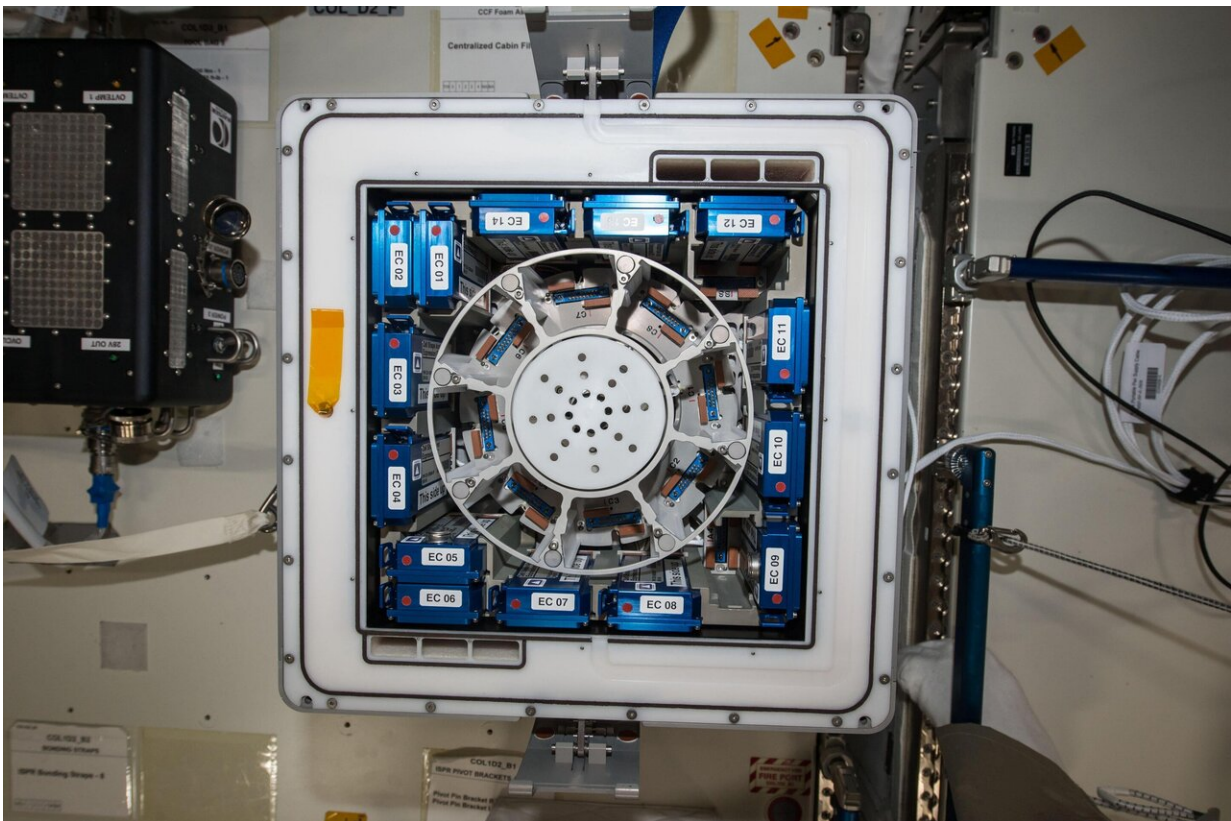


Fly your experiment to the space station with Bioreactor Express Service

September 26 2019



Kubik on Space Station. Credit: NASA

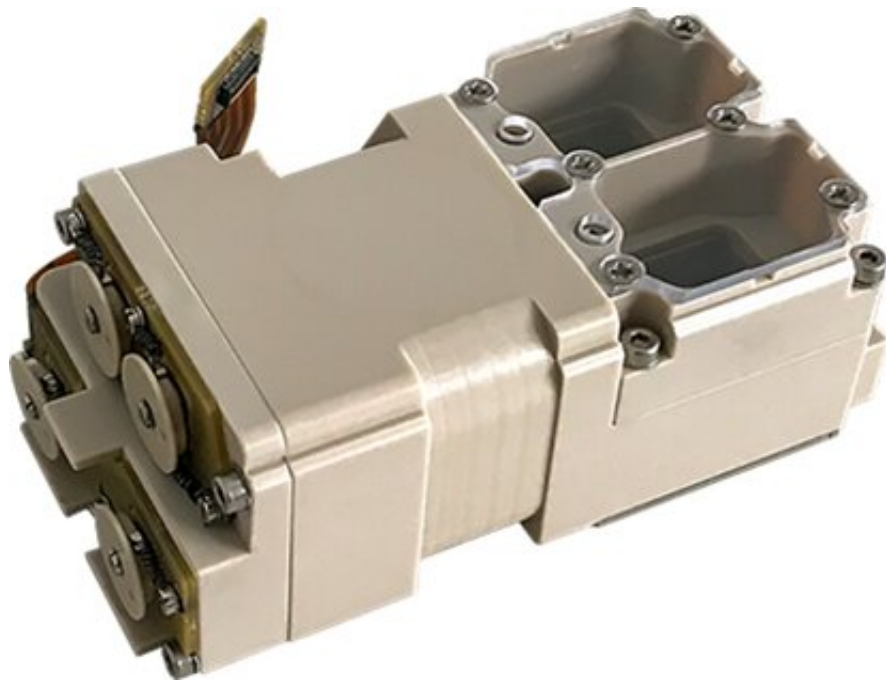
ESA is partnering with Kayser Italia to offer the Kubik facility on the International Space Station to commercial customers. The new Bioreactor Express Service allows users to conduct experiments in

weightlessness.

Customers can use existing experiment containers, customise them, or develop an entirely new container to match their requirements. The starting price is €160,000 and covers the flight using an existing experiment container—from conception to launch and returning scientific data within a year.

Kubik has been running experiments for ESA's SciSpace programme since 2004 in the European Columbus module that is part of the International Space Station. The miniature laboratory offers room for 24 experiment containers and is equipped with features such as [temperature control](#) and a centrifuge that simulates a range of gravity levels by spinning the containers. These features allow for comparison between [different environments](#), for example how samples of bacteria, [human cells](#) or plant seeds react to gravity levels on Earth, the Moon and Mars.

David Zolesi from Kayser Italia says "with Bioreactor Express Service, we want to make Kubik accessible to everyone, providing an end-to-end [service](#) from concept to implementation, for a reasonable price and within an acceptable time-frame."



BioAsteroid. Credit: European Space Agency

Bioreactor Express Service was developed within ESA's commercial partnership initiative for European industry to propose joint development of new commercial services and applications using the unique conditions that space provides.

First Contract: BioAsteroid

The announcement of Bioreactor Express Service comes with the first experiment to fly. The BioAsteroid project from the University of Edinburgh will investigate how gravity affects the interaction between microbes and rock in reduced gravity. Two bio-mining reactors will allow researchers to see how the microbes develop a biofilm on the surface of a rock sample. Biofilms are collections of microbes that grow on a surface, a form of biofilms are dental plaques. The experiment is scheduled to fly in October next year.

More information: For more information and how to get on board [visit the Bioreactor Express Service website](#).

Provided by European Space Agency

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