**## Inspiration**

Life is an Expedition. What about using smart devices to track and log everyday footprint just like a hacker? By maximizing the function of the localization sensors and combining IoT platform, we can make our life with more convenient and interesting.

**## What it does**

**## How we built it**

**## Challenges we ran into**

Getting GPS NMEA protocol data, parsing useful data, and sending the data into specific formats

Calling map plugins into node-RED dashboard

**## Accomplishments that we're proud of**

Achieved wireless firmware update by combining OTAFU & BT.

Added node-red dashboard maps and library maps to visualize the data in map and calibrate the offsets

**## What we learned**

Ring buffer of serial console, mutex and queue of FreeRTOS, Bootloader, OTA, debugging, node-RED

**## What's next for IoTracking**

Use a better GPS sensor for more accurate results.

Update the PCB and firmware for minor errors and further features