less. The hard drive is a little bit smaller—just 180 hours of standard-def recording or 20 hours of HD—but you get the same sweet TiVo hallmarks, like Season Pass and the technophobe-friendly user interface. Hooray for progress!

WIRED Dual HD tuners. Downloadable movies and TV from Amazon Unbox. Streams MP3s and photos from PCs. Mobile access to scheduling from some Verizon phones. Traffic information and weather forecasts from Yahoo.

TIRED Monthly fee is a little steep on top of your cable bill. Requires digital antenna or two CableCard decoders for dual-tuner use. No THX support.



EDITORS' PICK



DVRs

Tame your TV. Next-gen DVRs bring time-shifting flexibility to hi-def programming and Web content to the living room. —R.B.



Comcast Motorola DCT3416

\$10 per month • comcast.com

Comcast's box handles the usual standard- and hi-def programming and recording, complete with dual tuners so you can watch a recorded show while recording two others. Not bad for an extra \$10 per month on your bill. Too bad the ugly, unintuitive menu system will make even the tech-savviest geeks weep, and recording glitches abound. But much-needed relief is coming: Comcast plans to offer TiVo-equipped boxes later this year. The company won't commit to a date, but it can't happen soon enough, we say.

WIRED Dual HD tuners. No up-front investment; rent it cheaply from your cable company. Easy access to on-demand programming.

TIRED 80-GB hard drive holds just 15 hours of hi-def recording. Can't hop past commercials. Sluggish interface can inspire fits of rage.



Shuttle XPC X200 M

\$1,997 • shuttle.com

Here's a surprisingly well-kept secret: Windows Vista Ultimate packs some killer DVR features. So, in turn, does the XPC, a media-center PC inconspicuous enough to slip into your home theater without upsetting the decor. It's ultrasmall, yet it squeezes in 750 GB of storage, a slot-loading DVD burner, and a four-in-one media reader.

WIRED Plays and records TV shows TiVo-style. Enough RAM and processing power (2 gigs and 2.2 GHz, respectively) to run Vista at a healthy clip. Sits horizontally or vertically. Built-in Wi-Fi.

TIRED A single TV tuner, and it's analog. Pretty pricey for a PC, even one as compact as this. Generic wireless mouse and keyboard. Small, nonstandard remote.



Velocity Micro CineMagix Grand Theater

\$5,223 • velocitymicro.com

The Windows-powered CineMagix, disguised as a glam stereo component but loaded for home-theater bear, sports three TV tuners: two CableCard and one standard-def/over-the-air HD. It also plays Blu-ray DVDs, your music collection, and hot Windows games, and of course, displays photos. Plus, it's a full-blown PC. You may need a second mortgage to pay for it, but for TV junkies, the hunt is over.

WIRED Elegant case looks at home in the living room. Stocked to the gills with a quad-core processor and 2 terabytes of storage.

TIRED Rich-folks-only price tag. No HDMI output—just DVI. Setup instructions don't cover CableCard and home-theater connections.



Video Gear

Universal Remotes

Juggling half a dozen remotes can kill your channel-surfing buzz. Stop cursing at the clickers and grab one of these universal replacements. —R.B.



Universal Electronics NevoSL

\$1,099 • mynevo.com

Who's really in charge at your house? Whoever's holding the NevoSL. This remote controls PCs, media hubs, and, of course, home-theater gear. Customization is its claim to fame: The setup software offers unlimited backgrounds, buttons, page layouts, and personalization options. But unless you've got a few days to spare and some programming smarts, you'll want an installer to get you up and running. That'll bump the Nevo's already sky-high price into the next galaxy, but it's worth it for this kind of customized control.

WIRED Colorful 3.5-inch touchscreen can be operated by finger or stylus. Built-in Wi-Fi for access to media libraries. Tweak the interface to your heart's content.

TIRED More expensive than some HDTVs. Too large for comfortable one-handed operation.



Video G



Logitech Harmony 1000

\$500 • logitech.com

The Harmony 1000 combines a tablet-style touchscreen with easy Web-based setup. OK, maybe not easy, but manageable: Just pick your hardware from the huge online database, then download routines to control it all. An optional RF receiver eliminates line-of-sight issues, which is great if your components reside in a closed cabinet. Just be prepared: This remote requires two hands and a lot of screen interaction, a challenge for those who just want to kick back and click.

WIRED Elegant design, with a beautiful color screen. Setup software takes the sting out of programming. Controls lights and appliances, too.

TIRED No DVR-specific hard buttons. Doesn't fit well in the charging station yet must hang out there frequently owing to so-so battery life.



Monster Central AVL300

\$500 • monstercable.com

This monstrous remote controls both home-theater components and home lighting. If the dummy-proof setup software and activity-based onscreen menus look familiar, it's because Logitech had a hand in both. That's a good thing: The AVL300 ranks among the easiest and most versatile remotes available. But the atrocious button layout had us thinking Monster should stick to cables.

WIRED Affordable multiroom control. Activity-driven menu for effortless operation. RF receiver can IR-blast up to eight devices.

TIRED All the up-down controls rely on side-by-side buttons. Chunky lo-res screen doesn't match high-end price. Setup software gave us trouble in Windows Vista.



X10 IconRemote

\$80 • x10iconremote.com

First you reach for the IconRemote, then you reach for the Xanax. Though we loved its His and Hers channel-lineup buttons, blazing color screen, and setup wizard, we just couldn't get this sucker to work right. It lacked codes for half of our stuff and didn't map the buttons correctly for the rest. The IconRemote can supposedly learn commands from other remotes, but ours was a stubborn Bart Simpson of a student.

WIRED Large, easy-to-read buttons. Includes lockout option to thwart kid access. Displays network logos for easy channel hopping.

TIRED Buttons aren't backlit. Wouldn't learn commands. Didn't control our fairly standard home-theater components well. PC support only for media-center machines with remotes.





Blu-ray and HD DVD Players

The hi-def format war rages on. Strap on your battle helmet, pick up your shield, and choose your weapon carefully. —R.B.



LG BH100 Super Blu

\$999 • lge.com

In the fight over formats, the BH100 is Switzerland: Rather than take sides, this hybrid player spins both ways—though not quite as well as most dedicated models. With HD DVD titles, for instance, it delivers only basic playback features, and it locked up during our screening of *The Bourne Identity*. For this kind of scratch, you could buy separate Blu-ray and HD DVD players plus a library of movies.

WIRED Movies look and sound stellar, regardless of format.

TIRED Spiffy touch-sensitive controls. Quick to load and navigate discs.

TIRED Weak backlight makes it fairly useless in the dark.

Doesn't play audio CDs.



Samsung BD-P1200

\$600 • samsung.com

Samsung's BD-P1200 Blu-ray player delivers what a second-gen offering should—more features for less money. \$600 is still mighty steep for stand-alone Blu-ray playback, but this machine deftly upconverts standard-def DVDs for viewing on your HDTV and offers impressive bookmark features.

WIRED Sleek design. Stunning image quality. Ethernet jack for easy firmware updates. Upconverting breathes new life into conventional DVDs. Remote's main buttons glow in the dark.

TIRED High cost will keep it out of most home theaters. Takes 20 seconds to load discs. Lacks Dolby TrueHD and DTS-HD audio support.



Sony BDP-S300

\$500 • sonystyle.com

Like other Blu-ray players we've seen, this one definitely makes your HDTV sing: Images pop, colors dazzle, details emerge brilliantly. But Sony charges way too much for it—the same money could buy you a Blu-ray-equipped PlayStation 3—and leaves out too many desirable features. While we're loving Blu-ray, we're just barely liking this player.

WIRED Convenient top-mounted Eject button. Upconverts standard-def DVDs to 1080p and makes them look terrific.

TIRED Painfully slow to power up and load interactive disc features. No Ethernet port for downloading firmware updates. Doesn't decode Dolby TrueHD. Non-backlit remote hard to see in the dark.



Toshiba HD-A20

\$400 • toshiba.com

A slap in the face to early adopters who paid \$800 for Toshiba's first-gen HD DVD player, the HD-A20 sells for half the price and ups the output to 1080p. Looking on the bright side, the player churns out glorious color and sound from hi-def and standard DVDs alike. You'll want to buy a different remote, though: The button-packed, unlit clicker really needs work.

WIRED Movies look fabulous even on 1080i screens. Ethernet for firmware updates. Upconverts standard DVDs.

TIRED Extremely slow to start up. 13.6-inch footprint may be too deep for your cabinet. Future of HD DVD format looks shaky.





Accessories

Build out your home theater with shelf-friendly DVD storage, music-streaming iPod docks, wide-angle wall mounts, and more. —R.B.



EDITORS' PICK

Sanus VisionMount VMAA18

\$400 • sanus.com

If your wall mount isn't perfectly level, your flat-panel TV won't be either. The VMAA18 rotates up to six degrees, meaning a botched installation won't spoil the show. It also lets you tilt, swivel, pan, and extend your TV, all with the touch of a finger. Added bonus: This heavy-duty mount installs easily and is seemingly earthquake-proof.



How We Tested Video Gear

■ **DVRS** We recorded two hi-def shows at once while watching a third. We also ran a spouse check to see whether non-techie users could operate the units.

■ **UNIVERSAL REMOTES** After pairing the remotes with all our gear, we pressed every button to make sure each feature on our system was truly under our control.

■ **BLU-RAY AND HD DVD PLAYERS** We watched hours of movies, looking for video and audio glitches, and tested the players' connectivity options.

■ **MEDIA STREAMERS** Paying close attention to ease of setup, media-format support, and inputs and outputs, we played hours of music and video.

Belkin PureAV HDMI Interface Audio Video Cable

\$100 • belkin.com

Belkin's meaty, rugged HDMI cord delivers A/V to your TV in quad-shielded, silver-plated style, but at a price that's a little too precious. We enjoyed the same audio-visual acumen from a \$20 no-brand cable. Sure, it's not as likely to survive the cat gnawing on it, but we think that's an \$80 risk worth taking.



Cables Unlimited HDMI 3 to 1 Switch With Remote

\$150 • cablesunlimited.com

What with your TiVo, Xbox 360, Blu-ray player, and other hi-def traffic, your TV's HDMI port is congested. This switchbox adds three more inputs, with a single-button remote that cycles between them. A couple of extra buttons to let us choose our inputs faster would have been nice.



DLO HomeDock Deluxe

\$150 • dlo.com

The HomeDock makes your iPod the centerpiece of your home theater, piping music and video to your TV or stereo. Hook it up, drop in your iPod, and lay back. DLO's comfy remote and intuitive menus make for easy navigation, but output looks lo-res on big TVs. Although it functions like an Apple TV, it's simply less fulfilling.



Joe Kane Digital Video Essentials HD DVD

\$35 • videoesentials.com
You could hire a high-priced professional to fine-tune your home theater for you, or you could drop this disc into your DVD or HD DVD player to calibrate everything yourself. It's like a college-level course in audio, video, and acoustics. The disc's menu interface gets a failing grade, however.



MMDesign DiscSox DVD Pro Metal Tray

\$22 • mmdesign.com
Most DVD racks are decor-killing space hogs. Not so this simple, industrial-chic tray. Measuring about a foot long, the tray fits almost anywhere and holds up to 75 discs in clear vinyl sleeves. The sleeves are pricey (\$27 for 25), but we like this compact storage solution better than others.



Monster PowerCenter HTS 1000 MKIII

\$200 • monstercable.com
Dirty power is said to degrade your home theater experience. The PowerCenter cleans up electricity's act while at the same time protecting your gear from power surges—to the tune of a \$350,000 warranty. That part's good, but our eyes and ears couldn't discern any difference after plugging in the PowerCenter.



SkipDr AutoMax

\$40 • digitalinnovations.com
The disc doctor is in da house. This battery-powered gizmo buffs the scuffs and scratches from well-worn DVDs, CDs, and game discs. Just spritz one with the cleaning solution and run it through the machine; 60 seconds later, it's as good as new. Our scratched-to-hell *Empire Strikes Back* DVD played like a fresh copy after a single whirl in the AutoMax washer.



Video Gear | ACCESSORIES

Scorecard

	Model	Price	Disc Format	HD Video Resolutions	Audio Formats	Rating	
BLU-RAY AND HD DVD PLAYERS	Samsung BD-P1200	\$600	Blu-ray	1080p, 1080i, 720p	Dolby Digital Plus, Dolby Digital, DTS	8	
	Sony BDP-S300	\$500	Blu-ray	1080p, 1080i, 720p	Dolby Digital Plus, Dolby Digital, DTS	6	
	Toshiba HD-A20	\$400	HD DVD	1080p, 1080i, 720p	Dolby TrueHD, DTS-HD, Dolby Digital Plus, Dolby Digital, DTS	6	
	LG BH100 Super Blu	\$999	Both	1080p, 1080i, 720p	Dolby TrueHD, DTS-HD, Dolby Digital Plus, Dolby Digital, DTS	5	
	Model	Price	Inputs	Outputs	HD Tuners	Capacity	Rating
DVRs	TiVo HD	\$300 plus \$17 monthly	2 CableCard, ATSC, digital antenna, cable, Ethernet, phone	HDMI, component, S-video, composite, S/PDIF, analog audio	2	160 GB / 20 hours HD, 180 hours SD	8
	Velocity Micro CineMagix Grand Theater	\$5,223	2 CableCard, ATSC digital antenna, cable, Ethernet	2 DVI, S-video, S/PDIF, analog audio, 8 USB, FireWire, E-SATA	3	2 TB / 300 hours HD, 960 hours SD	8
	Shuttle XPC X200 M	\$1,997	Cable, FM, Ethernet	DVI, analog audio, 5 USB	0	750 GB / 94 hours HD, 250 hours SD	6
	Comcast Motorola DCT3416	\$10 monthly	Cable	Cable out, HDMI, component, S-video, composite, S/PDIF, analog audio	2	80 GB / 15 hours HD, 80 hours SD	5
	Model	Price	Connection	DRM Support	Compatibility	Rating	
MEDIA STREAMERS	Vudu	\$399	Ethernet	N/A	N/A	9	
	Sonos Digital Music System Bundle 130	\$999	Ethernet, RCA, Coax, Toslink	WMA	Mac, PC	8	
	Sling Media Slingbox Pro	\$230	Ethernet, 802.11g	N/A	Mac, PC	7	
	Apple TV	\$399	Ethernet, 802.11n	iTunes	Mac, PC	6	
	Netgear Digital Entertainer EVA8000	\$349	Ethernet, 802.11g, USB	iTunes, WMA	Mac, PC	6	
	Model	Price	Screen	Setup	Software	Size (inches, H x W x D)	Rating
UNIVERSAL REMOTES	Universal Electronics NevoSL	\$1,099	Color touchscreen	PC programmable plus learning mode	PC	7.5 x 3 x 0.8	7
	Logitech Harmony 1000	\$500	Color touchscreen	PC programmable plus learning mode	Mac, PC	4.1 x 5.5 x 0.7	6
	Monster Central AVL300	\$500	Color	PC programmable plus learning mode	Mac, PC	8.1 x 2.3 x 1	6
	X10 IconRemote	\$80	Color	On-unit programmable plus learning mode	N/A	9 x 2.3 x 1	4



Zenith Space Commander Remote Control

Which came first: the TV, or complaining about what you're watching? For years, changing channels meant an arduous climb out of the La-Z-Boy, until electronics pioneer Zenith came to the rescue. The company hit on a winning wireless design in 1955 and started production a year later. The Space Command system was pure genius: Pushing a button caused a clapper to hit an aluminum rod, which emitted an ultrasonic tone. The TV interpreted the various tones as commands to switch the channel up or down, mute the sound, or turn itself on or off. The gadget was an immediate hit, despite increasing the cost of compatible Zenith sets by 30 percent, and the technology endured until the dawn of infrared in the 1980s.



1956

Portable Media

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BEST OF
test

Archos 605 WiFi 30 GB

The 605 is like all the players in these pages rolled into one. It wirelessly surfs the Web. It plays a half-dozen audio and video formats. It displays photos and PDFs. With the help of an add-on, it even records television programming. And it ties everything together in a durable, beautifully designed package. The lush 4.3-inch touchscreen reduces button clutter to a single column on the right, while a smart-looking yet unobtrusive interface puts every menu, setting, and control exactly where you want it. If the iPod convinced you that watching video makes sense on an MP3 player, the 605 should persuade you that every last byte of your digital life belongs on one, too. —SEAN COOPER





DAZZLING DISPLAY

The 605's bright, 800 x 480-pixel LCD all but eliminates the miscues and ignored commands of touchscreens past. Styluses are included, but unless you have Hulk-sized paws, you won't be needing the pointers.

WIRELESS TO GO

There's built-in Wi-Fi, and it's a breeze to browse sites, download content, and watch YouTube clips. Archos' version of Opera is optimized for the small display, loading pages quickly, and a QWERTY keyboard pops up onscreen whenever you need to type a URL.

EXTRA ORDER-Y

Certain functions are sold à la carte: The Web browser is \$30, the Internet radio plug-in \$20, and so on. Though it may feel like nickeling-and-diming, our must-have add-ons (Opera browser and widgets plug-ins for calendar and games) upped the cost by just \$50.

POCKET DVR

To record TV shows, you'll need the \$100 docking station (or \$70 travel adapter). Setup is TiVo-simple—when you tap the recording icon in the main menu, the device downloads the latest program guides. Tag shows you want, then dock the player before airtime and it captures them for your morning commute.

IMPULSE

INFOTAINMENT

Want videos on the spur of the moment? From the main menu, tap Archos Content Portal to buy flicks from CinemaNow. An hour and \$9.95 later, you're watching *Reservoir Dogs*.

\$300 • archos.com





Mega Players

Large-capacity devices that only play music are all but extinct. Now it's about bigger and better screens and showing off hi-res video. —s.c.



Apple iPod classic 80 GB

\$249 • apple.com

If the touchscreen iPod is the Prada clutch of the holiday season, the iPod classic is a Timbuk2 messenger bag. Sexed up a bit with an anodized bezel, the classic is mainly about storage—80 gigs (or 160 for another hundred bucks). Unless you've been cryogenically frozen for the past half-decade, everything else will seem familiar, with one exception: The new menus incorporate cover art, photos, and movie and TV stills, which make browsing a more pleasing and visual experience.

WIRED Rockin' sound. Superbly designed iTunes manages media seamlessly. Way more capacity for far less currency.

TIRED 2.5-inch screen still squinty for videos. Irritating delay when jumping around graphics-heavy menus. iTunes can't rip DVDs or transcode between video formats.



Archos 404 Camcorder 30 GB

\$300 • archos.com

Take away the camcorder and the 404 is an exceptional media player; add it back and ... well, same thing. Resolution is mere VGA (think phonecam), and in low light, home movies are dim and blocky. But the 404 does a stellar job *playing* video: Colors look bright on the 3.5-inch screen, and the unit supports MPEG-4, DivX/Xvid AVIs, and WMV. For \$100 less, you can get the 404 sans the camcorder, which may be the way to go.

WIRED Sublime design. Transfers photos directly from your digital camera. Supports diverse audio and video formats.

TIRED Toys "R" Us-grade camcorder. Buttons are sticky. Heavy (6.8 ounces) for its size. No FM radio; no kickstand.



Creative Zen Vision W 30 GB

\$300 • creative.com

The year-old Zen Vision W is not aging gracefully. While newer players have slimmed their third dimension considerably, the W remains almost an inch thick. And the display, though one of the few 16:9 wide-screens around, is somewhat retro with its 480 x 272 resolution and support for just 260,000 colors (Archos' 605 handles 16 million). Battery life of 10 hours for audio and 3.5 for video doesn't impress much, either.

WIRED Speaker is loud. Smart menu layout. CompactFlash slot for loading pics. Removable battery. Wall charger included.

TIRED Huge (3 x 5.3 x 0.9 inches). Slow to load, rotate, and zoom pictures. Noisy hard-drive churn when switching among files. No kickstand.



Microsoft Zune 30 GB

\$199 • zune.net

The Zune is a decent enough device. Its 3-inch screen is larger than the iPod classic's, video looks great, and the Windows-based software is obligingly simple to use. But Microsoft's historical handicap in industrial design shows in the Zune's portly profile and generic-looking controls. And how about upgrading that vaunted wireless functionality, guys? A year later and you can still get songs only from other Zune users—a rare breed, indeed: We have yet to meet a single one.

WIRED Rugged construction. Austere but attractive menus.

TIRED Bulky (4.4 x 2.4 x 0.6 inches). Audible clicks between tracks. Wireless feature limited to "borrowing" (files expire after three days or three listens).



Midsize Players

Bigger than a bumblebee but smaller than a brick, these players offer decent storage and battery life, plus distractions like games, photos, and video. —s.c.



Portable Media

Apple iPod nano 8 GB

\$199 • apple.com

Bloggers greeted photos of the nano redesign with a chorus of “ugh’s, but hold one and you’ll disagree. Apple’s done it again. The 2-inch screen isn’t as cush as what’s on some midsize players, but it’s certainly big enough to enjoy an episode of *Mad Men*. And for users whose primary need is audio, the new nano is just as slim but feels sturdier.

WIRED Still insanely thin (0.3 inch). Rich, colorful screen. Browsing tunes, pics, and movies more fun with new visual menus. Comes with three games and a world clock. Battery lasts for 26 hours’ worth of music.

TIRED Can’t rotate photos to display full-screen. Stiff click wheel can make navigation challenging. Irksome screen lag when zipping through menus. iTunes won’t transcode between video formats.



Cowon D2 4 GB

\$200 • cowonamerica.com

With its lush touchscreen, button-free face, video capabilities, and support for exotic audio formats (APE, anyone?), the D2 far exceeds what a machine of its size should be able to handle, including doing many things much better than its rivals in this category. It isn’t perfect—for instance, simple tasks require more menu navigation than with other players—but still, we have no qualms telling you to get this.

WIRED Stylus doubles as a viewing kickstand. Strong battery life (34 hours audio, eight video). SD card slot. Feels luxurious in your hand.

TIRED Touchscreen may vex the large-fingered. Photos load slowly and don’t auto-rotate to match screen orientation. Most video must be specially converted for player.



iRiver Clix Rhapsody gen 2 4 GB

\$190 • iriveramerica.com

The Clix Rhapsody’s face is serenely devoid of buttons. Instead, you cruise menu by manipulating the entire front panel of the player, rocking left, right, up, and down to tweak settings, listen to FM radio, and queue up songs. The click-face design is no gimmick: It’s as enjoyable to use as the iPod’s celebrated UI, and it frees up plenty of space for the expansive 2.2-inch screen—a lovely showcase for photos and movies.

WIRED Pocketable, 0.5-inch-thick body. Well-organized contextual menus. Supports Rhapsody To Go and Rhapsody Channels Internet radio.

TIRED Pricey. Videos must first be converted with iRiver’s software. Rocker face tends to loosen with use.



Meizu M6 miniPlayer 4 GB

\$150 • en.meizu.com

As a pure audio player, the M6 is better than most, with a powerful internal amp and bright, punchy audio. But attempts to load visual content like photos and video met with stonewalling by both player and conversion software. Synced pics finally appeared after we nuked the system software and ran a firmware upgrade, but when we fed *The Sarah Silverman Program* into the converter and clicked Start, nothing happened.

WIRED Looks gorgeous. Portable yet durable. Photos auto-rotate to fit screen. OGG and FLAC support. Solid 30-hour battery.

TIRED Testy touchpad controls. Too many unrelated options lumped under one menu. Played tunes alphabetically, ignoring Song Order menu.





Philips GoGear SA6045 4GB

\$130 • philips.com

The GoGear is essentially Meizu's mini-Player with a rounded edge, a more forgiving four-way control pad, and Philips' own user interface. But, oh, what a difference: We didn't encounter any hassles loading photos and video. Format support is vanilla—MP3 and WMA for audio and WMV for video; however, there's an Add to Playlist button, FM tuner, and voice-recorder for DJs, radio-heads, and dictators, respectively. **WIRED** Handsome 2.2-inch screen. Dedicated Menu button. Solid build quality. Useful clock screensaver. Hold button doesn't disable volume controls. **TIRED** Annoying lags when skipping through menus and screens. Acrylic bezel attracts fingerprints. Mediocre battery life: 14 hours.



Samsung YP-K3 2 GB

\$149 • samsung.com

In some ways, the YP-K3 is reminiscent of Apple's original sliver nano: It's about the same size overall but has a larger screen and an FM tuner. It's also just as beautiful, but in more of an "I have a secretary and belong to a cigar club" way. The animated menus, while interesting at first, are tedious once you've numbed to the bouncy-ball theme, and icons are slow to redraw when switching screens. **WIRED** Rich audio. Resume function useful for toggling between radio and MP3s. Auto-displays photos in their correct orientation and lets you set them as screensavers. **TIRED** Photos look a little bleached out. Proprietary USB cable difficult to disengage from player. Skimpy file support: just MP3 and WMA.



SanDisk Sansa Connect 4 GB

\$150 • sandisk.com

The Sansa Connect is unique among midsize players for one reason: Wi-Fi. Jump onto a wireless hot spot (even one requiring a username and password) and the Connect can download songs from Yahoo's music service if you subscribe, or stream Internet radio stations (Yahoo account required). But there's too much untapped potential: If you want to transfer and beam tracks wirelessly from your PC or shop for DRM-free music online, too bad. **WIRED** Superb sound. Simple interface. MicroSD card slot. Displays photos downloaded from Flickr. **TIRED** Can't connect to networks that use splash pages for login (like Starbucks stores do). Lacks video support despite beautiful 2.2-inch screen.



Sony NWZ-A815 2GB

\$140 • sonystyle.com

While it's hard to imagine Sony recapturing the zillions of ears it commanded with the original Walkman, the A815 stands a fine chance of luring a few of them back. The 2-inch screen displays JPEGs and MPEG-4 video, and audio-enhancers—Bass Boost, Normalizer, Pseudo-Surround—abound, although the standard sound is so full you'll hardly need them. **WIRED** Thin and light (1.9 ounces) without feeling cheap. 29-hour battery life. Useful contextual menus. Savable custom EQ settings. Time Machine Shuffle selects tracks from a random year. Works with Windows Media. **TIRED** Cluttered main-menu icon grid. Lacks software to resize video. Hold button on back makes one-handed activation difficult. No FM tuner.



Mini Players

Sometimes your heifer of a main player just breaks your stride. These tiny dynamos are ideal for commuting and active lifestyles. —S.C.

How We Tested Media Players

■ **USABILITY** We trucked the players with us everywhere—to work, the gym, and the grocery store—and fiddled incessantly with buttons, menus, and settings. Players that let us quickly skip around, build playlists, and queue up and switch between songs, photos, and videos earned high marks.

■ **AUDIO QUALITY** We loaded the players with music files in various formats, including regular old MP3, DRM'd AAC and WMA, and, where supported, uncompressed AIFF, WAV, and exotic FLAC and OGG. To compare sound quality, we spun everything from bossa nova to Bad Brains through a pair of high-end Jays earphones, paying attention to loudness, tone color (or lack of it), and any distortion.

■ **PHOTO AND VIDEO QUALITY** About a dozen JPEGs, along with either MPEG-4 or AVI rips of *Planet Earth* and *The Sarah Silverman Program*, were transferred to players with multimedia support. To check display quality, we set units side by side with the same photos or videos onscreen and noted variations in clarity, color, and brightness, as well as image smoothness and depth.

■ **BATTERY LIFE** We juiced players to the max, set their audio play mode to Repeat, and then ran them till they gave out. We expected small devices to run at least 12 hours, and midsize or larger players anywhere from 15 hours to several days.

Apple iPod shuffle 1 GB

\$79 • apple.com

Once the homely runt of the iPod litter, the now brilliantly hued shuffle is fast becoming as beloved as its screened siblings. The popularity is well earned: With a slim bod, integrated clip, and attractive price, the shuffle makes the perfect mate for a morning run or a crosstown bus ride. And although it's named for its randomizer function, the shuffle will also output songs in album, alphabetical, or playlist order—however you arrange things in iTunes.

■ **WIRED** Small and sexy (1.1 x 1.6 x 0.4 inches). Handy clip lets you sport it anywhere. iTunes' Autofill function can mix it up for you.

■ **TIRED** Screenlessness may always chafe for some. Mini dock, required for charging and transfers, is awkward to tote along.



Cowon iAudio 7 4 GB

\$170 • cowonamerica.com

Cowon's iAudio 6 update is all about battery life: The 7 has 50 hours of it, by our count. And like most Cowon players, it supports some rarer audio formats, including FLAC and OGG. But perhaps this pint-size player tries to do too much. Though it displays photos and 15-frames-per-second video, both seem just smudges on the stamp-sized screen. And the sensitive touch controls, combined with the wee 1.3 x 2.9 x 0.7-inch size, make for frustrating operation.

■ **WIRED** Rugged. Mega storage for a mini player. Two programmable buttons for oft-used features. Bright 1.3-inch LCD screen. Savable sound-enhancement settings. FM tuner. Line-in recording.

■ **TIRED** Unwieldy controls. Tiny submenu fonts are excruciatingly hard to read.



Creative Zen Stone 1 GB

\$40 • creative.com

This stupid-cheap shuffle clone is the most inexpensive 1-GB player we've seen. Too bad the device feels cheap in your hand and the high-gloss plastic just loves fingerprints. On the plus side, the Stone serves up pure, crisp audio. Can't cope with the no-screen thing? The pricier Zen Stone Plus (\$70) throws in another gig of storage and a tiny OLED screen, too.

■ **WIRED** Light and oh-so-petite (0.7 ounce). Comes in six colors. Attractively curvy shape. Flashing battery indicator switches from green to red when low on power.

■ **TIRED** Superslow startup. Thin plastic housing feels insubstantial. Controls are tough to operate by touch alone. Doesn't automatically pause music when headphones come unplugged.





iRiver S10 2 GB

\$170 • iriveramerica.com

The matchbook-sized S10 is the smallest player you'll find with a color screen. And it's no afterthought: iRiver freed up extra display real estate by borrowing the four-way click-face design from its larger Clix, thereby eliminating buttons from the front. Though minimalist on the outside, it's feature-packed within, offering picture viewing, audio-enhancement settings, and FM radio. But it might be too small. Banished to the player's edges, the volume, power, and toggle controls are tough to operate.

WIRED Vivid 1.2-inch color screen. Voice and FM radio recording. Audio enhancements actually sound good.

TIRED Wobbly rocker face. Doesn't display album art. Pics must be converted with iRiver software (included) before viewing. Short 7.5-hour battery life.



MPIO FL500 1 GB

\$90 • mpioamerica.com

Attempts to reinvent the wheel rarely roll smoothly. Case in point: MPIO's FL500, with its triangular shape, flywheel volume knob, and pickup-style selector switch. Controls are split between a track-advance rocker at one corner, a Menu button along the right edge, and the selector switch for toggling between MP3 playback, FM radio, and voice recording. Weeks later you'll still be puzzling over which does what. Also, sometimes the player blasted static into the gap between tracks. Ouch!

WIRED Superb sound. Screw-the-Joneses form factor. FM radio and voice recorder. Integrated clip.

TIRED Chunky 1.4 x 2.6 x 0.6-inch body. Synced tracks showed up not in our root Music folder but in one buried several menus deeper.



SanDisk Sansa Shaker 512 MB

\$30 • sandisk.com

Unless your idea of a Saturday night includes glowsticks and an oversize baby pacifier, you'll probably reserve the Shaker for your kids. As a My First MP3 Player, though, it's a solid choice, with durable construction, two headphone jacks for tandem listening, and a speaker for entertaining the whole sandbox. The player's name and shape reveal another key function: Joggle it like a maraca and the Shaker shuffles up another track. Available in pink and blue (naturally).

WIRED Ergonomic shape well suited to small hands. SD card slot. Fun jog-wheel for volume and track advance.

TIRED Randomizer didn't seem random for us, with the same artist or album getting sequential play. Runs on AAA battery for just eight hours of juice; no recharging.



Sony S2 Sports Walkman 2 GB

\$90 • sonystyle.com

Get your mind out of the gutter. Sony's S2 Sports Walkman may look like it belongs bedside, but it's actually optimized for a more chaste mode of exertion—running. Set workout targets by time, distance, or total calories to be burned. A stopwatch clocks your endurance. The player can also tie your pace to Walk and Run playlists, automatically shifting gears from Vangelis to Van Halen when you hit your stride.

WIRED Comely slim-line design. Clever interface reduces button clutter. FM tuner. Shaking player toggles shuffle feature on and off. Sports function tracks steps taken and calories burned.

TIRED Three-position shuttle switch is sticky and prone to miscues.



Toshiba Gigabeat U202 2 GB

\$100 • toshibadirect.com

After a run of increasingly impressive full-size Gigabeats, Toshiba has ash-canned them all in favor of ... this? The U202 is no bigger than a couple of thumbdrives Scotch-taped together, and it feels just as improvised. The bezel screams cheap, the dot-matrix menus are cramped and moribund, and photos look almost laugh-out-loud bad on the lo-res, 1.1-inch OLED. At least the player sounds exceptional.

WIRED Inexpensive. Rips tracks straight from CD player. FM radio and voice recording. Handy clock screensaver.

TIRED Can't listen to music and view photos at the same time. Center select button of PlusPad can be obstinate. Photos display with bars of empty space on one or more sides.





MP3 Speakers

Offering subwoofers, full-featured remotes, and even large color screens, the latest MP3 speakers are more than just megaphones for your iPod or other audio device. —s.c.



EDITORS' PICK

Harman/Kardon Go+Play

\$350 • harmankardon.com

The Go+Play is total Ear+Candy. Harman/Kardon is known for its kick-ass home theater receivers, so it's no surprise it can make an iPod roar. Sure, this unit is pricey, but the extra dough gains you more speakers—two on either side, four in all—along with extra power. The system achieves ribcage-rattling volume without the distortion or the bass or treble bloat that mar its competitors.

WIRED Huge, round, powerful bass. Amazing sonic detail. Speakers on curved panels radiate music in all directions. Spring-loaded hatch stores RF remote. Battery-powered (about 12 hours on eight D cells).

TIRED Confusing remote. Low-arching handle hinders view of docked iPod's screen and access to its controls.



Altec Lansing inMotion iMV712

\$350 • alteclansing.com

Where other speakers pay lip service to the iPod's video capabilities by sticking in a few output jacks for TV, the iMV712 has an 8.5-inch screen built right in. But even with obscene-bitrate source files, video appeared blocky on the lo-res LCD, and colors were a little washed out. Audio quality was also subpar, further flattening MP3s into midrange oblivion.

WIRED Loud. Bright screen with wide viewing angle. Composite video input for connecting a DVD player.

TIRED Microwave-sized footprint. More computer-geek than bachelor-pad chic. Displays corny Altec Lansing screensaver instead of album art. Accepts neither headphones nor batteries.



Cambridge SoundWorks PlayDock i

\$200 • cambridgesoundworks.com

This deceptively bland black-and-white panel looks like it belongs in a spare bedroom or below the medicine cabinet. Those homes are fine, as long as you realize that the PlayDock is ideally used on the go: Its reasonable size and weight (5.2 pounds), plus the scoop handle along the top, make for smooth slinging from car to picnic table. An integrated subwoofer produced impressive bass for a unit this size, but at aggressive volumes, mids and highs grew muddy and distorted.

WIRED Pack and go (runs 12 hours on eight C cells). Separate bass-control knob.

TIRED Wide Stereo button adds weird reverb effect. Mushy, tinny sound when volume is cranked.



Chestnut Hill George

\$499 • chillsound.com

Most speaker docks require you to peel your butt off the sofa to queue up a different playlist, even if there's a remote. George lets you truly DJ from a distance. The unit's removable front control module doubles as a wireless remote and includes a 2.3-inch screen that displays the contents of your iPod using a similar menu scheme. Unfortunately, sound quality was a bit underwhelming, especially for the price.

WIRED RF remote works through walls. Alarm lets you set multiple wake times and offers a snooze function. FM radio has 24 presets.

TIRED Noticeable bass and treble distortion, even at moderate volume. Expensive for what amounts to a couch potato's clock radio.



Accessories

Myriad gizmos offer to protect, charge, and extend your MP3 player. Some had us shuffling with joy; others just gave us pause. —MATHEW HONAN

Mophie Bevy

\$15 • mophie.com

Oh, beer, is there anything you can't make better? Exhibit A: This multitasking iPod shuffle case also serves as a bottle opener, key fob, and earbud wrap to keep cords tidy in your pocket or purse. The only downside: You can't charge the shuffle while it's in the case. Know what helps when the juice runs out? A beer.



Portable Media

Belkin TuneStudio

\$250 • belkin.com

This mixer records four channels of sound to a video iPod. It's got EQ knobs aplenty; 1/4-inch, XLR, and RCA inputs; and USB for streaming to and from a PC. But the lack of overdubbing forces you to record all four tracks at once—fine for capturing live gigs or mixing existing tracks but a deal killer for most studio recording.



DLO HomeDock for Zune

\$100 • dlo.com

We haven't forgotten you, Zune owners. Either of you. If all that on-the-go tune-sharing (a.k.a. squirting) has tired you out, plop down in front of the TV and stick the player in this dock to pipe music, videos, and pictures to your home entertainment system. The included remote lets you control everything via your TV screen.



GelaSkins

\$15 • gelaskins.com

Protect your iPod in high style. Featuring iconic modern designs from artists such as Ralph Steadman, Bob Dob, and Audrey Kawasaki, as well as classics from the likes of Edvard Munch and M. C. Escher, GelaSkins will turn your pedestrian pod into a clever curio. Tired of your skin? Rip it off; the adhesive leaves no residue.



Griffin Technology PowerDock for Sansa

\$40 • griffintechnology.com

SanDisk's Sansa line could give the iPod a run for its money, if only it had some of that Steve Jobs mojo. This dock charges and syncs your Sansa with Windows Media Player and looks stylish doing so. An audio output lets you blast your tunes over the stereo.



iHome iH2O

\$80 • ihomeaudio.com

This in-shower speaker lets you shake your booty while you scrub it. Dock an iPod and use the built-in controls to play, pause, skip tracks, and adjust volume (other MP3 players can be attached through the line-in jack). Water-resistant housing protects your player from the sprayer. Sound quality is good, not great.



JanSport LiveWire Granite

\$125 • jansport.com

Pack soundly. This solid 1,800-cubic-incher stowed our laptop, magazines, camera, jacket, and four cans of Guinness, and somehow the padded back made it comfy enough to wear all day. Your iPod tucks safely into a special pocket; navigate tunes and tweak volume via fabric controls on the shoulder straps.



Monster iFreePlay

\$50 • monstercable.com

Not only is the iFreePlay a set of headphones with an iPod shuffle mount built in, it's also a magical celibacy hat: If anyone sees you wearing it, you'll never get lucky again. Assuming you can get over the dork factor, the headphones actually sound fantastic.





Portable Media

In-Ear Headphones

Stock earbuds make 320-Kbps Radiohead rips sound like AM. For a C-note, you can upgrade to some phones that restore the subtlety of your favorite tunes. Fasten your tympanic membranes. —s.c.

	Model	Price	Drivers	Included Tips	Wired	Tired	Rating
\$100 AND LESS	Creative Zen Aurvana (A) creative.com	\$100	Single armature	6 silicone	Bitty earpieces. Ultrathin cord is well shielded, with no annoying microphonics. Luxe molded carrying case cradles phones when not in use. Cord cinch reduces bud yank.	Sound is flatter and more trebly than comparably priced models. Little separation between instruments on dense tunes. Despite small earpiece size, ear-tip barrels are wide and uncomfortable.	5
	Harman/Kardon EP 710 (B) harmankardon.com	\$100	Single moving coil	1 silicone, 1 foam	Warm sound with above-average detail. Solid construction, svelte design. Included case is roomy enough to store iPod or other music player.	Thin high end, with cymbals and vocals edging out meatier bass tones. Long, tube-shaped monitors jut out of ears. Cord lacks cinch and swooshes audibly when jostled.	6
	Ultimate Ears Metro.fi 2 (C) ultimateears.com	\$80	Single diaphragm	4 silicone, 1 foam	Vivid separation and fat, round bass—incredible all-around sound for such a bargain-hunter price. Attractive matte finish on monitors. Cord cinch. Sturdy carrying case.	Ear-tip barrels are large, so folks with small ear canals may be out of luck. Frequent adjustment necessary to maintain optimal sound.	8
MORE THAN \$100	Etymotic ety8 (D) etymotic.com	\$199	Single armature	4 soft plastic, 1 foam	Bluetooth connectivity lets you stow player out of sight. Solid sound, comparable to similarly priced wired earphones. Volume and Track Select buttons on right earpiece. Works with A2DP and AVRCP Bluetooth phones and audio players.	Ridiculous Lieutenant Uhura styling. Boxy slab monitors protrude awkwardly from ears. iPod adapter kit, necessary for Apple's Bluetoothless players, costs \$100 more and won't work with the shuffle.	7
	Jays q-Jays (E) jays.se	\$179	Dual micro armatures	6 silicone	Wee earpieces produce astonishingly full, balanced audio and excellent bass. Sound matches models costing twice as much. Two-piece cord can be shortened for use with lapel-clipped players, eliminating wire dangle.	A little quiet. Poorly shielded wires produce audible tapping and scuffing when they rub against clothing. Buds are too small to seat easily. Fit options limited to stiff silicone sleeves.	8
	Shure SE420 (F) shure.com	\$400	Dual armatures	4 silicone, 3 foam	Incredibly accurate sound, with almost no tonal coloration. Rich bass. Earpieces are sturdy and attractively designed. Best variety of ear-tip options. Shuffle fans note: Segmented cord ideal for lapel-clippers.	Expensive. Slight fidelity gains don't justify exorbitant markup over comparable alternatives. Best results require pushing headphones uncomfortably deep into ear canals.	7
	Ultimate Ears Super.fi 5 Pro (G) ultimateears.com	\$250	Dual armatures	4 silicone, 1 foam	Pro audio sound at a consumer price. Treble, bass, and mids are crisp, bright, and balanced. Subtle tone coloration is musical without being obtrusive. Ear hooks and cord cinch make for close, tight fit.	Chunky earpieces take some effort to seat properly and may be too large for petite passages.	8



Burning Question

Where Can I Buy DRM-Free Music?



Apple iTunes Plus

\$1.29 per track • apple.com
With just over 300,000 EMI songs and limited new releases, iTunes Plus is more like iTunes C+. Still, the interface remains the best in the business, while its high-quality audio is easy on the ears. But you'd better back up those tracks: There's no re-downloading them, and at \$1.29, these are the costliest DRM-free tunes you can buy.



eMusic

\$10 per month for 30 downloads • emusic.com

With 2.7 million tracks selling for about 33 cents each, eMusic is aces for DRM-free tunes. A greatly improved download manager offers even more reason to rock. Borked downloads are easy to recover, and the site has some of the best music writing on the Web. The trade-off? No major labels.



Rhapsody

99 cents per track, 89 cents for subscribers • rhapsody.com
MP3 files ripped at 256 Kbps? That's digital done right. Rhapsody's interface is clean and simple, and the catalog from Universal features everything from new 50 Cent to old Johnny Cash. But the label's commitment phobia might stop the music come 2008.



WAL-MART

Wal-Mart

94 cents per track • walmart.com
With both EMI and Universal on board, Wal-Mart currently has the best selection of major-label music. Sure, the browser-based store works only with Internet Explorer (Firefox is coming), editorial is less than comprehensive, and navigation is clunkier than driving a U-Haul. But it's well worth it for unfettered tunes at rock-bottom prices.



T

HIS IS HOW it's always been: If you wanted to download major-label music, you had to either put up with copyright protection or steal tunes. But 2007 marked a major attitude shift toward digital rights management. You can now find popular tracks without the special embedded code controlling how many times and on how many devices they can be played or copied.

Free-culture advocates have been clamoring for DRM-less tunes for years, as have audiophiles who want to buy music without getting locked into proprietary formats or specific media players. Indie stores like eMusic and Audio Lunchbox have been

selling unrestricted MP3s for some time, but few people held out hope that this model would trickle into the mainstream—until this year.

The instigator? None other than Steve Jobs, CEO of DRM-protected music's biggest vendor. "Convincing [labels] to license their music to Apple and others DRM-free will create a truly interoperable music marketplace," he wrote in an open letter to the recording industry in February. "Apple will embrace this wholeheartedly."

Industry watchers claimed Jobs' letter was a sly attempted end run around European regulators pushing Apple to open up iTunes' proprietary format. But it was no bluff. In May, the company started vending DRM-free tunes from EMI. For the first time, you could buy unprotected tracks by the Rolling Stones, the Beastie Boys, and David Bowie.

Then it was pile-on time. Soon after Apple's announcement, Amazon.com proclaimed that it had a DRM-free store in the works. EMI began selling unrestricted music directly from artists' Web sites using Snocap, a music-retailing tool from Napster creator Shawn Fanning. In August, Universal announced it was going to sell DRM-free tracks on Rhapsody, Amazon.com, Wal-Mart.com, and a new service called gBox. Notably missing: Apple.

But things are still tentative. Universal has yet to fully commit (it's doing a trial run that will extend through January 2008), while the other two major labels—Sony BMG and Warner Music—are watching from the sidelines. Jobs predicts half of iTunes will be DRM-free by year's end. Russ Crupnick, entertainment analyst at NPD Group, calls that prediction optimistic but notes, "Things could change quickly."

That's an understatement. With announcements coming out faster than Jay-Z remixes, everything is up in the air for consumers. Only Amazon and Wal-Mart have deals with both EMI and Universal; by press time, Amazon had yet to launch its store. The service with the biggest selection, eMusic, remains a special-interest retailer that shrugs at the Top 40 hit machine. If you're into Latin, world, or folk, various niche players are making a buck or two on the long tail. However, if you want to queue up some Simon and Garfunkel wherever and whenever, you'll have to make do with the sounds of silence. — M.H.

Apple iPod touch

\$399 • apple.com

It has Wi-Fi for browsing the Web and buying songs from the iTunes store. It has touchscreen controls. It plays videos, and on its luscious 3.5-inch widescreen display they'll look damn good. Oh, and it also has a music player. In other words, the iPod's finally become a full-on, no-boundaries, first-rate infotainment device, and if you care about such things, you likely already own a touch. While we couldn't get our mitts on one before going to press, we do have a small concern: Is 16 gigs enough to store all of our music *and* a whole season of 24?

ON THE SHELVES Now. Like you didn't already know that.

WORTH THE WAIT Is the pope Catholic (and do you think he bought a Zune)?



Portable Media

Scorecard

	Model	Price	Capacity (GB)	Size (inches, H x W x D)	Weight (ounces)	Platform	Battery Life for Audio (hours)	Audio Formats	Video	Photos	FM Tuner	Rating
MEGA PLAYERS	Archos 605 WiFi	\$300	30	3.2 x 4.8 x 0.6	6.7	Mac, PC	14	MP3, WAV, WMA	Yes	Yes	No	9
	Apple iPod classic	\$249	80	2.4 x 4.1 x 0.4	4.9	Mac, PC	34	AAC, AIFF, Apple Lossless, Audible, MP3, WAV	Yes	Yes	No	8
	Archos 404 Camcorder	\$300	30	3 x 3.1 x 0.6	6.8	Mac, PC	14	MP3, WAV, WMA	Yes	Yes	No	7
	Creative Zen Vision W	\$300	30	3 x 5.3 x 0.9	9.7	PC	10	Audible, MP3, WAV, WMA	Yes	Yes	Yes	6
	Microsoft Zune	\$199	30	4.4 x 2.4 x 0.6	5.6	PC	14	AAC, MP3, WMA	Yes	Yes	Yes	6
	Apple iPod touch	\$299 (8 GB), \$399 (16 GB)	8 or 16	4.3 x 2.4 x 0.3	4.2	Mac, PC	—	AAC, AIFF, Apple Lossless, Audible, MP3, WAV	Yes	Yes	No	—
MIDSIZE PLAYERS	Cowon D2	\$200	4	2.2 x 3.1 x 0.7	3.2	Mac, PC	34	APE, FLAC, MP3, OGG, WAV, WMA	Yes	Yes	Yes	8
	Apple iPod nano	\$199	8	2.8 x 2.1 x 0.3	1.7	Mac, PC	26	AAC, AIFF, Apple Lossless, Audible, MP3, WAV	Yes	Yes	No	8
	iRiver Clix Rhapsody gen 2	\$190	4	1.9 x 3.2 x 0.5	3	PC	15	Audible, MP3, OGG, WMA	Yes	Yes	Yes	7
	Samsung YP-K3	\$149	2	3.8 x 1.7 x 0.3	1.8	PC	18	MP3, WMA	No	Yes	Yes	7
	Sony NWZ-A815	\$140	2	3.5 x 1.8 x 0.4	1.9	PC	29	AAC, MP3, WMA	Yes	Yes	No	7
	Philips GoGear SA6045	\$130	4	2.1 x 3.7 x 0.5	2.6	PC	14	MP3, WMA	Yes	Yes	Yes	6
	SanDisk Sansa Connect	\$150	4	3.6 x 2.1 x 0.6	2.8	PC	12	MP3, WMA	No	Yes	No	6
	Meizu M6 miniPlayer	\$150	4	3.1 x 1.9 x 0.4	1.9	Mac, PC	30	FLAC, MP3, OGG, WAV, WMA	Yes	Yes	Yes	5
MINI PLAYERS	Apple iPod shuffle	\$79	1	1.1 x 1.6 x 0.4	0.6	Mac, PC	12	AAC, AIFF, Audible, MP3, WAV	No	No	No	8
	iRiver S10	\$170	2	1.7 x 1.2 x 0.4	0.6	Mac, PC	7.5	MP3, OGG, WMA	No	Yes	Yes	7
	Sony S2 Sports Walkman	\$90	2	0.6 x 3.8 x 0.6	0.9	PC	18	AAC, Atrac, Atrac-3plus, MP3, WMA	No	No	Yes	7
	Cowon iAudio 7	\$170	4	1.3 x 2.9 x 0.7	1.8	Mac, PC	50	ASF, FLAC, MP3, OGG, WAV, WMA	Yes	Yes	Yes	6
	Creative Zen Stone	\$40	1	1.4 x 2.1 x 0.5	0.7	PC	9	Audible, MP3, WMA	No	No	No	6
	SanDisk Sansa Shaker	\$30	512 MB	2.8 x 1.6 x 1.6	2.6	Mac, PC	8	MP3	No	No	No	6
	Toshiba Gigabeat U202	\$100	2	3 x 1.4 x 0.5	1.5	PC	20	MP3, WAV, WMA	No	Yes	Yes	5
	MPIO FL500	\$90	1	1.4 x 2.6 x 0.6	0.8	Mac, PC	9	MP3, WMA	No	No	Yes	4
MP3 SPEAKERS	Harman/Kardon Go+Play	\$350		9.5 x 20 x 9			3.9 (4.9 with batteries)		8 D cells		Yes	8
	Chestnut Hill George	\$499		8.6 x 14.2 x 5			15		None		Yes	7
	Altec Lansing inMotion iMV712	\$350		7.5 x 18.5 x 8.5			10.5		None		Yes	6
	Cambridge SoundWorks PlayDock i	\$200		6.5 x 13.5 x 6			5.2 (6.3 with batteries)		8 C cells		Yes	6



Home Audio

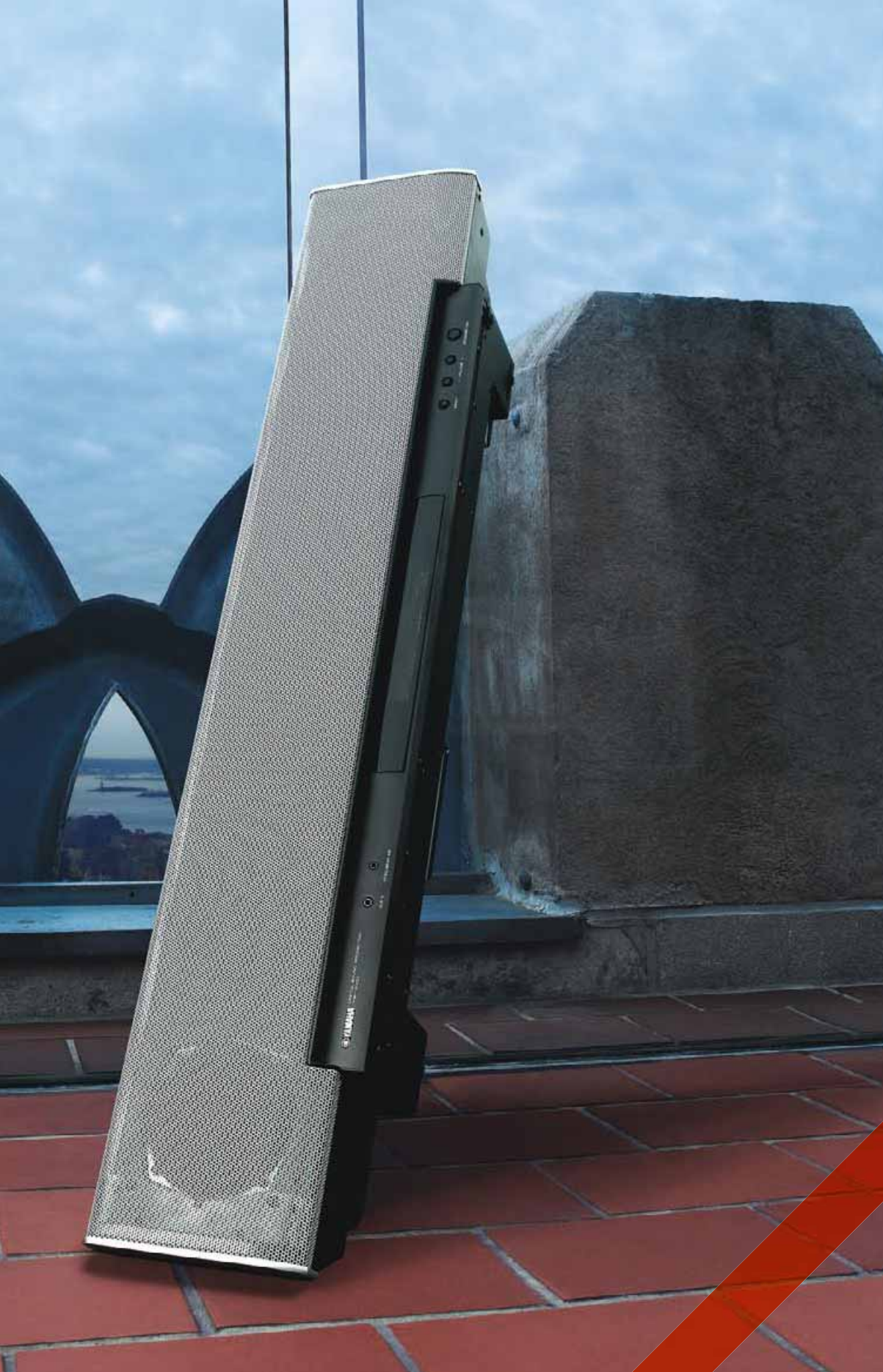
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Yamaha YSP-4000

How do you get five-speaker sound from a single cabinet? By ramming 40 small speakers and two woofers into a 41-inch bar. Yamaha has been churning out these “sound projectors” since 2005, but its new flagship model warrants extra attention. The YSP-4000 boasts better sound than any other single-speaker system we’ve heard, and it can even juice up your video. Forget component sprawl: From now on, the only thing we’ll be installing in our media room is our rear end. —JASON TANZ





SINGLE-SERVING SURROUND Nobody else has to hear your *Guitar Hero* solos ever again. The My Surround feature tailors the sound field so all the speakers hit that narrow slice of couch where you reside.

TAKING IT UPSCALE This puppy's got video teeth, too—fully grown. Plug up to six sources into the back and the YSP-4000 will pipe them all to your TV—upconverted to 1080i if needed—through a single HDMI cable.

A THOUSAND POINTS OF SOUND There's nothing virtual about this surround sound. The YSP-4000 bounces sound waves off the walls so each channel hits your ears at just the right angle.

TARGET ACQUIRED Calibrating this thing is almost as much fun as listening to it: Place the included microphone where you'll be spending the most hours parked and dig the crazy sonar ditty that optimizes your spot for audio fidelity.

\$1,700 • yamaha.com



Virtual Surround Systems

Some people love stringing speaker wire. For the rest of us, these simple setups provide solid approximations of 5.1-channel surround sound. —J.T.

Cambridge SoundWorks SurroundWorks 200

\$1,000 • cambridgesoundworks.com

The SurroundWorks 200 is the Scrappy-Doo of virtual-surround speakers: tiny, but with an aggressive, punchy output. Everything seems big coming out of this mighty mite, be it concert footage or fireballs. Dialog and vocals may lack a touch of crispness, but for sheer sound-and-fury, it's hard to beat this little workhorse.

WIRED Simple setup. Precise imaging had us looking for hidden speakers in our rear walls. Small enough to put anywhere.

TIRED Very few features. Ugly starfish design—but, hey, it's small.



Home Audio



Philips HTS8100 SoundBar

\$800 • philips.com

Philips gets a lot of things right, particularly when it comes to design. This slick system includes a front-loading DVD player, which makes the HTS8100 particularly pain-free to set up. And the surround effects gave convincing dimension to films. But overall, the sound felt hollow: boomy bass, tinny treble, and not much in between. We knew it was a bad sign when the Beastie Boys' "Sure Shot" video didn't compel us to jump off the couch.

WIRED 10 minutes from box to bass-thumpin' beats. Good surround imaging for the price.

TIRED Weak midrange results in chilly, echoey sound, especially in dialog.



Polk Audio SurroundBar 50

\$1,100 • polkaudio.com

On the Beatles' *Yellow Submarine*, there's a moment in "Hey Bulldog" when John interjects a quick "yep." With the best systems, that word just floats in the middle of the room. That didn't happen with the SurroundBar 50, but we couldn't find much else to complain about. This sleek speaker produced warm, crisp audio. Polk's SDA technology spread the sound across our TV wall, but the surround imaging wasn't as convincing.

WIRED Much better midrange than most of the other systems we tested.

TIRED Cable-wire hookups are a pain and require separate surround-sound amplifier.



Sharp SD-SP10

\$349 • sharpusa.com

OK, so the dialog's tinny and the midrange is lacking. It ain't the loveliest piece of hardware in the world, and its imaging leaves a lot to be desired. But at this price, who cares? For little more than the cost of a high-end boom box, you get a full-featured—if decidedly compromised—take on virtual surround. You won't be swept away, but if you *really* want to be surrounded by sound, buy two of 'em.

WIRED Dolby's Audistry sound processing allows for customized audio, from boosted bass to amplified dialog. Subwoofer volume control (why doesn't every remote have one of these?).

TIRED Can't compete with systems costing three times as much. Unimpressive imaging.





A/V Receivers

Still piping your hi-def through a last-gen receiver? You just made Ray Dolby cry. These systems pump sound to seven speakers and a sub while sending glorious video to your TV. —MATHEW HONAN



EDITORS' PICK

Denon AVR-4308CI

\$2,499 • usa.denon.com

Want to stream over Wi-Fi? Done. XM-ready? Table stakes. Two HDMI outputs for multiple hi-def screens? iPod integration? USB ports? XM-HD? Lossless HD DVD and Blu-ray playback? HD radio? Ethernet? Bam! You got 'em all. And this receiver is smart, too. It auto-calibrates your room from up to eight different positions to optimize speaker location, giving you great surround effects as well as vivid dialog that doesn't miss a whisper. The picture is fluid and crisp, without a hint of digital artifacts.

WIRED More menu options than a Burger King drive-through. Four audio and two video zones. Comes with two slick multifunction remotes in case you lose one.

TIRED Complicated setup; night class at DeVry required to understand manual. Not Sirius-ready. No iTunes support in the iPod age? Tsk, tsk.



Onkyo TX-NR905

\$2,099 • onkyousa.com

We nearly got a hernia lugging this 54-pound doorstop upstairs. But once inside, it was well worth the truss belt; the TX-NR905 is all muscle, no flab. This system does more than handle next-gen movie players—it's also designed to bridge the gap to PC and Internet media via Ethernet. The picture is gorgeous. And the sound? Well, with 140 watts per channel and THX Ultra2 certification, your neighbors will hate you—not that you'll hear their bitching over your block-leveling stereo.

WIRED Plays tunes and video from PC or Xbox 360. Upconverts video to 1080p. Four HDMI inputs. HD radio. Supports multiple zones.

TIRED Massive at 7.6 x 17.1 x 18.1 inches. Ghostly remote has more tiny buttons than the Tailor of Gloucester. Onscreen navigation menus would have been nice.



Pioneer Elite VSX-91TXH

\$1,000 • pioneerelectronics.com

Pioneer maxed out the features-to-dollars ratio on this receiver with an alphabet soup of digital yumminess: Neural-THX will crank your XM or HD radio in surround glory, Dolby True HD lets you play back next-gen discs without losing quality, and WMA9 Pro support lets you blast audio from your computer in surround sound. Calibration is a breeze: Use the included mic to sync your surround speakers from the exact point in the room where you plan on sliding into a Häagen-Dazs coma. Did we mention that pass-throughs and other surround effects are top-shelf? Word.

WIRED Dialog enhancement boosts center channel during movies. LCD display on remote. Both XM and Sirius support for hardcore satellite junkies.

TIRED Some pixelation visible on DVD playback. Only two HDMI inputs.



Yamaha RX-V861

\$1,000 • yamaha.com

Yamaha has been in the music business since 1887, but this digital receiver is the essence of modern. It will upscale your video to 1080i or 720p, while a compressed music enhancer is said to make your MP3s and WMA files sound richer (though we couldn't tell much of a difference). We especially dug the Silent Cinema mode, which turns your headphones into a private surround-sound theater. Calibrating this sucker was a snap, taking all of about three minutes to complete.

WIRED Two audio zones. Virtual Cinema mode pulls good facsimile of surround sound on two speaker setups. XM-ready. Optional iPod dock.

TIRED No Dolby True HD, which means that Blu-ray or HD DVD player you shelled out for won't live up to its full potential. Only 105 watts per channel.



Wireless 5.1 Systems

OK, *almost* wireless. Nobody's making fully wireless systems. The best you can get are rear speakers that don't require a mess of cords stapled to your baseboards—which is still a big improvement. —CHARLIE WHITE



Home Audio

EDITORS' PICK

Kef KHT5005.2W.J

\$2,600 • kef.com

These awesome speakers pop with uncanny spatial imaging and crystalline highs, and the flying-saucer-shaped subwoofer (not shown) sounds otherworldly, kicking tight bass without booming. Kef's wireless surround receivers attach smartly to the bottom of the rear speakers and are synced with the base simply by pushing a button. (Speakers can also be purchased without the wireless kit for \$2,000.)

WIRED Gorgeous, high-quality drivers deliver astonishing sound, even at low volume. Wireless surround quality on par with any wired speakers. No cord needed between the two rear surrounds.

TIRED Slightly hollow-sounding midrange.



Creative Gigaworks ProGamer G550W

\$400 • creative.com

The most versatile speakers of the bunch, these THX-certified babies are equally proficient with a PC or in the living room. Connect them to the output jacks of your receiver's preamp for a home theater experience, or plug them into a surround PC card for immersive shoot-'em-ups. The subwoofer has surprising power, and the wireless surround system connects quickly and accurately.

WIRED Remote lets you control levels of front, center, and surround speakers independently. Lots of power. Easy wireless surround setup and high-quality wireless link.

TIRED Though fine for gaming, metallic audio made music and movies sound artificial. Boring, boxy design. Three wires required to achieve "wireless" surround. No digital audio inputs.



Panasonic SC-PT1050 DVD Home Theater System

\$599 • panasonic.com

Boasting the only wireless subwoofer in this category, Panasonic's five-disc system removes one more cable from the equation. Setting it all up took some deft button pushing, but the 2.4-GHz RF transmitter connected immediately and without interference, sounding as snappy as the hard-wired speakers up front.

WIRED Midrange and highs are respectable at low and moderate volume. Swank setup: Microphone (included) measures sound levels and adjusts each speaker accordingly.

TIRED Cheap-looking DVD player/control unit betrays flimsy overall construction. Flabby subwoofer performance. Upping the volume quickly exposes other flaws—were those drums or garbage-can lids?



Samsung HT-TX75 5 Disc Home Theater Surround Sound System

\$480 • samsung.com

This 1,200-watt 5.1 theater-in-a-box rocks the house for an entry-level price, but the anvil-like subwoofer produces clumsy bass sound. Plug in the tiny surround-sound transmitter module and the wireless receiver—complete with onboard 340-watt amp—flawlessly picks up the signal and feeds it to the two surround speakers.

WIRED Wireless components set up effortlessly. Speakers look great from a distance. Clean highs and punchy midrange provide plenty of realistic sound for relatively little moola.

TIRED Floor-standing tallboy speakers are built with thin, chintzy plastic. So-called wireless surround receiver unit has three wires, one leading to each speaker, plus an AC connection.





Home Audio

Surround-Sound Headphones

A sleeping spouse needn't come between you and blockbuster sound. For late-night movies, these wireless headsets will turn any room into a megaplex for one. —J.T.

LTB Q-Home-FX

\$260 • ltaudio.com

These cans come billed as "true 5.1 spatial surround sound." No kidding. Each channel has its own separate speaker. The result: You always know where the bullets came from and where they're headed. The subwoofers provided convincing bass, but dialog and music were muddy. Dropouts were a huge problem with our test model, although LTB tells us it's fixed.

WIRED Supports optical, co-ax, or two-channel stereo inputs. Deep tone.

TIRED The lightest phones we tested, but awkward weight distribution makes them feel heavy. Slight head movements interrupt the signal.



EDITORS' PICK

Pioneer SE-DIR800C

\$399 • pioneerelectronics.com

You don't need a pair of surround headphones to watch *Steel Magnolias*; they're built for films that go boom. And the DIR800Cs are the demolition experts of the wireless headphone army, delivering clear explosions with no audible distortion and more volume than we could handle.

WIRED Audio quality rivals corded headphones. Dolby Headphone processing provides convincing surround imaging. Comfortable for hours.

TIRED Pricey. IR transmission means the sound cuts out when you run to the kitchen for a beer. Battery must be removed for charging.



Sennheiser RS130

\$170 • sennheiserusa.com

Surround sound is an adjective, not a standard, which means manufacturers can interpret it as they see fit. To Sennheiser, it means no Dolby or DTS compatibility and no digital input. That doesn't matter much in noisy action scenes, but quiet, dialog-heavy passages get lost amid the hiss.

WIRED SRS "surround" codec opens up the sound convincingly, making these a solid, relatively low-cost alternative to standard phones.

TIRED Noisy. Even with the SRS option activated, the RS130s failed to provide much surround imaging.



Sony MDR-DS6000

\$300 • sonystyle.com

The DS6000s are masters of disguise—four tiny speakers that sound like a dozen. Credit Sony's signal processing, which the company has been working on since 1994. Watch *12 Monkeys* and you'll swear you're in a post-apocalyptic wasteland. (We mean that in the best possible way.)

WIRED Clear sound, minimal background noise. Lightweight and super-comfy. Swanky automatic-on function activates when you don headset.

TIRED Some distortion at high volumes. Awkward charging station requires practice to get the contacts to engage. Not cheap.





Scorecard

	Model	Price	Power Output	High-End Inputs	Satellite Audio Ready	Streams Media From PC	Auto Calibration	Dimensions (inches, H x W x D)	Weight (pounds)	Rating
A/V RECEIVERS	Denon AVR-4308CI	\$2,499	7 x 140 watts	4 HDMI (plus 2 HDMI out), 3 component, 7 S-video, 4 optical, 3 coaxial	Yes	Yes	Yes	7.7 x 17.1 x 17.9	42	8
	Onkyo TX-NR905	\$2,099	7 x 140 watts	4 HDMI (plus 2 HDMI out), 3 component, 6 S-video, 3 optical, 3 coaxial	Yes	Yes	Yes	7.6 x 17.1 x 18.1	54	7
	Pioneer Elite VSX-91TXH	\$1,000	7 x 110 watts	2 HDMI (plus 1 HDMI out), 3 component, 5 S-video, 6 optical	Yes	No	Yes	6.8 x 16.6 x 18.3	34	7
	Yamaha RX-V861	\$1,000	7 x 105 watts	2 HDMI (plus 1 HDMI out), 3 component, 5 S-video, 4 optical, 2 coaxial	Yes	No	Yes	6.8 x 17.1 x 16.6	29	6

	Model	Price	Weight (ounces)	Wireless Protocol	Range (feet)	Battery Life (hours)	Rechargeable	Number of Speakers	Surround Code	Rating
SURROUND-SOUND HEADPHONES	Pioneer SE-DIR800C	\$399	8.8	IR	26	16	Yes	2	DTS, Dolby Digital, Pro Logic	8
	Sony MDR-DS6000	\$300	12.7	2.4-GHz RF	98	7	Yes	4	DTS, Dolby Digital, Pro Logic	7
	Sennheiser RS130	\$170	9.7	900-MHz RF	328	22	Yes	2	SRS	5
	LTB Q-Home-FX	\$260	7.5	2.4-GHz RF	98	6	Yes	6	Dolby Digital, Pro Logic	4

	Model	Price	Power Output	Inputs	Outputs	Subwoofer	Dimensions (inches, H x W x D)	Weight (pounds)	Rating
VIRTUAL SURROUND SYSTEMS	Yamaha YSP-4000	\$1,700	120 watts	2 HDMI, 2 component, 2 optical, 2 coaxial, 2 analog audio, 3 composite	HDMI, component, composite	No	7.8 x 40.6 x 5.7	35.3	9
	Cambridge SoundWorks SurroundWorks 200	\$1,000	225 watts	component, 3 S-video, optical, coaxial, 3 composite	component, S-video, optical, 2 composite	Yes	Receiver: 2.6 x 17.3 x 13.5 Speaker: 4.4 x 14.8 x 6.9 Subwoofer: 11.1 x 10 x 12.3	45	8
	Polk Audio SurroundBar 50	\$1,100	—	None	None	No	4.4 x 51 x 5.1	16	7
	Philips HTS8100 SoundBar	\$800	N/A	HDMI, component, coaxial, analog audio, composite	HDMI, component, composite	Yes	Receiver: 5.7 x 36.8 x 5.3 Subwoofer: 17.6 x 11.6 x 11.6	38.6	6
	Sharp SD-SP10	\$349	140 watts	2 optical, coaxial, 3 analog audio	None	Yes	Receiver: 17 x 10.75 x 4.1 Subwoofer: 4.5 x 17.1 x 16.5	23.6	6

	Model	Price	Power Output	Speaker Configuration	Wireless Range (feet)	HDMI	Rating
WIRELESS 5.1 SYSTEMS	Kef KHT5005.2W.J	\$2,600	5 x 100 watts 1 x 250 watts	5 satellites (2 tower stands), 1 subwoofer	82	No	8
	Samsung HT-TX75	\$480	6 x 170 watts 1 x 180 watts	4 towers (tallboy), 1 center-channel, 1 subwoofer	108	Yes	7
	Creative Gigaworks ProGamer G550W	\$400	5 x 36 watts 1 x 130 watts	4 satellites (2 front bookshelf, 2 bookshelf surrounds), 1 center-channel, 1 subwoofer	8	No	6
	Panasonic SC-PT1050	\$599	4 x 250 watts 2 x 100 watts	2 surround speakers, 1 subwoofer	26	Yes	5

How We Tested Home Audio

■ VIRTUAL SURROUND SYSTEMS

No laboratory listening room, no special audio padding or sterile fields. We tested in real-world conditions—one small apartment and a big pile of discs. Note to neighbors: Sorry about the noise.

■ A/V RECEIVERS

Using identical speaker placement and a decibel meter to match volumes, we checked surround effects and pass-throughs in scenes from *Lord of the Rings*; for dialog, we dove into *The Life Aquatic*.

■ WIRELESS 5.1 SYSTEMS

We played a variety of CDs and DVDs (hi-def and standard) to evaluate each system on ease of setup, quality of surround transmission, appearance, and sound quality in high, low, and midrange frequencies.



Regency TR-1 Transistor Radio

With its “genuine superheterodyne circuit” and “standard 22½-volt battery,” the Regency TR-1 not only launched portable audio, it also brought us gobbledygook technospeak. The Regency was the first transistor product for the mainstream. A relatively simple 12-ounce AM radio, it marked the turning point from analog to digital and the start of a half-century of breakneck innovation in consumer electronics. It’s quite possible the Regency also pioneered the idea of high tech as fashion accessory: Originally available in four colors, it soon expanded to 11 options, including jade green and pink.



1954

Household

- 118 CORDLESS HAND VACS
- 119 ELECTRIC SHAVERS
- 120 COFFEEMAKERS
- 121 SHOWERHEADS
- 122 FOOD PROCESSORS
- 123 STROLLERS
- 124 CORKSCREWS
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- 126 GADGET HALL OF FAME

Samsung WF337AAR

Yes, the Korean giant also makes washing machines. And if you're still chucking your dirty towels into a top-loader, with its fabric-chewing agitator and insatiable thirst for water, you'll be shocked at what this front-loading Samsung can do. It uses a third of the water guzzled by top-loaders, requires less detergent, and runs whisper quiet. Other front-loaders simply can't match this baby's bells and whistles—from a system that sanitizes your clothes with silver ions to a vibration-reduction technology that adjusts for unbalanced loads. Who'd have thought a washing machine could scratch your gadget itch so satisfyingly? —MARK MCCLUSKY





SILVER LINING

Hey, Howard Hughes! Did you know that silver ions are an excellent disinfectant? Samsung claims its SilverCare system kills 99.9 percent of bacteria, sanitizing your wash without bleach—even in cold water.

UNLIKE A ROLLING

STONE One pair of balled-up jeans can turn a washer's final spin into a rattling disaster. Samsung compensates for uneven weight distribution, balancing the rotation to keep things smooth and quiet all the way up to 1,300 rpm.

SQUEAKY CLEAN

If you add too much detergent, no worries. This machine can detect excessive suds and increase the rinse cycle to ensure that soap goes down the drain instead of staying in your undies.

BIG MOUTH Thanks to 3.8 cubic feet of capacity, we could easily keep up with a toddler's penchant for making mudpies, cramming a week's worth of laundry into a single load.

\$1,399 • samsung.com



Cordless Hand Vacs

Dust off those promises you made about cleaning up your act. Sucking it up has never been easier. —JEN TROLIO



Black & Decker 18V Pivot

\$60 • blackanddecker.com

The Pivot's unique nozzle and extendable crevice tool make it ideal for cleaning hard-to-reach crap-collectors like windowsill grooves and the deep, dark canyons on either side of the center console in your car. Maximize battery life or turn up the juice for super suction via two motor speeds. A wall-mountable charging dock stores the attachments. The vacuum also features a see-through, easy-to-empty canister similar to the Dyson's—but the Pivot boasts a more ergonomic design and a sweeter price tag.

WIRED Folds in half for extremely compact storage.

TIRED Small nozzle opening makes it difficult for the Pivot to swallow large debris, like those peanut M&Ms under the car seat.



Dirt Devil Kurv

\$50 • dirtdevil.com

Created by trendy designer Karim Rashid and available only in fancy hues like Choco-latte and Harvest Wheat, this distant cousin of the lava lamp capably handles one task with aplomb: sitting pretty until called to action for quick crumb pickups and small dry-goods spills. But the Kurv's low-voltage motor and lack of attachments were no match for a sofa upholstered in pet hair or for any serious scuzz, such as wet coffee grounds.

WIRED The most fashion-forward model out there. Relatively quiet.

TIRED Cumbersome and messy to empty. Filter clogs easily. Form radiates sleekness on shelf, but feels like vacuuming with a bowling pin.



Dyson Root 6

\$150 • dyson.com

The flamethrower-style Root 6 looks like it came straight from a *Ghostbusters* prop closet, complete with a trigger for a switch and enough power to melt the Marshmallow Man. The transparent canister makes it obvious when it needs emptying, which can be done with one hand and no mess. But as a whole, the unit felt unwieldy and difficult to maneuver. Plus, turn it the wrong way and the air vent may blow an unpleasant gust right in your face.

WIRED Wall-mountable. Nifty, versatile combo brush.

TIRED Vacuuming requires depressing the trigger continuously—a drag. Battery drains quickly (it lasted about two-thirds as long as the other models in our test). No attachment storage built in.



EuroPro Shark 18V

\$50 • sharkcompany.com

For pet owners, the Shark is man's second-best friend. This hammerhead-shaped beast snarfed up animal hair and dirt better than any of the other models we tested, thanks to a detachable motorized brush that works just like a traditional upright vacuum's. Though its conventional design lacks the clear canister of both the Dyson Root 6 and the Black & Decker Pivot, the Shark's ample power and low price offer the most suck for the buck.

WIRED Comfortable, ergonomic handle. Weight is evenly distributed: Farewell, forearm fatigue.

TIRED No wall-mountable dock or attachment storage.



Household

Electric Shavers

The typical guy spends a full day every year removing facial hair. Want to save time? You could go Grizzly Adams—and attract more bears than babes—or invest in an electric. —CHRISTOPHER NULL



Braun Pulsonic 9595

\$269 • braun.com

A bruiser at nearly half a pound, the Pulsonic justifies its size and weight with the smoothest electric shave we've had. The key seems to be the combination of a pulsing head (10,000 vibrations per minute) and the shaver's Power-Comb system, a row of teeth between the two foils that lift up stubborn hairs and position them for cutting. The base station cleans the shaver with alcohol and charges it. **WIRED** Hands down, the best electric we've tried. Multiple levels of pivot help the shaver hug the face. Vibration system is comfortable, almost massage-like: Shaving actually feels good.

TIRED Base station has huge footprint. Trimmer sticks out at odd angle. Cleaning system is loud.



Gillette Fusion Power Phantom

\$12 • gillettefusion.com

The razor world knows no limits when it comes to gimmickry—witness the absurd one-upmanship waged over the number of blades on a disposable, the butt of endless parodies. The Phantom has an eye-rolling five blades, plus a slot for an AAA battery that causes the whole thing to vibrate with “micro-pulses” that supposedly reduce friction and increase glide. But not only was the vibration technology disconcerting, we actually got a better shave—quite good, in fact—when we shut it off. **WIRED** Single blade on back works well for tight spots. Shower-safe.

TIRED Head seems oversized. At up to \$14 for a four-pack, blades are pricey. No reason to pay extra for battery power.



Philips Norelco arcitec 1090X

\$250 • philips.com

Rotary shavers advance again with the arcitec, a svelte and lightweight tool that's as good as rotaries get. The breakthrough: heads mounted on a wildly swiveling pivot, which follows the face closer than any other model we've seen. Too bad a smooth shave requires a fair amount of do-over work. The arcitec took twice as long as the Pulsonic, with poorer results.

WIRED Lithe; glides easily over skin. Includes two charging options: a hard travel case and an upright stand. LED indicates charge time remaining.

TIRED So lightweight it's difficult to control with precision, especially on narrow regions like upper lip. Still missed hairs after lengthy shaves.



Remington CleanXchange

\$60 • remington-products.com

On paper, the CleanXchange looks perfect. A 60-minute charge gives you 20 shaves, the device can be used on battery power or while plugged in, and five minutes of AC gives you plenty of time to finish your face. But when razor meets beard, it just doesn't cut it: The Remington was consistently and by far the worst shaver we tested.

WIRED Compact and only 6.3 ounces. **TIRED** Un-ergonomic. Terrible at cutting longer hairs. Disposable heads mean no cleaning but are wasteful and, at \$6 each, not cheap. So loud it's actually painful to eardrums when working on sideburns. Trimmer attachment failed on each of two test units.



Coffeemakers

Surprise: The rise of the latte has not halted the evolution of the electric drip coffeemaker. In fact, the new generation might just lure you back from that frothy-drink addiction. —MELISSA WAGENBERG LASHER



EDITORS' PICK

Hamilton Beach Ensemble 12-Cup

\$55 • hamiltonbeach.com

The humble price and glossy design made us think this machine would be nothing but counter candy. Boy, did it show us up. Sipping its rich, smooth brew, we felt like we'd scored a smokin' date who also turned out to be smart and low-maintenance—in other words, relationship material.

WIRED Compatible with optional water filter (\$10). In addition to black, comes in a snazzy shade of red.

TIRED Narrow tank opening hard to fill without spilling.



Bodum Santos Electric

\$100 • bodumusa.com

No, it's not a chemistry set. It's an electric vacuum coffeemaker: Water in the carafe is heated to just below boiling, which forces it through a funnel into the top globe, where it mixes with the coffee. The result is a deliciously thick and fragrant brew.

WIRED Produced the hottest joe in our test. Mesmerizing drip process looks like a coffee storm in a giant snow globe.

TIRED Too demanding: a puzzle to assemble and a pain to clean.



Capresso CoffeeTeam Therm

\$300 • capresso.com

Coffee connoisseurs who also value their shut-eye will love the idiotproof timer on this grind-and-brew unit. The conical burr grinder whirs beans into the filter; once filled, it automatically swings over to the carafe and starts dripping.

WIRED The consistent grind and high brewing temperature yield silky-smooth coffee with no hint of bitterness.

TIRED Even on Strong setting, coffee comes out too weak. Setup is far from plug-and-play.



Mr. Coffee 12-Cup Switch

\$25 • mrcoffee.com

This back-to-basics model will satisfy no-frills folks who view coffee as merely a caffeine injection. But the flavor will disappoint those accustomed to full-bodied coffeehouse brew. Of course, it comes down to expectations: For the cost of a week's worth of Peet's mochas, this dependable machine will stop you from draining your savings.

WIRED Tastes like good diner coffee.

TIRED Diner coffee is so 1980. Water tank leaks onto hot plate.





Showerheads

It's time to swap out rusty Old Faithful. Trust us, upgrading your sprayer is a simple DIY job that'll leave you misty-eyed with pleasure. —MARK KIRBY

Hansgrohe Raindance S 150 Air 3-Jet

\$144 • hansgrohe-usa.com

For the past several years, "rain" (or "downpour") showerheads—the wide-face type typical of a Hawaiian resort—have been the hottest thing on the market. But it was the German company Hansgrohe that had the temerity to ask, What's more refreshing than showering under a gentle rain? The answer: Drenching yourself in a waterfall. The Raindance Air uses a patented air-injection system to replicate the kind of aeration water undergoes when tumbling over a cliff. And with 80 individual jets spitting a dense spray of airy bubbles, you'll almost believe you're in the jungle—instead of late for work.

WIRED Sleek, award-winning design. A cinch to install. Lifetime guarantee.

TIRED Rotating function lever is small and hard to adjust.



Moen Inspire 7-setting

\$50 • moen.com

Moen's new Inspire 7-setting is a showerhead for the fickle—or for control freaks. Maybe you prefer an invigorating massage on weekday mornings, a relaxing mist post-work, and a targeted stream after jogging? With nearly 100 jets, this head lets you have your spray your way and always rains down an enveloping, high-pressure stream.

WIRED Fancy pattern of jets provides excellent body coverage and a consistent, high-quality shower. Easy-to-adjust modes.

TIRED Seven features is overkill—who really wants to toggle through that many options at 6 am? More manageable three-function model costs half the price. Also, plastic parts make the Inspire seem less durable than other brands.



Oxygenics Elite SkinCare

\$55 • oxygenics.com

Oxygenics' patented single-jet design injects air into the spray as it flows out your wall. That cuts water consumption—in a home with average pressure, the Elite SkinCare could typically save you as much as 4 gallons per shower—and creates a pleasantly varied stream, as some air-engorged droplets are bigger and others get condensed into a refreshing fine mist. The vain might buy this head for its supposedly beneficial "oxygenating" properties ... whatever. It's a solid choice for conservationists.

WIRED Low gallon-per-minute rate saves both water and energy (less H₂O to heat).

TIRED Sounds like a wind tunnel, and feels a bit like one, too. Decreased water volume is noticeable. Tiny lever makes it difficult to adjust strength of flow.



Speakman Anystream S-2252

\$68 • speakmancompany.com

You've used it at the Hilton and that place in Vegas. The Anystream is one of the most popular hotel showerheads in the US for good reason: Its solid-brass construction and few moving parts make it nearly indestructible, and it has a Full-Body setting with 48 separate ministreams wrapping you in a sheet of high-pressure spray. With the basics this well covered, who needs frills?

WIRED Classic, elegant design. Excellent pressure and coverage on Full-Body setting, regardless of your water pressure. Stream-adjusting lever is large and conveniently placed.

TIRED Full-Flood setting feels like a trickle if you have low pressure. Circular housing around threads means you'll need a wrench with teeth to install.



Food Processors

Like your very own prep cook, these machines chop, slice, and mix in seconds flat. —M.W.L.

EDITORS' PICK



Cuisinart Prep 11 Plus

\$199 • cuisinart.com

Updating a classic risks alienating the fan base—think New Coke—but this redesign rocks. Practical new features include multiple speeds, a wider feed tube, and a Dough Control setting that turns out flaky tart shells (we swear). The smooth touchpad makes cleanup as easy as wiping a sponge; it took a toothbrush—and occasionally a toothpick—to excavate crumbs and batter drips from the old push-lever switches.

WIRED Cost isn't jacked up by unneeded accessories. Comes with the basics; extras like thin-slicer and julienne discs are available online.

TIRED Lid and feed tube can be stubborn about sliding into place or releasing.



Black & Decker Textured Series

\$60 • blackanddeckerappliances.com

Lightweight and compact, this economical processor slices and shreds competently. It disappointed on its puree, however, producing an unpleasantly chunky asparagus soup. Construction doesn't seem sturdy enough for frequent use, and the small work bowl means that cooking for a large crowd entails processing in batches—or putting guests to work.

WIRED Easy to store, even in urban micro-kitchens. So cheap you can splurge on some morels for that mushroom soup.

TIRED Motor is annoyingly poky—and noisy enough to wake the neighbors.



KitchenAid Ultra Wide Mouth

\$270 • kitchenaid.com

Good design makes this the Tiger Woods of food processors, effortlessly able to slice, grate, and puree. Lids slide smoothly on and off roomy work bowls that render filling and pouring a neat affair. Too bad a safety feature complicates your workflow: The feed-tube plunger has to be halfway down for the blade to start, meaning bulky foods like potatoes must be cut in two.

WIRED Speedy. Includes three different-size containers and six blades; mini sets excel at sauces and small jobs like grinding nuts.

TIRED When making dough, flour poofs messily out of bowl-lid seam.



Viking Professional Food Processor

\$350 • vikingrange.com

This smart-looking appliance handles most chores with finesse—serving up an ultra-smooth asparagus soup, for example. But the shredder blade clogged after a single round with zucchini, and while the Viking mixed dough quickly, our tart crust turned out tough. Still, it's so cute we might be able to forgive its flaws—say, if we had the matching red range.

WIRED Quiet. Equipped with handy extras like julienne and fry blades.

TIRED To fit in narrow feed tube, spuds must be cut lengthwise, wasting time. Plastic bowls seem flimsy given price.



Household



Strollers

You roll in style—why shouldn't your Mini-Me? Today's buggies are smart in both senses. —DIMITY MCDOWELL

Bugaboo Bee

\$529 • bugaboo.com

The Bugaboo Frog may have conquered Celebrityville, but civilians claimed it was heavy and hard to collapse. The latest model, the Bee, is worth its buzz, adding quick, compact fold-up to its features. The spring-suspended, foam-filled tires make cobblestones feel like rolling on just-poured pavement. Little passengers get a personalized fit: The seat can lie flat for newborns or tired 2-year-olds, and its bottom pulls out to support growing legs. You choose whether Jr. faces forward or backward. Handle can be lengthened, and while the gear basket isn't super-accessible, the capacious sunshade provides protection from both UVA rays and paparazzi.

WIRED Color-coded buttons are perfect for sleep-deprived parents: White indicates adjustable parts; red tells you something's not yet snapped into place.

TIRED Springs or no, small wheels work best on pavement: Outdoorsy parents will also need an off-road vehicle, making Bee an even costlier purchase.



Household



Mia Moda Cielo

\$150 • miamodainc.com

This minimalist, travel-ready stroller boasts a one-handed, five-second fold: You can hold hot coffee in one hand and with the other transform the rig into a cube smaller than many carry-on suitcases. The sunshade is adequate and clicks down crisply; a removable mesh pouch is conveniently located on the back, instead of underneath; and the ride, while not as shock-absorbing as that of models costing hundreds more, is far from teeth-chattering. In fact, the only place you truly feel the affordable price is in the chintzy plastic handle.

WIRED Comes with a carrying bag perfect for plane travel or just toting it around town in style.

TIRED The handle doesn't adjust, so tall parents have to hunch over.



Muttsy Urban Rider Next

\$759 • muttsy.com

Featuring a hard-cased bassinet for infants, an ultraplush seat for toddlers, and a leather-covered, adjustable handle, this is the Escalade of strollers. At more than 2 feet wide, it's a big rig that takes over the sidewalk, which may annoy fellow pedestrians but protects its precious cargo. Air-filled 12-inch tires offer a cushy ride, while the articulated wheels—the back set pivots, the front one doesn't—mean steering responds to the slightest twitch.

WIRED Cool accessories, like a rear-attaching pedestal (\$69) to transport an older kid; a tricycle-like "fun" seat (\$99) with a play steering wheel; and a tray (\$19) for snacks on the go.

TIRED Only for parents who own an equally oversized car: Even folded, it's not very portable.



phil&teds sport

\$399 • philandteds.com

This versatile three-wheeler lets you transport two kids without becoming a sidewalk-hogging monster. The main seat can lie flat for infants, while the jump seat (\$90) attaches to either the front or rear. With the second seat attached, this stroller clocks in at a biceps-busting 29 pounds. And yet it's simple to maneuver, though you'll need both hands on the adjustable handle for sharp turns. Two quibbles: The sunshade frame feels flimsy, and fold-up can be hazardous (we suffered a bloody knuckle).

WIRED Efficient way to carry two without taking out passersby. Peekaboo window has a pocket to hold cell phone, keys, and pacifier.

TIRED Four harness buckles seems like overkill, especially when wrestling a tantruming toddler.





Corkscrews

Screw caps are on the rise, but wine geeks with cellars full of older vintages still need a reliable decorking tool. —C.N.

Le Creuset Screwpull LM-400

\$150 • lecreuset.com

If you're looking for a corkscrew to go with your Le Corbusier chair, the minimalist Screwpull LM-400 is your baby. A massive cylinder of brushed aluminum and zinc conceals the gears: Just sweep the elongated arm 270 degrees up and then down to remove any cork smoothly and effortlessly.

WIRED Long lever makes easy work of opening wine. Stands upright, with tiny footprint. Gorgeous design. Carrying case a nice bonus if you're gifting it.

TIRED At 2.4 pounds, extremely heavy: It's more work to pick it up than to pop a stopper. Cheap plastic foil cutter is Target to corkscrew's Knoll.



Built Wine Ratchet Magnum

\$100 • builtny.com

The Built Wine Ratchet Magnum is not for girly men. Unlike today's intricately mechanical corkscrews, this one wants you to sweat. There are no levers to manipulate here, just an oversize ceramic handle attached to a ratcheting screw that you drive into the cork by hand and muscle. When it's sunk to the hilt, yank and twist. Hard. As a bonus, the Magnum can double as a weapon in a bar fight.

WIRED Foil-cutting scimitar stows inside the handle, a nice touch. Selection of ratcheting screws is included for matching right screw to each stopper.

TIRED It's a conversation piece, all right, but there are easier ways to free a cork.



Metrokane Zippity Rabbit

\$80 • metrokane.com

The Rabbit's design may perplex novices—with one hand, squeeze the side wings together to grip the bottle's neck, then pull the top lever down and up to remove the cork—but it's rapidly become the most popular high-end corkscrew and is widely copied. The latest Rabbit is clad entirely in chrome, but its age is showing: Compared to newer designs like the Screwpull LM-400, its abbreviated lever requires a hefty amount of initial force to pull a cork.

WIRED Includes foil cutter and extra spiral. Compact 7.3 inches high.

TIRED Chrome finish gives it a creepy resemblance to obstetric instrument.



Vacu Vin Winemaster

\$50 • vacuvin.nl

With its Edward Scissorhands-worthy assortment of sharply jutting levers and exposed gears, the Winemaster is eye-catching and at first intimidating. A quick perusal of the manual reveals the simple logic: Slide and lock the device onto the top of a bottle, pull down one set of arms to sink the screw, then a second set to remove the cork. Then work both sets in the opposite direction to eject the stopper like a pro.

WIRED Corks come out with minimal effort.

TIRED Bottle-locking mechanism nearly requires a third hand. Feels rickety despite weighing 1.3 pounds. Levers can nip your fingers.



Scorecard

	Model	Price	Capacity (cups)	Heat Retention (hours, tested)	Timer	Filter Type	Rating
COFFEEMAKERS	Hamilton Beach Ensemble 12-Cup	\$55	12	2	Yes	Paper basket	8
	Capresso CoffeeTeam Therm	\$300	10	4	Yes	GoldToned (included) or paper cones	7
	Bodum Santos Electric	\$100	6	1	Yes	Bodum Micron-C-Filter (\$5)	6
	Mr. Coffee 12-Cup Switch	\$25	12	1.5	No	Paper basket	5

	Model	Price	Voltage	Brush Attachment/Crevice Tool	Wall-Mountable	Rating
CORDLESS HAND VACS	EuroPro Shark 18V	\$50	18	Yes/yes	No	8
	Black & Decker 18V Pivot	\$60	18	Yes/yes	Yes	7
	Dyson Root 6	\$150	21.6	Yes/yes	Yes	6
	Dirt Devil Kurv	\$50	9.6	No/no	No	5

	Model	Price	Mechanism	Height (inches)	Weight (pounds)	Rating
CORKSCREWS	Le Creuset Screwpull LM-400	\$150	Single-arm lever	8.3	2.4	8
	Metrokane Zippity Rabbit	\$80	Single-arm lever	7.3	1.6	7
	Vacu Vin Winemaster	\$50	Dual-arm lever	10	1.3	7
	Built Wine Ratchet Magnum	\$100	Ratcheting screw	5.8	0.8	6

	Model	Price	Weight (ounces)	Type	Rating
ELECTRIC SHAVERS	Braun Pulsonic 9595	\$269	7.7	2 foils	8
	Gillette Fusion Power Phantom	\$12	1.4	5 straight blades	7
	Philips Norelco arcitec 1090X	\$250	5.8	3 rotary blades	6
	Remington CleanXchange	\$60	6.3	2 foils	3

	Model	Price	Capacity (cups)	Weight (pounds)	Includes	Rating
FOOD PROCESSORS	Cusinart Prep 11 Plus	\$199	11	17	Slicing disc, shredding disc, dough blade	8
	KitchenAid Ultra Wide Mouth	\$270	12	16	2 slicing discs, shredding disc, dough blade, citrus press, egg whip, 10-cup and 4-cup bowls	7
	Viking Professional Food Processor	\$350	12	23	2 slicing discs, 3 shredding discs, julienne disc, Parmesan/ice disc, french fry disc, dough blade, citrus juicer, egg whip, 3-cup bowl	6
	Black & Decker Textured Series	\$60	10	6.5	Slicer/shredder disc combo, chopping blade, dough blade	4

	Model	Price	Installation	Flow Rate (GPM)	Flow Controls	Jets	Rating
SHOWERHEADS	Hansgrohe Raindance S 150 Air 3-Jet	\$144	Crescent wrench	2.5	Toggle switch for three discrete settings	80	8
	Moen Inspire 7-setting	\$50	Crescent wrench	2.5	Toggle switch for seven discrete settings	99	7
	Speakman Anystream S-2252	\$68	Pipe wrench	2.5	Continuously adjustable flow lever	48	7
	Oxygenics Elite SkinCare	\$55	Crescent wrench	1.75	Continuously adjustable flow lever	1	6

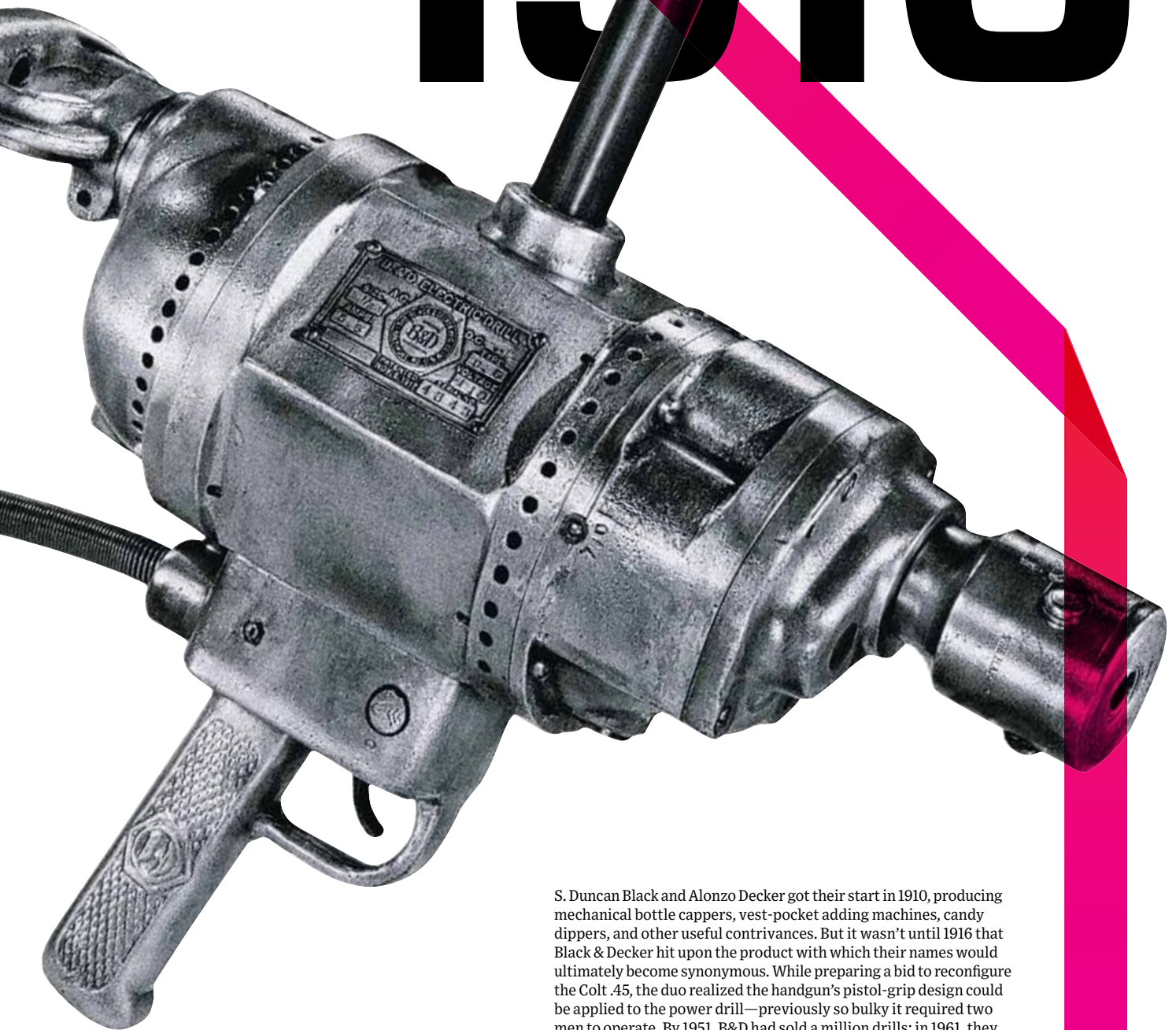
	Model	Price	Weight (pounds)	Weight Limit (pounds)	Car Seat Compatible	Rating
STROLLERS	Bugaboo Bee	\$529	16.5	37.5	Yes	8
	Mia Moda Cielo	\$150	15.5	40	No	7
	Mutsy Urban Rider Next	\$759	35 with bassinet, 31 with fun seat	55	Yes	7
	phil&teds sport	\$399 for stroller, \$90 for double seat	Stroller: 24; double seat: 5	88 for both seats (33 max in rear)	Yes	6



Household



1916



S. Duncan Black and Alonzo Decker got their start in 1910, producing mechanical bottle cappers, vest-pocket adding machines, candy dippers, and other useful contrivances. But it wasn't until 1916 that Black & Decker hit upon the product with which their names would ultimately become synonymous. While preparing a bid to reconfigure the Colt .45, the duo realized the handgun's pistol-grip design could be applied to the power drill—previously so bulky it required two men to operate. By 1951, B&D had sold a million drills; in 1961, they pioneered cordless technology. Oh, and they got the Colt contract, too.

Black & Decker Electric Drill



Gadget Hall of Fame

Laptops

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Sony Vaio VGN-FZ180E

Sony's laptops are usually the Jessica Albas of computing, with breathtaking looks but disappointing performance. Not the Vaio VGN-FZ180E, which resembles past Vaios only in its absurdly long product name. The FZ was impressive in general apps performance and top-notch at gaming. That steep \$2,000 sticker includes a knockout feature—a writable Blu-ray drive; at \$1,600 without it, the laptop is a bargain. Pound for pound, the Vaio's feature set is peerless. —CHRISTOPHER NULL





OPTIMAL OPTICAL

The Blu-ray drive does double duty as a home theater component, with an HDMI output that connects to hi-def displays. Dedicated media controls above the keyboard make it easy to skip to your favorite chase scenes.

B-GRADE BATTERY

The Vaio doesn't have Bluetooth to sap its energy, and yet its battery performance is anemic. The trim lithium-ion cell keeps weight below 6 pounds but lasted a mere 85 minutes on a full charge.

LITTLE TOUCHES

Taking a cue from Apple, Sony gives the Vaio FZ a latchless lid, meaning no plastic hooks to catch your shirtsleeves. The responsive keyboard is also reminiscent of the MacBook's.

THANKS FOR THE

MEMORY Sony finally relents and provides a slot for SD memory cards that are compatible with non-Sony cameras. (There's also a divot for a Memory Stick, to collect dust bunnies and loose change.)

SOUND AND VISION

The screen-mounted camera gets 0.3 megapixels—not the best. A cleverly positioned adjacent mic, however, records better sound than most.

\$2,000 • sonystyle.com



Mainstream

Four laptops aim for the sweet spot between performance and price. Be warned: Loading up on extra features can empty your wallet. —C.N.



Apple MacBook Pro

\$1,999 • apple.com

While all eyes were on iPhone, Apple quietly gave its flagship notebook some decent upgrades. New LED backlighting does away with fluorescent bulbs and mercury while noticeably increasing brightness. The machine also powered to lofty benchmarks all around, thanks to an updated CPU and chipset, and a switch from ATI graphics to Nvidia. Running Vista through Boot Camp, the Pro was best-in-class at gaming.

WIRED Same sexy design as last year and yet 0.2 pound lighter. Very bright LED screen requires zero warm-up, hitting full wattage instantly with no hot spots.

TIRED Still lacks memory card reader and wireless WAN option. Apple claims an extra hour of battery life over last year's model; we got eight minutes.



Laptops



Fujitsu LifeBook E8410

\$1,849 • shopfujitsu.com

Fujitsu is known for affordable, reasonable performers, and the E8410 didn't disappoint. Sure, the 100-GB hard drive is a bit scrawny and gaming performance isn't fast, but the LifeBook is a fine all-around workhorse. It's also your only choice for legacy connections: Dinosaurs with dot-matrix printers and 300-baud modems will love the parallel and serial ports.

WIRED Fairly priced. Spacious keyboard. Top-notch performance using general apps. Four USB ports. Modular optical bay allows for easy upgrades.

TIRED Lack of status light indicators (there's only a small LCD panel) means you can't quickly see if the laptop's on. Uninspired design. Ho-hum battery life.



HP Pavilion dv6500t

\$1,443 • hp.com

HP's Pavilion dv line has always been geared toward portable entertainment, and the latest model is no exception, with a big screen, loud Altec-Lansing speakers, and a marathon-grade battery that played video for three solid hours. A bank of touch buttons instantly accesses movies, music, and photos.

WIRED Bright, gorgeous screen. Handy button for disabling touchpad. LightScribe DVD burns designs on tops of discs.

TIRED Pop-out remote stowed in ExpressCard slot is hard to extract. Ginormous battery weighs down machine. Semi-disappointing performance, the worst we tested in this category; came in next to last for gaming.



Lenovo ThinkPad R61

\$1,695 • lenovo.com

The R61 is the chunky cousin of the ultraslim ThinkPad X61 in every sense: thicker, heavier, and less refined. It's also more powerful and a few hundred bucks cheaper. Though designed for business, the R61 likes to play, too, with a built-in webcam and enough dexterity to run *Quake 4* solidly.

WIRED Impressive nongaming performance, vanquishing its peers in our benchmarks by as much as 26 percent. Top-notch keyboard. Convenient FireWire jack on front edge.

TIRED Dimmest screen in the group. Feels a little bulky. Very loud fan drowns out DVD audio. Limited, two-hour battery life.



Ultraportables

Smartphones are wising up, and thin-and-light notebooks are shedding ounces while gaining muscle. But ultraportables (those around 4 pounds) remain the lightest way to run Windows with a full keyboard. —c.n.



ASUS U1F-1P016E

\$2,099 • usa.asus.com

Barely registering on the scale at a scant 2.7 pounds, the Asus UIF is the lightest laptop we tested. It's also one of the most gorgeous out there, with finishing worthy of a Jag: ultraglossy 10-step paint job, leather palm rests, and subtle metal trim. Performance is less of a thrill: Its last-gen Core Duo CPU had the lowest benchmark scores.

WIRED Four USB ports—unheard of in this category. Excellent battery life. Relatively affordable. Lighter than the last *Harry Potter* novel. Integrated webcam and ExpressCard slot. Drooly design.

TIRED Stiff, hard-to-push trackpad buttons. Needs CPU upgrade to boost performance. No wireless WAN option.



HP Compaq 2710p

\$2,478 • hp.com

The 2710p tablet PC adds handwriting features to your laptop without piling on weight. Benchmarks were impressive, but its little touches were the most endearing: The webcam has buttons for macro and standard modes and, like the Lenovo ThinkPad, the keyboard can be illuminated by a pop-out light on the LCD. Cute.

WIRED Wireless WAN through AT&T, Verizon, or Vodafone. LED backlighting makes for a much brighter display than most tablets. Brushed-metal palm rest stays cool and looks good.

TIRED Two USB ports, on opposite sides. No touchpad. Heavy, jutting screen hinge makes the PC prone to tipping backward.



Lenovo ThinkPad X61 Tablet

\$2,170 • lenovo.com

Don't let its relative heft mislead you: At heart, the X61 really is an ultraportable. The culprit is the gargantuan battery, which weighs a full pound. The included X6 UltraBase blends with the machine seamlessly, adding four more USB ports, legacy connectors, an optical drive and, unfortunately, 2 pounds.

WIRED Three USB ports on base unit. Nice display for a tablet. Best overall performance in its category and great specs, including a 160-GB hard drive—double that of competitors. AT&T or Verizon WWAN.

TIRED No touchpad. Heavy once you add all the bells and whistles. LCD uses outdated 4:3 aspect ratio.



Sony Vaio VGN-TX750P

\$2,300 • sonystyle.com

Sony's TX is surprisingly ergonomic for a machine less than an inch thick. Better still, it's the only ultraportable we tested with an optical drive built in, rather than just in the dock. Chugging along for more than four hours, its battery life was the champ in our roundup.

WIRED The lightest way to watch DVDs when you're not working. AT&T wireless WAN included. Handy, easy-to-reach media controls. Front-mounted audio ports and controls.

TIRED Just two USB ports. Only half a gig of RAM. Optical drive and cooling fan are noisy (though the extra-loud speakers compensate). Don't even think of gaming with it; couldn't finish *Quake 4* test.



Thin and Light

Most of these notebooks are practical, trading screen size for portability, extended battery life, and wireless WAN. But they do have a fun side, with optical drives for watching DVDs on the go. —c.n.

Dell XPS M1330

\$2,554 • dell.com

Hot off the assembly line, Dell's M1330 is camera-ready, with a candy-coated shell available in three colors. The real news is that Dell's latest offering was the most powerful lightweight computer we tested, dusting bigger foes in our performance benchmarking—gaming tests included. Even its 2-hour, 45-minute battery life tied the MacBook. The price might strike some as high, but this slim and stylish machine is otherwise a standout.

WIRED Spectacular design. Slot-loading DVD drive with HDMI output. Touch-sensitive media controls. Seamlessly integrated wireless WAN from AT&T, Sprint, or Verizon. Media mode plays music and movies and runs Office apps without booting Windows.

TIRED Kind of expensive. Nine-cell battery adds uncomfortable bulk.



EDITORS' PICK



test

Laptops



Apple MacBook

\$1,499 • apple.com

The MacBook has gotten only small, under-the-hood upgrades in the past few years. It's quieter than last year's version, with an Intel Core 2 Duo, 1 GB of RAM, and a big, 160-GB hard drive. But the power boost wrecks battery life, down a half hour from 12 months ago.

WIRED Strong value for the specs and power. Black-case version is just as stylish as its silver Pro sibling. Side-by-side USB ports (important for the growing number of peripherals that require two USB plugs).

TIRED At 5.1 pounds, it's the heaviest machine in this category and barely lighter than the MacBook Pro. Couldn't complete our gaming benchmark. Minimal expansion ports, with no ExpressCard or PC Card slot.



Gateway C-120X

\$1,739 • gateway.com

At nearly 5 pounds, the C-120X is heavy for a 12.1-inch notebook, though it does have an optical drive. Bummer about the fuzzy, dim screen, unimpressive performance, and battery life that barely breaks an hour and a half. Still, it's not a *bad* machine, and the DVD-tablet combo makes it unique.

WIRED Exceptional pen tracking and accuracy; touchscreen also works with a fingertip. Adjacent USB ports. Budget-friendly price for its class.

TIRED Underpowered and heavy, even for a tablet. Stripped-down specs. Pen is difficult to eject from its holster.



HP Compaq 2510p

\$2,350 • hp.com

We reweighed the thing in disbelief, but yep, the 2510p is 0.1 pound less than HP's 3.7-pound 2710p (see previous page), which has the same-size screen and similar specs but doesn't include an optical drive. Capable without being flashy, the 2510p is best suited as a traveling notebook for road warriors willing to pay a premium in dollars for savings in ounces.

WIRED Unbeatable weight and surprisingly usable, with responsive keyboard, touchpad, and pointing stick. LED backlighting. Survived our gaming test (barely). Includes docking station.

TIRED Pricy. Slow to boot. Touch-sensitive media controls tend to be unreliable.



Desktop Replacements

These big-screened hulks—ranging from starter PCs to top-dollar hot rods—are best suited to short round trips, like between the home office and the deck. —C.N.



Laptops



Acer Aspire 9300

\$899 • us.acer.com

The Aspire 9300 looks brutish and, fittingly, has minimal brains. With an AMD Athlon CPU, a paltry 1 GB of RAM, and last year's Nvidia graphics card, the rig wheezed into last place during benchmarking and couldn't run *Quake 4*. An unbelievable bargain at \$899, the 9300 eliminated every frill possible: The screen, for example, seems like an Etch A Sketch.

WIRED So cheap you won't worry about loss, fire, or theft. Front-mounted audio jacks. Swiveling webcam—retro!

TIRED The Athlon CPU is a perennial laggard among laptops. Screen is unpleasant to look at for more than a few minutes at a time. Smallish, 120-GB hard drive.



Dell Inspiron 1720

\$2,089 • dell.com

The monstrous 8.7-pound Inspiron 1720 won't be your first choice for flying. Yet it had the best battery life in the group, at 2 hours, 19 minutes. And it wasn't stripped down to achieve battery longevity: The 2.2-GHz Core 2 Duo, 2 GB of RAM, and 160-GB hard drive clocked some of the strongest performance stats in our entire roundup.

WIRED Bootless media mode works well. Great screen quality. Handles just about any task awesomely. Comes in eight colors.

TIRED Pricey. Morbidly obese, with lots of unnecessary trim. Awful keyboard. Nearly invisible, borderline-useless media keys along front panel. Tiny status lights are hard to read.



Gateway NX860XL

\$1,921 • gateway.com

Though a good all-around player, the NX860XL doesn't live up to its cost. It turned in a solid-enough performance for gaming and general apps, but nothing remarkable. The 100-GB hard drive is tiny for this category, and with a mere 64 minutes of battery life, you'll always need sockets within reach. It's stylishly clad in silver and black, but little else about this laptop excites.

WIRED Gaming is passable despite the aging graphics card. Front-mounted audio ports and memory card slot.

TIRED Cooling fan blasts nonstop. Too expensive for feature set. Still portly despite minimalist 64-minute battery.



Toshiba Satellite P205-S6287

\$1,350 • toshibadirect.com

Toshiba's always-reliable Satellite series offers a step up from the bare-bones Acer Aspire: a big, bright display, a cavernous 200-GB hard drive, and 2 GB of RAM. It's also the lightest 17-incher we tested, at 7.3 pounds. Unfortunately, integrated graphics make gaming hopeless with this machine, though the modest price tag is some consolation.

WIRED Bright display. Not expensive. Excellent front-mounted controls. Nice styling, minimal weight. Harman/Kardon speakers can really crank.

TIRED Ancient CPU scored in C- range. Keys have too little travel, so good luck reaching Delete.



Accessories

While numerous gadgets make taking your show on the road even easier, the premiums for convenience, portability, and style can pinch. —CHARLIE WHITE

How We Tested Laptops

■ PERFORMANCE

Overall system capabilities were evaluated with the PCMark05 benchmark program.

■ **GAMING** We ran *Quake 4* at medium-quality, 800 x 600-pixel resolution, and logged the frames-per-second each laptop managed, if any.

■ **FEATURES** We considered the blend of price, configuration, and installed options, such as hi-def optical drives, memory card slots, and screen quality.

■ **BATTERY LIFE** For those with optical drives, we played a standard DVD in full-screen, high-performance mode. For those without, we looped a full-screen MPEG.

■ **VALUE** We factored overall cost against all of the above issues, giving high marks to less-powerful machines offered at deep discounts.

EDITORS' PICK



Sprint Sierra Wireless AirCard USB Modem

\$280; \$80 per month for unlimited data plan • nextelonline.nextel.com

Sprint's cellular network provides data access that's nearly broadband-fast in some areas, thanks to EV-DO Rev. A. This is the modem you want: easy to configure, with a GPS receiver and built-in battery that won't mooch off your laptop.



Casio Super Slim XJ-S35 Projector

\$1,399 • superslimprojector.com

Few projectors are this thin and portable. A USB drive lets you plug in with no PC. Surprisingly sharp and bright for 1024 x 768, even in a well-lit room.



MoGo Mouse X54 Pro

\$80 • newtonperipherals.com

The superclever second-generation MoGo Mouse has Bluetooth and can be stashed in your laptop's ExpressCard slot. Push a button and it controls PowerPoint; it even has a laser pointer.



Moixa Energy USBCell

\$20 for a two-cell pack of AAs • usbcell.com

These draw from any USB port, and their 500 charge cycles do offset the steep price. But they last only half as long as alkaline batteries.





JLab Audio B-Flex 2 USB Laptop Speakers

\$40 • jlabaudio.com
This tiny device puts most laptop speakers to shame. With 1 amp per speaker, sound is clean and loud, though bass is still thin. Solidly built but slim enough for briefcase stowage.



Monster Outlets To Go PowerStrip

\$15 and up • monstercable.com
Outlets are scarce in even the best hotels, so a portable power strip can be a lifesaver. These are available with three, four, or six sockets and fold up into an impressively minuscule package.



Vaja i-volution Laptop Shell

Starts at \$359 • vajacases.com
This leather case is a handmade work of art but, alas, fits MacBooks only. The zipper isn't exactly butta-smooth, either. Still, it's gorgeous and sturdy and comes in a thousand color combos.



Western Digital Passport Portable

\$200 • wdc.com
This shiny, tiny hard drive holds 250 GB, for which you'll pay dearly: read/write speeds were poky, at around 12 MB per second. On the upside, it draws power via USB. We dig that cool blue light, too.



test Laptops

Scorecard

	Model	Price	PCMark05	Quake 4	Battery (hrs:min)	Weight (pounds)	Screen (inches)	Hard Drive (GB)	CPU	RAM	Graphics	Rating
DESKTOP REPLACEMENTS	Dell Inspiron 1720	\$2,089	5,242	142.4	2:19	8.7	17	160 GB	2.2-GHz Intel Core 2 Duo	2 GB	Nvidia GeForce Go 8600M GT	7
	Toshiba Satellite P205-S6287	\$1,350	3,107	15.4	1:20	7.3	17	200 GB	1.73-GHz Intel Core 2 Duo	2 GB	Integrated	6
	Acer Aspire 9300	\$899	3,047	DNF	2:00	8.0	17	120 GB	1.6-GHz AMD Athlon 64 X2 Dual-Core TL-50	1 GB	Nvidia GeForce Go 7300	5
	Gateway NX860XL	\$1,921	4,347	99.6	1:04	8.0	17	100 GB	2-GHz Intel Core 2 Duo	2 GB	Nvidia GeForce Go 7900 GS	5
MAINSTREAM	Sony Vaio VGN-FZ180E	\$2,000	4,419	126.7	1:25	5.9	15.4	160 GB	2-GHz Intel Core 2 Duo	2 GB	Nvidia GeForce 8400M GT	9
	Apple MacBook Pro	\$1,999	4,061	153.8	2:42	5.3	15	120 GB	2.2-GHz Intel Core 2 Duo	2 GB	Nvidia GeForce 8600M GT	8
	Lenovo ThinkPad R61	\$1,695	4,955	116.0	2:03	5.7	14.1	160 GB	2.4-GHz Intel Core 2 Duo	2 GB	Nvidia Quadro NVS 140M	7
	Fujitsu LifeBook E8410	\$1,849	4,525	77.4	2:01	6.1	15.4	100 GB	2.2-GHz Intel Core 2 Duo	1 GB	Nvidia GeForce 8400M G	6
	HP Pavilion dv6500t	\$1,443	3,938	95.3	3:19	6.8	15.4	160 GB	1.8-GHz Intel Core 2 Duo	1 GB	Nvidia GeForce 8400M GS	6
THIN AND LIGHT	Dell XPS M1330	\$2,554	4,622	109.6	2:45	4.8	13.3	160 GB	2-GHz Intel Core 2 Duo	2 GB	Integrated	8
	HP Compaq 2510p	\$2,350	2,357	11.8	2:18	3.6	12.1	80 GB	1.2-GHz Intel Core 2 Duo	2 GB	Integrated	7
	Apple MacBook	\$1,499	3,340	DNF	2:45	5.1	13	160 GB	2.16-GHz Intel Core 2 Duo	1 GB	Integrated	6
	Gateway C-120X	\$1,739	2,347	DNF	1:34	4.9	12.1 tablet	80 GB	1.06-GHz Intel Core 2 Duo	1 GB	Integrated	5
ULTRAPORTABLES	Asus UIF-1P016E	\$2,099	1,320	DNF	3:12	2.7	11	80 GB	1.06-GHz Intel Core Duo	1.5 GB	Integrated	8
	HP Compaq 2710p	\$2,478	2,315	12.3	2:22	3.7	12.1 tablet	80 GB	1.2-GHz Intel Core 2 Duo	2 GB	Integrated	7
	Lenovo ThinkPad X61 Tablet	\$2,170	3,103	17.1	2:53	4.4	12.1 tablet	160 GB	1.6-GHz Intel Core 2 Duo	2 GB	Integrated	7
	Sony Vaio VGN-TX750P	\$2,300	1,348	DNF	4:09	2.8	11.1	80 GB	1.2-GHz Intel Pentium M	512 MB	Integrated	7

DNF = Did not finish. Weight and battery life are measured with the largest battery included. All prices as tested.

Burning Question

How Hard Is Switching from PC to Mac?

T

HE TV COMMERCIALS and your smug friends make it seem so easy. Just buy a Mac and all your virus and other computer woes vanish, right?

Setting aside whether Macs are superior, switching to one hasn't always been simple. Only a few years ago, it meant crossing a minefield of unavailable software and incompatible data formats. But Apple has now brought the two platforms close enough together that changing sides is easy.

Most people worry about their data first. If you're a Microsoft Office user, the switch is pretty painless. Office 2004 for the Mac (Office 2008 is arriving soon)

has no trouble importing Office 2003 for Windows files with formatting intact, although the new file format in Office 2007 requires a downloadable converter. If you're trying to go completely Redmond-free, OpenOffice.org—an open source, cross-platform bundle—easily handles Windows Office files, though it's trickier to install and use on a Mac.

Migrating your email from Microsoft Outlook or Outlook Express to a Mac email client is a thornier proposition. Various how-tos can be found on the Web, or you can try Little Machines' O2M shareware (\$10; littlemachines.com), which will export from Outlook to Apple Mail or Entourage, Microsoft's Outlook equivalent for Macs.

What about apps and the myriad games that are PC-only? Three pieces of software can help: Boot Camp, Parallels Desktop, and VMWare Fusion. Boot Camp, previously a download and now bundled with the new Leopard OS, lets you run Windows directly, switching between Mac OS X or Windows after rebooting. Parallels and Fusion let you run Windows or Linux on a "virtual" desktop without restarting your Mac.

The last remaining hurdle is mastering the Mac OS, which can seem alien to longtime PC mavens. Those with Mac laptops should plug in a two-button USB mouse; Macs ship with single-button touchpads. (In a pinch, holding down CTRL while clicking will open a right-click menu.) Most Mac hot keys also use the Apple/Command button instead of CTRL. Finally, when running Windows, Macs can crash just as much as PCs. Then it's time for CTRL-OPTION-DELETE. — C. N.



Apple Boot Camp

Free • apple.com

Boot Camp's silky-smooth final beta was a godsend for PC-Mac switchers and gamers, offering the choice to boot up in either OS X or Windows. The new version comes bundled with Leopard. You'll want to reserve at least 25 GB of free space on your Mac, especially when running Vista.



Firefox

Free • mozilla.com

The Safari Web browser isn't bad, but Firefox is faster, with a better tab system and more options. It's also more familiar to Internet Explorer users, not to mention those already running Firefox, who can easily transfer bookmarks. Firefox is arguably more stable on the Mac than on the PC, too.



Flip4Mac WMV

Free • flip4mac.com

Those hysterical online videos your buddies send are often WMV files, the Windows Media format used by most PCs. Flip4Mac has a free download that lets you play WMV files within QuickTime, though it can be kludgy when trying to watch flicks embedded in Web sites or blogs.



Parallels Desktop

\$80 • parallels.com

A Boot Camp alternative, Parallels runs Windows inside Leopard as if it's an app. The convenience of not having to reboot to switch platforms might make it worth \$80. But performance can drag in Parallels, making gaming almost impossible.



Gaming Gear

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HP Blackbird 002

True frag artists know that gaming PCs are the boxes with the real processing power. But it's the rare rig that combines thrilling design, useful features, and full-throttle performance. The Blackbird 002 is such a system. This gaming god, the first offspring of HP's recent union with VoodooPC, proves that when gamers talk, some people are listening. Take a good look—it's time to stop consoling yourself. —CLAUDE MCIVER





SEXY BEAST Perched on its silver stand, with chiseled lines, sloping curves, and Art Deco accents, the Blackbird commands attention. LED highlights in the cast-aluminum case do nothing except encourage our raging gadget lust. Resistance is futile.

ABSOLUTE POWER Sing it with us: 3-GHz Intel Core 2 Extreme quad-core processor. Not one but two ATI Radeon HD 2900 XT videocards, amped up with a gig of DDR4 memory and 320 unified stream processors, and linked via CrossFire. Overkill? Yep—just the way gamers like it.

BIG CHILL The Blackbird's liquid cooling network is routed throughout the entire system, including both videocards, so you can max out the megahertz without fear of frying.

THE WRENCH CONNECTION Forward-thinking touches abound inside. A small foam compartment conceals an Allen wrench and fasteners for DIY types. And a rack-style hard drive bay eliminates the need for SATA data and power cables. Just slide your drive into the ready-made slot and it automatically connects with the motherboard.

NEW JACK CITY We love features like dual gigabit Ethernet ports, a high-speed eSATA connector, and a slot-loading DVD burner. But a hidden media bay that pops up like a trapdoor to provide front-panel access to USB, FireWire, and audio ports and a media card reader? Blackbird, baby, we're swooning.

\$5,450 • hp.com



Desktop Gaming PCs

It's no secret: These systems contain enough hot hardware to frag a n00b five times over before he face-plants on the ground. Mad skillz not included. —C.M.



Dell XPS 720 H2C

\$7,879 • dell.com

An overclocker's unicorn. This monster devours games with its dual Nvidia GeForce 8800 GTX graphics cards and an Intel Core 2 Extreme quad-core processor revved to 3.46 GHz. Knocking performance up to exospheric heights, the XPS 720 packs 4 gigs of over-clocked memory and a drool-inducing Ageia PhysX card. Plus, the hyperefficient H2C water-cooling system keeps the CPU chilled and the noise low. Any game is toast on this machine.

WIRED Further overlockable to a near-ridiculous 4 GHz. Front and rear LEDs can be tweaked to display cool, eerie effects. Blu-ray burner, baby!

TIRED Oof. Eighty pounds of backbreaking hardware. Cramped interior screams "back off" to would-be modders. Yep, that price tag is in US dollars.



Gateway FX530XT

\$4,408 • gateway.com

Gateway does gaming? You betcha. With a factory-overclocked Intel Core 2 Extreme quad churning at 3.2 GHz, the FX530XT kicked out smooth gameplay in our benchmark tests, even at 1,920 x 1,200 resolution. Though its single Nvidia 8800 GTX card can't compete with a pair of Ultras, the 8800 is still one badass graphics unit, able to handle any of today's games flying solo. For casual gamers, this rig should be the system of choice.

WIRED Factory-overclocked CPU, covered by warranty, provides peace of mind. Blu-ray drive. Two 500-GB hard drives. Nine-in-one memory card reader.

TIRED Case is far from ugly, but it ain't hot—and gamers want hardware that'll trigger Pavlovian responses in friends and enemies.



Velocity Micro Raptor DCX Custom

\$5,510 • velocitymicro.com

The Velocity Raptor is a graphics powerhouse, shredding through *PREY* at an amazing 169 frames per second at 1,920 x 1,200 resolution. The muscle behind those numbers comes from an Intel Core 2 Extreme Duo overclocked from 3 to 3.75 GHz and a pair of Nvidia 8800 Ultras. We dig the classic mod look of the case, as well as its side window for peeking at the primo components.

WIRED Ultraclean, spacious interior with plenty of room to tinker. Performance (thankfully) matches price. Wheels help when accessing the rear panel.

TIRED Where's the HD optical drive? Blu-ray? OK, what *have* you got? A DVD-RW and DVD-ROM combo drive... Come on, Velocity, you're wasting space at this point.



How We Tested Gaming Gear

■ DESKTOP GAMING PCS

We plugged each PC into a hi-def LCD, slapped *PREY* into the optical drive, and took the fight online. Scores reflect frame rates, online ping benchmarks, design aesthetics, internal components, and expansion options.

■ CONSOLES

We spent hours—more than we'd care to admit—playing a variety of games on each system, rating performance, online play, multimedia options, and quality of available titles.

■ LCD MONITORS

LAN party! We hooked up each display to an overclocked gaming PC, popped in *Doom 3*, and pwn3d some suckers—uh, friends—while recording resolution, response time, input options, and portability.

■ HANDHELDS

The two units were assessed for game immersion, battery life, and tote-ability. Effortless Web surfing and multimedia functions netted bonus points.



Gaming Gear

Consoles

A year (or so) out of the gate, the leading gaming systems are jockeying for position with new features, lower prices, and heaps of downloadable content. Here's what all you fence-sitters are missing. —CARLOS BERGFELD



Microsoft Xbox 360 Elite

\$450 • xbox.com

When word got out that an HDMI-enabled, ebony-cased version of the Xbox 360 would arrive this spring, nerdgasms radiated across the Intertubes. But aside from a 120-gig hard drive, everything under the hood is the same. The Elite has a 3.2-GHz PowerPC triple-core CPU, an ATI-designed 500-MHz graphics chip, and 512 megs of RAM. Yeah, still pretty fast.

HDMI-ISH HDMI 1.2a support means seamless hi-def action. But without HDMI 1.3—as the PlayStation 3 has—geeky audio features like Dolby TrueHD and DTS-HD Master Audio are out of reach. Still, Microsoft has updated the 360's software to output full 1080p video, whether you're using HDMI cables with the Elite or component cables with a standard 360.

THE HALO EFFECT Want to crack alien skulls in Bungie's super sequel, *Halo 3*? Microsoft's console is your only choice for now. But there's more to gaming than *Halo* (seriously)—the 360's game library is the largest and strongest of the three consoles.

MEDIA ON DEMAND Xbox Live is still king of the online arena, and Microsoft has expanded its offerings significantly since launch. Movies, TV shows, and original Xbox Live Arcade titles make it easy to score 24-hour entertainment. The sheer breadth of original content dwarfs both Nintendo's and Sony's offerings.



Nintendo Wii

\$250 • wii.com

Many retail outlets sold out of Nintendo's tiny triumph on day one of its release last fall. And deservedly so: Using the motion-sensing Wii remote to swing a virtual racquet or blast zombies is damn fun. But a lack of standout titles and the Wii's less-than-impressive, non-HD graphics—a limitation of the system's relatively scrawny processors—could hurt the console down the road. Not as much as a giant enemy crab, but still.

COMPLETE CONTROL A gyroscope, infrared positioning sensors, force feedback, and a built-in speaker make the Wiimote the most unique controller since the original NES Gamepad. The motion-sensing mechanisms work beautifully and are able to distinguish inexperienced flailing by first-timers from fine adjustments in pitch by Wii Sports golf pros.

FRIENDS ONLY PLZ Wii online play is focused more on family than fanatical fraggers. Online matches don't allow chatting with potentially scary strangers and even require you to enter a multidigit "friend code" to play with people you know.

SHAKEDOWN 1989 No need to dust off that old 16-bit system—the Wii's Virtual Console lets you enjoy a perfectly ported library of classic Nintendo, Sega Genesis, and TurboGrafx 16 titles, ranging from *Sonic the Hedgehog 2* to *Mario Kart 64*.



Sony PlayStation 3

\$599 (80 GB) • playstation.com

Even with a \$100 price cut in July, Sony's deluxe console hasn't gained much traction with gamers. Its list of titles brings the phrase *weak sauce* to mind. But the PS3 is a technical powerhouse with loads of untapped potential, packing a 4.6-GHz multicore cell processor, a 550-MHz graphics chip, and 256 MB of RAM—better specs than some desktops.

DOES EVERYTHING... A built-in Blu-ray player, tons of media card readers, an easily upgradable hard drive, and PC connectivity give PS3 users plenty of entertainment options. HDMI 1.3 support and 1080p output mean the PS3 is an HDTV's BFF. Updated PSP firmware now allows handheld owners to access content on their PS3 hard drives from virtually anywhere.

...EXCEPT GAMES The PS3's Achilles' heel is its lack of quality titles. Though several games out this holiday season look promising, there's certainly no *Halo 3* equivalent on Sony's platform. Hotly anticipated titles like *Metal Gear Solid 4* won't hit shelves until sometime next year.

PEEWEE PLAYHOUSE Sony's answer to Xbox Live and Nintendo's Mii avatars, PlayStation Home is essentially a lackluster mix of *The Sims* and *Second Life*. Users can decorate virtual dwellings, interact with others, play games, and buy and sell stuff.



LCD Gaming Monitors

Ace fighter pilots have a saying: Lose sight, lose the fight. That holds true for gamers, too—the right screen can mean the difference between running riot and getting lit up like a Cohiba. —TERRENCE RUSSELL

Gateway XHD3000

\$1,700 • gateway.com

When we heard Gateway was cooking up an “extreme HD” display, we chuckled skeptically. Then the XHD3000 showed up, and our snickers were replaced with gasps of awe. Console and PC games look remarkable on this 30-inch screen running at a 2,560 x 1,600 native resolution. HD video? Some of the finest we’ve seen. But building the best gaming monitor ain’t cheap. We’re all for being ahead of the game, but not if we have to cut back on groceries to get there.

WIRED The ultimate choice for high-end performance. Variety of input options: HDMI, component and composite video, S-video, DVI, and VGA. Self-powered, six-port USB hub built in. Advanced PIP lets you control window size, location on screen, and transparency.

TIRED Outlandish price tag. 6-millisecond response time is slow for such an advanced display. Color washes out in direct sunlight. Single HDMI and component inputs stunt the monitor’s potential.



EDITORS' PICK



Gaming Gear



Dell UltraSharp 2407WFP-HC

\$669 • dell.com

With its ho-hum chassis and cheap black frame, this is the kind of no-frills monitor you’d expect to see at the Scranton branch of Dunder-Mifflin. But fire it up and things improve greatly, with lush color and intuitive menus. The 6-millisecond response time is fine for this price point. Novices wanting to upgrade need look no further.

WIRED Vibrant 24-inch screen had us more slack-jawed than Cletus. 178-degree viewing angle. 1,920 x 1,200 optimal resolution. DVI-D and VGA inputs, plus additional connectors.

TIRED Soggy button response turns display tweaks into epic, man-vs.-machine battles. Dull, office-drone looks. Speaker bar sold separately.



NEC MultiSync LCD2470WNX

\$820 • nec.com

To hold the line on price, some monitors stint on form, others on functionality. This NEC model compromises on both—and costs more! Virtually everything here is substandard. From the graceless design to cheap, wobbly buttons to sloppy frame rates, the MultiSync is an exercise in how *not* to build a display for gamers or videophiles.

WIRED 24-inch screen is almost bright enough to see with your eyes shut. Microsoft Word looks great.

TIRED Ridiculously overpriced. No media card slot. Awkwardly positioned rear panel makes changing inputs a stressful experience. Weighs an Ikea-desk-busting 27.3 pounds. Flimsy base.



Samsung SyncMaster 226BW

\$350 • samsung.com

Wesley Snipes taught us to “always bet on black,” but we’re not sure who won this round. A glossy noir finish and stylish frame make the SyncMaster the most alluring display we tested. But aside from decent color and a reasonable price, everything else on this monitor is fairly commonplace.

WIRED Razor-sharp 22-inch viewable screen. Blazing 2-millisecond response time. 3,000:1 dynamic contrast ratio. Weighs just 10.8 pounds.

TIRED 1,680 x 1,050 resolution dampens full HD content. 160-degree viewing angle sucks at split-screen action. MIA: Native component and HDMI inputs, USB, and media card slots.



Accessories

A steady hand and a good eye will get you only so far. These console add-ons can coax out your A-game. —C.B.

Microsoft Xbox 360 Messenger Kit

\$30 • xbox.com

Typing "Dewd H3 2nite" over Xbox Live takes forever with those damn analog nubs. The Messenger Kit snaps into your Xbox 360 controller and makes texting Sidekick-simple. Clicky tactile keys, plenty of special characters, and auto-backlighting give asinine adolescents on Xbox Live no excuse for sending indecipherable insults to rubes.



Nyko Charge Station for Nintendo Wii

\$30 • nyko.com

When playing Wii tennis, your focus should be on your follow-through, not your stockpile of AAs. Let the Nyko Charge Station play ball boy to your battery-hungry Wii controller. Two rechargeable battery packs, each with 25 hours of Wiimote juice, give you peace of mind during tense match points.



Sauder Manufacturing Trey Chair

\$239 • treychair.com

PC gaming may require an office chair, but hardcore console fragging works best close to the ground. This chair swings both ways. Remove the pedestal to transform it from desk fixture into floor-bound game rocker, complete with reclined view. Too bad the price tag is even more painful than the harsh seat cushion.



SplitFish FragFX

\$60 • splitfish.com

For PC-hardened FPS addicts slumming it on a console, the FragFX eliminates joystick jitters. A mouse, lapboard, and Wii-style handgrip replace the console's controller. We plugged ours into a PS3, tweaked the sensitivity, and before long were able to squeeze off head shots in *Resistance: Fall of Man* with cold-blooded ease.



Your new gaming PC? Merely a big, blinking, expensive box without quality peripherals like these plugged into it. —C.M.

Bigfoot Networks Killer NIC

\$280 • killernic.com

Getting smoked like Lil' Homer's Cajun Sausage? Let the Killer network interface card rescue you. By shouldering the burden of network processes, it lets your CPU focus on the game for higher frame rates and prioritizes game traffic for faster ping. If you still get beat using one of these, well, that's probably because you just plain suck.



Creative Spectre Gamer Keyboard

\$50 • us.creative.com

In the black abyss of your gaming crib, the Spectre's backlit buttons act as shining blue beacons for your fingers. Five macro keys can be programmed for single or multiple keystrokes—great for fast-action situations. Additional sweetness: A compact form factor and underside cord manager make it easy to cart to a LAN party.



Logitech G9 Gaming Mouse

\$100 • logitech.com

A smooth handle, modular design, and red LEDs make Logitech's G9 mouse look like KITT reincarnate. Two interchangeable grips, a smart customizable weight system, and adjustable-on-the-fly dpi settings (200 up to 3,200!) make fragging with this mouse pure money. Even cooler: The LEDs can be adjusted for hundreds of color combinations.



Razer Barracuda HP-1 Headphones

\$129 • razerzone.com

Getting pistol-whipped in the back of the dome way too often? These Barracuda surround-sound headphones will make sure you hear the approaching footsteps of your enemy. Eight sonic drivers handle the heavy audio lifting, while the volume for each pair of stereo channels (center, bass, front, rear) is totally tweakable.



Handhelds: DS vs. PSP

Touchscreens may be the new black, but don't tell Sony. Its newly retooled PSP handheld aims to steal the spotlight from the relentlessly fun, dual-LCD-sporting Nintendo DS Lite. Can Sony succeed? May the best manufacturer win. —STEVEN LECKART

Model	Price	Games	Day-to-Day Play	Wired	Tired	Rating
Nintendo DS Lite (A) nintendo.com	\$130	New games like <i>Jam Sessions</i> are emerging to exploit the DS touchscreen in creative ways. Quirky titles like <i>Drawn To Life</i> (with Wi-Fi support) are also proliferating rapidly.	We coaxed a solid week of use from a single battery charge. Protective clamshell design eliminates need for a case. Truly portable—weighs less than 8 ounces and actually fits in a pocket!	Enjoyable range of cartoony to brain-boosting titles in a tidy, elegant package at a virtually unbeatable price. Better-late-than-never DS Browser (\$30) maximizes dual-screen capabilities.	No video or MP3s unless you install home-brewed enhancements. Proprietary plastic headset isn't too comfy. Lack of Flash support in DS Browser means that YouTube is a no-go.	8
Sony PSP (B) us.playstation.com	\$170	Tons of ported PS2 titles, plus new spins on old classics like <i>Silent Hill: Origins</i> will debut later this year. 333-MHz CPU ensures future titles will have better frame rates and graphics.	Same footprint as the first-gen PSP, but now 33 percent lighter and 19 percent thinner. Our battery pooped out after five hours. A planned 2,200-mAh power pack will add juice—and likely girth.	Exquisite 4.3-inch, 480 x 272-pixel screen. New video-out port funnels handheld action to a big screen. Well-designed integrated browser. 64 megs of RAM means faster loads.	Some UMD films cost more than their DVD counterparts. Proprietary media manager is PC-only. (Sorry, Mac-heads.) Limited-edition models will undoubtedly cost big bucks.	7



Test Gaming Gear

Scorecard

	Model	Price	Sound	Connectivity	Max Resolution	Online Options	Rating
CONSOLES	Nintendo Wii	\$250	Dolby Pro Logic II	Component	480p	Virtual Console (\$5–\$10 per game), Internet Channel (\$5 download)	8
	Microsoft Xbox 360 Elite	\$450	Dolby Digital 5.1, WMA Pro, DTS 5.1, 2-channel PCM	HDMI 1.2a	1080p	1-year Xbox Live Silver Membership (included)	7
	Sony PlayStation 3 (80 GB)	\$599	Dolby TrueHD, DTS-HD Master Audio	HDMI 1.3a	1080p	PlayStation Home (free)	6

	Model	Price	Processor	Memory	Graphics Card	Hard Drive	PREY Benchmark (fps)	Rating
DESKTOP GAMING PCS	HP Blackbird 002	\$5,450	Intel Core 2 Extreme quad-core	2 GB DDR2 1066	Dual ATI HD 2900 XTs	150 GB 10,000 rpm	234	9
	Dell XPS 720 H2C	\$7,879	Intel Core 2 Extreme quad-core	4 GB DDR2 800	Dual Nvidia GeForce 8800 GTX	2 x 160 GB 10,000 rpm	141	8
	Velocity Micro Raptor DCX Custom	\$5,510	Intel Core 2 Extreme dual-core	2 GB DDR2 800	Dual Nvidia EVGA 8800 Ultras	150 GB 10,000 rpm	169	8
	Gateway FX530XT	\$4,408	Intel Core 2 Extreme quad-core	2 GB DDR2 667	Nvidia GeForce 8800 GTX	2 x 500 GB 7,200 rpm	128	6

	Model	Price	Weight (ounces)	Screen Size (inches)	Resolution (pixels)	Outputs	Rating
HAND-HELDS	Nintendo DS Lite	\$130	7.7	3	256 x 192	None	8
	Sony PSP	\$170	6.6	4.3	480 x 272	Component	7

	Model	Price	Screen Size (inches)	Resolution (pixels)	Inputs	Response Time (milliseconds)	Rating
LCD GAMING MONITORS	Gateway XHD3000	\$1,700	30	2,560 x 1,600	Dual-link DVI, HDMI, component, S-video, composite, VGA, 6 USB 2.0	6	8
	Dell UltraSharp 2407WFP-HC	\$669	24	1,920 x 1,200	DVI-D, VGA	6	7
	Samsung SyncMaster 226BW	\$350	22	1,680 x 1,050	DVI (HDCP)	2	6
	NEC MultiSync LCD2470WNX	\$820	24	1,920 x 1,200	DVI, VGA	6	5



1989

Few gaming platforms, portable or not, have had the enduring legacy of that little bricklet of fun, the Nintendo Game Boy. It arrived at just the right time to take advantage of a confluence of adolescent boredom and the national obsession with *Tetris*, which was bundled with each unit sold. With its simple controls, monochrome screen, low price tag (\$90), and AA-powered, go-anywhere ability, the Game Boy was so ubiquitous and successful that it spawned several add-on peripherals, including a camera and a printer. This Boy still refuses to grow up: The Game Boy Micro, the series' sixth major version, was released in 2005.

Nintendo Game Boy



Automotive

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Smart fortwo

It's the most honest car on the road—two seats, four wheels, zero pretensions. No phony rear seats, no attempt to ease the aesthetic shock by trying to ape a conventional sedan. The smart fortwo, the first truly modern microcar to arrive in the US, scrambles ashore with the irrepressible glee of a 2-year-old. It is absolutely confident it will win you over. And with unmatched urban maneuverability, praiseworthy gas mileage, and startling safety credentials, it more than earns the love. —ERIC ADAMS





FORM, MEET FUNCTION

For a teensy little car, the fortwo is one tough mother—*Shut your mouth!* Its unique design follows the shape of its safety cell, which transfers and dissipates collision forces around the passengers. Standard-equipment ABS, stability control, plus cornering and traction-control systems designed explicitly for an ultralight vehicle will help keep you from testing the safety cell's limits with your head.

SHOCKINGLY ROOMY

For a car that's just 8.8 feet long—nearly 4 feet shorter than a Mini Cooper—it's as spacious inside as any decent-size sedan. Our 6' 1" tester had no problem fitting behind the wheel. The lesson: Size doesn't matter after all. That is, until you glance over your shoulder and realize that the body just sorta stops—right behind you.

ULTRALIGHT, ULTRA-EFFICIENT

Packing a three-cylinder, 1-liter, 71-horsepower engine between its rear wheels, this 1,800-pounder rolls about 40 miles for each gallon of gas. This is no golf cart, though: The fortwo will hit 90 mph with nary a complaint.

TWISTY FUN

The big wheels, competent suspension, and automated manual transmission make it fun to drive. And even though it's not an actual automatic—it has a robotic clutch that engages on its own—the fortwo does have a full-auto mode, so anyone can drive it.

From \$12,000 •
smartusa.com



Subcompacts and Hybrids

You didn't like paying for gas even when it was cheap, so consider these two options for using far less of it: a hybrid motor and/or a tiny, Eurostyle car. Drive clean and save some green with these smart rides. —E.A.



Automotive



Chevrolet Aveo LS

\$14,275 • chevrolet.com

We can forgive a car for being terrible if it at least has some character (DeLorean!) or for being soulless if it has a spark of innovation (Edsel!). But when a cheap car is simply imported, slightly tweaked, rebranded, and dumped on us, well, don't expect us to get excited. With its drab interior, creaky construction, and awkward styling, the Aveo feels like it was the last little car in line when Momma ran out of love.

WIRED The 103 hp, 1.6-liter four-cylinder engine, though anemic, is smooth. Reasonably comfortable ride. Earned five out of five stars in frontal crash testing.

TIRED Its 28 mpg is well below what a car with these specs should achieve. Utterly joyless inside and out.



Honda Civic Hybrid

\$24,350 • hondacars.com

Honda's hybrid boasts our favorite engineering trick of the bunch: The electric motor is folded right into the 1.3-liter four-cylinder engine, so the powerplant is barely bigger than a conventional Civic's. And this new-generation Civic Hybrid can run on electric power alone. Takeoffs aren't quite as spirited as in the Prius, but the Prius doesn't have *Tron*-like disk rims that let you imagine you're flying.

WIRED Instrument cluster feels like a jet fighter's. Compact but beefy steering wheel. 43 mpg = sweet!

TIRED 110 horsepower, but without the off-the-line pickup of the equally powered Prius. Honda's next challenge: more grunt for less gas.



Nissan Altima Hybrid

\$26,415 • nissanusa.com

Arriving late to the hybrid game, Nissan licensed much of its technology from Toyota. Still, it's *really* good technology. The Altima hybrid, which averages a respectable 34 mpg, nets a spunky 198 hp from its combination of a 2.5-liter engine and a 105-kilowatt electric motor. Nissan promises to start generating its own tech soon, but this Altima is one helluva stopgap.

WIRED Connection package rocks a Bose stereo, Bluetooth, and cell phone voice commands. Zippy enough to make you forget you're saving the planet.

TIRED Continuously variable transmission takes some getting used to (we never did). Interior a bit spare for 26 grand.





Honda Fit

\$15,245 • hondacars.com

There aren't many subcompacts on the road with this level of cool. Curb appeal is just the Fit's starting point, however. Climb inside this roughly 2,400-pound featherweight and experience one of the most trick interiors ever to roll off an assembly line. The seating can be configured in any of five modes. Hauling a bike? Use "Tall," which will allow you to slide it in upright, directly behind the front seats. Want to go camping? Skip the tent: "Refresh" combines the front and rear seats into two snooze-worthy beds.

WIRED Unconventional fuel tank location toward the middle frees up space for "magic seats." Good mileage at 31 mpg combined. Terrific handling.

TIRED Though the 1.5-liter four-cylinder engine features Honda's signature electronic valve control, it packs only a disappointing 109 hp.



Toyota Prius

\$28,393 • toyota.com

Much as we're sick of praising it, there's no reason to confiscate the Prius' crown. The hybrid overlord boasts surprisingly brisk acceleration—especially when operating for the first few seconds on its torquey electric motor alone. The ride quality is excellent, and the interior is roomy and practical. But 47 mpg is the real trump card. The electric motor and its counterpart 1.5-liter engine put out 110 horsepower—which, as Al Gore III notably demonstrated, is still good for about 100 mph.

WIRED Scooting off under all-electric power is totally boss. Real quiet, as U-Turn says—good for sneaking up on people. Futuristic styling is catnip to sci-fi fans.

TIRED Spoiler slightly compromises rear visibility.



Nissan Versa

\$14,005 • nissanusa.com

From its unconventional (and rad) suede seats and trim to its six-speed transmission, the Nissan Versa is full of quirky surprises. That sixth gear helps keep cruising revs down, boosting mileage to 31 mpg on the highway, and its engine is one of the largest in the munchkin class: 1.8 liters. It's good for a nice 122 hp, which is far above average for subcompacts. Steering and suspension inspire confidence.

WIRED High seating position provides a good view. Dynamic shaping makes car seem bigger than it is.

TIRED Smallish trunk. To get cruise control or steering-wheel-mounted radio controls, must upgrade to more expensive option package.



Saturn Aura Green Line Hybrid

\$23,070 • saturn.com

This is the least hybridlike car of the bunch: no flashy screens or aerodynamics. Sigh. There's a reason the Aura doesn't scream *hybrid*: Not a ton to scream about here. Merely a "mild" hybrid, it can't drive on the electric motor alone. To boost fuel efficiency, the Aura relies on regenerative braking and on shutting down the engine at stops and while cruising.

WIRED At least it qualifies for a tax credit. Stealth integration of hybrid technology is good, but ...

TIRED ... how can we get props for driving a hybrid when the only evidence is a little logo outside the car? Mileage nowhere near as good as rivals', either.



Scion xD 2008

\$18,100 • scion.com

This smartly packaged, well-built, entry-level subcompact offers just the right degree of street moxie and Toyota practicality. Its 1.8-liter four-cylinder engine cranks out a respectable 128 hp, which got it up even the steepest hills with a full passenger load. Base model comes standard with antilock brakes, full-length curtain airbags, and power windows and mirrors—nearly unheard-of for a car in this price range.

WIRED Almost as many standard features as Grandpappy's Benz. 160-watt Pioneer audio system offers full iPod control through steering-wheel buttons.

TIRED Steering wheel tilts but needs to telescope, too, given high seating position.



Satellite Radios

Satellite radio is more than just digital FM, and these XM and Sirius units take full advantage of the medium by offering an abundance of onscreen info. —E.A.



Automotive



Delphi SKYFi3

\$200 • shop.xmradio.com

Drop too much coin on your spinners? This lightweight, affordable, portable XM receiver delivers what you need without breaking the piggy bank. It stores up to 10 hours of programming, plays MP3 files (via a Micro SD card), and can pause and play back live XM. Recorded tracks are easy to access and navigate should you stray out of range. Lightweight without being insubstantial, it's a boon to gear-laden road warriors.

WIRED Big, bright 2.8-inch screen is easy on the eyes and adjusts to landscape or portrait mode. Effortless recording of favorite tracks.

TIRED Small, awkwardly placed multifunction buttons are annoying. Must buy \$50 headphone-antenna combo to use unit out of car dock.



Delphi XpressRC

\$170 • shop.xmradio.com

It's amazing that it took so long for color to come to mobile satellite radio displays. The XpressRC not only dispenses with grayscale, it boasts a truly diversified display that sets a new standard for sat radio: A split screen shows the current XM station on the left, and the artists or programs airing on up to three additional stations on the right. Unit also saves 60 minutes of programming, so you can pause or rewind content.

WIRED Tune Select feature scans for your favorite tracks and artists. Glossy black finish makes the standard-issue gray plastic on most other units look prehistoric. Inexpensive.

TIRED Songsaver lets you create a 10-song library; borderline useless.



Pioneer Inno

\$250 • shop.xmradio.com

The sturdy little Inno is by far the most versatile satellite radio yet, perfect for shuttling from the car to the jogging trail and back. The built-in antenna gets excellent reception, and the car stereo FM transmitter proved equally clear. It will play recorded XM programming—up to 50 hours—as well as uploaded MP3 and WMA files. Excellent sound quality and smartly backlit buttons for easy control in dark settings.

WIRED Scheduling recordings is easy with included software. Buffer lets you capture full songs even if you start recording late.

TIRED Navigation within your favorite channels is less than intuitive, requiring one too many steps to cycle through presets. Software is PC only.



Sirius Sportster 4

\$150 • shop.sirius.com

For hardcore sports fans, there's no defeating the Sportster 4, which takes full advantage of the generally superior play-by-play action on Sirius. The Sportster 4 can prompt you when the game starts or the score changes and will display your favorite teams' scores on its screen while you're listening to something else. The FM transmitter is a bit anemic, but changing stations when interference strikes is easier than with most receivers.

WIRED Dedicated sports features will keep rabid fans happy. "One-tough-jump" feature lets you quickly flip to the local traffic or weather report.

TIRED Big, clunky car dock. Rotary tuning knob buried in recessed cup will probably cause fat-fingered users to fumble.



GPS Navigators

Portable nav systems used to dominate your dash. These new models are wee yet boast miraculously generous screens. —E.A.

TomTom Go 720

\$500 • tomtom.com

The 720 is faster, safer to use, and way more versatile than any other GPS yet. It debuts an updated OS with a host of pitch-perfect innovations to sat-nav tech. The Where Am I? feature provides your location in precise, human language you can read to friends or emergency services. The unit'll warn you when you're near a school zone or exceeding the local speed limit, and it has lots of options that allow you to prioritize what you see onscreen while driving. A blazingly fast processor makes browsing and zooming in and out of maps a pleasure instead of an ordeal.

WIRED Record direction commands using any voice you want. (Mom? Is that you?) FM transmitter plays music through radio. Buddy system shows where friends with 720s are.

TIRED The new MapShare system, which lets users update map content with road closures, accidents, and so on, will likely be only marginally successful due to concerns about verification.



Garmin nüvi 200W

\$500 • garmin.com

Though the nüvi 200W is missing many of the extra features found in other comparably priced units—MP3 and audiobook playing, for example—it clearly benefits from Garmin's black belt in navigation technology. Its automatic rerouting for missed turns, one of the most critical qualities in any nav system, is lightning fast. The screen is bright and sharp, and its presentation and prioritization of data is spot-on.

WIRED Easy to read in direct sunlight. Digital dashboard that shows speed, distance traveled, et cetera is addictive.

TIRED Limited options for displaying info in split-screen mode. Lack of fun features means still having to pack other gadgets.



Harman/Kardon Guide + Play GPS-500

\$400 • harmankardon.com

While navigation companies stretch to include music capabilities in their devices, it's refreshing to see an audio manufacturer trying its hand at navigation. The svelte GPS-500 does Harman/Kardon's reputation no harm, either as a nav system or a media player. It has a bright, crisp 4-inch screen, pops easily into a shirt pocket for sidewalk route finding, and can accommodate up to 4 gigs of media files on an SD card.

WIRED Plays MP3, WMA, and AAC files. Volume adjusted by side dial instead of screen taps—which should be a federal law.

TIRED Slow satellite acquisition time. Built-in speaker is a joke.



Mio DigiWalker C520

\$400 • miogps.com

Given the company's less-than-stellar rep, we were not expecting to like the C520 as much as we did. But its navigation data is expertly displayed, directions are clearly delivered and presented, and entertainment functions are exceptional. Most outstanding, however, is its highly evolved Points of Interest database: Bluetooth it to your phone, tap any listing, and the DigiWalker will place a call or direct you there. We used it often.

WIRED Download your entire contact list from Outlook and navigate to any entry.

TIRED Battery life topped out at about two hours. Once (but only once) it pointed us in the completely wrong direction.



Accessories

Forget home—a man's car is his *real* castle, because McMansions can't go 120 mph. Here are some suggestions to trick out your rolling fortress right. —E.A.



EDITORS' PICK

PowerFlare PF-200 Safety Light

\$45 • powerflare.com

Old-school flares are scary. PowerFlare's LED safety light is awesome. Shaped like a hockey puck and coated with a military-grade polymer, this device is waterproof, crushproof, has a 10-year shelf life, and comes in, like, a billion color combinations. (OK, 21.) Press a button to cycle through 10 flash options, including pulse, rotate, and strobe. The PowerFlare's official use is as a safety alert for disabled vehicles, but we enjoyed duct-taping a couple to our kids' heads to keep track of them at the amusement park.



Automotive



Accutire MS-4359

\$49 • measurement-ltd.com

Improperly inflated tires wear down faster and monkey with your mileage. Here's an easy way to keep an eye on your psi: sensor-equipped caps on each valve stem. Just place the gauge near the cap and it'll signal whether or not the pressure is in a safe range. Calibration took patience, but monitoring worked well.



DLO TransDock Deluxe

\$130 • dlo.com

Getting your iPod to play through your stereo is only half the battle. Controlling it without skidding off the freeway is part two. The TransDock has a steering-wheel-mounted RF remote and either broadcasts to your FM radio or plays through a stereo's auxiliary jack. The tuner's staticky, though, so go for the cable.



ESCORT 9500i

\$450 • escortradar.com

You know the difference between the fuzz and an automatic door opener, but radar detectors often don't. The 9500i sniffs out false alarms by folding in a GPS receiver. If you drive by a place that routinely sets off your detector, tap a button and it'll store the location and frequency of the signal. Works flawlessly.



Panasonic DVD-LX110

\$600 • panasonic.com

With one of these DVD players in front of them, the kids will never whine "Are we there yet?" again. The 11-inch widescreen is huge, and the monitor pivots for the perfect angle. Base of screen even has small wheels that keep it from banging all the control buttons. Headrest mount is rock solid, but you need your own headphones.



Rearview Systems STM703C

\$695 • rearviewsystems.com

For now, rearview cameras are the realm of luxury cars, but if you want to go aftermarket, don't bother with wireless rigs. Static renders them all but useless. The hardwired STM703C offers a bright, 7-inch LCD and a 130-degree field of view. Our only gripe: No quick-release makes it a sitting duck for thieves.



Tesla Electronics G-Tech Pro RR Performance Meter

\$300 • gtechpro.com

Pitch the stopwatch—this is the best way to gauge whether your ride is up to snuff. This windshield-mounted performance computer calculates everything from horsepower and torque to quarter-mile times and cornering Gs. It's simple to use and super-accurate.



Wagan 150 Watt SmartAC USB Inverter

\$50 • wagan.com

Nothing kills a road trip faster than a dead iPod battery. Frequent fliers also should never leave home without this gadget, which will power laptops or videogame consoles, charge cell phones, and run any three-pronged or USB-powered device without strain.



Scorecard

	Model	Price	EPA Rated Mileage (city/hwy)	Gas Engine (type, hp, torque)	Seats	Rating
SUBCOMPACTS AND HYBRIDS	Smart fortwo	\$12,000	Unrated	1L 3cyl, 71, 68 lb/ft @ 4,500 rpm	2	9
	Honda Civic Hybrid	\$24,350	40/45	1.3L 4cyl, 110, 123 lb/ft @ 1,000-2,500 rpm	5	8
	Honda Fit	\$15,245	27/35	1.5L 4cyl, 109, 105 lb/ft @ 4,800 rpm	5	8
	Scion xD 2008	\$18,100	26/32	1.8L 4cyl, 128, 125 lb/ft @ 4,400 rpm	5	8
	Toyota Prius	\$28,393	48/45	1.5L 4cyl, 110, 82 lb/ft @ 4,200 rpm	5	8
	Nissan Altima Hybrid	\$26,415	35/33	2.5L 4cyl, 198, 162 lb/ft @ 2,800-4,800 rpm	5	7
	Nissan Versa	\$14,005	26/31	1.8L 4cyl, 122, 127 lb/ft @ 4,800 rpm	5	7
	Saturn Aura Green Line Hybrid	\$23,070	24/32	2.4L 4cyl, 164, 159 lb/ft @ 5,000 rpm	5	5
Chevrolet Aveo LS	\$14,275	23/33	1.6L 4cyl, 103, 107 lb/ft @ 3,400 rpm	5	4	

	Model	Price	Service	Dimensions (inches, H x W x D)	Weight (ounces)	Info Services	Live Audio Buffer (minutes)	Available Memory	Rating
SATELLITE RADIOS	Delphi XpressRC	\$170	XM	2.5 x 4.5 x 0.6	3.2	Song and artist alerts, sports ticker, stock ticker	60	80 MB	8
	Pioneer Inno	\$250	XM	3.7 x 2.2 x 0.6	4.5	Sports ticker, stock ticker, XM+Napster	10	1 GB	8
	Sirius Sportster 4	\$150	Sirius	2.9 x 4.5 x 0.6	4.2	Sports ticker, traffic, weather	44	None	7
	Delphi SkyFi3	\$200	XM	4.3 x 2.4 x 0.7	4	Sports ticker, stock ticker	30	256 MB (expandable to 2 GB)	6

	Model	Price	Display Size (inches)	Touchscreen	Dimensions (inches, H x W x D)	Weight (ounces)	Traffic Ready	Memory (available, expandable)	Rating
GPS NAVIGATORS	TomTom Go 720	\$500	4.3	Yes	3.3 x 4.6 x 0.9	7.8	Yes	2 GB, N/A	8
	Garmin nüvi 200W	\$500	4.3	Yes	2.9 x 4.8 x 0.8	6.1	No	700 MB, 8 GB	7
	Mio DigiWalker C520	\$400	4.3	Yes	3.9 x 5 x 0.8	6.7	Yes	2 GB, 6 GB	7
	Harman/Kardon Guide + Play GPS-500	\$400	4	Yes	2.9 x 4.8 x 0.8	6.6	No	4 GB, 8 GB	6

How We Tested

SUBCOMPACTS AND HYBRIDS We blasted down freeways, up steep hills, around twisty curves, and into the city. We fiddled with the stereos, filled up trunks with gear, stuffed Big Gulps into cup holders, and rode in the backseats to make sure they were actually usable by normal-size adults.

SATELLITE RADIOS What matters is not the destination, it's the Journey—and we now know how to get us some Steve Perry 24/7. We installed each radio and judged its presentation of channel and artist info. We zeroed in on the quality of the FM transmitters, ease of navigation, and nifty custom functions.

GPS NAVIGATORS To you, *get lost* may sound like a brush-off, but to us it's a challenge. From the remotest backwoods of the Northeast to the back alleys of New York City, we tested these units for ease of use, accuracy, reception, and multimedia functionality.



Colophon

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THE WIRED ULTIMATE GADGET TOURNEY

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1954



Best Gadget of All Time



By the 1950s, television had become the national nightly pastime, but tiny screens and monochrome pictures left viewers itching for improvement. Color was the obvious next step, and by 1954 the technical challenges of broadcasting in full color had been overcome. RCA gave America a way to watch the new waves, that same year releasing the CT-100—an enormously complex device that required two sets of circuits, one for color, one for B&W. Alas, it met with little success in the market. Picture quality was poor; images were blurry and ghosted. “Only an inveterate (and well-heeled) experimenter should let the advertisements seduce him into being ‘among the very first’ to own a color TV set,” sniffed *Consumer Reports*. Yet more than 50 years later, WIRED readers voted the CT-100 the Greatest Gadget of All Time (see page 23) for launching television as we know it today.

RCA CT-100 Television