

Concept Study of Coring Sampling System for Martian Moons Exploration Mission

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Japan Aerospace Exploration Agency (JAXA) /Institute of Space and Astronautical and Science (ISAS) is studying Martian Moons Exploration (MMX) Mission that is the first mission in the world to collect and return sample from Phobos or Deimos. MMX is planned to be launched in or after 2024.

We conducted a concept study of a specific sampling system that is one of the most important mission equipment of MMX for engineering mission objectives as well as science objectives. We studied a sophisticate sampling system applying coring technic and manipulation system to meet both science / engineering mission objectives and requirements. In this report, we will report a result of the concept study and outline of the sampling operation in MMX mission.

Keywords: Sampling System, Martinan Moons Exploration