Senior Design Smart Cooler

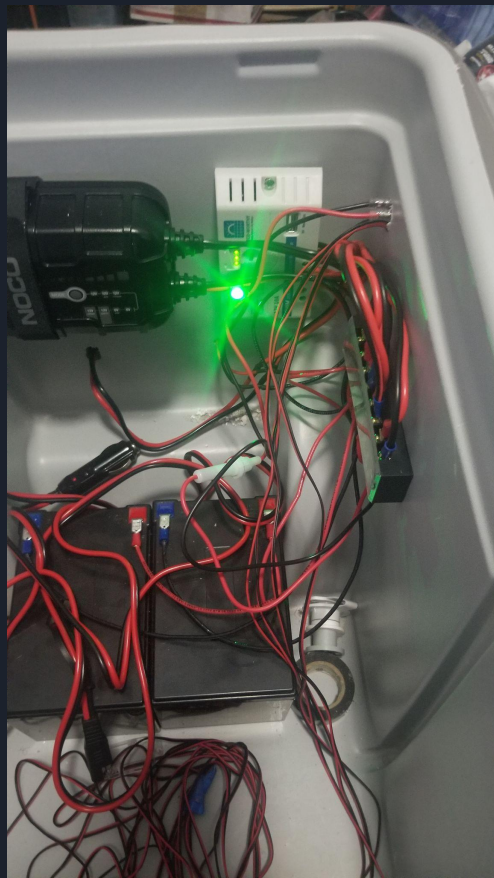Week 6 Sep 28- Oct 8

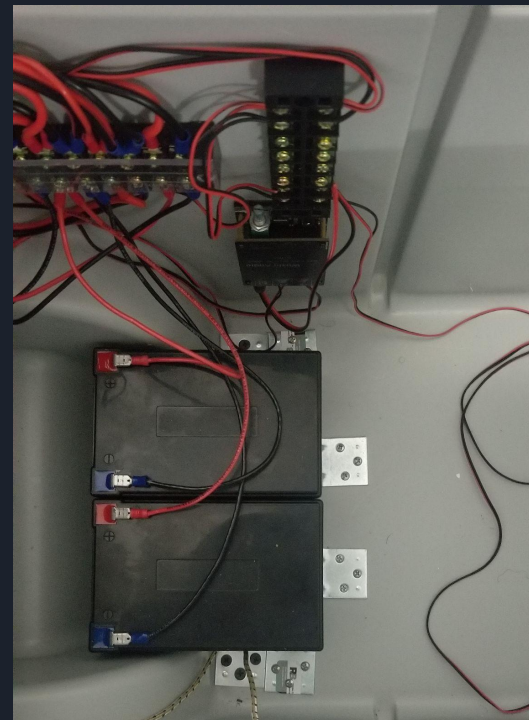# Progress made during the week

- Final Wiring of
    - Speakers
    - Amplifier
    - Final Terminal Block
- Secure Batteries
- Brackets made for Solar Panel
- Run Entire system off Batteries
- Place and recess Sensors
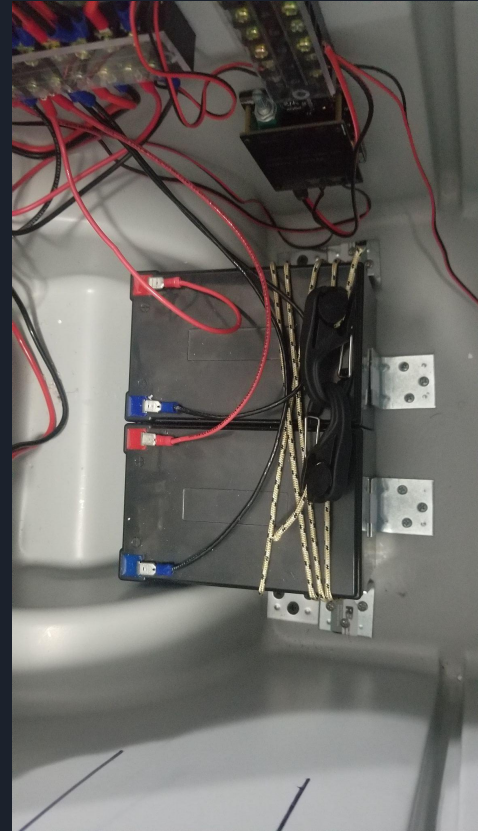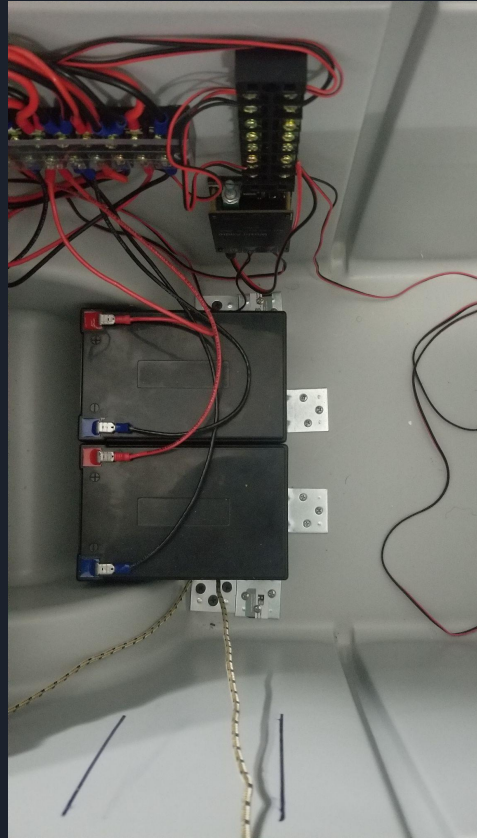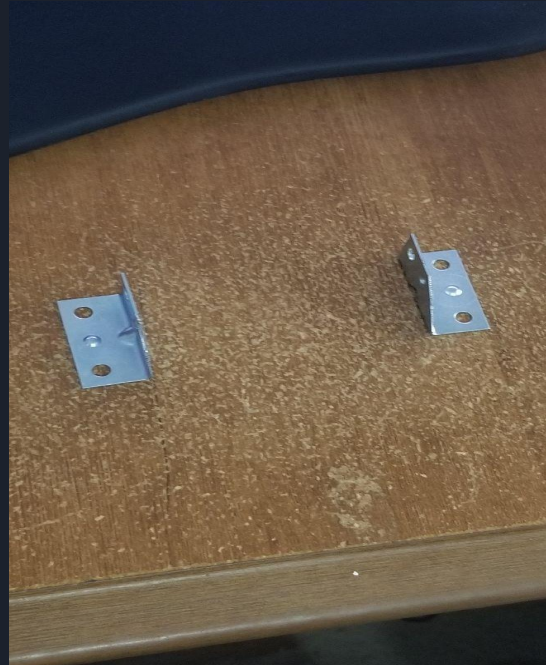
Speaker Wiring

Before....

After....

Batteries Secured

The battery was secured using the brackets and the shape of the inner lining around the wheels
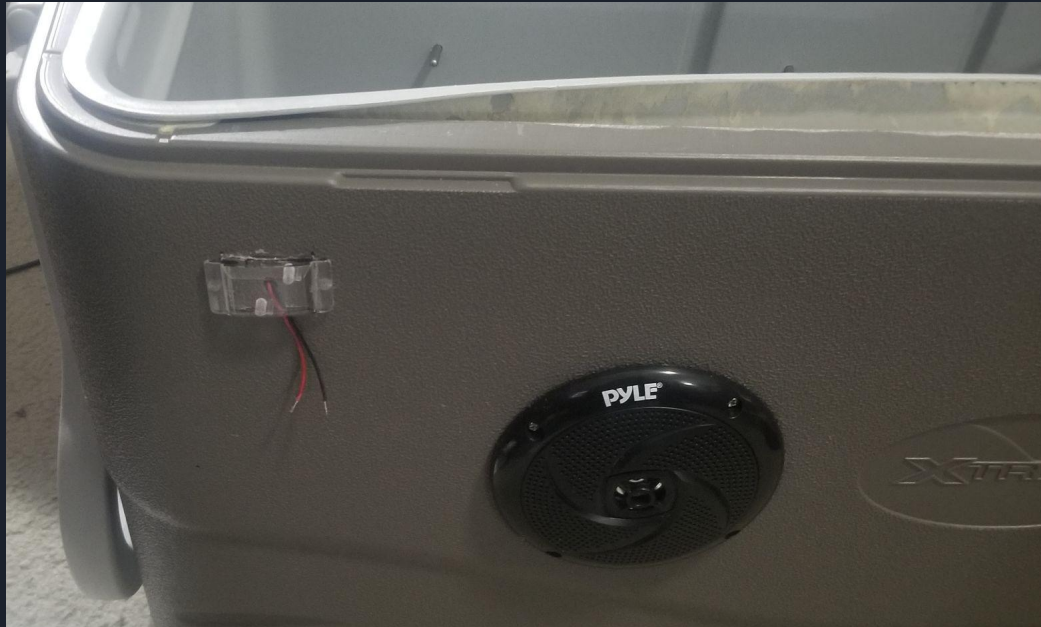
Solar Panel Brackets

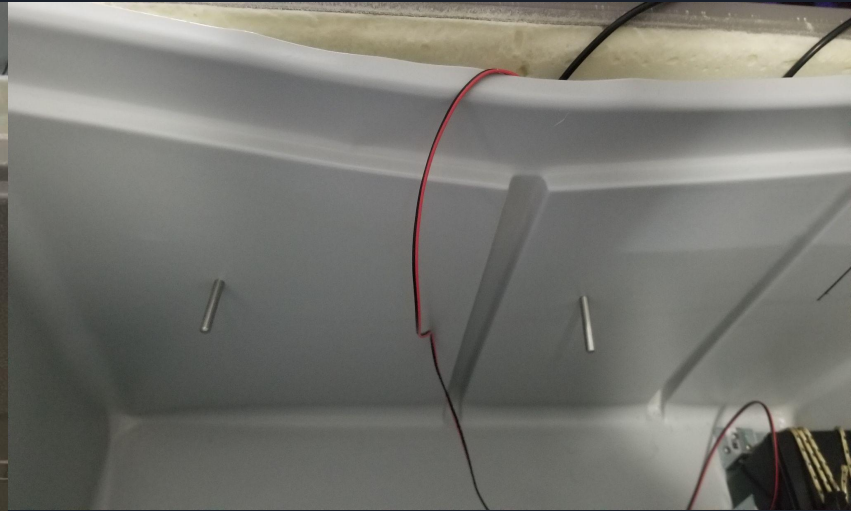Fashioned the Brackets that will be used to mount the Solar panel.

Sensor Placement

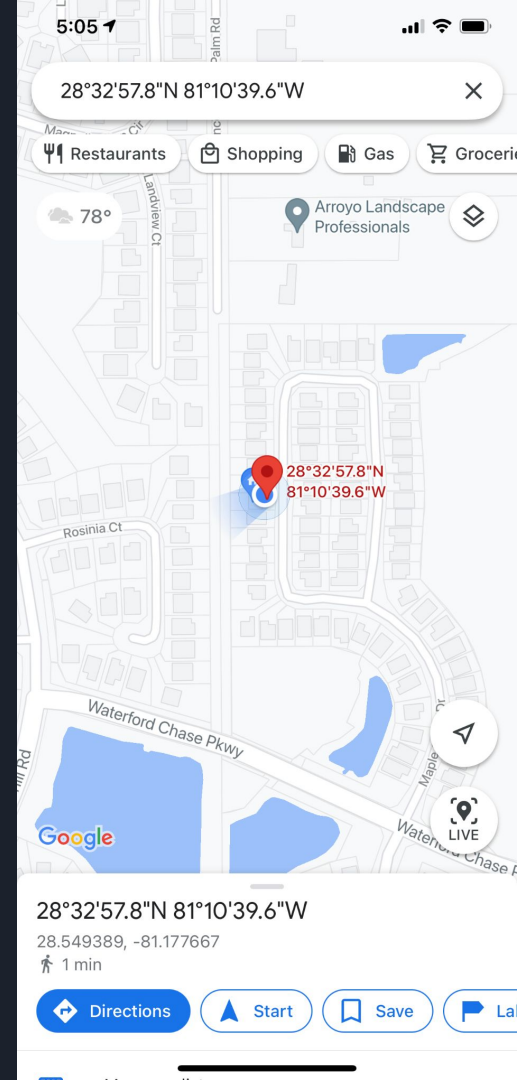Optical Sensor

Temperature Sensors

GPS Location

View button navigates to Google Maps

Uses coordinates to show location

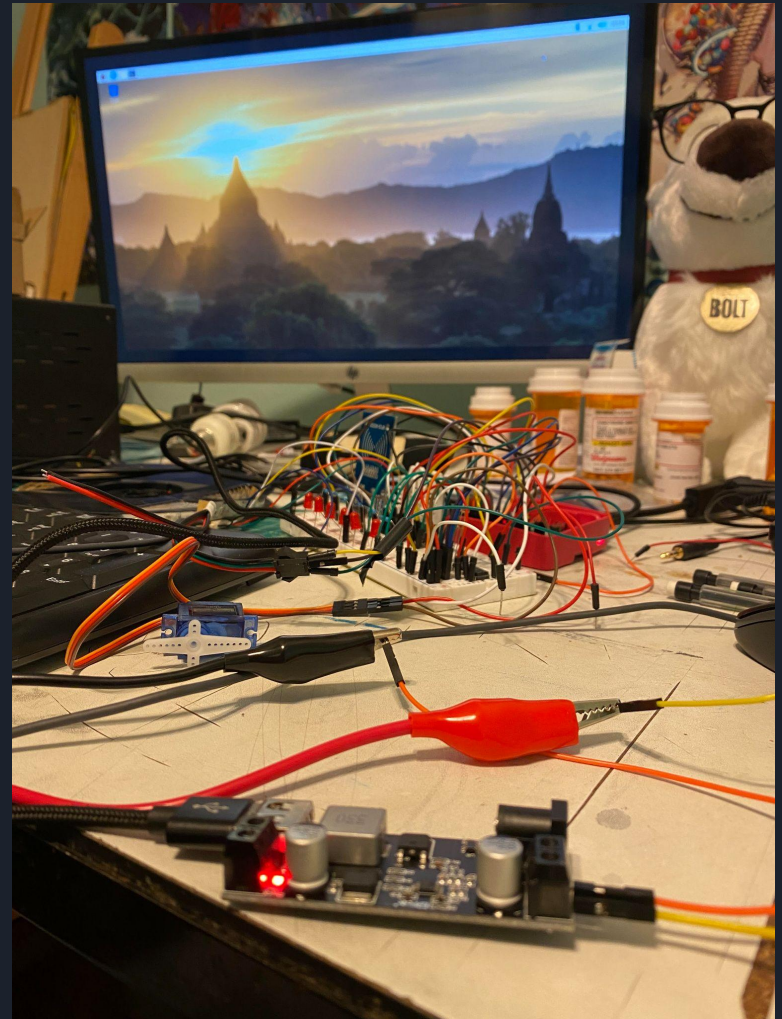Shows last known location of cooler
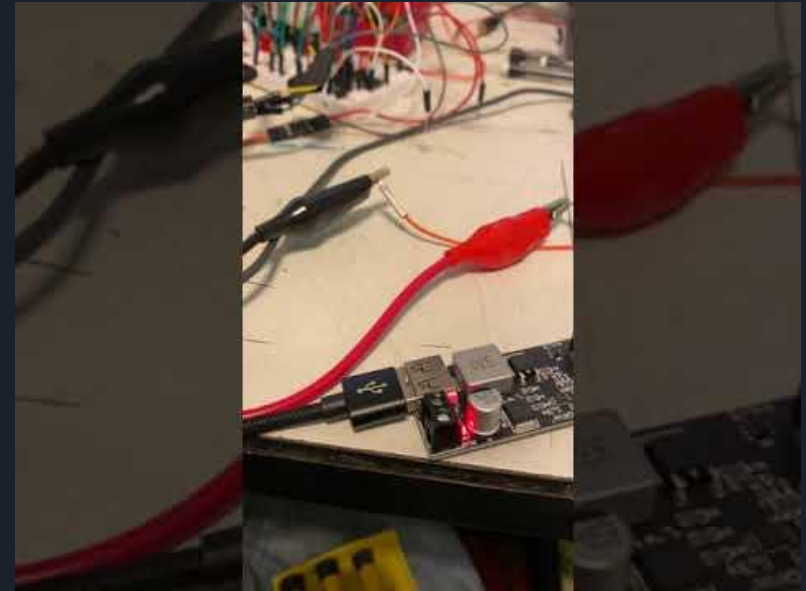
New Buck Converter

5V 5A Buck Converter

Can be seen powering the Raspberry Pi

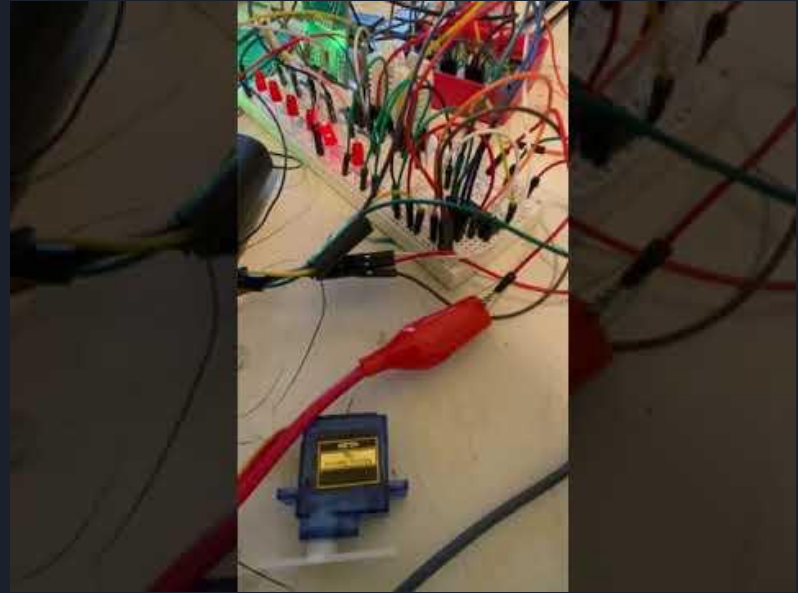Tested in both bench power supply and batteries

Buck Converter Draw

Testing Components Together

LED light strip, GPS, servo, photosensor, and LED switching all work together.

Left is RFID, waterproof temperature sensors, and battery level indicator

Goals for next week

Here are the priorities for next week:

- Wire Solar panel and confirm charging
- Mount external Sensors and Switches
- Mount Internal Temperature Sensors
- Secure Solar Panel
- Settings Screen
- Waterproof Temp Sensors
- RFID