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SPECTRUM

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CHINA'S UNHACKABLE NETWORK

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NEW LIFE FOR MOORE'S LAW

Getting serious about EUV lithography
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NOWHERE TO GO BUT UP

An e-motorcycle takes on Pikes Peak
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HOW THE WEB GOT SOCIAL

It started with dial-up bulletin boards
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How smart algorithms let this little gizmo compete with a high-end DSLR P.34



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RUN SILENT, RUN STEEP

The goal? Get to the top of a mountain in Colorado faster than any other two-wheeled vehicle ever has.

BY PHILIP E. ROSS

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The Molten Tin Solution

Chipmakers eye EUV lithography as a way to keep Moore's Law on track.

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A Pocket Camera With Many Eyes

The collection of cheap plastic lenses from Light creates high-quality images. Here's how.

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Can Solar Save the Grid?

Smarter solar inverters can work in concert to stabilize the power grid.

By Benjamin Kroposki

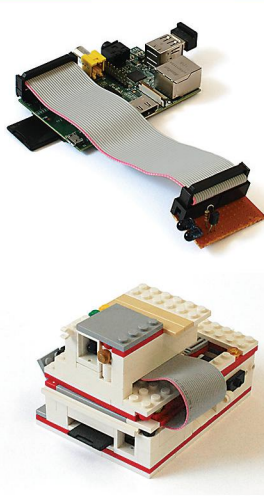
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Social Media's Dial-Up Roots

Even before the Web, ordinary people were regularly socializing online.

By Kevin Driscoll

On the cover Photograph for IEEE Spectrum by Sue Tallon



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Online

Spectrum.ieee.org

Video: This Water-Jet Cutter Slices Through Anything
Startup Wazer introduced the first desktop water-jet cutter with a Kickstarter campaign, bringing this form of computer numerical control cutting technology out of the factory and into DIY workshops. Watch it saw a Rolex in half, cut a steak into the shape of the United States, and carve a dragon out of glass: <http://spectrum.ieee.org/waterjetcutter1116>

ADDITIONAL RESOURCES

Tech Insider / Webinars

Available at spectrum.ieee.org/webinar

- ▶ Analyzing HF & LF RadHaz Scenarios With 3D EM Simulation—3 November
- ▶ Creative Statistics—4 November
- ▶ Realizing New Potentials in Miniature Subsea Robotics—8 November
- ▶ EMC Simulation for Space Applications With CST STUDIO SUITE—10 November
- ▶ Transformer Simulation—17 November
- ▶ Antenna Analysis and Design With Characteristic Mode Analysis—22 November
- ▶ **MASTER BOND RESOURCE LIBRARY**
<http://spectrum.ieee.org/static/master-bond-resource-library>
- ▶ **NEW PRODUCT RELEASE LIBRARY**
<http://spectrum.ieee.org/static/new-product-release-library>

The Institute

Available at theinstitute.ieee.org

- ▶ **BRAIN INITIATIVE** There's been a surge of activity around the world to develop tools and applications to help the brain function better. IEEE has formed its own initiative to advance brain research and neurotechnology development through workshops, standards, and partnerships with academia, government, and industry.
- ▶ **WESTON METERS** Weston Electrical Instrument Co. introduced the first portable and direct-reading current and voltage meters in the late 1880s. This breakthrough was recently honored with an IEEE Milestone.
- ▶ **IEEE DAY** Hundreds of groups around the world held events on 4 October to mark the annual celebration, which commemorates the founding of one of IEEE's predecessor societies.

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