

TRIPOD 52-6DoF

The central component of the **TRI**POD 52-6DoF is the **TRI** POD 52-Core parallel kinematic tip-tilt stage. Its design with three radially arranged towers allows a roll and pitch motion of the top plate with a total travel of 20° for Rx, 19° for Ry and a linear translation in the Z direction of 6 mm. On top of the **TRI**POD 52-Core a SR-3211 rotation stage allows an unlimited rotation around the Z axis. The **TRI**POD 52-Core is fully compatible with the CLS-52 modular system and is placed on a XY platform consisting of two CLS-52 linear translation stages. The bottom plate allows a direct mounting to a standard optical breadboard with a 25 mm grid. Values for rotational travel are given for a pivot point at the surface of the top plate.

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The overall dimensions of the complete system may be larger for different poses. For more information, see the CAD model in the download area.

The repeatability is measured about 20 mm above the top plate of each system, over the full travel range and for a single degree of freedom at a time. Values may be better for shorter travel ranges.

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The **TRI**POD 52-6DoF motion system has six degrees of freedom and uses SMARSLIDE high-precision piezo positioner.

	Mechanical
Travel [mm]	31 (X); 31 (Y); 6 (Z)
Travel [°]	20 (Θx); 19 (Θy); 360 (Θz)
Max. Normal Force [N]	3
Max. Horizontal Force [N]	2.5
Dimensions [mm]	90 x 90

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Height of Platform above Ground [mm]	79.5
Weight [g]	490
	Closed-Loop
Sensor Types	SC
Smallest Increment [nm]	1
Smallest Increment [µ°]	3
Uni-Directional Repeatability MCS2 [nm]	+/- 50
	Options
Vacuum Options	HV (1E-6 mbar); UHV (1E-11 mbar)

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