BEFORE DEPLOYMENT:

* Make sure your clock is set correctly, see the canvas tutorial if you are having issues
* Make sure to figure out which of your temperature sensors corresponds to which in the csv (data file). They will be printed in the same order each time. This is important so we put our respective sensors in the same treatments. **The first temp sensor reading will be the test bucket, the second temp sensor reading will be the control bucket, and the third will be the air temp sensor.** You can check which sensor corresponds to each temp reading in the csv file by dipping each one in cold water, and checking which sensor value changes using the read\_temp\_light.py file that Alex uploaded to the google drive.
* We will be using a 15 minute sampling interval, you will change this in the main.py file
  + To do this, all you need to do is change the **samp\_freq** variable to be 900.
  + Then, connect to your microcontroller and put the newly updated main.py file onto the microcontroller.
* Fully charge the battery before first deployment

Make sure to record metadata for each day of sampling! Also take some photos for documentation.

Prepare the complete sensor in sampling mode on the 3D printed backbone using the provided splitters. You can set up the complete sensor in the housing if you want but don’t connect the battery yet.

Wrap the sides of both buckets with aluminum foil (you could use double sided tape, tape loops, etc). Fill both buckets with 10 cups of water and allow to sit to reach room temp.

Set both buckets in their deployment location (exposed to sunlight, won’t be disturbed). Place the 3D printed bridge between the two buckets.

Place the sensor/sensor housing on the ground in between or near the buckets. Place the sensor that corresponds to temp sensor 1 in the uncovered test bucket, using tape on the rim to hold it in place roughly in the middle of the water column on the side of the bucket. Repeat with the temp sensor 2 for the control bucket. Place the light sensor in its holder in the bridge, and use a strip of tape to hold it in place alongside the open edge of the holder. Route the air temp sensor (temp sensor 3) down through the top of the hole in the bridge, and lock it in place so it is shaded by the bridge itself.

Cover the top of the control bucket with foil with a small hole near the rim of the bucket to allow the temp sensor to pass through. Tape down along the rim.

You should be ready to begin sampling. You can connect the battery in the sensor housing and close the housing lid.

Remove and recharge the battery around 30 minutes after sunset. Data without sunlight won’t really be useful.