

Project Intelligent Cattle Observer

Sensor Network Indoor/ Outdoor Localization

Project work, BA or MA thesis

Motivation

- Lightweight animal Tag including accelerometer, temperature sensor, GPS, LORA communication & antenna, exchangeable batteries, memory card for internal data storage
- How can sensor networks be efficiently implemented
- How does LoraWAN 2,4GHz and Ranging application work?

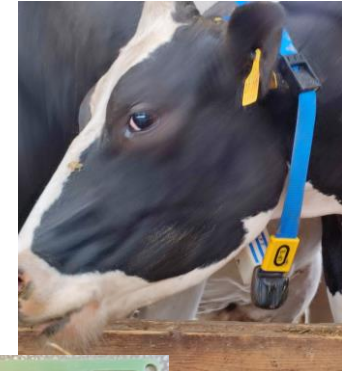
Possible Tasks

- Analysis of LoraWAN and Ranging
- Antenna Design and Measurements
- Software Implementation
- Measurement study and modeling of time of flight methods

Contact

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Components:

- Microcontroller
- LEDs
- RGB LED
- SD-Card-Connector
- USB Connector
- Button
- Power supply (2x 18650 batteries)
- Accelerometer
- GPS
- 2,5 GHz LORA-Antenna
- Temperature sensor

