

IOT

LOPY AND LORAWAN

# Who, me ?

Electronics hobbyist since childhood, maker, nerd, etc...

Active in Finland's hackerspace scene

**Believer:** Open Source & Open Hardware

<https://github.com/rambo>

<http://fi.linkedin.com/in/eeroafheurlin/>

<http://helsinki.hacklab.fi/>





## LOPY DEVEL BOARD

- ESP32
- WiFi, BT & BLE, LoRa (class A & C)
- External antenna connectors for WiFi and LoRa (LoRa must always use external antenna)
- MicroPython <3
  - With HW supported threads  
(=♡ 人 ♡=)
  - and HW floating points
- 512kB RAM
- Lot's of flash memory for code
- Low power consumption (when used correctly)
- FreeRTOS under the hood

# LoRa(WAN)

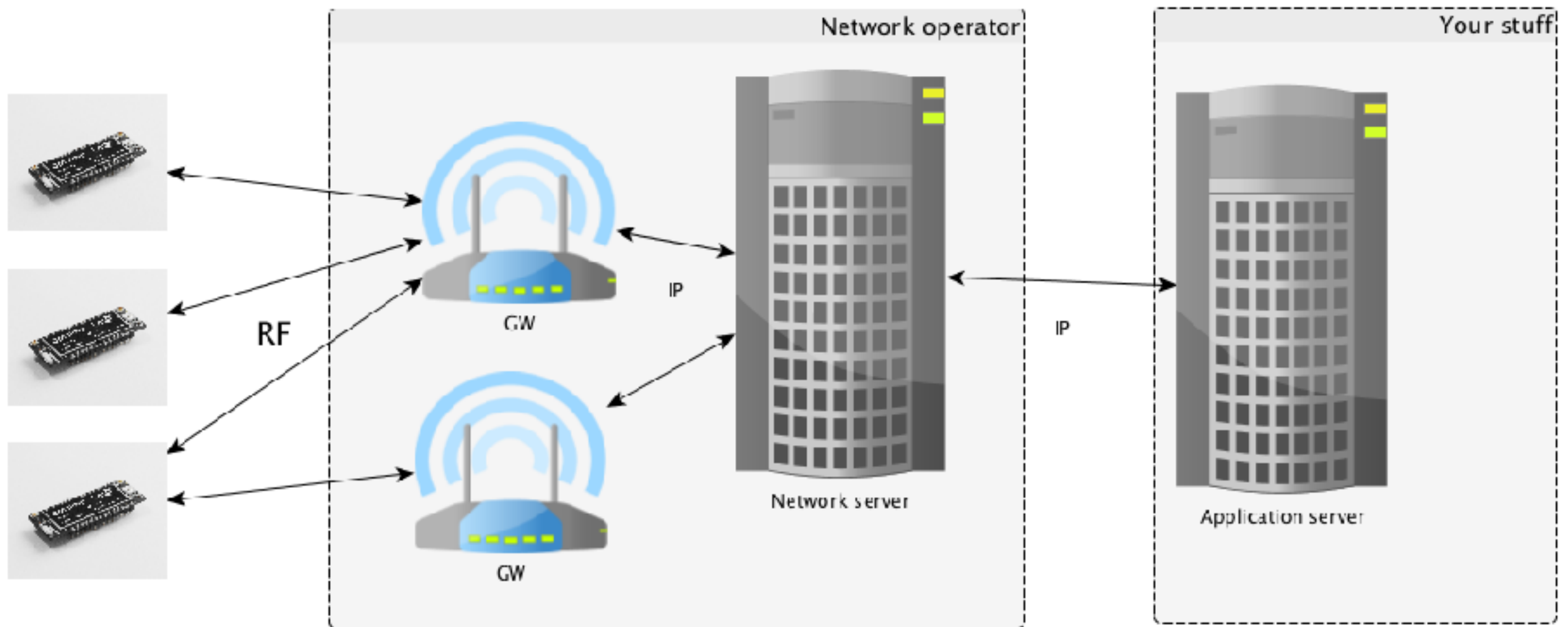
- **Long Range**
- 868MHz ISM band
- Low Power
- Adaptive Data Rate, optimised RF band usage.
- Device classes for different needs
  - Power vs latency
- Secure
  - Even against network operators
- Open standard



[https://www.lora-alliance.org/  
What-Is-LoRa/Technology](https://www.lora-alliance.org/What-Is-LoRa/Technology)

LORAWAN (CONTD.)

# DATA FLOW

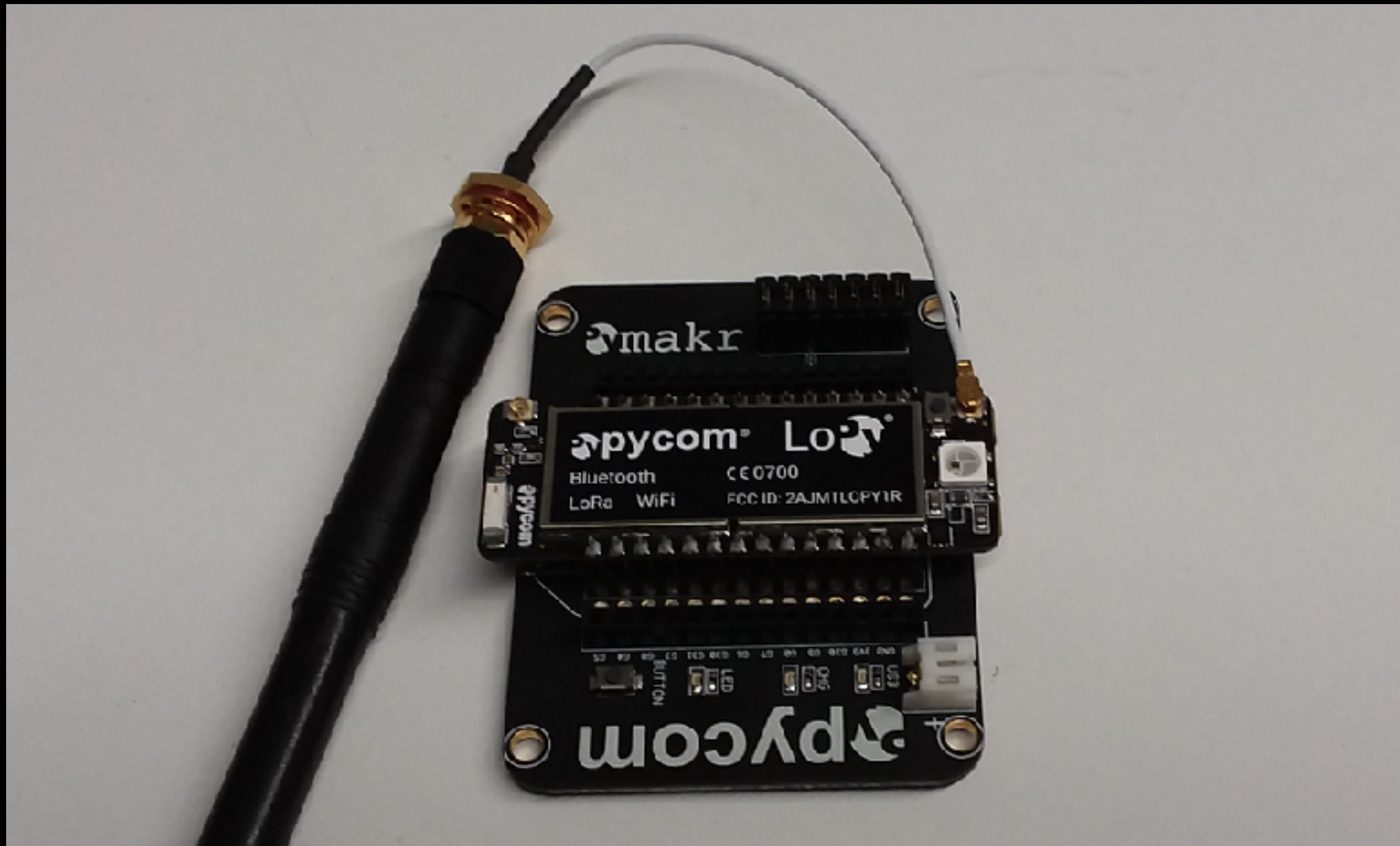


# Demo (effect) time !

## Using Everynet Core API

<https://everynet.atlassian.net/wiki/display/EP/Everynet+Core+API+v.1.0>





Questions ?