



# TeachEngineering

STEM Curriculum for K-12



## Edible Rovers



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# Example Rover (Can you identify the parts?)



Image source: Courtesy NASA/JPL-Caltech, <http://marsrover.nasa.gov/gallery/artwork/hires/rover3.jpg>

# Rover Main Parts and Functions

**body:** protects the rover's "organs"

**brains:** computers that process the rover's information

**wheels:** attached to the legs and allows rover movement

**arm:** a robotic arm used for extension and movement to use tools and instruments

**energy source:** solar panels and batteries

**cameras:** cameras mounted on the head, front or back of the rover to “see” and take pictures

**communications:** antennae for communication with NASA and Earth

**temperature controls:** heaters and insulation to protect the rover

**instruments and tools, such as:**

**abrasion tool:** scrapes rock to bring back samples

**spectrometer:** identifies any minerals that contain iron

**x-ray spectrometer:** takes x-rays of rocks and soil so NASA can identify elements in the rocks

**microscopic imager:** shows very small details of rocks and soil

# Example Rover with Main Parts Identified

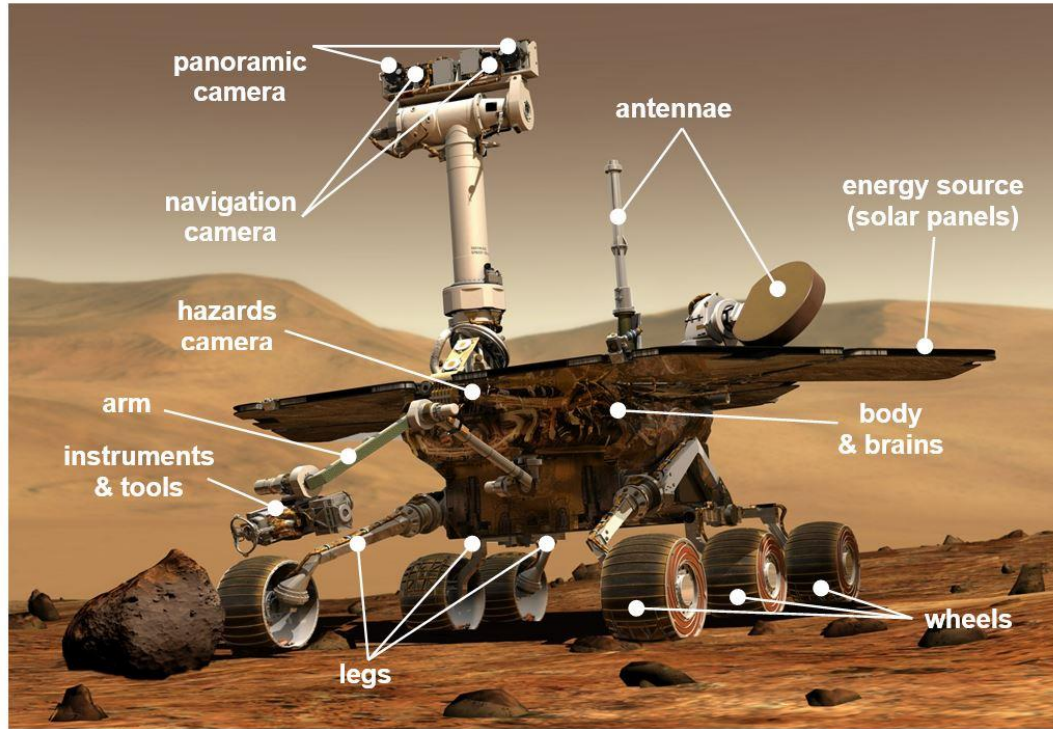


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