



JORAN hexapod

High resolution ultra heavy payload large size



KEY FEATURES

- High stability
- Resolution $0.5 \mu\text{rad}$
- Large payload capacity 1500 kg (more upon request)



APPLICATIONS

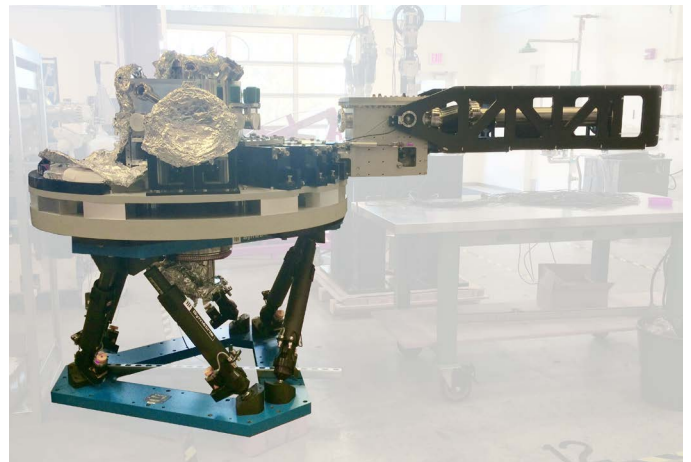
- Synchrotrons: mirror or chamber supports
- Optics
- Astronomy



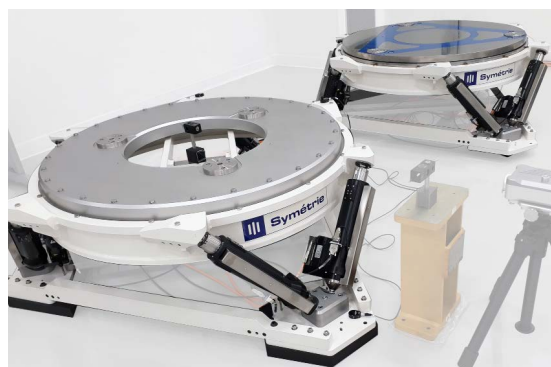
JORAN hexapod has been developed in collaboration with ESRF synchrotron to position mirrors with very high resolution.



JORAN hexapod size has been adapted to the beam height of the Australian Synchrotron.



JORAN actuators at LBL are longer to enable a $\pm 12.5^\circ$ rotation around Z. This JORAN hexapod has also been customized to support a 3.2 tons payload.



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	JORAN BJ	JORAN UJ
	Ball Joint	Universal Joint
Motion and positioning		
Travel range Tx, Ty (mm)	± 75	± 170
Travel range Tz (mm)	± 50	± 170
Travel range Rx, Ry (deg)	± 5	± 10
Travel range Rz (deg)	± 8	± 18
Resolution Tx, Ty, Tz (µm)	0.1	0.1
Resolution Rx, Ry, Rz (µrad)	0.5	0.5
Repeatability Tx, Ty, Tz (µm)	± 0.25	± 0.25
Repeatability Rx, Ry, Rz (µrad)	± 1	± 1
Speed (mm/s; deg/s)	0.25; 0.05	1; 0.2
Mechanical properties		
Payload capacity (kg) (vertical orientation)	1500	1500
Motor type	Stepper motor	Brushless motor
Miscellaneous		
Operating temperature range (°C)	0 to + 50	0 to + 50
Material	Aluminum, steel, stainless steel, ceramic	Aluminum, steel, stainless steel, ceramic
Size mobile platform (mm)	Ø 1300	Ø 1300
Height in middle position (mm)	720	720
Mass (kg)	515	515
Cable length (m)	5	5
Options	Customized platform design Absolute encoders Hand-held control unit Higher speed Scalable size Heavier payload	
Controller		
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 All data are superseded by any new release. R211201

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.

