

# LoRaWAN Tracker

## TrackerD



## OVERVIEW:

TrackerD is an [Open Source LoRaWAN Tracker](#) based on [ESP32 MCU](#) and [Semtech LoRa Wireless Chip](#).

In TrackerD, there are various sensors such as GPS, WiFi, BLE, Temperature, Humidity, Motion Detection, and Buzzer. User can use TrackerD for different tracking scenario.

TrackerD is program friendly. Developers can use Arduino IDE to customize the software of TrackerD to fit their IoT solution.

The LoRa wireless technology used in TrackerD allows the user to send data and reach extremely long ranges at low data-rates. It provides ultra-long range spread spectrum communication and high interference immunity whilst minimizing current consumption. It targets professional tracking services.

TrackerD is equipped with a [1000mAh Li-on rechargeable battery](#). Each TrackerD has a worldwide unique OTAA keys to join the LoRaWAN network.

## Features:

- ESP32 PICO D4
- Power Monitoring
- LoRaWAN 1.0.3 Class A
- SX1276/78 Wireless Chip
- Arduino IDE Compatible
- Motion sensing capability
- Tri-color LED, Alarm button
- 1000mA Li-on Battery power
- Charging circuit via USB port
- Humidity / temperature sensor
- Open source hardware / software
- Built-in 3 axis accelerometer (LIS3DH)
- Regular/ Real-time GPS, BLE, WIFI tracking

## Dimension:

- Size: 85 x 48 x 15 mm
- Net Weight: <55g

## Applications

- Human tracking
- Logistics and Supply Chain Management

## Specification:

### Micro Controller:

- Espressif ESP32 PICO D4
- MCU: ESP32 PICO D4
- Bluetooth: Bluetooth V4.2 BR/EDR and Bluetooth LE
- WiFi : 802.11 b/g/n (802.11n up to 150 Mbps)
- Integrated SPI flash : 4 MB
- RAM: 448 KB
- EEPROM: 520 KB
- Clock Speed: 32Mhz

### Common DC Characteristics:

- Supply Voltage: 5V via USB port or Internal li-on battery
- Operating Temperature: -40 ~ 60°C
- ReHot Start: <1s

### Battery:

- 1000mA Li-on Battery power (for model TrackerD)

### Power Consumption:

- Sleeping Mode: 200uA
- LoRa Transmit Mode: 125mA @ 20dBm  
44mA @ 14dBm
- Tracking: max: 38mA

## Order Info: TrackerD-XXX

XXX: The default frequency band

- XXX for valid frequency band, include:  
EU868, US915, AU915, AS923, EU433, IN865, KR920