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Redwire Receives NASA Approval to Advance Cutting-Edge Manufacturing Technology for Building Infrastructure on Moon and Mars

JACKSONVILLE, Fla.--(BUSINESS WIRE)-- Redwire Corporation (NYSE: RDW), a leader in space infrastructure for the next-generation space economy, announced today that its advanced lunar and Martian manufacturing technology, Mason, has passed Critical Design Review (CDR) with NASA participation. Mason is a tool suite designed to operate on the Moon and Mars that will enable the construction of berms, landing pads and roads for future lunar and Martian habitats. The project, managed under a Tipping Point agreement with NASA's Space Technology Mission Directorate, is part of a $12.9 million award to prototype Mason for broader plans to support a long-term presence and exploration on the lunar surface.

"We are proud to have successfully completed this exciting milestone and bring Mason one step closer to launch," said Redwire President of Space Missions, Tom Campbell. "Leveraging Redwire's unmatched in-space manufacturing experience, Mason technology is critical to enabling sustainable operations on the Moon and Mars surface."

Designed to be scalable and platform agnostic for use on different landers, rovers, or robotic arms, Mason can convert lunar or Martian regolith into a strong, solid material similar to concrete. Mason includes three tools: a grader tool called BASE (Blade for Autonomously Surfacing Environments), a compaction tool called PACT (Planetary Automated Compaction Tool), and a microwave sintering tool called M3LT (Microwave Melter of Martian and Lunar Terrain).

Regolith can cause equipment failures and maneuverability challenges, and it can become a dangerous projectile when accelerated by a rocket's exhaust plume. The presence of dust on equipment and on spacesuits also can have health impacts on astronauts. Rockets launching without a launch pad can incur significant damage. Clouds of dust propelled into orbit during launch can create debris for orbiting satellites, causing a satellite to move. Mason mitigates these risks, while significantly lowering the cost of lunar and Martian exploration efforts.

With CDR successfully completed, Redwire engineers will fabricate the Mason critical design prototype and conduct functional testing of the three tools. Redwire is currently exploring flight opportunities for a demonstration mission.

Redwire is leading a team of industry and academic partners to develop Mason, including NASA Kennedy Space Center Swamp Works, Lambda Technologies, Colorado School of Mines, and the University of Central Florida.

About Redwire

Redwire Corporation (NYSE: RDW) is a global space infrastructure and innovation company enabling civil, commercial, and national security programs. Redwire's proven and reliable capabilities include avionics, sensors, power solutions, critical structures, mechanisms, radio frequency systems, platforms, missions, and microgravity payloads. Redwire combines decades of flight heritage and proven experience with an agile and innovative culture. Redwire's approximately 750 employees working from 17 facilities located throughout the United States and Europe are committed to building a bold future in space for humanity, pushing the envelope of discovery and science while creating a better world on Earth. For more information, please visit redwirespace.com.

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