

## Japanese spacecraft to attempt landing on distant asteroid (Update)

February 21 2019



This computer graphic image provided by the Japan Aerospace Exploration Agency (JAXA) shows the Japanese unmanned spacecraft Hayabusa2 approaching on the asteroid Ryugu. Hayabusa2 is approaching the surface of an asteroid about 280 million kilometers (170 million miles) from Earth. The JAXA said Thursday, Feb. 21, 2019 that Hayabusa2 began its approach at 1:15 p.m. (JAXA via AP, File)

A Japanese spacecraft began its approach Thursday toward a distant asteroid on a mission to collect material that could provide clues to the origin of the solar system and life on Earth.



Hayabusa2's descent was delayed for about five hours for a safety check, but the unmanned craft is still due to touch down as scheduled on Friday morning, the Japan Aerospace Exploration Agency said.

During the touchdown, which will last just seconds, Hayabusa2 will extend a pipe and shoot a pinball-like bullet into the asteroid to blow up material from beneath the surface. If all goes successfully, the craft will then collect samples that would eventually be sent back to Earth. Friday's attempt is the first of three such touchdowns planned.

The brief landing will be challenging, because of the uneven and bouldercovered surface. Hayabusa2 is aiming for a 6-meter- (20-foot-) diameter circle to avoid obstacles. Space agency controllers will direct its approach until it is 500 meters (1,600 feet) above the asteroid's surface, after which it will be on its own because it takes 20 minutes for commands from Earth to reach the craft.

JAXA, as the Japanese space agency is known, has compared landing in the circle to landing on a baseball mound from its height of 20 kilometers (12 miles) above the asteroid.





In this photo provided by the Japan Aerospace Exploration Agency (JAXA), staff of the Hayabusa2 Project watch monitors for a safety check at the control room of the JAXA Institute of Space and Astronautical Science in Sagamihara, near Tokyo, Thursday, Feb. 21, 2019. Japanese spacecraft Hayabusa2 is approaching the surface of the asteroid Ryugu about 280 million kilometers (170 million miles) from Earth. JAXA said Thursday that Hayabusa2 began its approach at 1:15 p.m. (ISAS/JAXA via AP)

The asteroid, named Ryugu after an undersea palace in a Japanese folktale, is about 900 meters (3,000 feet) in diameter and 280 million kilometers (170 million miles) from Earth.





This Oct. 25, 2018, image provided by the Japan Aerospace Exploration Agency (JAXA) shows asteroid Ryugu. Japanese spacecraft Hayabusa2 is approaching the surface of an asteroid about 280 million kilometers (170 million miles) from Earth. The JAXA said Thursday, Feb. 21, 2019, that Hayabusa2 began its approach at 1:15 p.m. Hayabusa2's shadow is seen at center right over Ryugu. (JAXA via AP)

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