Devices used:

* Raspberry pi zero w
* DHT11 temperature and humidity sensor module
* YL-69 Soil moisture sensor module

Functions

* Collect soil’s binary moisture value
  + Use it turn on led to remind user to water the plant
  + Use it to send data to my website
* Collect ambient temperature and humidity
  + Send information along with current time to my website, to be presenting on a graph that can be adjusted to needed time span

Backend:

* Write code to take the information from the sensors, store them all in a dataset with time stamps (For the graphs on my website) and send their information every 30 minutes.
* Write code to send current sensor’s, soil moisture status, ambient temperature, and humidity to be sent to the website as an object every minute.
* Write code to turn LED on when soil is dry.

Frontend:

* Use receiving dataset to implement a graph with adjustable time span to showcase past to current change in temperature, humidity, and soil moisture.
* A live preview of current stat values on top of page, using information from the received object.
* A section mentioning last time the plant was watered

System encloser:

Build an encloser to hold all wiring, raspberry pi zero w, breadboard and needed wiring extensions to reach pot. Solder connections needed and run power to pi.

Current to do/progress log:

* ~~Figure out express from nodeJS~~
* ~~Setup server using express~~
* Create sample json file
* Send and receive json file using express
* Parse said data for real time input
* Parse said data as a whole to create an average or something (Simulate graph without complex)