

**WE DO NOT
HAVE IGNITION**
Was the U.S. NIF
worth \$3.5 billion?
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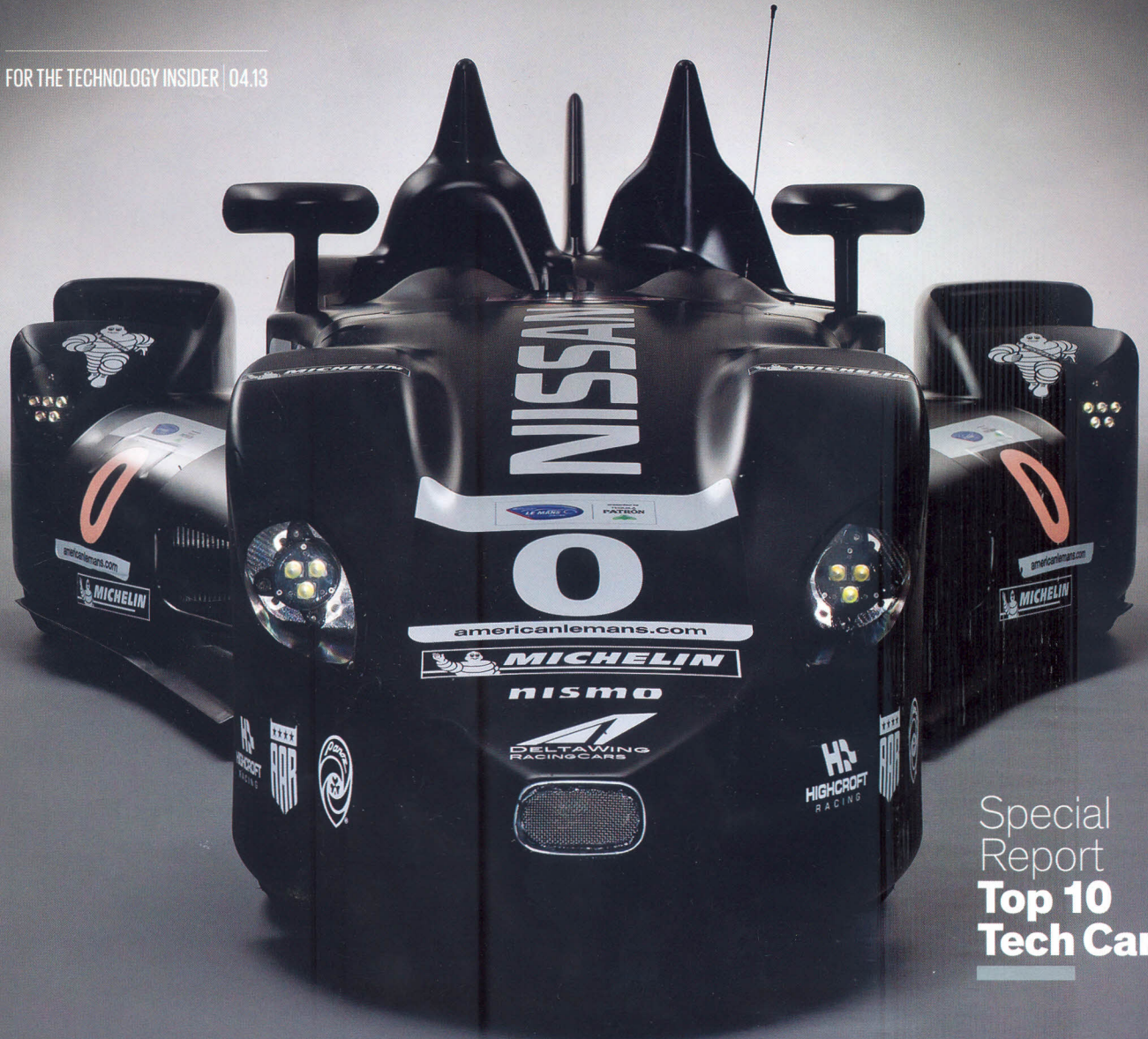
**STORMY SPACE
WEATHER**
New satellites to
spot solar storms
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**GOT RADIO
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One company's
decadelong odyssey
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Special
Report
**Top 10
Tech Cars**



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TOP TEN TECH CARS

Fast, yet light; automated, but comfortably familiar, these cars save energy with advances in widely differing technologies—electric, diesel, and gasoline.

BY LAWRENCE ULRICH

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Star Power

The National Ignition Facility, the world's biggest fusion experiment built to date, has missed a key deadline. Can it do what it was designed for?

By Rachel Courtland

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Peaceful Coexistence

A team of cutting-edge medical engineers embraces dynamic spectrum sharing in a quest to revive paralyzed limbs.

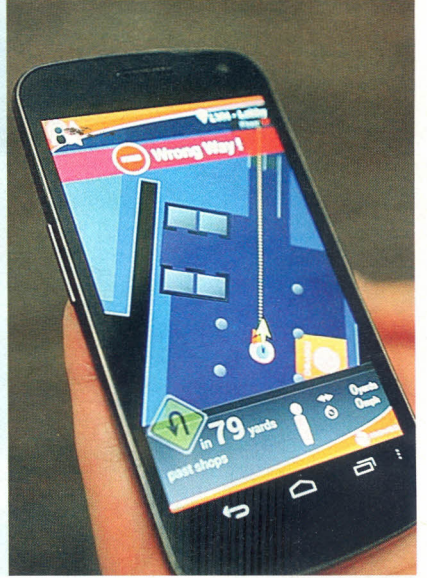
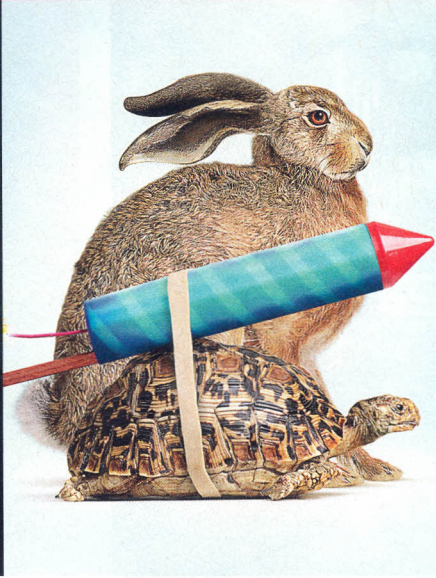
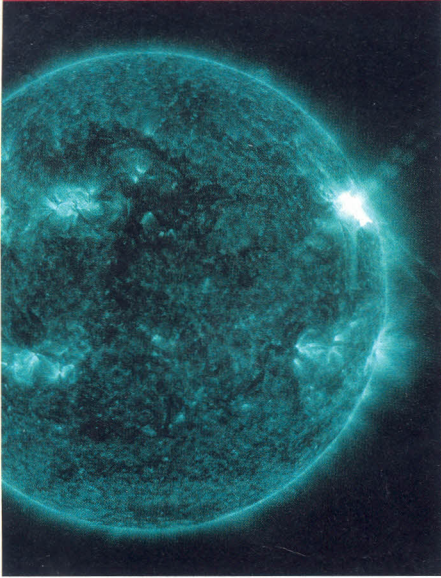
By Ariel Bleicher

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Charging Up the Road

EV drivers can beat "range anxiety" by wirelessly recharging their batteries from coils buried in the road.

By Seungyoung Ahn,
Nam Pyo Suh &
Dong-Ho Cho



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News

Systems to Fight Solar Storms
New satellites and systems on the ground could keep our grids safe.
By Jean Kumagai

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A Scanner Brightly
Bring your old slide collections into the digital age. By Glenn Zorpette

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Spectral Lines
"Gales" of innovation often mask slower, deeper systemic changes that are more important.
By G. Pascal Zachary

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Online

Spectrum.ieee.org

Video: Sensor Wranglers
Smartphones are loaded with sensors that detect motion, direction, temperature, light, and even altitude. See how the French company Movea helps app developers use those sensors for indoor navigation, motion capture, and gesture recognition.

ADDITIONAL RESOURCES

Tech Insider / Webinars

Available at spectrum.ieee.org/webinar

- ▶ Improvements to EDA and EMC Workflows in CST Studio Suite 2013—10 April
- ▶ Smart Materials With COMSOL Multiphysics—11 April
- ▶ CST Studio Suite 2013: MW & RF Simulation—16 April
- ▶ Meeting the Challenges of Embedded System Design for Automobiles—17 April
- ▶ System and User Space Virtualization Support in Yocto: The Yocto Meta-Virtualization Project
- ▶ Mobile DevOps: Why Should You Care?
- ▶ New Techniques for Electrical Engineering Courses
- ▶ Additive Manufacturing 101: Changing the Future of Product Development and Manufacturing
- ▶ NEW PRODUCT RELEASE LIBRARY:
<http://spectrum.ieee.org/static/new-product-release-library>

The Institute

Available 5 April at theinstitute.ieee.org

- ▶ **IEEE WOMEN IN ENGINEERING TEAMS UP WITH GOOGLE** IEEE WIE and Google recently held a two-day event aimed at supporting women engineers. "Enhancing the Sustainability of Women in Technology," held at the company's headquarters in Mountain View, Calif., drew more than 200 attendees.
- ▶ **STUDENT BRANCH SPOTLIGHT: RUTGERS UNIVERSITY** The IEEE student branch at Rutgers University, in New Brunswick, N.J., has been busy with activities lately, including developing a robot.
- ▶ **SHED THE WIRES, SHED THE WEIGHT** IEEE 802.3 physical-interface transceivers are used in vehicles to accommodate multiple entertainment and data systems. One IEEE standards group is working to reduce the number of wires required to run these applications, to pave the way for lighter, more fuel-efficient cars.

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