Deployment Instructions

Prior to Deployment:

* Ensure the clock is set to the correct time and date
* Upload both the modified main.py and hmain.py file to the microcontroller
* Fully charge the battery before first deployment
* Change the connection at Pin 16 from Pin 2 to the Reset pin to put the sensor in sampling mode but do not connect the battery yet

Transport all materials to the testing site including the surface housing, zip ties, lines, anchor, and sensors. After arriving at the site, prepare both small housings with the designated sensors. Using zip ties, secure the sensor with the longer wire to the long line 1 meter from the bottom of the line. Secure the other sensor to the handle on the top of the floating housing unit. Make sure to tie a sufficiently long line to the top of the floating housing for recovery.

Note the time and connect the battery in the sensor housing and close the PVC housing lid. Ensure sampling has started by verifying a red and green light turn on inside the pill bottle containers. Place both PVC housings with the respective microcontrollers inside next to each other inside the floating housing unit and secure with zip ties. Continue making note of the time so that you can accurately distinguish the sampling data in the csv later.

To deploy, lower the anchor first, followed by the bottom sensor and the floating housing. Release enough line so that the housing can drift away from the wall. Wait for the red light in the housing to turn on and record the time at the first sample. After the pre-determined sampling length, note the time of the last sample and begin recovery. Slowly real in the lines and carefully pull the housing, sensors, and anchor out of the water. Cut the zip ties that secured the PVC housings, open each housing, and take out the board. Make sure that the lights are all off, then disconnect the battery and reconnect pin 16 to pin 2 to put the sensor back into test mode. Collect all pieces and transport back to the lab.