

## THE

The lightbulb of the future  
page 62

The world's first artificial leaf  
page 58

When did inventors stop being cool?  
page 56

A camera that shoots first and focuses after  
page 61

The \$100,000 shaving razor  
page 65

A solar panel that bends  
page 69

A robot that flies like a hummingbird  
page 66

High-fashion clothes made of milk. Yes, milk  
page 70

A computer-designed dress you can print out  
page 73

This car has two gears: jet and rocket  
page 78

This invention is going to Mars  
page 75

A greener jet engine that's twice as quiet  
page 76

The tallest sculpted tower in the world  
page 82

The future of vending machines has a French accent  
page 80

## BEST INVENTIONS OF THE YEAR

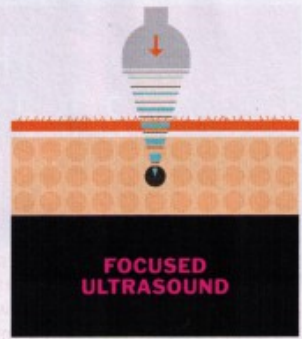
55 The most ingenious and useful breakthroughs, alterations and transformations of 2011





### THE HOLOGRAPHIC MAP

**1.83 METERS** | The Urban Photonic Sandtable Display is a holographic map that shows buildings and terrain in full color and three glorious dimensions—no goofy glasses required. After the real-world landscape is swept by unobtrusive lasers, software created by Zebra Imaging renders the map, and then a set of lenses displays buildings and land features to heights of up to 30 cm. Commissioned by the Defense Advanced Research Projects Agency, the Sandtable will, among other things, make possible better strategic planning and fewer surprises on the battlefield.



### FOCUSED ULTRASOUND

**2.5 METERS** | Magnetic-resonance-imaging (MRI) and ultrasound technologies are each remarkable in their own right, but combine them and you get something life-changing. A technique called focused ultrasound uses MRI pictures to guide multiple beams of acoustic energy into a concentrated hot spot deep inside the body to heat and melt away tumors or other growths like uterine fibroids. A version of the device is being tested to tweak brain regions to relieve pain and even the tremors associated with Parkinson's.

### WHO'S YOUR FAVORITE INVENTOR?



by **IRIS VAN HERPEN**  
Designer of 3-D-printed dresses

My favorite inventor is **Christiaan Huygens** because of his valuable contribution to astronomy and also because he was the inventor and writer of early science fiction. The combination of his genius knowledge together with his rich fantasy made him very unique. My coming collection uses the microscope, based on his inventions.



**2.13 METERS** | Photo collages are a hallmark of British artist David Hockney's oeuvre. But his latest addition, titled *May 12th 2011 Rudston to Kilham Road 5 PM*, invites viewers to see more than still pictures. The installation comprises 18 screens showing high-definition pictures taken by an array of nine cameras set at different angles and exposures on a stretch of land between two streets in East Yorkshire, England. The subject is largely static, but because the pictures switch to the same angle at different points in time, the effect is that of an artwork in motion.





# TIME

## THE INVENTION ISSUE

The Edible Campfire  
 Mind-Reading Computers  
 The Invisibility Cloak  
 The Hummingbird Drone  
 A Twitter-Based Hedge Fund  
 The Artificial Leaf  
 The 10,000-Year Clock  
 ... and 43 more of the  
 year's best innovations

+  
 What Steve Jobs  
 couldn't teach us  
 about inventing  
 By Lev Grossman



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Inside  
 THE NEW,  
 NEW,  
 NEW, NEW  
 NEWT

THE  
 INDISCREET  
 CHARM OF  
 CHELSEA  
 HANDLER

HOW  
 TO SAVE  
 THE  
 OSCARS  
 By Joel Stein