



# personal space tracker

**6DOF Optical  
Motion Tracker**



***optical tracking that allows you to transform  
any object into a 3D interaction device***

- six degrees of freedom
- no calibration
- accurate and wireless
- plug and play

***mark, train,... and interact!***

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Balistraat 16 A, Amsterdam, Netherlands

  
**personal space**  
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# personal space tracker

- 6 degrees of freedom highly accurate optical tracker
- no need for calibration
- easy installation (plug and play)
- robust against electric and magnetic interferences
- no external processing unit needed
- short latency
- linux and windows compatible
- fast data communication via ethernet
- wireless passive targets (no batteries required)
- targets with 4 or more retro-reflective markers can provide 6 DOF tracking
- easy training of custom built targets
- transform arbitrary objects like cubes, pens, coffee mugs and tennis rackets into tracked objects

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## 6DOF Optical Motion Tracker

technical data <sup>1</sup>	
refresh rate	60Hz
degrees of freedom (DOF)	6 (position and orientation)
# of targets (60fps)	at least 15 independent 6DOF bodies
working distance	up to 10 m, depending on marker size
lighting	built-in IR flash
ambient conditions	normal indoor lighting conditions
field of view (FOV)	standard 60 degrees on request 45 or 90 degrees
precision <sup>2</sup>	< 1 mm < 1 deg
tracking volume <sup>3</sup>	1x1x1 m volume, using 7 mm markers 3x3x3 m volume, using larger markers
calibration	pre-calibrated unit
6DOF target creation	easy training of custom built targets
sensor type	CMOS
no. of pixels	640x480
interface	ethernet
output	x, y, z positional coordinates and orientation angles, rotation matrix or quaternions
power supply	12V, approx. 100W (external power supply 100–240V, 50–60Hz)
power consumption	max. 100 W
size	17.5cm(d) x 5.5cm(h) x 25.0cm(w)
weight	approx. 1.5 kg
processing unit	internal
minimum latency	approx 18 ms
software support	standard interfacing to Trackd, VRPN, SSD and most VR programs. further extendible via simple SDK.

<sup>1</sup> preliminary specifications, specifications are subject to change without notice

<sup>2</sup> precision measured using 7mm markers at a distance of 60 cm

<sup>3</sup> increased marker size improves precision and tracked volume

*The personal space tracker (PST) is a complete tracking system and consist of a tracking unit, a starter set of markers, 2 pre-trained 3D interaction devices, software and a manual.*



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