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## **AMC SS2024**

# **Student Projects**

### (1) Schafalarm (Sheep Alarm)

Motion detection and tracking of sheep flocks.



Go here: Schafalarm

#### **Students**

- Sam (Advisor)
- Tasio
- any more?

### (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)
- Jihad
- Tarik
- any more?

### (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

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#### **Students**

- Taycan (Advisor)
- Ekaterina
- Anastasiia
- any more?

### (4) Bird Feeder (Pet Feeder)



Go here: Bird Feeder

#### **Students**

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

### (5) Irrigation Cart Nozzle



**Go here: Irrigantion Cart Nozzle** 

#### **Students**

- Amr
- any more?

## **Further Ideas of Minor Priority**

### **Laser Scanning Drone in Chimneys**

### **Water Quantity Measurement**

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

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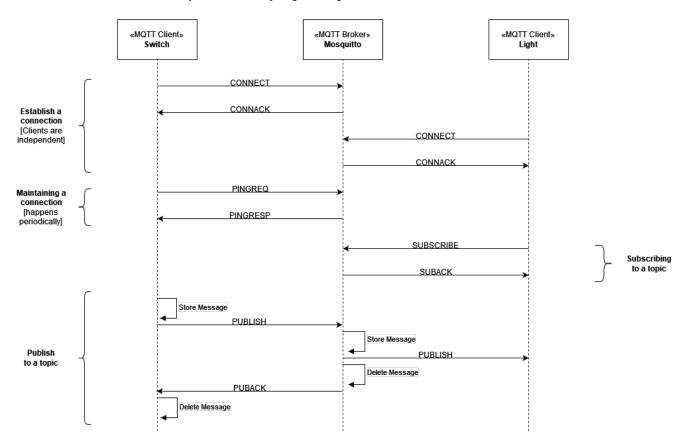
### **Green House Window Opener Integration**

## 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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