

1. Equipment

Raspberry pi Zero Wi-Fi

- SD card
- 5V adapter

2. Communication

LPWA for telia (Abronnement) (5G)
(Low power Wide Area)

Problem	NB-IoT	LTE-M
Num of Units	Allows many units	Limited num of units
Battery	Uses less battery	Higher consumption
Data	Low data	More data for video and sound
Range	Longer	Shorter
BW	Better penetration 180 kHz	1,4 MHz
Freq	800 MHz - 1800 MHz	800 MHz - 1800 MHz

How does water affect the signal?

No Wi-Fi signal travels

further than 10 m under water

3. Software

Protocol

- MQTT
- Node Red

SQLite

- phpLiteAdmin

4. Data Storage