

Mars rover lands at Sciencenter



SIMON WHEELER / STAFF PHOTO

Exhibit developer David Jordan has built a miniature, remote-control Mars rover and simulated Martian environment at the Sciencenter in Ithaca. The exhibit opens Tuesday.

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The Sciencenter has landed a Mars rover in newly discovered terrain on the second floor of the popular Ithaca kids destination.

Visitors will be able to drive a remote-control rover model across a simulated Martian landscape once the exhibit opens on Nov. 4

The rover operator will sit at a terminal across from a walled off Mars environment. From the desk, commands are sent to move the rover or sample rocks while the operator watches on a monitor via four cameras in the exhibit.

The rover is a miniature version of a NASA rover, which Cornell University scientists helped develop and operate, and can

navigate rough terrain and has a moving robot arm. When the arm is pressed on the rocks in the exhibit, information is given about them.

The exhibit also has two small windows where visitors can look into the simulated Mars environment and see the rover as it follows commands.

The project got started when the staff realized there was an unused, walled-off, L-shaped space on the second floor that could not be opened to direct public access. A grant of \$12,500 from the Tompkins County Tourism Program put Sciencenter Exhibit Developer David Jordan, of Ithaca, to work. He designed the space using NASA photos from the rover Opportunity to cover the walls, and he built the miniature rover.

Volunteers from Cornell helped with the programming that runs the rover's command system. The rover's brain is a programmable Arduino device commonly used in Makerspace projects. A five-second delay in the rover's actions simulates the 20-minute delay that scientists on Earth experience controlling rovers on Mars.

Christine Bissen, of Dryden, the director of advancement at the Sciencenter, sees it as another way to engage and empower children. "So we're using technology and the interactive aspect to get them really excited," Bissen said.

The exhibit will be a part of the permanent display of exhibits at the Sciencenter, and will be updated as science makes new discoveries about Mars.