DRAGINO TrackerD Open Source LoRaWAN Tracker Owner's Manual

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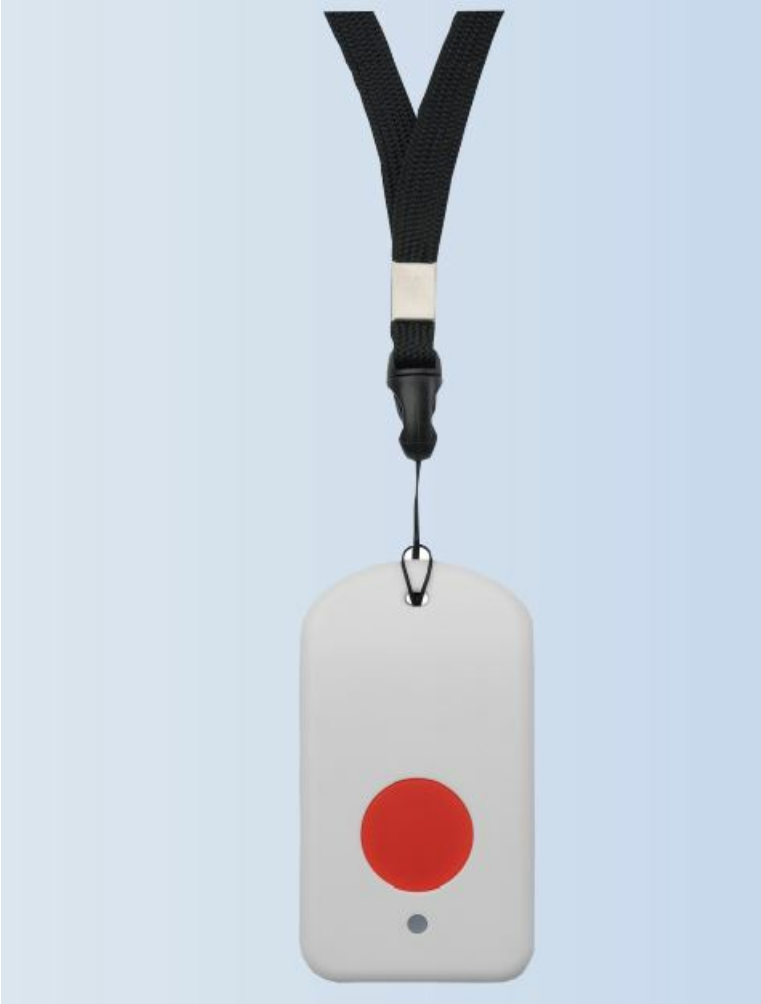

Product Information

The TrackerD is an Open Source LoRaWAN Tracker that is based on the ESP32 MCU and Semtech LoRa Wireless Chip. It is equipped with various sensors including GPS, WiFi, BLE, Temperature, Humidity, Motion Detection, and Buzzer, making it suitable for a wide range of applications. The TrackerD is program friendly, allowing developers to customize its software using the Arduino IDE to fit their IoT solution.

The LoRa wireless technology used in the TrackerD enables long-range communication at low data rates. It provides ultra-long range spread spectrum communication, high interference immunity, and minimizes current consumption. This makes it ideal for professional tracking services.

The TrackerD comes with a 1000mAh Li-on rechargeable battery and has worldwide unique OTAA keys to join the LoRaWAN network. It features power monitoring, a charging circuit via USB port, a humidity/temperature sensor, and a built-in 3-axis accelerometer (LIS3DH). It also includes a tri-color LED, an alarm button, and supports regular/real-time GPS, BLE, and WiFi tracking.

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-in3 axis accelerometer (LIS3DH) Regular/ Real-time GPS,BLE,WIFI tracking

Dimension

- Size: 85 x 48 x 15 mm
- Net Weight: [Weight information not provided]

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 ~ 85°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-XX

- **XXX: The default frequency band**
  XXX for valid frequency band,include: EU868,US915,AU915,AS923,EU433,IN865, KR920,CN470

Product Usage Instructions

1. Charge the TrackerD using the USB port until the battery is fully charged.
2. To turn on the TrackerD, press and hold the power button located on the device.
3. Ensure that the TrackerD is within range of a LoRaWAN network.
4. Use the Arduino IDE to customize the software of the TrackerD according to your specific IoT solution.
5. If motion sensing capability is required, activate it using the appropriate settings in the software.
6. To track GPS, BLE, or WiFi signals, configure the TrackerD accordingly in the software.
7. If desired, utilize the tri-color LED and alarm button for visual and auditory indications.
8. Monitor the power consumption and battery level using the power monitoring feature.
9. If necessary, measure the temperature and humidity using the built-in sensor.
10. For professional tracking services, utilize the ultra-long range spread spectrum communication and high interference immunity features of the TrackerD.

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Documents / Resources

	DRAGINO TrackerD Open Source LoRaWAN Tracker [pdf] Owner's Manual TrackerD Open Source LoRaWAN Tracker, TrackerD, Open Source LoRaWAN Tracker, LoRaWAN Tracker, Tracker

References

- Dragino :: Open Source WiFi, Linux Appliance