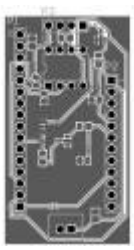
Sceme Lora Node (Prototype)

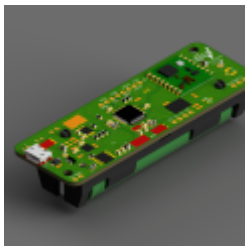
This device can connect to a Sceme Sensor for measuring soil permittivity and temperature at three different depths. The data gets transmitted to an IoT-Stack for saving the data permanently and displaying it nicely in graphs. The data from a test we run on our terrace can be found here: Grafana Dashboard

The device is powered by solar and an internal battery. It can also monitor the battery. The battery levels get also logged on the dashboard. This prototype also includes a custom-made circuit board.









Sceme Lora Node (Prototype v2)

The second prototype is more sophisticated and implements things that work in a more compact and also cleaner way. It is still based on the RFM95 HopeRF Module on 868 Mhz. It's using a 18650 LiPo battery and also includes a Solar Charger, so a Solar Cell can be hooked up. Furthermore, a coulomb counter observers the power usage so it can be precisely determined if and how much current is used or if the battery is recharged.