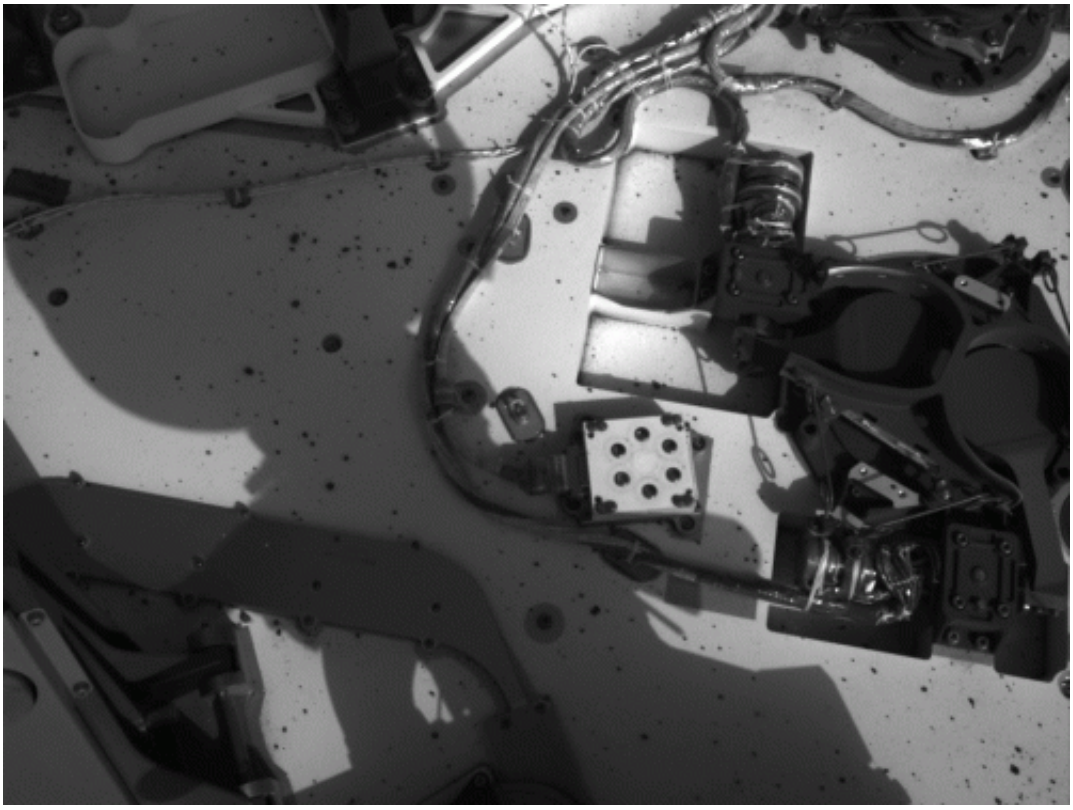
Mars rover Curiosity wrapping up health checkups (Update)

September 12 2012



This set of images from NASA's Curiosity rover shows the inlet covers for the Sample Analysis at Mars instrument opening and closing, as the rover continues to check out its instruments in the first phase after landing. These images were taken by the Navigation camera on the 36th Martian day, or sol, of the rover's operations on Mars (Sept. 11, 2012). The rover's mast is casting a shadow over the deck. Image credit: NASA/JPL-Caltech

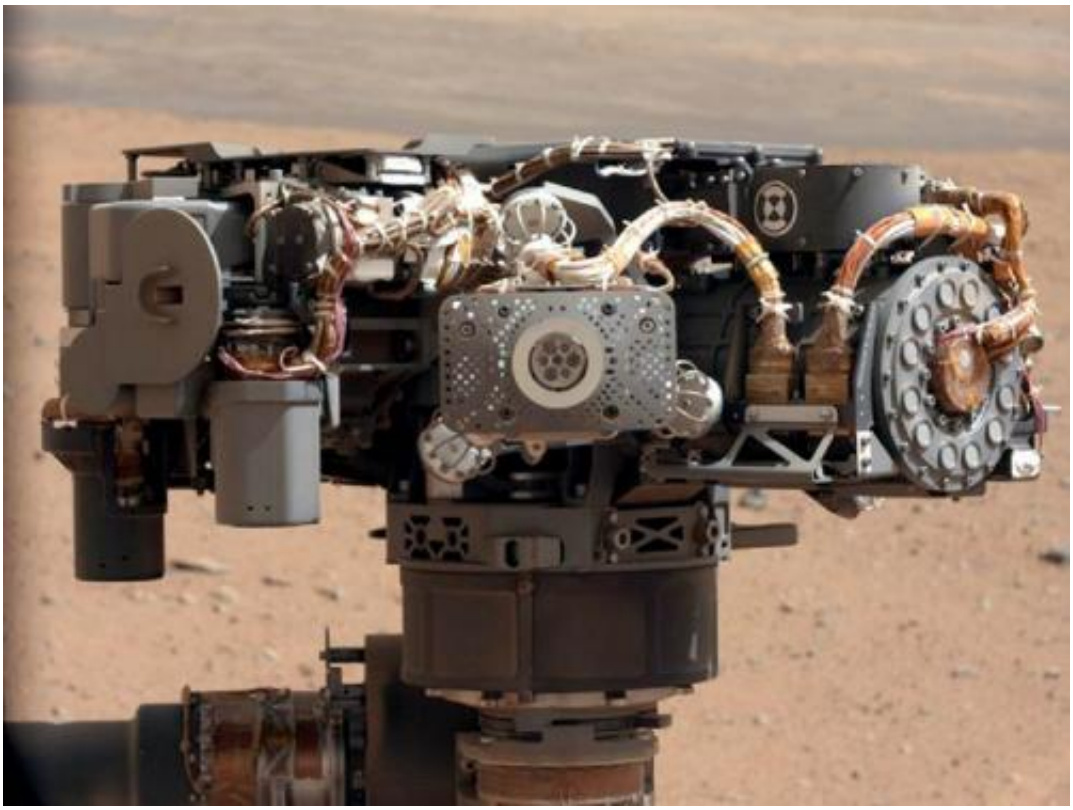
The Mars rover Curiosity is preparing to roll again after it completes its health checkups this week, project managers said Wednesday.

Since landing in an ancient crater near the Martian equator Aug. 5, the car-size rover has trekked more than the length of a football field, leaving wheel tracks in the soil that could be spied from space.

The most high-tech rover sent to the red planet, it spent the past month testing its instruments before embarking on a mission to examine whether the environment could have been hospitable to microbial life.

Mission manager Jennifer Trosper said the six-wheel Curiosity has "performed almost flawlessly" so far.

It still has to do a final check of its robotic arm and aim its camera to track one of Mars' moons, Phobos, passing in front of the sun before hitting the road Friday night.



This image shows the Alpha Particle X-Ray Spectrometer (APXS) on NASA's Curiosity rover, with the Martian landscape in the background. The image was taken by Curiosity's Mast Camera on the 32nd Martian day, or sol, of operations on the surface (Sept. 7, 2012, PDT or Sept. 8, 2012, UTC). APXS can be seen in the middle of the picture. This image let researchers know that the APXS instrument had not become caked with dust during Curiosity's dusty landing. Scientists enhanced the color in this version to show the Martian scene as it would appear under the lighting conditions we have on Earth, which helps in analyzing the terrain. Image credit: NASA/JPL-Caltech/MSSS

"The plan is to drive, drive, drive," said Trosper of the NASA Jet Propulsion Laboratory, which manages the $2.5 billion mission.

Curiosity is headed toward a spot called Glenelg where three types of terrain meet. Along the way, it will select rocks to study up close and scoop up soil. So far, the rover has used its laser to zap at rocks several

feet away. Within a month or so, it plans to use its robotic arm to drill into rocks.

The rover's ultimate destination is Mount Sharp, a mountain rising from the crater floor, but it was not expected to journey there until the end of the year. From orbit, the base appeared to contain signs of past water, providing a starting point to search for the chemical building blocks of life.

More information: Mission page: www.nasa.gov/msl