23132 College Students Are About to Put a Robot on the Moon Before NASA

Bloomberg.com March 29th, 2023

The US was the first and only country to put humans on the moon, but NASA has been noticeably absent from the international competition to put robots there.
It seems likely that NASA's robots will also be beaten by a group made up primarily of students at Carnegie Mellon University. About 300 students worked on a rover named Iris that they plan to send to the moon aboard a commercial lunar lander scheduled to launch on May 4.

Iris is about the size of a shoebox and weighs a little less than 4.5 pounds, which would make it the smallest and lightest rover yet to reach the moon. It's also the first to be made from carbon fiber, rather than aluminum. Part of the reason to build such a small rover was so its creators could afford to hitch a ride on a private flight.

As a tool of scientific observation, Iris isn't the most powerful instrument. It has just a single camera at the front and back, which will make distinguishing shadowy rocks from craters especially difficult. Iris has the advantage, though, of being low to the ground, meaning its camera could capture close-up images of moon dust. Despite its limitations, Iris is an undeniable step forward for the private space industry. It's set to be the first rover not built by a nation-state to land on an extraterrestrial body. "We want to open up space to everybody," says Professor Stefanov, the Mission Control Lead for the Iris Lunar Rover.

Success isn't guaranteed. If Iris makes it past launch and survives the vibrations of space, strong electromagnetic fields and a moon landing, it still has to deal with extreme temperatures and the challenges of navigating the moon's surface. Iris has about 50 hours of battery life, during which time its creators hope it can capture photos and send them back to Earth. Once its batteries run out, it will remain on the moon.

Carnegie Mellon University expects its students to be a fixture of lunar exploration. It's planning another student-made rover, a $5 million project called MoonRanger and funded by NASA. MoonRanger will be designed to head to the moon's south pole to look for ice, believed to be buried a yard or so beneath its crust. That might make the rover a good candidate to accompany NASA's planned water-seeking mission to the moon, which is intended to land two Americans at the lunar south pole in 2025.

409 words