

Scientists plot driving routes for new Mars rover (Update)

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This image provided by NASA shows a high-resolution 360-degree color panorama of Gale Crater taken by the Curiosity rover, which landed on Mars on August 5, 2012. A low-quality version was released earlier. Curiosity is on a two-year mission to study whether Gale could support microbial life. (AP Photo/NASA)

NASA's newest rover Curiosity has yet to make its first move on Mars, but scientists said Tuesday they are already mapping out possible driving routes to a Martian mountain.

Since landing in Gale Crater near the equator last week, the nuclear-powered rover has been busy getting a head-to-wheel health checkup while parked. It touched down about 5 miles (8 kilometers) from Mount Sharp where signatures of past water have been spotted at the base.

Its ultimate goal is to scale the lower slopes in search of the chemical building blocks of life to determine whether the environment was favorable for microbial life.

The team is "kind of itching to move at this point," said deputy project scientist Ashwin Vasavada of the NASA Jet Propulsion Laboratory, which manages the \$2.5 billion mission.

Scientists have been poring over pictures of the landing site snapped by Curiosity and spacecraft circling overhead. The pebble-strewn terrain where the rover landed appeared easy to traverse but the landscape gets more rugged the closer to Mount Sharp.

The team identified half a dozen potential paths through buttes and mesas that are reminiscent of the southwestern United States. Vasavada estimated it'll take a year to make the trip to the mountain driving about the length of a football field a day. Along the way, the six-wheel rover will make pit stops to study interesting rocks and scoop up soil.

Before Curiosity can explore, it has to go through a laborious check of its tools and systems. As the most complex spacecraft sent to Mars, it landed using a novel routine that involved lowering it to the surface by cables.

It just completed an upgrade to its computers and planned to take its first, albeit short, test drive in several days. Engineers still have to test the rover's robotic arm and drill later this month before giving the keys to scientists.

"We're trying to just keep our eyes on the prize and finish these checkouts and then get going," said Vasavada.

More information: [Image: A whole new world for Curiosity](#)

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