JES – Automated plant watering system

ICT Infrastructure project

6.2.2025

Who are we?

- Project Manager:
  - Jade Malin, 2nd year student

- Project Members:
  - Emilia Hauskaviita, 3rd year student
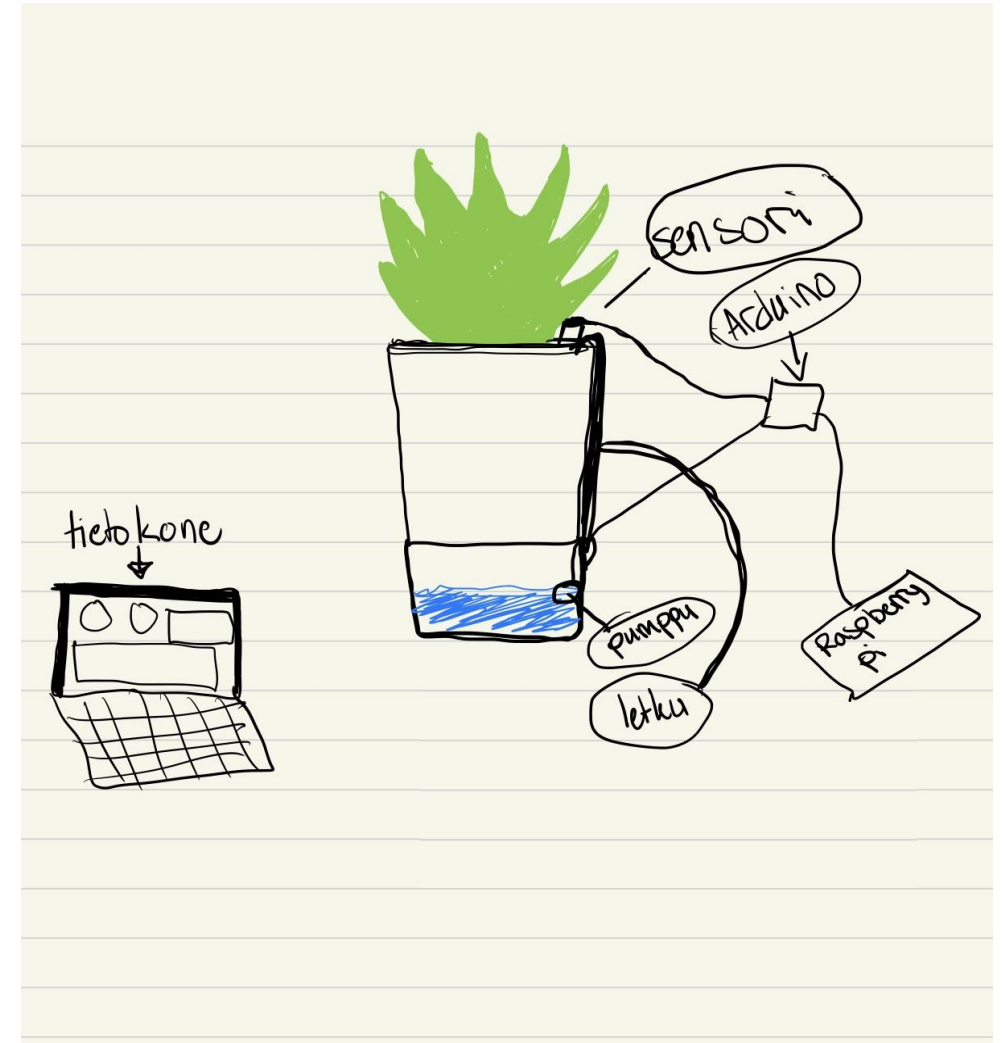 - Selma El Uharani, 2nd year student

What are we doing?

Developing an **Automatic Plant Watering System!**

Sensors to measure soil moisture and temperature

System will detect dry soil and triggers the pump to water the plant.

Visualize moisture and temperature data in real-time using Grafana

What do we need?

Soil Moisture and **DHT11 sensor**
Measures soil moisture levels and temperature

Raspberry Pi
Acts as the central controller

Arduino Uno
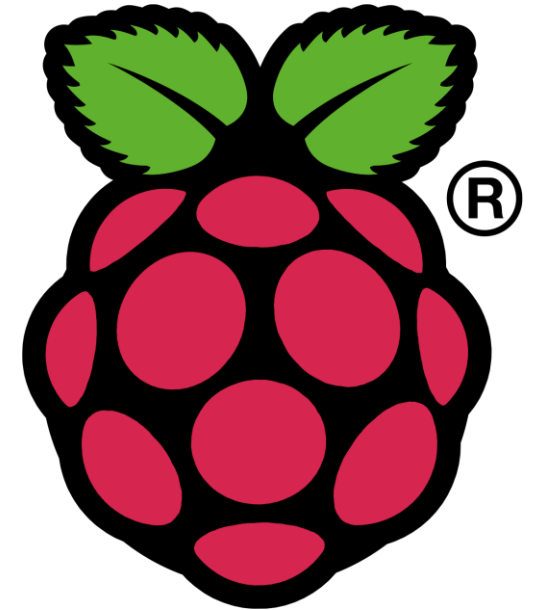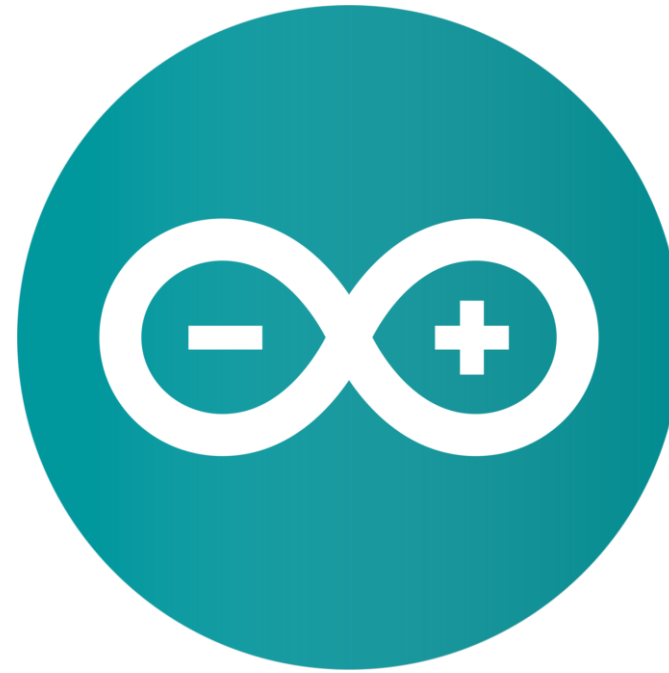Logs the analogs sensor data

Water Pump
Activated when soil is dry

Grafana
Graphical monitoring of data

Database
for storing data

How are we going to do it?

We are dividing our work into different phases:

1. Ordering the components
2. Building the physical IoT part
3. Building the non-physical IoT part
4. Coding and debugging
5. Database
6. Graphical Interface
7. Finalizing the project

The END!

- Thank you!

- Any questions? ☺

Image sources:
Grafana
Arduino
Raspberry Pi
Question mark