AMC SS2024

Student Projects

(1) Schafalarm (Sheep Alarm)

Motion detection and tracking of sheep flocks.

⚠️ **Go here: Schafalarm**

Students

- Sam (Advisor)
- Tasio
- Marlene

(2) Chicken Check

Where are the chicken? In the chicken coop? Sitting on the nest? Breeding? Outside?

⚠️ **Go here: Chicken Check**

Students

- Taycan (Advisor)
- Sam (Advisor)
- Shreya (Advisor)
- Jihad
- Tarik
- Nour

(3) Home Assistant Server System

Home Automation setup (on Raspberry PI or the like) with own WiFi router (access point) for an IoT system teaching.

⚠️ **Go here: Home Assistant Server**

Students

- Taycan (Advisor)
- Ekaterina
- Anastasiia

(4) Bird Feeder (Pet Feeder)

⚠ **Go here: Bird Feeder**

Students

- Shreya (Advisor)
- Sam (Advisor)
- Taycan (Advisor)
- Seif?
- any more?

(5) Irrigation Cart Nozzle

⚠ **Go here: Irrigantion Cart Nozzle**

Students

- Amr
- Dillon
- any more?

Further Ideas of Minor Priority

(6) Laser Scanning Drone in Chimneys

(7) Water Quantity Measurement

Building a **groundwater gauge** with low power design, real-time clock and LoRaWAN data transmission.
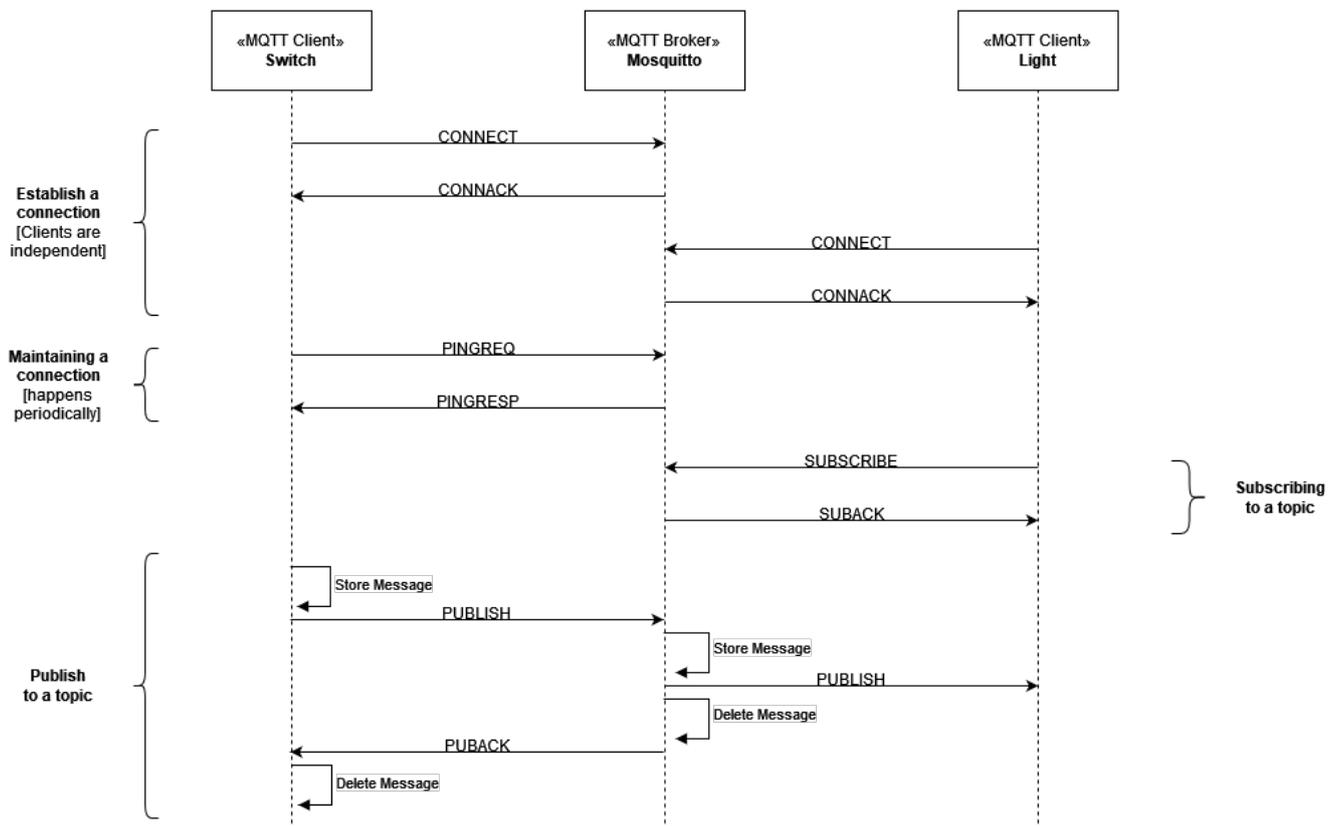
Students

- Melchior
- Andreas
- Henrydon

(8) Green House Window Opener Integration

Stuff to be sorted

MQTT Publish-Subscribe Sequence

Template

MQTT Full Sequence Example [QOS 1]

Reseller

- https://www.amazon.de/dp/B09YXJKBFV

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