

CES
COVERAGE
2016



DIGITAL TRENDS



WIRELESS GETS REAL, DRONES GET AWAY WITH IT, AND TVS GET BETTER THAN EVER:

HERE'S WHAT EVERYONE'S TALKING ABOUT AT CES 2016

Something extraordinary takes place once a year in the deserts of Nevada: CES, a taste of the future. Every January, the world's entire technology industry convenes to show off the gadgets and technologies that will change our lives over the coming months. The convention swarms with 3,200 vendors, and 140,000 attendees, and that's without even letting in the public.

Last year's show set records for attendance and event space, and offered the first glimpses of some truly game-changing gear. We were wowed by the industry-changing Sling TV app, a streaming video service that finally gave cord cutters a compelling alternative to cable. We drooled over OLED televisions from LG and others, sets with ultra high-definition displays that reveal every wrinkle on a Shar-Pei and every dark ripple on a rain-pelted lake. And we oohed and aahed over LG's impossibly curved G Flex 2, a top-of-the-line smartphone with an arc that conforms to the contours of your face.

CES 2016 promises a fresh collection of mind-melting gadgets. Here's what to watch for.



01. **TREND 01: DRONES TAKE FLIGHT**
Despite tightened government regulations, a new class of drones is lifting off
02. **TREND 02: 3D PRINTERS: HYPE VS. REALITY**
We fully expect to see 3D printers to print out other 3D printers
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Connected appliances will finally earn their keep
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Your coffee pot, toaster, and doorbell will talk to each other ... about you
06. **TREND 06. CRAZY COOL CARS...**
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After years of hype, VR is set to take off. But brace yourself for more hype
09. **TREND 09. 4K TVS (OF COURSE)**
New sets have darker blacks, brighter colors, and more pixels than ever



01. DRONES TAKE FLIGHT

DESPITE TIGHTENED GOVERNMENT REGULATIONS, A NEW CLASS OF DRONES IS LIFTING OFF

Drones will go from interesting novelties to useful gadgets this year. But the possibility of a million micro airships whizzing through the skies has the Federal Aviation Administration more than a little concerned. New rules now require registration for anything bigger than a breadbox. Owners of any unmanned aircraft weighing 0.55 lbs or more (that's roughly two bars of soap) must pony up a small fee in order to prevent FAA fines and to continue to operate drones within the scope of the new law.

That won't weigh down a market set for takeoff, however. The Unmanned Systems Marketplace in the South Hall will cover more than 25,000 square feet, a 200 percent increase over the 2015 CES. Exhibitors including DJI, Yuneec, Hobbico, and Squadrone System will show smart drones that track where you are to shoot better videos -- think a drone that tracks you on a snowboard flying down a hill -- and scary drones with face tracking that help you spy on your neighbor. There's even a luxury car that comes with its own personalized drone and launch pad, and Yamaha just unveiled an agricultural drone used to dispense chemical fertilizers and treat soil or crops. Useful? For sure. Controversy? You can count on it.



02. 3D PRINTERS: HYPE VS. REALITY

WE FULLY EXPECT TO SEE 3D PRINTERS TO PRINT OUT OTHER 3D PRINTERS

Engineers, product designers, and other makers had their world rocked when 3D printers first hit the scene. Instead of printing images on paper with ink, 3D printers print physical objects from a virtual models by squeezing out layer after layer of plastic filament. The latest models make this process remarkably affordable, and accessible, and it's easy to imagine these things changing the world. Need a new battery cover for your remote control? Just print it. Want a new G.I. Joe figurine for little Tommy? Buy it online, and the toy store could send the design to your personal printer.

That's nowhere near today's reality, however, and ordinary consumers will find 3D printers vastly more complicated than they might hope. Most 3D printers are still far from ideal for most ordinary consumers. Nonetheless, we'll see dozens of upstarts that want one on every kitchen table. Last year saw a food printer from XYZprinting, while other companies have printed cars, guns, and even houses. What will this year bring?



03. WIRELESS EVERYTHING (NO, FOR REAL THIS TIME)

NEW WIRELESS TECH MEANS COMPLETELY UNWIRED EARPHONES AND WIRELESS CHARGING

Sure, you've got a wireless network at home, thanks to a router in the corner of your den. Sure, you've got a Bluetooth headset, and Bluetooth in your car to sync with your phone. But you ain't seen nothing yet.

This year we're likely to see truly legit wireless earbuds, meaning there's no wire connecting them to each other like the so-called "wireless" models you encounter today. Thanks to improved batteries and carefully constructed circuitry, companies like Pearbuds and Earin may finally make wireless buds a reality.

Then there's wireless charging, a technology that broadcasts waves of power through your house to charge your stuff when you walk in the door. Companies like Cota and Technovator – which calls its product a "power router" -- are honing the tech. Technovator's product uses induction charging, which sends power signals through the air across resonant electromagnetic fields. The technology should be safe for humans, companies claim, noting that they operate within safety guidelines established by the government. This is crazy stuff.



04. SMART(ER) HOMES

CONNECTED APPLIANCES WILL FINALLY EARN THEIR KEEP

At CES 2015, jaws dropped not because of a new cell phone or a pocket-sized miracle gadget, but because of a washing machine. LG and Samsung both showed off white-box appliances that turned traditional on its ear: Samsung had a washing machine with a sink on top of it. LG had a washing machine on top of a washing machine. Both had onlookers gawking, and left even jaded technology journalists excited.

Expect more of the same this year. We've already seen new robot vacuum cleaners from LG and Roomba with integrated cameras that double as home-security devices and can map your house. GE recently announced a range of kitchen appliances that connect and talk to each other over Bluetooth, to automate some of the irritating tasks chefs deal with every day: Think turning on the vent fan over the range, synchronizing the clocks on different appliances, or turning on lights to let you see what's bubbling away on the burner. Connectivity with specific uses, rather than vague promises of "an always connected future," will finally make the kitchen of tomorrow a reality.

Meanwhile, Somabar will show off a robot bartender appliance that won a Best of Innovation award from the CTA – giving us a taste of what we're all really hoping for.



05. THE INTERNET OF REALLY-WE-SWEAR EVERYTHING

YOUR COFFEE POT, TOASTER, AND DOORBELL WILL TALK TO EACH OTHER ... ABOUT YOU

The rise of super cheap sensors mean almost any gadget can detect you standing in front of it or connect to the Internet. But sensors alone are meaningless: Who cares if your doorbell can see you, or your bed spread knows when you're awake? It's the effort behind the scenes to connect everything that has really enabled smart gadgets.

This year will see manufacturers doubling down on efforts to pack brains into your ordinary light switches, thermostats, and other controls. With 156 companies signed up to show off smart home products, you can count on more smart sprinklers, smart hoses, smart water faucets, and smart chairs than ever before.

But again, the real battle will be getting them to talk. Will Apple's HomeKit become the dominant technology connecting all of these devices, helping the consumer electronics giant sell more phones and Apple TVs? Or will Google's Brillo win?



06. CRAZY COOL CARS...

DRIVER-ASSIST FEATURES IN MODERN CARS MEAN TECH IS TAKING OVER

The last quarter of 2015 saw more car sales than at any time in the last 15 years. Cars are hot again, and that's more evident at CES than anywhere else in the country.

CES will open with General Motors' CEO Mary Barra, who will discuss "the great synergy between cars and connectivity," as CTA president Gary Shapiro put it. Meanwhile, Volkswagen will launch a new all-electric concept car, and likely address the scandal the company's diesel division faced. Filling much of the North Hall of the Las Vegas Convention Center, automotive exhibits will gobble up 25 percent more floor space this year. Watch for hot auto tech trends from parking assistance and collision avoidance to the latest in driverless and energy-efficiency.

Speaking of electric vehicles, an upstart named Faraday Future will unveil a really sleek Tesla competitor. Meanwhile, tech companies will highlight the brains they're building into cars -- look for big displays from companies like Harman and Nvidia, whose chips and software could power the self-driving cars of tomorrow.



07. ...AND DRIVING GADGETS GALORE

WHO NEEDS A NEW CAR? THIS GEAR WILL MAKE AN OLD RIDE NEW AGAIN

With Apple CarPlay and Google's Android Auto finally working their way into dashboards, car tech is finally getting the attention it deserves. But mirroring your phone in your dash, at these technologies do, is just the tip of a very cool iceberg. The slew of companies making stuff to improve your current wheels will make your head spin faster than a 20-inch tire.

Head-up displays from companies like Exploride, Navdy, and Continental can project data directly onto the windshield in front of a driver, showing navigation, adaptive cruise control, and standard data such as speed and mileage. Other devices like Automatic and Hum by Verizon plug into the diagnostic port in your car (it's there, we promise) and use it to diagnose that check engine light, improve your efficiency, and more. There will be about 464 automotive electronics exhibitors at the show, according to analysts, with devices that can make an ordinary car extraordinary.



08. VIRTUAL REALITY BECOMES REALITY

AFTER YEARS OF HYPE, VR IS SET TO TAKE OFF. BUT BRACE YOURSELF FOR MORE HYPE

A senior vice president of digital media with the NBA described the reality of virtual reality pretty bleakly to us recently: “I think there’s [maybe] five people who have the devices.” We expect that to change this year, thanks to several high-profile yet affordable VR devices, notably the Samsung Gear VR. Powered by the same Oculus technology Facebook paid a billion dollars for, this device costs just a mere hundred bucks.

At CES 2016, VR will break out of the geek realm. Watch for the launch of the granddaddy of them all, the Oculus Rift. With a PlayStation VR headset in the works, this tech is going mainstream fast. Gaming is expected to drive VR sales, but many developers just began work on VR games in 2015; so don’t expect the fruits of their labor at CES. Beyond gaming, VR promises to reshape how we buy cars and houses, how we talk to relatives across the globe, and more. NASA is using VR on the International Space Station to assist astronauts floating in the inky depths of space.

Future hardware promises even bigger disruption. If Magic Leap’s magical product becomes reality at the show, if Microsoft’s HoloLens is affordable for consumers, if the “very, very big technological breakthrough” promised by HTC is as big as the hype, VR and augmented reality could be simply everywhere.



09. 4K TVS (OF COURSE)

NEW SETS HAVE DARKER BLACKS, BRIGHTER COLORS, AND MORE PIXELS THAN EVER

TVs always take center stage at CES, and 2016 will be no exception. Bigger, crisper, and with higher resolution, 4K Ultra High Definition (UHD) models will be everywhere. They pack more than four times as many pixels as the 1080p TV you probably own now -- and when you see it live, you'll understand how big of a leap forward it is.

All the major brands are now offering 4K sets at a wide range of prices, including Samsung, LG, Panasonic, Vizio, Sharp, Sony, and this year, Chinese company Hisense said it plans to disrupt the U.S. market. But the consumer electronics industry is never satisfied with simply one technology to hype. At CES, most of these guys will be touting HDR television, or high dynamic range, which means a higher level of contrast between light and dark images on screen. Many in the industry believe HDR is a bigger leap in picture quality than UHD.

Just having a set isn't enough, of course: You need UHD content as well. Watch for service providers to be strutting their stuff: Dish changed everything last year. And then there's Netflix, the hottest little company in town. And a little outfit called Amazon.