

IDEA OSG 1



IDEA OSG 1 is the world's first micro-size satellite for the tracking and mapping of space debris. It will contribute to refining current debris distribution models and improving the ability of spacecrafts in assessing the collision risk in the high-risk orbits.

OSG – the main supporter of the mission, is actively contributing to global manufacturing industries including aerospace, automotive, die/mold, and many others.

In support of ASTROSCALE and its promotion of the IDEA OSG 1 mission, OSG hopes to further encourage space development as well as relating manufacturing industries.

Space debris is made of man-made objects such as rocket upper bodies, non-functioning satellites, metal fragments, etc. It is a general term that refers to failed space objects, as well as to debris resulting from explosions and collisions. Including small objects under 10 cm in size, there are an estimated 5.8 trillion pieces of debris currently being tracked from the ground in orbit around the earth.

The 20kg micro satellite "IDEA OSG 1" with a compact envelop (38 cm x 38 cm x 60 cm) is equipped with two pieces of micro-debris impact sensor known as "Space Debris Monitors (SDM)". SDM is developed by the Japan Aerospace Exploration Agency (JAXA) based on the shared patents by Institute for Q-shu Pioneers of Space, Inc. and IHI Corporation. A single SDM has a measurement area of approximately 1,000 cm² that detects impacts of micro-debris in almost real-time.

IDEA OSG 1 was launched on November 28, 2017 but never got into proper orbit due to a guidance software malfunction on the Soyuz rocket.



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