

# POPULAR MECHANICS

Supercar  
Buyer's  
Guide P. 30



HOW YOUR WORLD WORKS

# HOW TO MAKE ANYTHING

PAGE 56

## SKILLS & TOOLS

- > PORTABLE TABLE SAWS <
- > PRESSURE-WASH YOUR DECK <
- > THE NEW LEGOS <

## LESSONS FROM AN ASSASSIN

PAGE 22

## DID SPACEX JUST GET ONE STEP CLOSER TO MARS?

PAGE 12

## The Best Paper Airplane

## A DIY Monster Truck

## Plutonium

PLUS

## ICE CREAM, COCKTAILS, AND MEAT

A SPECIAL SECTION

Could you drive  
1,000 miles  
without GPS  
AND LIVE?

**WE TRIED IT!**

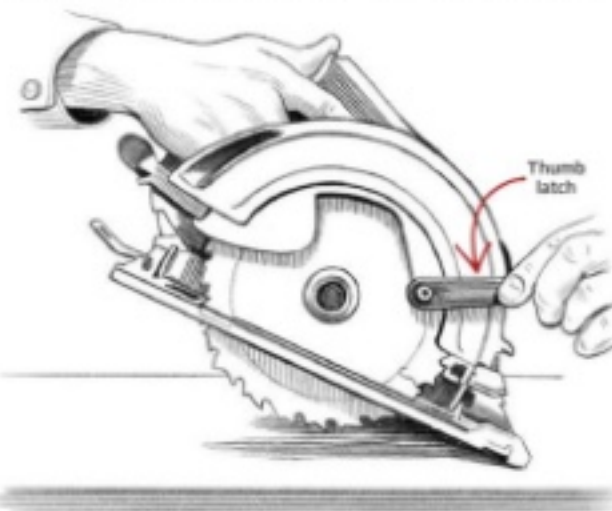
PAGE 32



## ART THAT MIGHT HELP DETECT CANCER

It's hard to get people to care about carbon nanotubes, says Houston-based artist Joseph Cohen,

because they're so small you can't even see them. And yet the optical properties of these exquisitely tiny cylinders of carbon atoms make them ideal for cancer-sensing implants. Since 2015, Cohen has worked as an artist-in-residence at Memorial Sloan Kettering Cancer Center in New York City, learning how to separate nanotubes into different naturally occurring atomic formations, called chiralities, that emit different colors when zapped with infrared light. When sorted by formation, nanotubes are most effective at detecting cancer, but it's not an easy task. To build excitement for nanotubes, and get more scientists sorting them, Cohen is working on a series of paintings made out of nanotubes that change appearance under infrared light. The paintings go on view at Rice University in Houston this November.



## THE CONSTRUCTION TIMESAVER

The first time you see somebody withdraw the blade guard on a circular saw to make a plunge cut, you think, *That's just*

*crazy*. But if you need to cut out a notch or section from a piece of lumber, a circular-saw plunge cut saves minutes—or hours on a big job—over using a jigsaw. And it's perfectly safe once you know how to do it: Set the saw blade depth slightly deeper than the lumber. With your finger off the saw trigger, use the thumb latch to draw back the blade guard. Firmly rest the front of the saw shoe on the work surface while tipping the saw forward at an angle so the blade barely clears the surface. With the blade guard held back, press the trigger. When the blade reaches full speed, slowly angle the spinning blade down into the lumber and release the thumb latch. This is key: Don't lift the front of the shoe off the lumber. Pivot the saw down so the shoe rests completely on the surface, and push the saw to the stop point.



## T2 IS BACK, IN 3D

One of this summer's biggest blockbusters explores a surveillance state ruled by drone warfare with merciless A.I.—and it premiered in 1991. After two years of remastering and

conversion, director James Cameron's *Terminator 2: Judgment Day* in 3D opens on August 25. The stereoscopic technology caught Cameron's imagination while developing a 12-minute 3D short for Universal Studios' T2 park attraction in 1995. And with proof-of-concept for a 3D re-release in 2012's successful *Titanic* in 3D, he turned to his next most successful 2D movie. The original film was converted to 4K with a degrading process to improve the quality. Then 3D-conversion studio Stereo D traced every object in every frame, down to pupils of the actors' eyes, says Stereo D president William Sherak. Every object was given depth, and then proprietary software generated left- and right-eye offset footage. Cameron's team finished the remaster, reviewing each frame's color with T2's original director of photography, Adam Greenberg.