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## 3D Printing is doing a world of good.

It seems everywhere you turn somebody, somewhere is talking about 3d printing. From selfies and shoes to makeup and couture, this disruptive technology is taking over. But aside from printed replicas of yourself and dresses no one will ever wear, what good is 3d printing doing?

### **A ton.**

Companies, inventors and designers across the globe are capitalizing on 3d printing, using it to build homes, protect the environment and save cancer patients. Here are a few companies doing the world a whole lot of good through 3d printing.

### **Open Bionics**

Open Bionics is in the business of prosthetics and their mission is to bring low-cost prosthetics to millions of hand amputees across the world. [Open Bionics](#) recently developed an entire line of prosthetics dedicated to child amputees. With a little help from Disney (and completely free of licensing fees and royalties), a child can choose between Iron Man, Queen Elsa or a Star Wars lightsaber.

### **Stratasys**

This company can print it all, even an organ. [Stratasys](#)

assists surgeons by creating 3D models of the exact organ they will eventually operate on. In Florida, a Pediatric Cardiovascular Surgeon extensively studied a replica of a young girl's heart that Stratasys printed for him. He was able to visualize the procedure and all the potential hurdles. As a result, he successfully operated on the child, untangling her double aortic arch.

### **The Goodfellas**

You may want to get your translator ready for this one. Goodfellas is the digital creative firm responsible for that video that went viral about a blind mother and her 3D fetus. If you haven't seen it, you can check it out [here](#). You don't have to be a dedicated 3D printing manufacturer to make a difference.

### **Winsun**

This company is making major headway in the construction industry. In fact, last year this China-based [company](#) printed 10 homes in less than 24 hours and each home averaged about \$5,000. Although the technology itself is expensive, the research and designs that stem from Winsun could potentially help people from all over the world have a structured and safe place to call home.

# Crowd Hacking: Are you next?

Every year billions of dollars are lost to credit card fraud by everyday hackers who create new, innovative ways to hijack your financial information. With each new method, it becomes simpler for them to hack you and harder for you to protect yourself.

Crowd Hacking is one of the latest techniques to hit the hackerwaves. The objective of Crowd Hacking is to collect your credit card information as you walk through a high-frequency location such as a grocery store or airport.

Hackers modify inexpensive RFID readers and use them to scan the surroundings for any credit cards with an RFID chip. These are credit cards that don't require you to swipe at purchase, but instead wave it near the credit card reader.

The modification applied to the RFID reader allows someone to scan cards from further distances. In some cases, this could be a distance up to 25 feet. All a hacker has to do is download a payment application on their phone to complete a purchase from a scan.

Usually, purchases of \$25 or less do not require a signature; therefore, there really is nothing to prevent a hacker from racking up an unlimited amount of \$25 charges in a span of one day.

However, there are ways to protect yourself.

On ABC's Shark Tank, cyber security researcher, Chris Gilpin, presented [Signal Vault](#), an extremely simple approach to protecting yourself against this innovative form of identity theft. Using E-Field Technology, two cards placed strategically inside your wallet safeguard your credit cards against RFID scanners. They proactively work to detect any potential scanners and utilize 'white noise' to block any signal transmissions.

Two Sharks decided to back the project including Lori Greiner, a vastly successful household inventor, and Robert Herjavec, a leading pioneer in IT security and technology. Currently, Signal Vault runs a Shark Tank Special on their website—a 2 pack for \$24.95.



## Can a Fitbit infect your PC with malware?

With the increasing reach of the Internet of Things, it's no surprise that every cyber-security researcher from here to Russia are trying to exploit hidden vulnerabilities within our connected devices. But, thankfully, for many of these devices, our technical expertise simply isn't there yet, which a Fortinet researcher demonstrated at the latest Hack.lu Conference last October.

Axelle Apvrille of Fortinet used a Bluetooth connection to hack into a Fitbit Flex. To successfully pull off this attack, a hacker would have to be within 10 feet of the victim for at least 10 seconds.

You may be wondering why anyone would even want to hack a Fitbit, which is a reasonable question. Can someone actually benefit off your fitness data? And the answer to that is probably not. However, where the real issue presents itself is in the connection of your Fitbit to a "data collector" such as your PC. If someone can send malware or a Trojan from your Fitbit to your PC, then you'll have a serious problem.

But, like previously mentioned, our technical expertise simply isn't there yet and Apvrille's demonstration was merely a "theoretical scenario." All she was able to do was insert placeholder code and was not able to infect any connected device with malware.

This doesn't mean it isn't possible in the future. In fact, it probably will be at some point; however, according to the senior director of threat research at WhiteHat Security, Ryan O'Leary, a hack of this caliber does not have the capacity to be a major problem. In the grand scheme of things, it's a non-issue because you have to be rather close to the victim to infect their device.

"Bad guys want to infect millions of people, not just the two or three who run by."

### Sources

<http://www.itpro.co.uk/security/25476/fitbit-blasts-hacking-claims-as-false>

<http://www.usatoday.com/story/tech/2015/10/22/fitbit-hacked-10-feet-away-security-firm-says/74390914/>



# CNET wants to build the ultimate smarthome.

CNET wants to build the ultimate smarthome.

Maybe you have one or two smart gadgets sprawled across your home. Every now and then when you pass by your sophisticated looking thermostat, you giggle with pleasure and bask in the technical genius that is your home.

But that's probably all there is. Your home is a little smart, but calling it a 'genius' is probably going overboard. [CNET](#), on the other hand, does have a genius for a home.

This technology influencer wants to build the ultimate smarthome. Recently, they purchased a four bedroom, four bath home in Louisville to do exactly that. Their home will serve as the hotspot for all things smart. CNET's goal? They want to accurately and realistically test a variety of smarthome products to show exactly how they work and if they serve their intended purpose in the process.

This Louisville home is smart in every kind of way, from toothbrushes and infant formula to gardens and kitchen appliances. As you walk from room to room, something connected to the Internet of Things will greet you.

CNET's plans include a wireless charging countertop, robotic vacuums and lawn mowers, climate-controlled blinds, automated sprinklers, a web-connected washer and dryer, color changing light bulbs, and pattern-tracking sleep sensors.

Here's a rundown of a few of the rooms and their current gadgets:

## Living Room

SmartThings' second-gen hub  
FurniQi table  
Elgato Eve Room  
Philips Hue Bridge  
SimpliSafe

## Kitchen

Electrolux's ProCombi Plus Smart Oven  
June Intelligent Oven  
The PicoBrew Zymatic  
The Anova Precision Cooker  
The Instant Pot Smart  
Crock-Pot WeMo Smart Slow Cooker

## Office

iHome iSP5 SmartPlug  
i-Bright7x Smart Surge  
Dyson AM09 Hot+Cool  
Orbnext  
Quirky+GE Aros Smart Air Conditioner  
WeMo Insight Switch  
Quirky Pivot Power Genius

## Garage

Coolnest Cooler  
Whirlpool Gladiator Chillerator  
Big Ass Light  
Chamberlain MyQ Garage  
Automatic Lab's Automatic

## Formal Dining Room

MixStik  
Lutron Caséta Wireless Lighting Starter Kit  
Perfect Drink  
Somfy myLink  
Playbulb Candle  
Hue Connected Bulbs

If you're interested in learning more about any of these products, visit CNET's Smarthome page [here](#). On this page, you will find an interactive blueprint of the Louisville home where you can visit the 1st floor, 2nd floor and basement. Click on a room and receive a complete list of every product, as well as a review and the pricing of each item.



## Virtual reality on a budget: Google Cardboard

The HoloLens from Microsoft is amazing, groundbreaking and almost too high-tech to be real. But, unfortunately, for people that aren't technical geniuses or currently working for Microsoft, the HoloLens is off-limits. When it is available, it's safe to say that this virtual reality eyewear will be worth a pretty penny. So, basically, very few of us will ever have one, use one or even see one.

Sad, but true.

However, we aren't totally out of luck. Google wants to save the day with virtual reality on a budget.

Normal, everyday kind of person meet Cardboard.

Yes, that's right...Cardboard. But, it's not just any kind of cardboard; it's Google Cardboard, and for about \$15, you can have your very own pair.

These cardboard glasses integrate with your smartphone to create an immersive virtual reality. Before you do this, though, you have to—are you ready for this—fold the cardboard. When you receive your Google product, you have to fold your slab of cardboard into a set of nicely designed glasses. Once all is said and done, your item looks a bit like Wall-E.

Slip your smartphone into your cardboard and enter into a new world—or, as Google puts it, “explore a variety of apps that unfold all around you.” Watch 360 degrees of YouTube, see a sketch come to life or take a field trip to another part of the world. The choice is yours.

Google Cardboard fits with any screen up to six inches and works with any smartphone—Android or Apple. Isn't that nice of Google?

Google Cardboard is “about VR for everyone.”

