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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HOW TO SAVE THE OSCARS By Joel Stein
THE 50 BEST INVENTIONS OF THE YEAR

THE SCULPTED SKYSCRAPER

412 METERS | Kuwait City's newest skyscraper spirals up from the sand, but Al Hamra Tower is no desert mirage. The centerpiece of the booming Arab city, it stands tall in a challenging climate. The tower needed a shield from the blistering Arabian Desert to the south while preserving sweeping views of the Persian Gulf to the north, so architects Skidmore, Owings & Merrill wrapped the tower in glass and added a sweeping cut up the south facade covered in limestone. The rock face reflects the desert heat with a distinct salute to the unrelenting Middle Eastern sun. The aesthetic 90-degree curve traces the sun's path across the sky and is punctuated by glass wings at the top, making Al Hamra seem to rise ever higher.

PRE-EMPTIVE POLICING

94.7 METERS (ONE CITY BLOCK) | Police officers in Santa Cruz, Calif., are getting ahead of the bad guys by figuring out where crimes will be committed before they take place. Using a computer program developed by mathematicians, an anthropologist and a criminologist, officers are able to predict what areas of the city are most at risk for future crimes and the time the crimes are most likely to occur, so they can have a member of the force at the ready.

THE SKI-SLOPE INCINERATOR

100 METERS | When the city of Copenhagen spent 3.5 billion kroner ($640 million) on a new waste-to-energy plant—the largest environmental project in Denmark—officials didn't want it to be just a 100-m-tall incinerator. They needed a way to turn the waste-treatment facility into a tourist destination, so they solicited bids to integrate the structure into the city. The winning architect, Bjarke Ingels, designed a 425-m-long, 31,000-sq-m ski slope with areas for skiers of all skill levels.

By Cleo Brock-Abraham, Nick Carbone, Eric Dodd, Lev Grossman, Jeffrey Kluger, Alice Park, Kate Rawlings, Claire Suddath, Feifei Sun, Mark Thompson, Bryan Walsh and Kayla Webley