Meshtastic-SDR

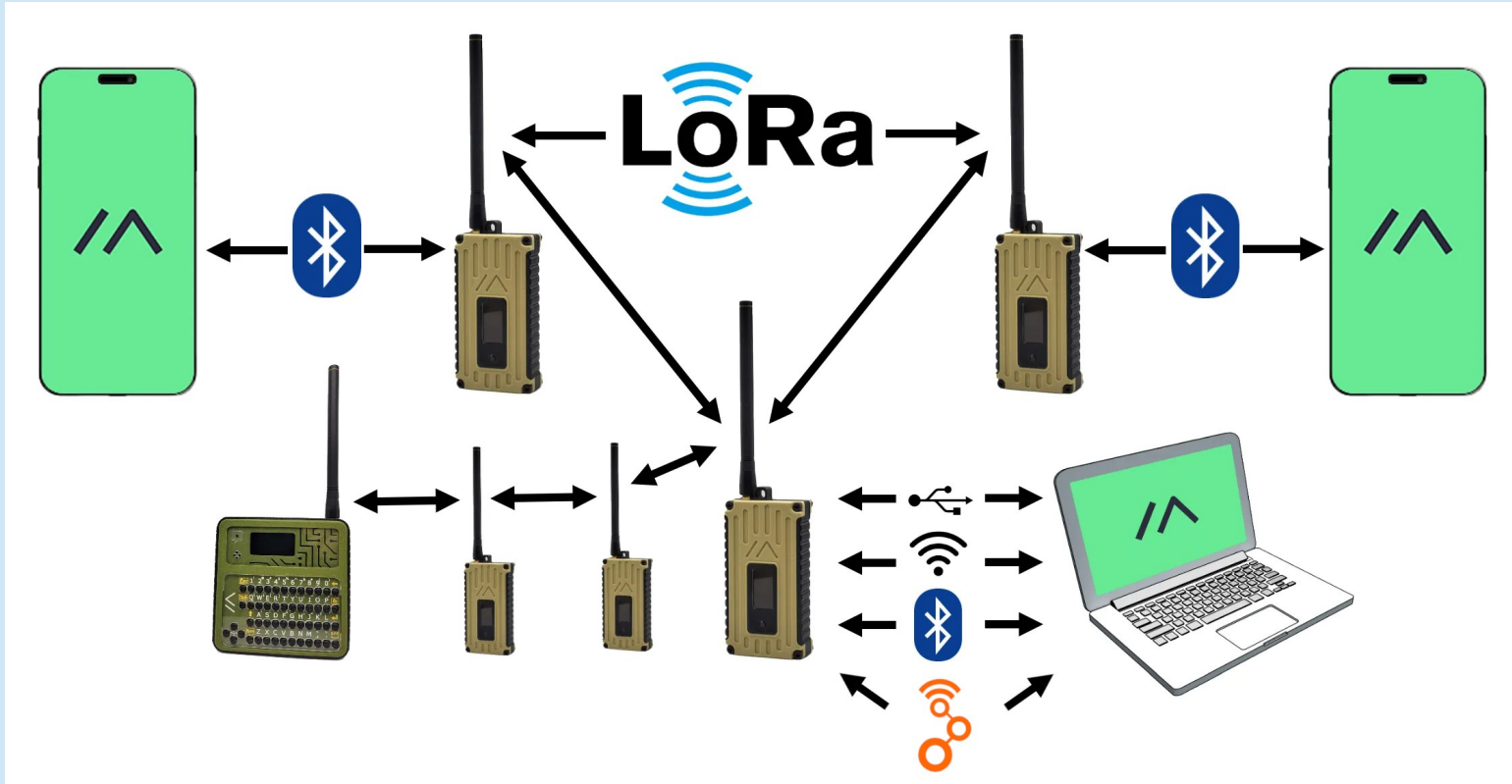## An SDR approach for a full Meshtastic transceiver

What is MESHTASTIC ?

- An open-source, off-grid, decentralized, mesh network built to run on affordable, low-power devices

- Devices use Semtech's LoRa hardware to obtain resilient communications in RF adverse environments

- LoRa was proprietary, until now
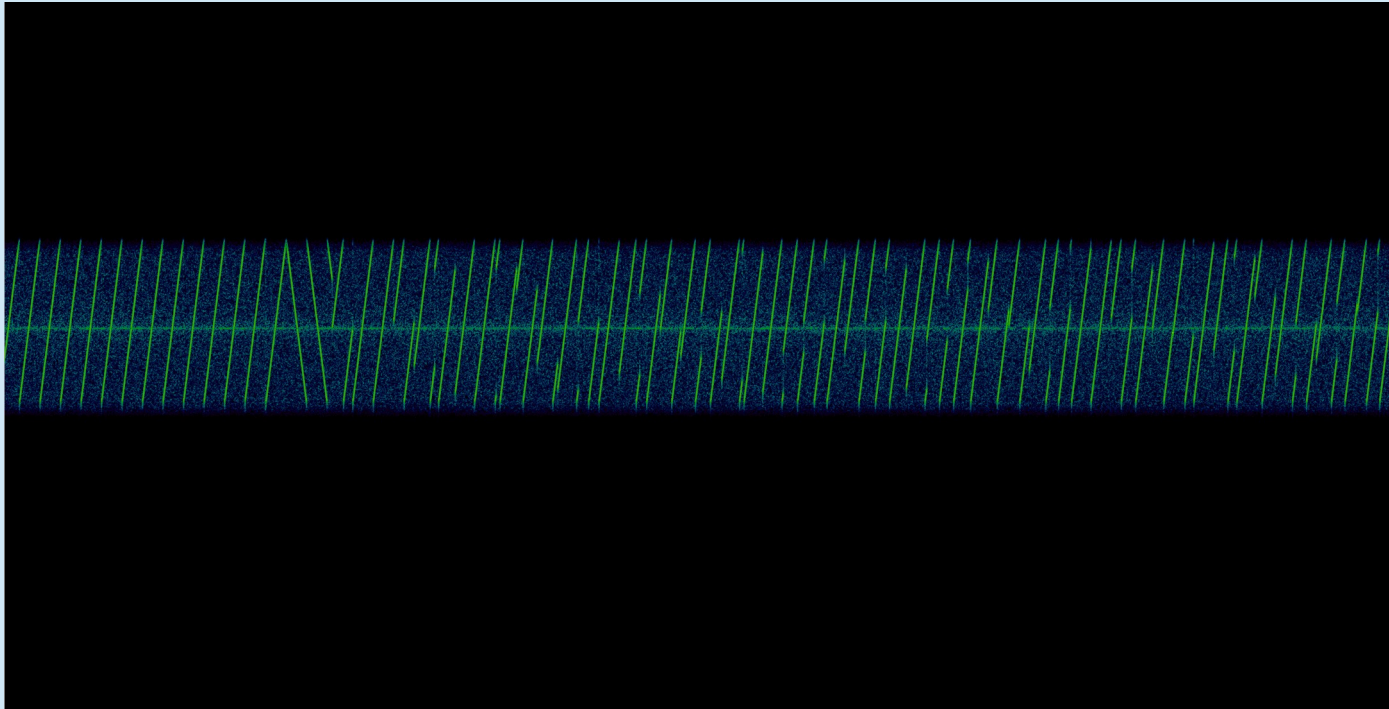
https://meshtastic.org/

What is MESHTASTIC ?

Why an SDR solution?

- An RTL-SDR can decode most Meshtastic presets at the same time

- Potentially enables a LoRa-geometry shifting repeater

- Can bring Meshtastic and LoRa modulation to other frequencies!

- Testing Meshtastic devices OTA for bugs

DEMO TIME

https://www.youtube.com/watch?v=Qt1xI-m1aBY

Credit

- This project would not have been possible without the creation of GR-LoRa_SDR

- https://github.com/tapparelj/gr-lora_sdr

- J. Tapparel, O. Afisiadis, P. Mayoraz, A. Balatsoukas-Stimming and A. Burg, "An Open-Source LoRa Physical Layer Prototype on GNU Radio," 2020 IEEE 21st International Workshop on Signal Processing Advances in Wireless Communications (SPAWC), Atlanta, GA, USA, 2020, pp. 1-5.

Name: Josh Conway

Code Credit: discord user:winter_soldier#1984 and AT

Email: jwconway@protonmail.com

Project: https://gitlab.com/crankylinuxuser/meshtastic_sdr