

SIRIUS hexapod

High resolution hexapod small size



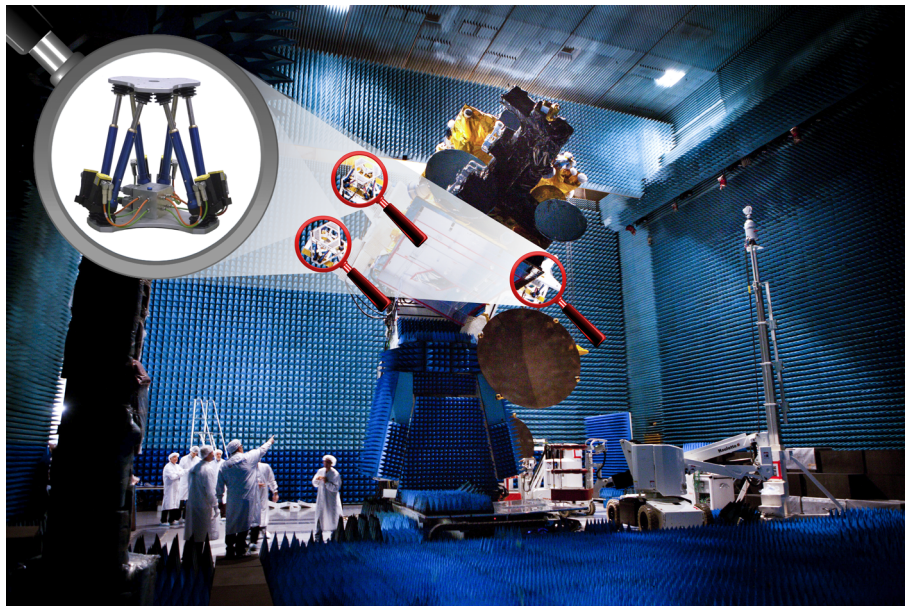
KEY FEATURES

- Linear travel ranges ± 150 mm
- Angular travel range $\pm 20^\circ$
- Absolute encoders
- Resolution Tx, Ty: 5 μ m

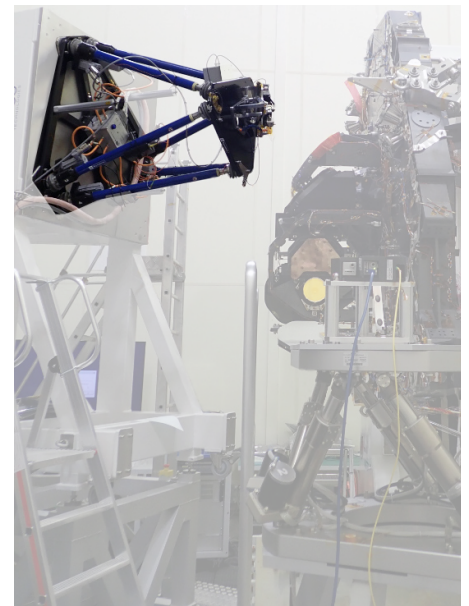


APPLICATIONS

- Optical adjustment
- Antenna qualification
- Aeronautics and space



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.

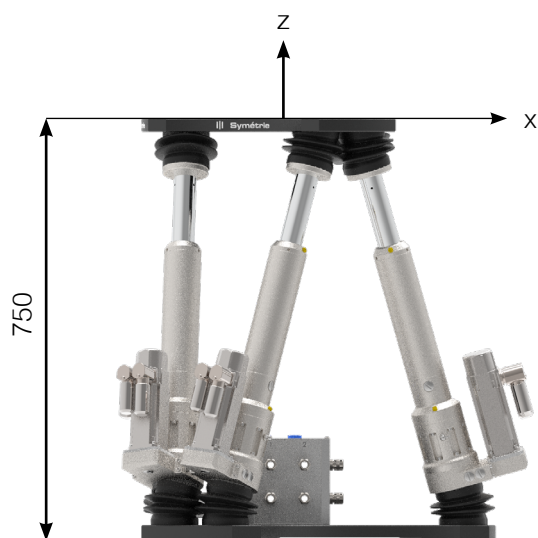


An ISO5 SIRIUS XL hexapod is involved in the optical alignment of the EUCLID space telescope by Airbus Defense and Space.



	SIRIUS
Motion and positioning	
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)	1 000 / 400
Motor type	Brushless motor
Encoder type	Absolute encoder
Miscellaneous	
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
Controller	
Controller type	ALPHA+
Interface	Ethernet
Power supply	110-240 VAC / 50-60 Hz

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

