

# 5

## FUN ENGINEERING FACTS ABOUT THE MARS 2020 ROVER



Wondering how the Mars 2020 rover differs from prior Mars rovers? Here are some of its cool new innovations!



### SHOWING OFF NEW WHEELS

**More durable** - thicker, more advanced aluminum  
**Better traction** - new tread pattern for steeper climbing  
**Modified shape** - reduced width to allow larger diameter, maximizing performance

### HEARING THE SOUNDS OF MARS

One or more microphones may capture the first audio from Mars:

- the rover's descent to the surface
- the sounds of a working rover:
  - heat pumps that keep it warm, or
  - motors that turn its head and wheels

### COLLECTING COOL ROCKS

First drilling and storing ("caching") of promising rock core samples.

Preparing for a possible sample return to Earth by a future Mars mission.



### GETTING OXYGEN OUT OF THIN AIR

First test of producing oxygen from Mars' carbon-dioxide atmosphere.

Paves the way for future human explorers to use natural resources on Mars!

