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INDUSTRIAL PRODUCT DATASHEET

Marvelmind Indoor Navigation System Starter Set HW (915/868MHz) Supporting Ultrasonic and ToF

Marvelmind Indoor Navigation System Starter Set HW: centimeter-accurate indoor tracking with ultrasonic and ToF support, covering up to 1000 m².

SKU	UPDATED	PRICE
102991312	2026-04-09 12:38:06	$399.00(Excl. VAT)



Overview



The Marvelmind Indoor Navigation System Starter Set HW enables indoor positioning with absolute precision of 1–3% of distance to beacons and differential precision of ±2 cm. It provides a coverage area up to 1000 m², adjustable update rates from 0.05 to 25 Hz, and is powered by a 1000 mAh LiPo battery or micro-USB.

Key Features

Distance between beacons

- Reach up to 50 meters in lab conditions
- Recommended distance is 30 meters (Transducer4 to Transducer4 looking straight at each other and other transducers are off)

Coverage area

- Reach up to 1000 m2 with the Starter Set configurations
- Coverage for larger territories is similar to cellular networks

Location precision

- Absolute: 1–3% of the distance to the beacons
- Differential precision: ±2 cm

Location update rate

- 0.05–25Hz
- Can be set manually
- Depends on the distance between the mobile and stationary beacons (shorter distance — higher update rate)
- Depends on the number of mobile beacons: for example, update rate of 25Hz for 1 mobile beacon will result in update rate of 25Hz/2 for 2 mobile beacons, and 25Hz/3 – for 3 mobile beacons, etc
- Depends on the radio interface profile (500kbps vs. 38kbps)
- Slightly depends on the number of stationary beacons — different than for mobile beacons

Power supply

Internal:

- LiPo battery 1000mAh
- Battery lifetime depends on usage
- Stationary beacon with 16Hz update rate => up to 72h (tested)
- Stationary beacon with 1Hz update rate => ~72h*16 => 1 month
- Mobile beacon with 8Hz update rate – 12h (tested)

External:

- micro-USB – recommended for permanent use

Weight

Mobile beacon from Starter Set:

- 59 grams (including battery 1000mAh and housing and antenna 50mm)
- 27 grams (bare board w/o battery)

Dimensions

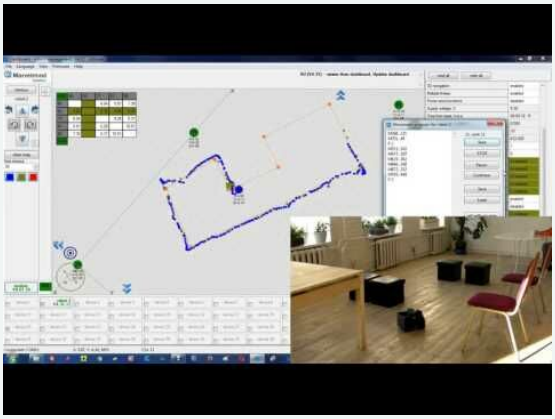
- 55x55x33 mm (with 50mm antenna: 55x55x65mm)

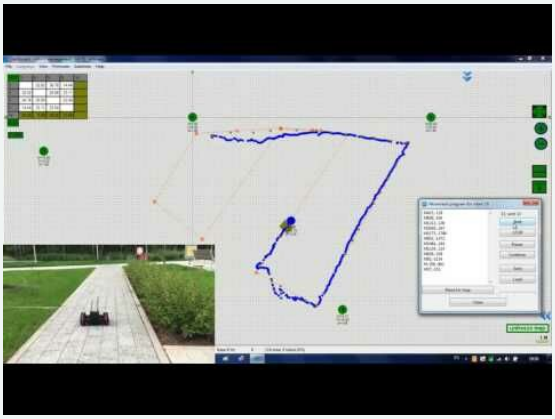
Videos

Product Gallery









Compliance & Logistics



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EUHSCODE	9405413910
COO	CHINA

Resource Links

- https://www.seeedstudio.com/Marvelmind-Indoor-Navigation-System-Starter-Set-HW-915-868MHz-p-4296.html
- Marvelmind Indoor Navigation System Operating manual
- Placement Manual
- Autonomous copter setting manual
- PixHawk and Marvelmind Integration Manual
- Software
- Videos

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