

3-D printing and remote manufacturing

Three-dimensional printing allows the creation of solid structures from a digital computer file, potentially revolutionizing the economics of manufacturing if objects can be printed remotely in the home or office.

The process involves layers of material being deposited on top of each other in to create free-



Andy Millns, co-founder of 3D printing firm Inition, agrees that 3D printing has grown exponentially over the last few years, with the company having recently worked with the Fitzwilliam Museum in Cambridge to replicate some of its statues to sell in the shop.

-standing structures from the bottom up.

Blueprints from computer-aided design are sliced into cross-section for print templates, allowing virtually created objects to be used as models for "hard copies" made from plastics, metal alloys or other materials.

Paul Doe, chief designer at motorsport technology designers Prodrive, says 3D printing is already transforming the way the company does business. His previous experience with the technology had been making prototypes and the main reason Prodrive initially bought its 3D printer in 2009 was to make non-functional prototypes. "But our use of the machine changed quite a lot in 18 months to actually making production parts," he says.



ACHIEVERS OF THE YEAR

NAME	SEMESTER	EVENTS	PLACE	PRIZE
SAI PRAVESH	VII	HACKATHON CODE	PESIT BANGALORE	I
VIGNESHA	VII	SOURCE CODE CONTEST	CBIT GANDIPET	I
AKASH LAKSHMAN	VII	SOURCE CODE CONTEST	BMSIT BANGALORE	III
AKASH LAKSHMAN	VII	TECH QUIZE	TJIT BANGALORE	II



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P1 / SMARTWATCH

Utilizes Bluetooth to interface remotely to an iPhone or Android telephone and shows notices, messages, and other basic information.

P2 / MICROSOFT BUY

NOKIA
Microsoft will pay €3.79 billion for Nokia's business, plus another €1.65 billion to license its portfolio of patents.

P3 / U CAST DEVICE

The device sends tiny vibrations in order to heal the bone faster than a conventional cast

P4 / 3D PRINTER

Allowing virtually created objects to be used as models for hard copies made from plastics, metal alloys or other materials

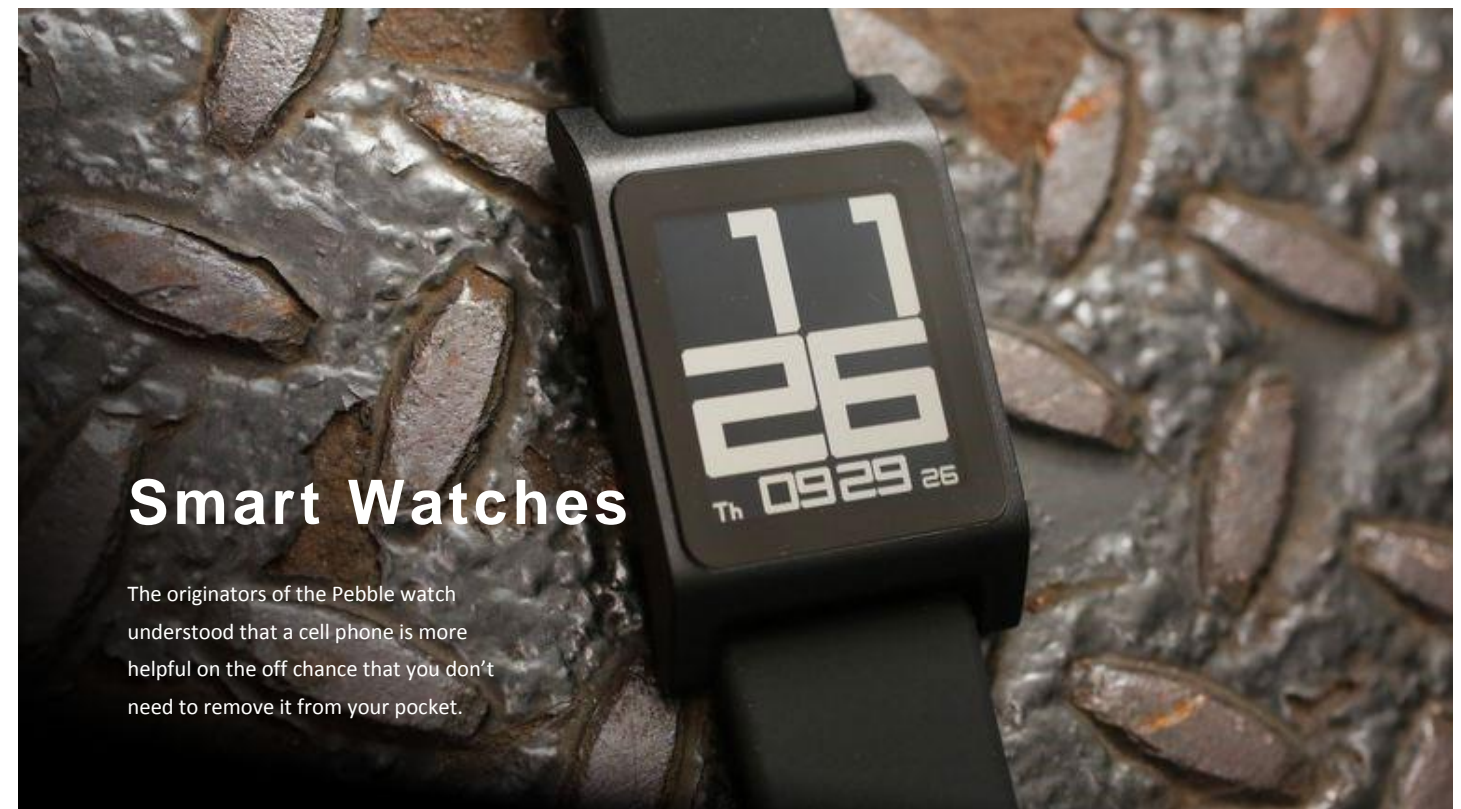
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ACE / Q3 / MAR 2014



Smart Watches

The originators of the Pebble watch understood that a cell phone is more helpful on the off chance that you don't need to remove it from your pocket.

Eric Migicovsky didn't generally need a "wearable PC." When he initially thought about what might turn into the Pebble savvy five years back, as a modern plan understudy at Delft University of Technology in the Netherlands, he simply needed an approach to utilize his cell phone without smashing his bike. "I considered making a watch that could get data from my telephone," the 26-year-old Canadian says. "I wound up building a

model in my apartment." Presently Migicovsky is transportation 85,000 Pebble watches to excited clients who would prefer not to haul a glass chunk

out of their pocket just to check their email or the climate estimate.

“ I considered making a watch that could get data from my telephone ”

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Smart Technology

>> CONT. FROM PAGE ONE

Rock utilizes Bluetooth to interface remotely to an iPhone or Android telephone and shows notices, messages, and other basic information of the client's picking on its little high contrast LCD screen. In April 2012, utilizing the online raising money stage Kickstarter, Migicovsky requested \$100,000 to encourage put up Pebble for sale to the public. After five weeks, he had more than \$10 million—making his the most elevated netting Kickstarter crusade yet. Abruptly keen watches are a genuine item classification: Sony entered the market a year ago, Samsung is going to, and Apple appears to probably take after.

The smartphone has diminished the need for a traditional wristwatch, but a different breed of timepiece is edging its way back into the mobile ecosystem. Enter the smartwatch — a gadget that can forward notifications, alerts, messages and phone calls from the handset in your pocket to your wrist. The \$150 Pebble isn't just one of the first smartwatches to populate the genre, receiving record-breaking crowdfunding on Kickstarter and selling out of



“ Rock utilizes Bluetooth to interface remotely to an iPhone or Android telephone and shows notices, messages, and other basic information ”

of Best Buy stores upon launch, it's the best device in its category thus far. But what makes the Pebble so special?

Unlike most smartwatches, the Pebble's robust community of third-party developers allows for more personal customization. For instance, you're likely to find watch faces catered to your favorite band or video game characters, rather

than just your typical Android-esque backdrop. More importantly, the Pebble is built on an open platform, meaning that literally anyone can build their own apps or watch faces if they desire to do so. By making utilization of a watch—an exemplary extra—Pebble is attempting to fit into long-standing social standards as opposed to make new ones.



Microsoft Purchases Nokia

One of the most enticing "what-ifs" of recent years has come true: Microsoft has purchased Nokia's devices and services unit, bringing the Lumia lineup under the Redmond roof. The move unites Windows Phone 8 with its biggest hardware supporter, giving the company the integrated mobile offering it's been looking for with Surface and other devices. When the deal closes in the first quarter of 2014, Microsoft will pay €3.79 billion for Nokia's business, plus another €1.65 billion to license its portfolio of patents. (The €5.44-billion total is considerably less than Microsoft paid for Skype in 2011.) 32,000 people are expected to transfer from Nokia to Microsoft, including 18,300 that are "directly involved in manufacturing."

Another notable departure is that of Marko Ahtisaari, Nokia's executive vice president of design. Ahtisaari will be leaving the company in November to "pursue entrepreneurial opportunities," according to a Nokia press release. He was credited with fathering the company's current Lumia design language, which has its roots in the ill-fated N9 smartphone.

For \$7.2 billion, Microsoft bought its way into the category of "devices and services company." It gives Microsoft the kind of end-to-end control in mobile that only Apple and BlackBerry have enjoyed (to varying

success), and a critical measure of quality control. But can Microsoft succeed where Nokia failed? Was Nokia holding Windows Phone back, or was Windows Phone the problem? The big questions aren't going away, but maybe now we'll get answers. ren't going away, but maybe now we'll get answers.



ITECH UPDATE

THE DRIVERLESS (TOY) CAR
San Francisco-based Anki wants to bring robotics to the people. The company's first offering is Anki Drive, a \$200 racing game in which toy cars can drive themselves. The cars carry sensors that feed data to an iPhone or iPad, which players can use to control speed and position for their cars. Meanwhile, the Anki app computes actions for the enemy cars so they can compete as craftily as the humans.

PRENATAL DNA SEQUENCING
The noninvasive screen is so much safer and easier that it's become one of the most quickly adopted tests ever and an important new medical application for Illumina's DNA sequencing instruments, which have so far been used mainly in research labs.



The Samsung U-Cast Device Fits Snugly Like a Blood Pressure Machine

Chances are, if you're still in high school, getting people to sign autographs on your cast is probably the best thing about breaking a bone. But for those who have graduated that phase, healing your bone as quickly as possible becomes the next immediate consideration. Enter the Samsung U-Cast, designed to heal bones quicker using U-vibrations, or Ultrasonography technology.

The high tech-looking device that looks to have come straight from an Iron Man movie,

fits around the arm and casts itself according to the user's arm size and proportion like a blood pressure device. Once fitted, the device sends tiny vibrations in order to heal the bone faster than a conventional cast. The U-Cast is also lighter for added comfort, and only requires to be charged. The U-Cast also displays the percentage of fitting balance, depending on the bone's "cracked conditions."

THIS FUNNY VIDEO EXAMINES APPROPRIATE EMAILS AND USING THE RIGHT TONE
The appropriate emails video includes a comedic voice over and lighthearted animation. Conveying the right tone can be difficult in email, especially without the use of emoticons and hashtags. This video is a must see for recent grads entering the work force, or for young professionals in general.

SCAN TO WATCH THE VIDEO

