
Subject: Curiosity Mars rover hammers into rock
Posted by [CyberkNight](#) on Mon, 04 Feb 2013 04:36:17 GMT
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The Mars rover Curiosity has used its drill system for the first time.

The robot's tool bit hammered briefly, without rotation, into a flat slab of rock on the floor of Gale Crater, the huge bowl where it landed last August.

Pictures taken before and after the operation reveal the indentation left by the tool's action.

Although previous rovers have scrubbed the surface of rocks, Curiosity is the first to carry the capability to drill inside them.

US space agency (Nasa) engineers are taking a step-by-step approach to the procedure.

They need to check both the rock and the drill are behaving as expected.

If the target slab is deemed suitable, a number of test holes are likely to be drilled - using the rotation as well the percussive action - before a powdered sample is picked up and delivered to Curiosity's onboard laboratories.

The rover's mission is to try to determine whether Gale has ever had the environments in the past that were capable of supporting bacterial life.

Detailing the composition of rocks is critical to this investigation as the deposits in the crater will retain a geochemical record of the conditions under which they formed.

Drilling a few centimetres inside a rock provides a fresh sample that is free from the alteration that can occur at the surface as a result of weathering or radiation damage.

Full article: <http://www.bbc.co.uk/news/science-environment-21312821>
