

27 June 2009

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The main image of the new "Free Spirit" website
JPL-Caltech

[NASA Launches 'Free Spirit' Website](#)

It features regular updates on the rover's condition

With NASA's Spirit rover stuck in loose Martian soil since May 6th, its mission control team at the Jet Propulsion Laboratory, in Pasadena, California, is working around the clock to recreate the exact conditions on the Red Planet inside a test sandbox, using an exact replica of the MER rover. Because engineers at the American space agency believe it may be a while before they make any attempts of moving the robot on our neighboring planet, they set up a website offering regular updates on their progress with the testing.

The "Free Spirit" website, hosted by JPL, can be viewed [here](#). Complete with its own logo, it features more content about this issue than other NASA pages, and is specifically dedicated to Spirit. It contains pictures of Troy, the sandy area that trapped the exploration robot, as well as other images that Spirit took while stuck. Videos and podcasts of various officials at JPL are also available for public viewing, and John Callas, the project manager for the Mars Exploration Rovers (MER) mission, says that more are to come.

At this point, scientists at JPL are working on obtaining the perfect soil mix that would replicate the one on Mars to the greatest extent possible. In a spinner, the team is adding various types of clays and sand, and constantly tests the properties of the mix, looking for that perfect match. Once it has it, it will proceed to "landscaping" a slope from the stuff, exactly the same as the one Spirit was driving over before it got trapped. It have to recreate a 12-degree angle, and also to dig accurate reconstructions of the holes that the robot made in the sand while trying to set itself free.

Also, the experts will have to position a rock underneath the belly of the test rover. On Mars, this is a real threat to Spirit, because one false move could see the robot's belly touching it and remaining suspended. This is one of the main dangers that the JPL team needs to be aware of, Callas adds. Over the next few weeks, once the stage is set, engineers will test out numerous escape possibilities, and will analyze which is appropriate for use on Mars and which is not. Only then will they upload movement commands to Spirit and watch it set itself free.