

JAPAN'S TWO HOPPING ROVERS SUCCESSFULLY LAND ON ASTEROID RYUGU

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This computer graphic image provided by the Japan Aerospace Exploration Agency (JAXA) shows two drum-shaped and solar-powered Minerva-II-1 rovers on an asteroid. | Photo Credit: [AP](#)

Two robotic rovers have become world's first to successfully land on the surface of an asteroid, the Japanese space agency JAXA said, sharing images captured by the probes.

On September 21, the small compact MINERVA-II1 (Micro Nano Experimental Robot Vehicle for Asteroid, the second generation) rovers separated from the Hayabusa2 spacecraft. The MINERVA-II1 consists of two rovers, Rover-1A and Rover-1B.

"We have confirmed both rovers landed on the surface of asteroid Ryugu. The two rovers are in good condition and are transmitting images and data," JAXA said in a statement. Analysis of this information confirmed that at least one of the rovers is moving on the asteroid surface.

MINERVA-II1 is the world's first rover to land on the surface of an asteroid. This is also the first time for autonomous movement and picture capture on an asteroid surface. MINERVA-II1 is therefore 'the world's first man-made object to explore movement on an asteroid surface'

A colour image taken immediately after separation from the spacecraft was shared by the space agency. However, it is blurred because the shot was taken while the rover was rotating.

"Although I was disappointed with the blurred image that first came from the rover, it was good to be able to capture this shot as it was recorded by the rover as the Hayabusa2 spacecraft is shown," said Tetsuo Yoshimitsu, responsible for the Hayabusa2 Project MINERVA-II1.

"Moreover, with the image taken during the hop on the asteroid surface, I was able to confirm the effectiveness of this movement mechanism on the small celestial body and see the result of many years of research,"

The rovers are designed to hop along the asteroid's surface, taking photographs and gathering data. One of the images was taken during a hop, and the resulting blur gives the feel of dynamic movement.

"I was so moved to see these small rovers successfully explore an asteroid surface because we could not achieve this at the time of Hayabusa, 13 years ago. I was particularly impressed with the images taken from close range on the asteroid surface," said Makoto Yoshikawa, Hayabusa2 Project Mission Manager.

Hayabusa2 is scheduled to deploy a larger rover called MASCOT in October and another tiny hopper next year. The main spacecraft will collect a sample to bring to Earth for laboratory analysis.

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