



For Immediate Release

Contact for Astrobotic: Carolyn Pace
carolyn.pace@astrobotic.com

Astrobotic to Develop CubeRover Standard for Planetary Surface Mobility

May 4, 2017

Pittsburgh, PA – Astrobotic, in partnership with Carnegie Mellon University, has been selected by NASA to develop CubeRover, a class of 2-kg rover platforms capable of small-scale science and exploration on planetary surfaces. The team will design a CubeRover capable of evaluating lunar lander ejecta and characterizing surface mobility. CubeRover will establish a new standard for small-scale surface-deployable science and exploration platforms.

The development and demonstration of CubeRovers offers the prospect of standardization and democratization of planetary surface mobility, analogous to the transformation that CubeSats brought to the domain and economics of Low Earth Orbit. A standardized format for surface mobility will drive the space community to commoditize systems, components, and instruments, lowering costs while increasing functionality.

“Standardizing rover design at the small scale will open access to planetary bodies for companies, governments, and universities around the world, just as the CubeSat has in Earth orbit.” said Andrew Horchler, Principal Investigator of the program at Astrobotic.

Affordable and standardized planetary rover surface deployments will accelerate the pace of space exploration, realizing NASA science objectives and scouting sites for future human settlements.

“CubeSats revolutionized the frequency and economy of missions to orbit. CubeRovers will similarly revolutionize surface exploration. In planetary robotics, small is the next big thing,” said Dr. William “Red” Whittaker, Astrobotic Chairman and Professor of Robotics at Carnegie Mellon University.

The low cost and mass of CubeRovers offer a new paradigm for robotic planetary missions involving teams of rovers. Small rovers can survey more efficiently than a single, large rover, with teams operating in parallel across a surface. Mission risks can be reduced when capabilities are spread among multiple, reliable, low cost rovers. CubeRovers acting as scouts can identify



safe paths into regions that are risky for large, expensive primary rovers. CubeRover exploration enables follow-on missions to accomplish goals that would not otherwise have been attempted.



Artist interpretation of the Astrobotic Peregrine Lunar Lander with CubeRover

###

About Astrobotic:

Astrobotic Technology is a lunar logistics company that delivers payloads to the Moon for companies, governments, universities, nonprofits, and individuals. The company's spacecraft accommodates multiple customers on a single flight, offering lunar delivery at an industry-defining price of \$1.2 Million per kilogram. Astrobotic is a partner with NASA through a Space Act Agreement under the Lunar CATALYST program, and has 22 prior and ongoing NASA contracts. The company has 10 payload delivery deals in place for its first mission and dozens of customer negotiations for upcoming missions. Astrobotic was spun out of Carnegie Mellon University's Robotics Institute in 2007, and is headquartered in Pittsburgh, PA.

