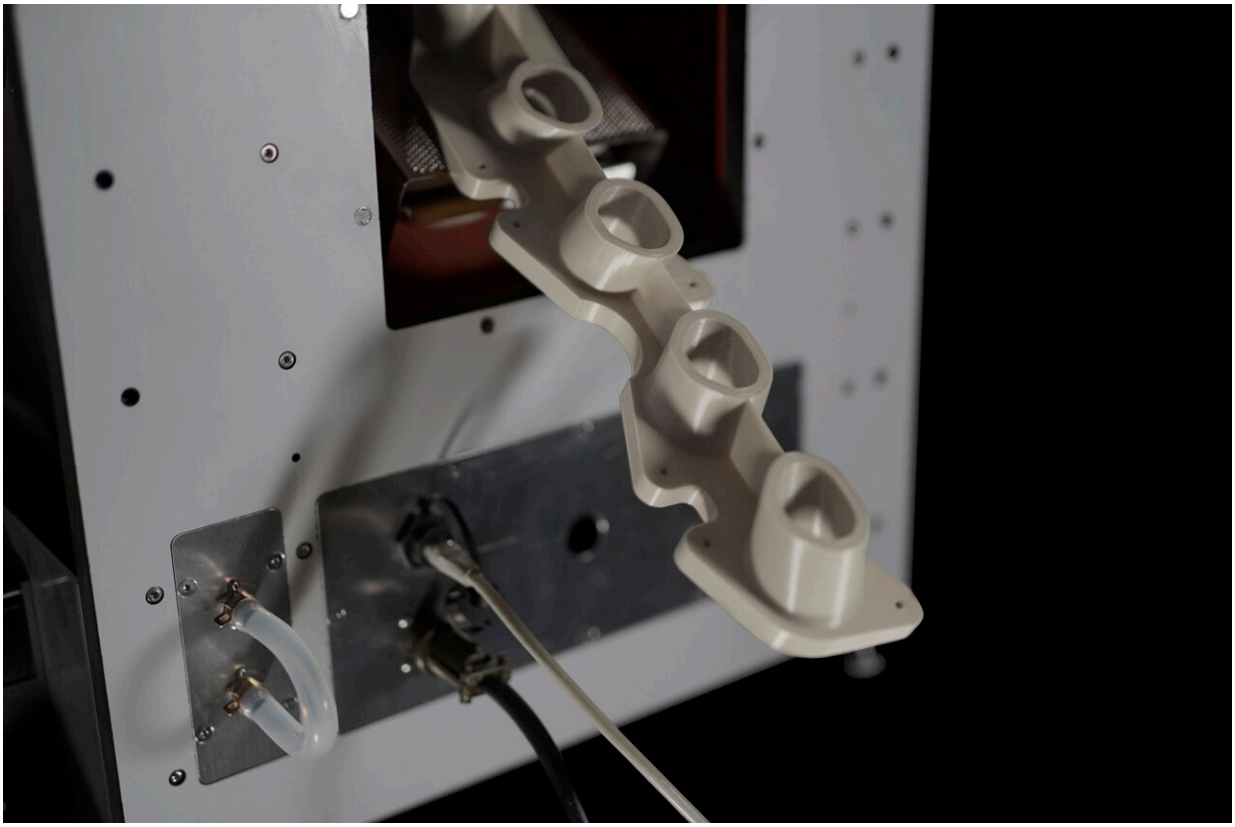
# Unlimited 3D printing for space

March 16 2022



Credit: BEEVERYCREATIVE

A standard 3D printer cannot produce anything bigger than the size limits of the printer itself. But this new IMPERIAL 3D printer, designed for use in space by a Europe-wide industrial consortium, can print high performance polymer parts of unlimited size along one dimension.

What is also known as "additive manufacturing" is an essential enabling technology for deep space crewed missions. Built to operate in weightlessness—meaning it can work upside down on Earth—this printer has been specially designed with "out-of-Earth" manufacturing in mind, enabling future space explorers to produce structures, tools and spare parts as needed.

The project was undertaken for ESA by a consortium led by OHB in Germany, with Azimut Space in Germany, Athlone Institute of Technology in the Republic of Ireland and BEEVERYCREATIVE in Portugal developing the 3D printer. Now this ground-based prototype is complete, the next step would be to test it in orbit aboard the International Space Station.

Provided by European Space Agency

Citation: Unlimited 3D printing for space (2022, March 16) retrieved 19 April 2024 from https://techxplore.com/news/2022-03-unlimited-3d-space.html