

# SIRIUS hexapod

High resolution hexapod large size



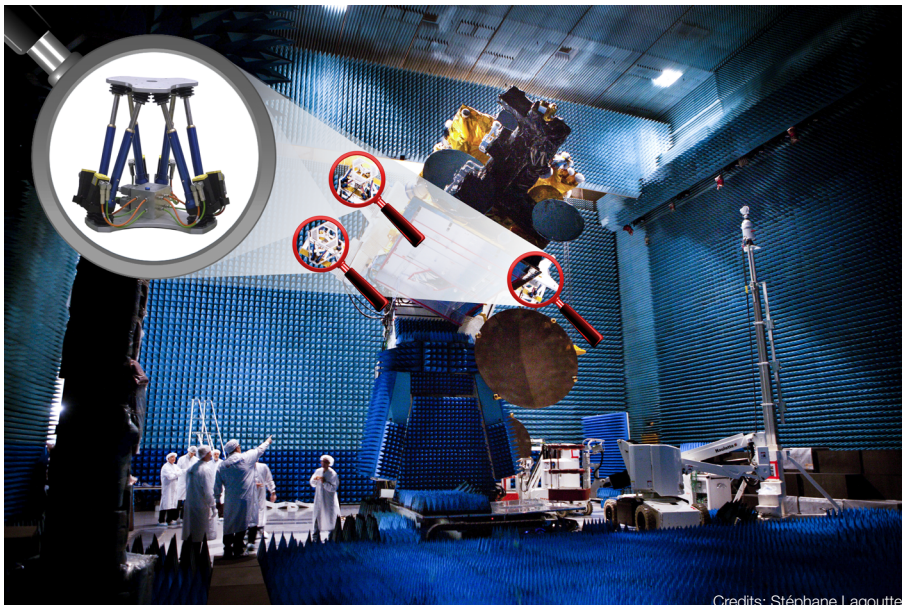
## KEY FEATURES

- Linear travel range  $\pm 150$  mm
- Angular travel range  $\pm 20^\circ$
- Absolute encoders



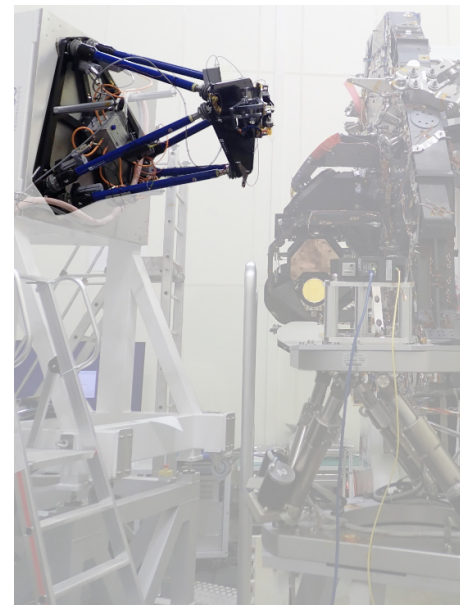
## APPLICATIONS

- Optical adjustment
- Antenna qualification
- Aeronautics and space



Credits: Stéphane Lagoutte

Four SIRIUS hexapods orientate the antennas of telecommunication satellite to test their performances before the launch. Thanks to the flexibility and pivot point configuration of these hexapods, this set up is adaptable to different satellite models.

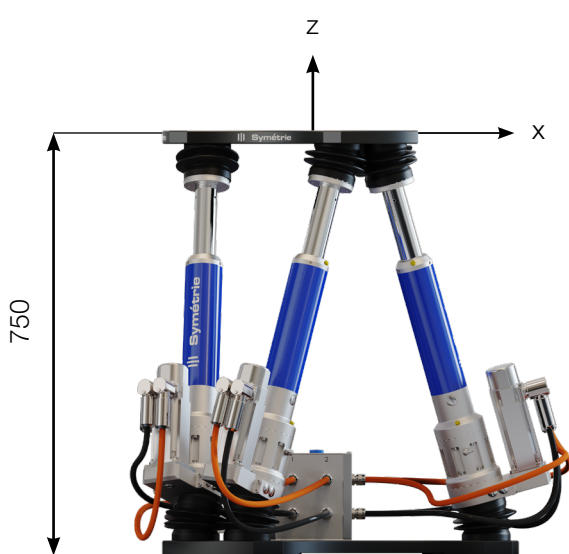


An ISO5 SIRIUS XL hexapod is involved in the optical alignment of the EUCLID space telescope by Airbus Defense and Space.

SIRIUS	
<b>Motion and positioning</b>	
Travel range Tx, Ty (mm)	± 150
Travel range Tz (mm)	± 100
Travel range Rx, Ry (deg)	± 16
Travel range Rz (deg)	± 20
Resolution Tx, Ty, Tz (µm)	5
Resolution Rx, Ry, Rz (µrad)	10
Repeatability Tx, Ty (µm)	± 3
Repeatability Tz (µm)	± 2
Repeatability Rx, Ry (µrad)	± 10
Repeatability Rz (µrad)	± 17.5
Speed Tx, Ty (mm/s)	8
Speed Tz (mm/s)	4
Speed Rx, Ry (deg/s)	1
Speed Rz (deg/s)	2.5
Payload capacity (kg) (vertical orientation / horizontal orientation)	500 / 200
Motor type	Brushless motor
Encoder type	Absolute encoder
<b>Miscellaneous</b>	
Operating temperature range (°C)	0 to + 50
Materials	Aluminum, steel, stainless steel
Size mobile platform (mm)	Ø 520
Height in middle position (mm)	750
Mass (kg)	100
Cable length (m)	5
Options	Clean room compatibility Heavier payload Scalable size Hand-held control unit
<b>Controller</b>	
Controller type	ALPHA+
Interface	Ethernet
Power supply	110-240 VAC / 50-60 Hz

Datasheet subject to change without notice. All data are superseded by any new release. R240328

The performances are specified for single axis motions, with all other axes at midrange and for a rotation center in the middle of the mobile platform.



Hexapod in middle position

