

Japanese space debris inspection probe launched

February 19 2024



Credit: Pixabay from Pexels

A Japanese firm said Monday it had successfully launched a spacecraft tasked with inspecting potentially dangerous man-made junk floating around the Earth.

The European Space Agency (ESA) estimates that around one million pieces of debris from satellites and rockets larger than a centimeter—big enough to "disable a spacecraft"—are in orbit.

The Active Debris Removal by Astroscale-Japan (ADRAS-J) is meant to rendezvous with and examine the remains of a Japanese H2A rocket floating in space for the last 15 years, Astroscale Japan said.

The probe was launched from New Zealand at 1452 GMT on Sunday, and Astroscale "has successfully made contact... and is ready to start operations", project manager Eijiro Atarashi said in a statement.

The precise location and orbital position of the H2A upper stage rocket body, launched by Japan Aerospace Exploration Agency (JAXA) [space agency](#) in 2009 and around the size of a bus, is not known.

But using observation data from Earth, the estimated location will be determined and ADRAS-J will approach "from a [safe distance](#)" and then gather images to assess the structure's movements and condition.

The ADRAS-J spacecraft—which Astroscale says is the first of its kind—was selected by JAXA for the first phase of a program aimed at removing large debris of Japanese origin in cooperation with private companies.

Junk like used satellites, parts of rockets and wreckage from collisions has been piling up since the space age began, with the problem accelerating in recent decades.

Potential solutions include using a [laser beam](#) to push objects into a new orbit and Astroscale's own space "tow-truck", which uses a magnet to collect and move out-of-service satellites.

The launch of the ADRAS-J mission came after Japan successfully blasted off its new flagship H3 [rocket](#) on Saturday after years of delays and two previous failed attempts.

It also followed the country's successful landing last month of an unmanned probe on the Moon—albeit at a wonky angle—making it just the fifth country to achieve a "soft" lunar landing.

© 2024 AFP

Citation: Japanese space debris inspection probe launched (2024, February 19) retrieved 28 April 2024 from <https://phys.org/news/2024-02-japanese-space-debris-probe.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.