

## Overview of DESTINY<sup>+</sup> mission

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DESTINY<sup>+</sup> that stands for Demonstration and Experiment of Space Technology for INterplanetary voYage, Phaethon fLyby and dUst Science is small mission program using Epsilon rocket in ISAS/JAXA. The mission of DESTINY<sup>+</sup> is to validate key technologies for our future deep space exploration.

DESTINY<sup>+</sup> will demonstrate the high performance electric propelled vehicle technology and execute the flyby exploration of asteroid 3200 Phaethon. DESTINY<sup>+</sup> starts its voyage from a low elliptic orbit, spirals up the orbits, fly-by the Moon, escapes from the Earth, and depart for the asteroid 3200 Phaethon. DESTINY<sup>+</sup> will make flyby at about 500 km from 3200 Phaethon.

The scientific objective is to understand where and how sources of organic compounds are transported to Earth. It will detect and analyze interplanetary and interstellar dust particles during deep space cruise. Dusts will be detected from the 3200 Phaethon with the dust analyzers and its surface will be observed with two cameras to make clear mechanisms of dust ejection from 3200 Phaethon. This paper will introduce an overview of the DESTINY<sup>+</sup> mission.

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