



pst *iris*

Real-time tracking within large volumes

The PST Iris series has the largest tracking range of the PST tracking family. PST Iris is the ideal solution for tracking objects in larger working areas.

It is also a good choice for situations where the PST can not be positioned close to the tracking target. It is ideal for use in measurement tasks, monitoring a working environment or larger simulation environments.

- Calibration-free bar-tracker
- Tracking distance 50 cm - 7 m
- Field of view 65° (horizontal), 45° (vertical)
- Connect more than 1 tracker
- Maximum frame rate 120 Hz (Adjustable)
- External Synchronization via trigger IO



Technical data

Performance	
Accuracy Position	Position: < 0.5 mm RMSE / Orientation: < 1 deg RMSE
Latency	15-25 ms (depending on shutter time and filter settings)
Tracking distance	50 cm – 5 m, up to 7 m
Field of view	60° (horizontal), 45° (vertical)
Refresh rate	120 Hz, adjustable to 30, 60, 120 Hz
Intended use	Recommended for tracking in front of screens > than 55", powerwalls, tracking areas > 1.5 m
Usability	
Set up	Plug and play
Calibration	Pre-calibrated unit
Origin definition	One click process – dedicated tool included
Units needed for 6 DoF tracking	One, each PST Iris is a full 6 DoF motion tracker
Expandable tracking area	Expandable, multiple trackers can be connected to expand the tracking area
Aligning units	Easy routine in seconds
Ambient Conditions	Normal indoor lighting conditions
Illumination	Integrated IR LED illumination (wavelength 850 nm). Flash illumination fully adjustable in PST Software Suite 5
Operating Temperature	15 - 35 deg. C
Devices and Markers	
Number of targets	At least 15 independent 6DoF bodies. For instance: simultaneous head and object tracking
Markers	Passive (retro-reflective flat and spherical) – Active (LED)
Device creation	Simple procedure: mark, train and use new device in seconds
Interfaces	
Processing	An additional processing unit is in most cases not needed. Extra processing power (e.g. with a NUC) is recommended for a multi PST setup or networked access
Tracking Application	PST Software Suite 5 (license incl. with each PST tracker)
Client operating system	Windows 7, 8 and 10 (32 and 64 bit)
Software interface	The tracker comes with an easy to use native C/C++ SDK and bindings for C# and Python. Interfacing is also supported via VRPN, trackd ¹ , Dtrack emulation, data export to .CSV
Hardware interface	USB 2.0 (ethernet connection to the PST available through the PST Software Suite 5)
Output	Positional coordinates (x, y, z), orientation angles, Euclidean transformation matrix
Synchronization	Hardware trigger in and out
Hardware	
Weight	Approx. 1.2 kg
Size	50.5 x 6 x 9.5 cm (W x H x D)
Mounting	1/4"-20 UNC tripod mounting point
Power supply	Output 9 V, 40 W. Input 100-240 V, 50-60 Hz
Power consumption	Max. 12 W

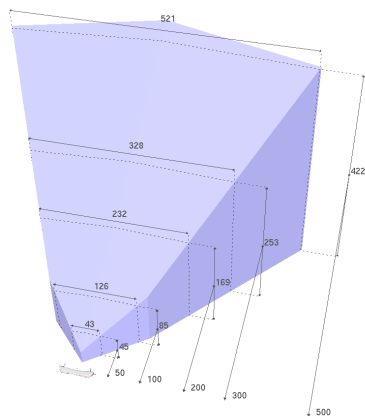
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Specifications



Measurement Area Configurations

The measurement volume is the area in which marked devices can be tracked. The distances in the images below are expressed in centimetres.



ps-tech

1. trackd is a trademark of Mechdyne, Marshalltown, IA, USA.