

# pst *iris* HD

## Highly accurate tracking within large volumes

**The PST Iris HD is the premium version of the PST Iris optical tracker. It is equipped with 2 HD cameras. PST Iris HD has a wider measurement volume, higher frame rates and a higher precision.**

The resolution and the refresh rate of the PST Iris HD can be adjusted to enable highly accurate tracking in almost any setup.

- Set up in seconds and easy to use
- Tracking up to 7 meters
- Field of view 80° (Horizontal), 70° (Vertical)
- Adjustable frame rate up to 200 Hz
- VRPN, trackd and direct interfacing



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## 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	80° (Horizontal), 70° (Vertical)
Refresh rate	Up to 200 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 HD is a full 6DoF motion tracker
Expandable tracking area	n/a
Aligning units	n/a
Ambient Conditions	Normal indoor lighting conditions
Illumination	Integrated IR LED illumination (wavelength 850 nm). Flash illumination fully adjustable in PST Software Suite 5.0
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	n/a
Tracking Application	PST Software Suite 5.0 (license incl. with each PST tracker)
Client operating system	Windows 7, 8 and 10 (32 and 64 bit) and Linux (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 <sup>1</sup> , Dtrack emulation, data export to .CSV
Hardware interface	Requires two USB 3 ports each with full bandwidth and capable of providing 2.7 Watts min. and 5 Watts max. (ethernet connection to the PST available through the PST Software Suite 5.0)
Output	Positional coordinates (x, y, z), orientation angles, Euclidean transformation matrix
Synchronization	n/a

### 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

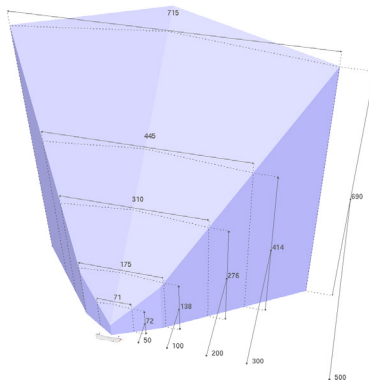
# pst iris<sup>HD</sup>

## 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.



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