

9/1/2022

Objectives:

- Look at sensors needed, their quality, and a cost benefit analysis (Temperature and Humidity)
- Network for sensors
- Self sustained remote hydroponic system (?)

GOAL:

- To develop and test a single sensing unit
- Research different sensing networks \hookrightarrow buy off the shelf, test
- Building small hydroponics testbed

Sensing System:

Temperature
Humidity
soil moisture
soil NPK
Particulate Matter
VOX
CH₄
CO₂
Light strength sensing
cameras

Hydroponics

compost

mushrooms

Independent goals:

- Research sensors of interest
- Research test beds
- Research network
- Design enclosure for electronics
- automation

Sensing unit:

1. sensors
2. controllers
3. prototyping
4. testing
5. PCB
6. enclosure

- research off-the-shelf sensor networks, what they promise, maybe get them for ourselves.
- look @ other sensor networks
- cloud based services
- adding cameras?

- Add 1 slide each week so we can do a presentation for the midterm
- Start thinking about timeline