

# Spinoffs from Mars!

NASA has been exploring Mars since the 1960s, pushing the frontier of innovation to get to the red planet and discover its secrets. This new technology has often found other uses here on Earth as well. A few highlights:



## Generating Wind Power

Solar power is great until a Martian dust storm blacks it out. But there's another option for those blustery days: wind power. NASA helped design a low-maintenance wind turbine that can function in extreme conditions – on Mars or on Earth.



## Guiding Cars with Tech for Mars

Autonomous navigation on Mars requires “brains” made up of advanced neural networks and deep learning algorithms. But if the rovers can manage on another planet, putting the same tech in cars, drones, and toys here on Earth is a no-brainer.



To learn more, visit:  
[spinoff.nasa.gov/mars](https://spinoff.nasa.gov/mars)



## Suturing with Mars-Grade Materials

Bringing home a Martian sample requires a perfectly sealed container to prevent contamination. A soft, flexible, strong material keeps Martian dust from interfering with the seal and is great for heart surgery sutures and stents.



## Detecting Methane Leaks

To search for life on Mars, we look for clues – like methane, which is usually created by microbes. But tools to sniff out tiny traces of methane on Mars now help detect leaks in natural gas pipelines on Earth.



## Carbonating Beer

Technology created to fuel a journey home from Mars (now helping recycle methane from oil drilling) also found another use on Earth: capturing carbon dioxide emitted by fermenting hops and using it to put the bubbles in beer.