

NASA Artemis1 to carry ASU CubeSat into space

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LunaH-Map team (L-R) Joe DuBois, Tyler O'Brien, Nathaniel Streubel, Craig Hardgrove (NASA Principal Investigator). Credit: ASU School of Earth and Space Exploration

The Lunar Polar Hydrogen Mapper (LunaH-Map) mission is one of the

tinest NASA planetary science missions but has big science goals. Previous missions and studies have identified the presence of water-ice at the Moon's poles. However, there are still unanswered questions about how much water-ice is contained within permanently shadowed regions.

It is also unknown how much water-ice might be retained at depth throughout illuminated regions of the lunar South Pole. LunaH-Map will answer those questions by entering [orbit](#) around the Moon and producing a neutron map that will reveal where and how much water-ice is hidden across the lunar South Pole.

LunaH-Map will help us understand the origins of water on the Moon and how it has been redistributed since the Moon's formation. The maps will also be used to plan future missions and landing sites for robotic and human water-ice prospecting.

Provided by Arizona State University

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