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AUSTRALIAN LUNAR EXPERIMENT PROMOTING HORTICULTURE: PAYLOAD DESCRIPTION AND MISSION

Abstract

The payload for first "Australian Lunar Experiment Promoting Horticulture" (ALEPH-1) mission is described. With a total mass limited to 525 g, this small payload comprises of a camera module and a separate bio-module containing selected biological samples. ALEPH-1 is planned to be delivered to the lunar surface (Reiner Gamma) fitted to the Intuitive Machines (IM) Nova-C lander in the IM-3 mission scheduled for the last quarter of 2025 or first quarter of 2026. This presentation will outline the mission objectives and some of the main challenges involved in qualifying and delivery of ALEPH-1 to IM, including the unique aspects associated with the biological samples. The mission is funded by the Australian Space Agency as part its Moon-to-Mars Initiative.