POPULAR SCIENCE

CONTENIDO

VOLUMEN 277 No. 5, NOVEMBER 2010

FEATURES

THE OBSESSIVES

Mars in 39 Days.

NASA wants to send humans to Mars, but its preferred rocket technology is too slow. Former astronaut Franklin Chang Díaz has a plan —and an engine— to make the trip a reality.

Sam Howe Verhovek.

INNOVATORS

69 Brilliant 10

Meet the brightest young researchers in America, 10 emerging scientists who are creating bullets out of sound waves, making robots that school with fish, and predicting the next flu pandemic.

HOW IT WORKS

66 Perfect Timing.

Strontium atomic clocks are three times as accurate as the current standard. Here's how they tick.

Erika Villani.

FIELDWORK.

56 Dinner Detectives.

Scientists deploy DNA forensics to protect vanishing species.

Laura Allen.

REGULARS

MEGAPIXELS

Purple worms; guiding a stem cell.

WHAT'S NEW

19 Gadgets.

A cellphone that performs electrocardiograms.

The goods.

The farthest-zooming camera, and more.

30 Gadgets.

Cameras that let you film in a new dimension.

32	Automotive. Reinventing the internal combustion engine.
	HEADLINES
35	Space. Are American astronauts getting adequately trained in Russia?
36	Archaeology. Robots map the entire Titanic wreck in 3-D.
38	Invention of the Month. A better MRI, built in a basement.
48	Space Tech. Astrobots battle for supremacy.
	HOW 2.0
85	You built What?! A giant PC – controlled chess set built from Legos.
88	Gray Matter. How stuntmen light themselves on fire.
90	Use it Better. Control your media with free software.
92	Ask a Geek. Can I bring everything on my computer with me anywhere on a thumb drive?
	FYI
96	Can we repurpose retired space shuttles as space stations?

OTHER STUFF

From the editor.

The Future Then.

The Inbox

10

12

112