

# YURI

## SCIENCETAXI Your Space Incubator

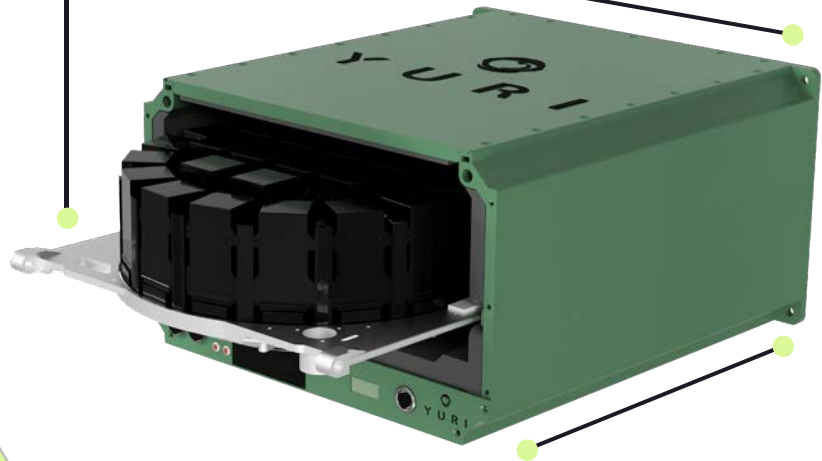
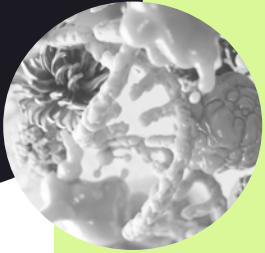
**Interfaces and developments based on ISS SSP 57000 standard**

**Internal Volume:**

length: 400mm  
width: 380mm  
height: 190mm

**Payload mass:**

< 33 kg



## Life time

**8** years of service lifetime

## Required Interfaces

- Power supply required from spacecraft: 75W (min) and 150W (max). Additional power can be partially supplied to ScienceShells or to enhance thermal capabilities
- Compatible with normal supply voltage (24-32.5V)
- 8P8C Modular Shielded Jack (RJ-45) data connector

## Temperature

- Follows ANSI/IEEE-STD-802.2 100 BASE T Ethernet standard
  - Can be provided by internal fans
- |                                | Minimum | Maximum |
|--------------------------------|---------|---------|
| Cooling air flow               | 12 cfm  | 36 cfm  |
| Cooling air inlett temperature | 18,3 °C | 29,4 °C |

## Capabilities

- Hosts up to 38 experiment units (ScienceShells)
- Designed for orbital platforms (Dream Chaser, Dragon, ...) but also fits suborbital or parabolic flights
- Independent from ISS
- Temperature range +4°C to +40°C
- Fully automated, no crew interaction needed
- Seamless power transmission for experiments
- Centrifuge up to 16 ScienceShells with Earth, Moon, and Mars gravity (0G to 1G)
- Real-time Housekeeping-Data monitoring and commanding
- Modular Design: Different Experiment Platforms possible

## Flight Opportunities and Pricing

For flight opportunities and pricing of the Yuri End-to-End Service for ScienceTaxi Missions please contact [Felix.Steiner@yurigravity.com](mailto:Felix.Steiner@yurigravity.com)

# YURI

SCIENCETAXI  
more than just an incubator

MODULAR  
DESIGN



**Experiment Platform (EP)**

**Incubator**

## SCIENCESHELLS



ScienceTaxi is completely modular and can host various experiment platforms (EP). The first EP is a centrifuge that can host 38 of yuri's automated bioreactors, the ScienceShells. We have an existing flight-proven portfolio for cell cultures, plants, fish and much more.

Further EPs could be a 3D bioprinter or a larger plant facility.

Our modular design also allows for various  
**INCUBATOR ADAPTATIONS:**

### ADD FREEZING CAPABILITIES

Instead of air-cooling we would use water-cooling in this case and could offer temperatures between  $-20^{\circ}\text{C}$  and  $+40^{\circ}\text{C}$  in a single facility.

### ADD CO<sub>2</sub> CONTROL

A newly developed experiment platform will provide 5% CO<sub>2</sub> control for ScienceTaxi. This EP will provide 340x220x130 mm of internal volume for experiments with CO<sub>2</sub> control for at least 180 days without maintenance and the same temperature that ScienceTaxi provides.