Work done in past week

Cameron- Research on possible sensors to be used

Blake-

Chase- Brainstormed PCB ideas

Tejal-

Cayden - Researched sensors found a product similar to ours

Holden - Researched sensors and feasibility of measuring different things plants need. Created a mock up for the front end of the app

Things to do this week

* Ask Maruf about budget
* Ask Maruf about feasibility of PCB
* Talk to ETG people about sourcing sensors/Actuators: Sensor types, NPK, moisture,temp, light intensity(PAR?)(400-700nm)
* After ETG meeting perform last search for possible sensors
* Ask about if liquid fertilizer is acceptable
* Meet after Maruf meeting to finalize sensor plans
* Ask Maruf about server
* Cameron - refresh knowledge on backend code
* Holden - User interface stuff
* Blake - Research sensors
* Everyone search for actuators/Sensors
* Everyone research plants find someone to talk to about plants

General notes

Difficult to measure macronutrients ie sulfur, potassium magnesium

Easier to measure water, PH, light,

Better to measure photosynthetically active light ie PAR

Potential solutions to water/fertilizer include gravity based dispersal with liquid based fertilizer

Alternatively using a pump to create a kind of sprinkler system

May be useful to use the sensor Cayden found as a guide for the scope of the project

Depending on sensor choice may need to create an enclosure to weatherproof the device

Possible material choices: plastic, steel)

Located a par sensor for $75

Chase PCB ideas:

-Get first PCB by end of semester

-Pass sensor data through PCB to wifi module send data to server for processing

-Have PCB act as a motherboard with separate boards with each sensor

Question: should we use I2C or modbus both?

Discussed what type of pi to use likely going to be provided one