



o m m o

Omnipurpose Motion Tracking



ORBIT

PRECISION THAT REVOLVES AROUND YOU





ORBIT IS A 6DOF TRACKING SYSTEM THAT
COMBINES SUBMILLIMETER PRECISION WITH
UNRIVALED CONVENIENCE AND VERSATILITY TO
PROVIDE
**A ONE-STOP SOLUTION FOR PERSONALIZED
HUMAN-MACHINE INTERFACES**



PRECISION, CONVENIENCE, AND VERSATILITY: THE FUNDAMENTALS



A base station that fits in the palm of your hand provides robust tracking performance without any calibration process.

A plug-and-play, scalable architecture to easily track a surgical scalpel, humanoid robot, and everything in between.

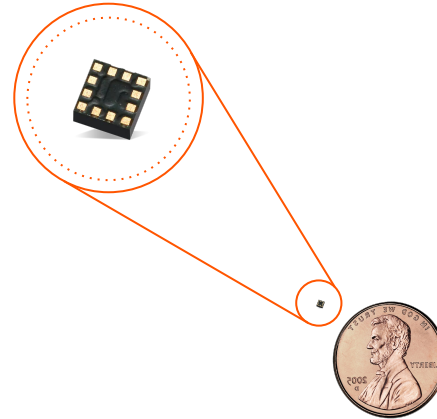


The base station individually tracks any sensor within its tracking range, as many as needed



THE MOST SCALABLE AND EFFICIENT
6DOF TRACKING TECHNOLOGY IN THE MARKET.

Off-the-shelf sensors that are less than
1 mm in dimension and ready to be
embedded into any object, with the ability
to drop in and out of the system at will.



ORBIT

6DOF PRECISION YOU CAN COUNT ON



Designed for the medical market to be the most reliable and resilient 3D tracking system, one you can count on with patients' lives on the line.

The same robust performance, now ready to be customized for your own application.





THE WORLD'S FIRST PERMANENT MAGNET BASED 6DOF POSITION TRACKING SOLUTION

A culmination of full-stack engineering and breakthroughs,
with essential advantages in a single, cohesive package.



INDEPENDENT
TRACKING



EMBEDDABLE
MICRO SENSORS



NO OCCLUSION
IN ANY DIRECTION



POWER
EFFICIENT



ABSOLUTE
POSITIONING



SCALABLE
ARCHITECTURE



NO CALIBRATION
REQUIRED



RESISTS EM
INTERFERENCE



SUBMILLIMETER
PRECISION



WIRELESS
READY



TRACKING OUTPUT



- **Data:** Position and orientation (6DOF) for each sensor
- **Rate:** Up to 1 kHz
- **Range:** 750mm radius sphere
- **Precision:** RMS 0.2mm (position), 0.1 degrees (orientation)
- **Accuracy:** RMS 0.5mm (position), 0.1 degree (orientation)

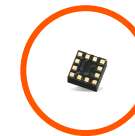


BASE STATION

UNIQUE MAGNETIC SIGNAL SOURCE



- **Size:** 100.6mm x 82.5mm (D x H)
- **Weight:** ~ 500 grams
- **Power:**
 - Max: <500mA @ 5V
 - Typ: <400mA @ 5V
- **Communication:**
 - Power & Data: USB C 2.0
 - Sensor sync: Proprietary 2.4 Ghz protocol



SENSORS

3D TRACKING DATA POINTS

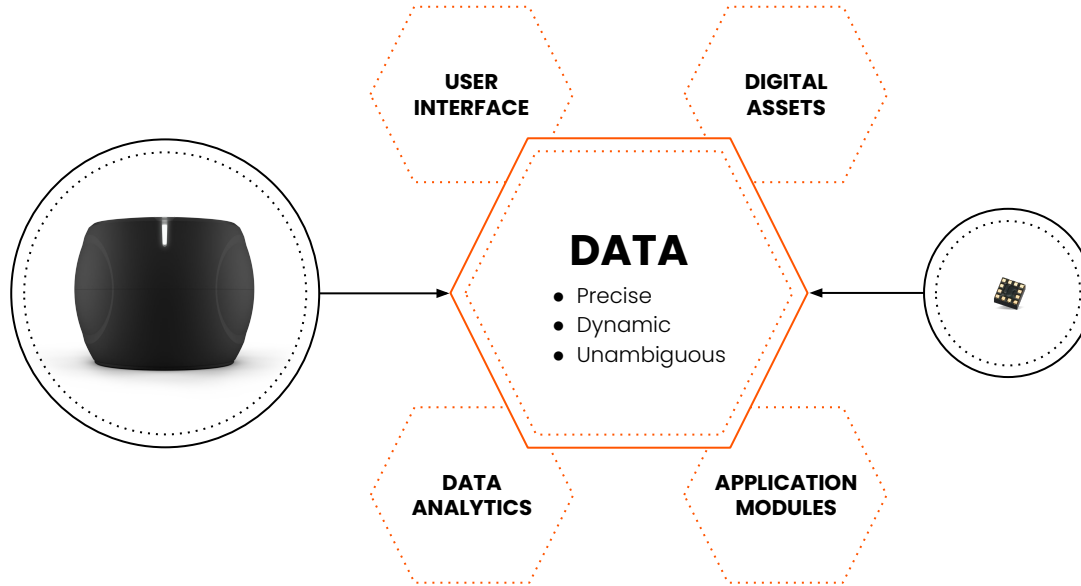


- **Sensor:** Magnetometers (IMU fusion available)
- **Size**
 - Miniature: 0.8 x 0.8 x 0.4 mm
 - High-performance: 3 x 3 x 1 mm
- **Form factors & Example use case:**
 - SMT board - Wearables, multi-sensor arrangements
 - Wireless module - Registration, capsule endoscopy
 - FPC - Disposables, surgical tools
- **Communication**
 - Wired - USB C (via SIU, sensor interface unit)
 - Wireless - Proprietary protocol

VISION



TO MAKE DIGITAL INTERACTIONS MORE HUMAN AND EFFORTLESS



THE FOUNDATION OF A DATA-DRIVEN, DIGITAL INTERACTION PLATFORM



SINGLE SENSOR USE CASE: PRECISION 3D STYLUS



A single standalone sensor. Tiny, yet powerful.
Forget about line of sight, camera angles,
lighting condition, and all the limitations that
keeps you from getting into a flow.
Just hop in, visualize, and create.



MULTI-SENSOR USE CASE: TRAINING AND SIMULATION



Multiple, imperceptible sensors. Complex made simple. Embed and connect as many sensors as you need to transform the world around you into a digital one. Learn to fly a plane, handle hazardous materials, and perform neurosurgery. As many times as you want. Capture, learn, and adapt to any scenario.

TRACKING DATA (r, θ , ϕ)

SENSOR 1 5', -109°, 78°

SENSOR 2 20', 4°, 159°

SENSOR 3 14', 90°, 304°





PLATFORM USE CASES: ROBOTICS AND AUTOMATION



Go beyond the codes on the screen. Synchronize your movement with a robot, or a hundred. Robots come alive with a simple plugin that gives you direct control. From collaborative robotics to industrial automations, limitless possibilities are at your fingertips.



IT'S YOUR TURN

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