

SCIENCE SHELL

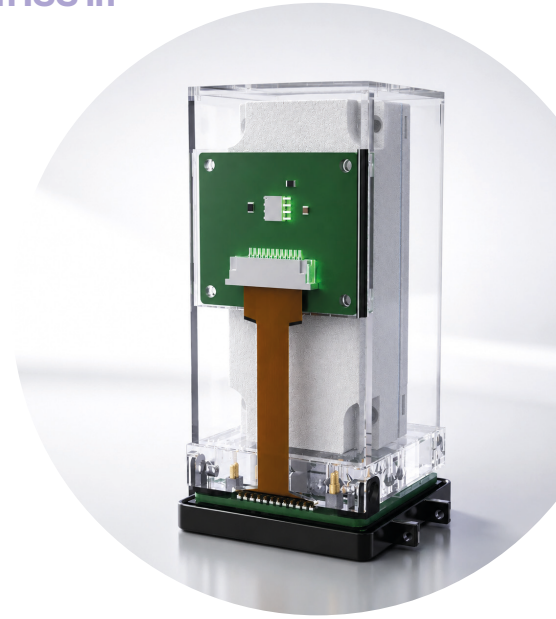
TYPE-IX

Our Bioreactor Type-IX ScienceShell

Currently operational on ISS in ScienceTaxi BioSpin

The Type-IX ScienceShell enables reliable cell growth under microgravity conditions. It features a **spacious Culture Chamber equipped with integrated LEDs** that simulate day-night cycles to support natural cell behavior. All environmental parameters and light cycles are automatically controlled through the ScienceShell's onboard electronics and programmable schedule, ensuring **fully autonomous operation** during experiments in space or on Earth.

The tank or culture chamber are **modular design** and can be adjusted to the required volume for any specific experiment.



- Compatible OuterShell: 448
- Automation Level: Fully Autonomous
Operation Type: Active
- **LoC: 3** ; 1 (InnerShell) + 2 (OuterShell)
- Maturity: Spaceflight Proven **(TRL 9)**
- Last mission: HUMB
- Material of CC and Tank: Biocompatible photopolymer resin
Manufacturing Process: 3D Printed and Assembled by Yuri
- Number of Culter Chambers/Tank: 1
- Volume of CC/Tank: 12 ml
- Medium Exchange: NA
- Compatibility of Facility: **ScienceTaxi Haven-1, ScienceTaxi BioSpin, SABL, Kubik, through ScienceBox (TangoLab & ICE Cubes)**
- Advanced accessories: LEDs
- Already flown biological material/cells: Chlorella Vulgaris, Various Algi Cultures



Reaction chamber with illuminated LEDs