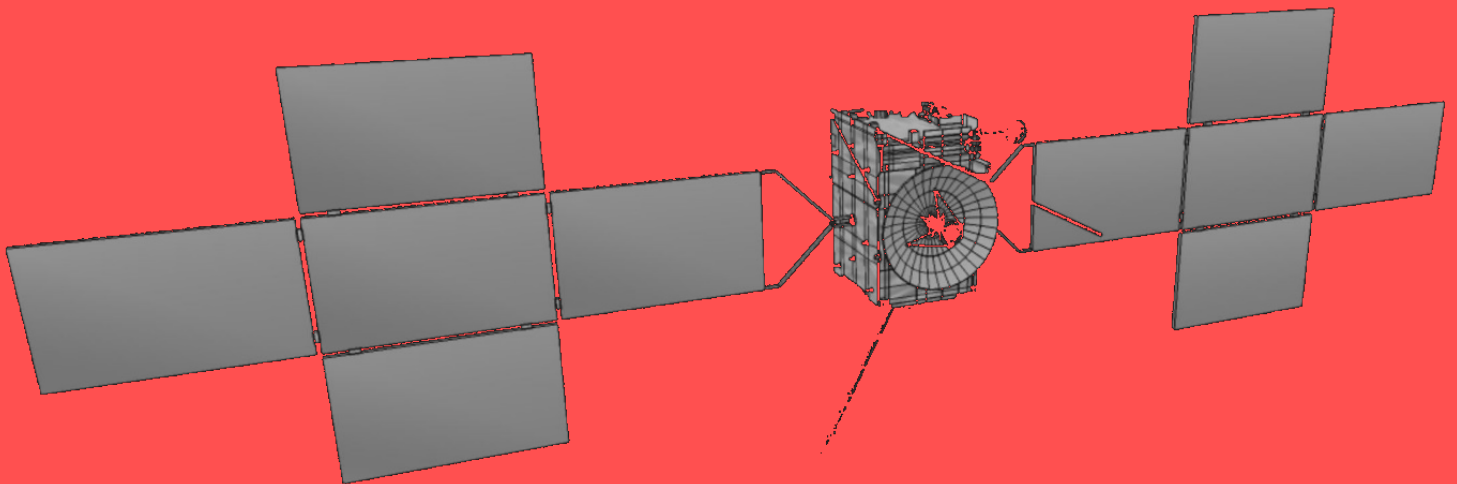


| juice



# JUICE 3D-print model INSTRUCTIONS

## JUICE 3D PRINT MODEL – INSTRUCTIONS

### About JUICE

JUICE - JUpiter ICy moons Explorer - is the first large-class mission in ESA's Cosmic Vision 2015-2025 programme. Planned for launch in 2022 and arrival at Jupiter in 2029, it will spend at least three years making detailed observations of the giant gaseous planet Jupiter and three of its largest moons, Ganymede, Callisto and Europa.

<http://sci.esa.int/juice/>

\* **REQUIRES: ALL STL parts. 3D PRINTER. OPTIONAL: GLUE, CLIPS, WIRES**

### Model parts download

You can download all the 3D-print model parts (STL files) from:

<http://scifleet.esa.int/#/model-downloads>

### JUICE Models

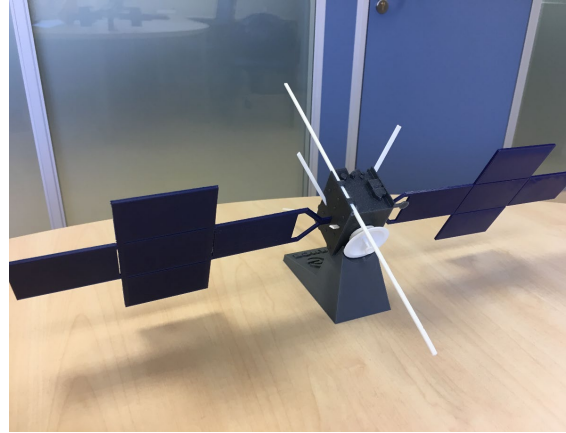
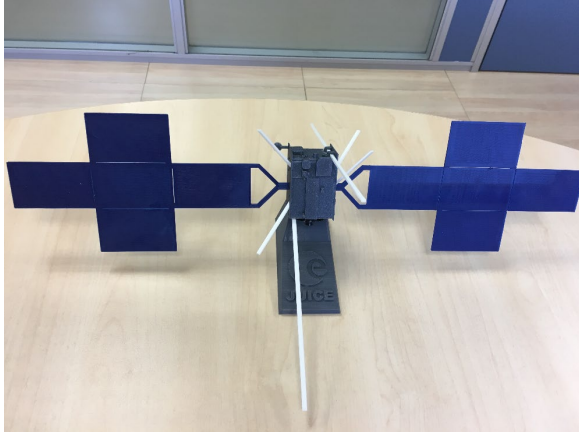
The following models represent the Juice satellite at 1:63 scale. This scale was chosen so it could be printed at any FDM printer with a 200x200 mm bed or bigger.

There are 2 versions of the JUICE spacecraft:

- model A – all parts (including antennas, rods and booms) are 3D-print.
- model B – the LPPWI rods and the MagBoom are replaced by clips/wires or similar (so that their width is more realistic).

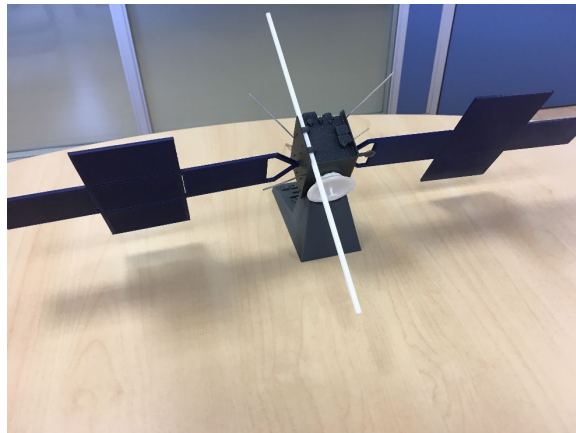
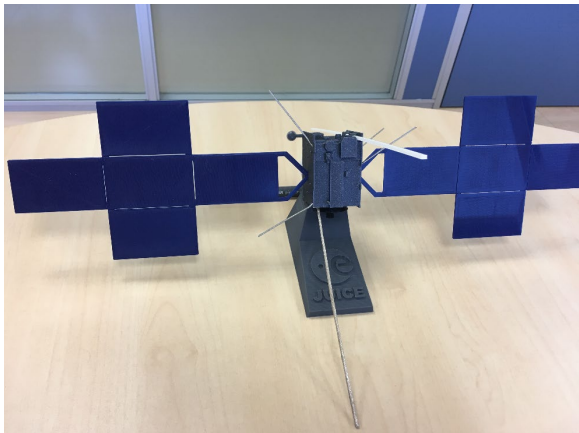
### JUICE Model A - parts

- HGA.stl
- MAGBOOM\_&\_LPPWI\_rods.stl
- RIME\_antenna.stl
- body\_A.stl
- propulsor.stl
- right\_panel.stl
- left\_panel.stl
- stand.stl



### JUICE Model B - parts

- HGA.stl
- RIME\_antenna.stl
- body\_B.stl
- propulsor.stl
- right\_panel.stl
- left\_panel.stl
- stand.stl



### Note. Parts with a support structure

These parts require a supporting structure to be 3D-printed:

- propulsor.stl
- HGA.stl

All the other parts are designed so that no supporting structures are needed.

### 3D-Printer settings

The 3D-printer settings can be chosen according to your own experience. As reference, some indicative settings are specified:

- Nozzle size: 0.4mm
- Layer height: 0.2mm
- 3 perimeters
- Fill density: 15%
- Print speed: 40-60mm/s

### Assembly

The model parts have been designed with holes and pins so that they can be assembled into the complete model. Most pieces will fit together without the need for glue. Glue or adhesives as cyanoacrylate or PVA can be used to permanently fix the pieces at their position.

The model can be placed on the stand for exhibition. There is no need to fix the model to the stand with any kind of adhesives or pins.

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