Senior Design Smart Cooler

Week 9 Oct 21- Oct 27

Progress made during the week

- Wired system power button
- Removed slack in wired charging plug
- Finished cutting acrylic and finished dividers
- Finalized Raspberry Pi location
- Attached lid and tested complete system
- Tested plexiglass in ice
- Updated settings screen
- Started building cleaner copy of breadboard

System Power switch & Wired plug

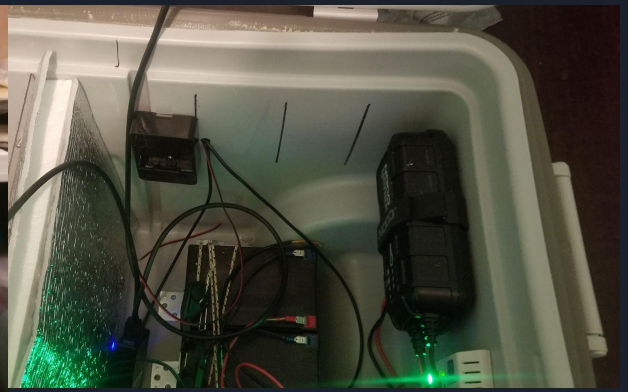
The red switch that was installed is the system power switch.

It is used to secure power to the entire system.

Lid attachment & Test

We attached the lid confirmed that the wireless charging pads still worked.

Also mounted the case that will contain the Raspberry Pi



Power Switch Test

After installing the power switch, the button was pressed on, showing that the system turns on by the flashing LEDs, and turning the system off again.

Dividers

Progress was made on the dividers

The plexiglass is glued to the styrofoam, providing a much sturdier structure

Plexiglass Cold Test

To test if the plexiglass is affected by cold temperatures, it was placed in ice.

The plexiglass was pulled out and flexed every hour to test durability.

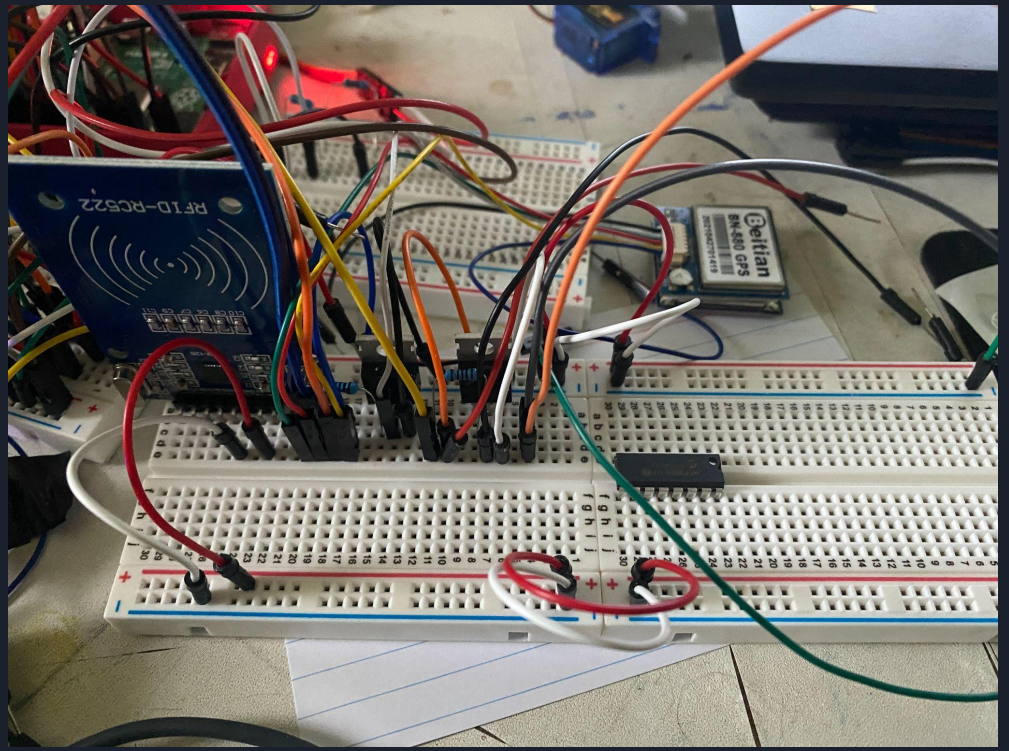
The plexiglass is unaffected by cold temperatures.

Plexiglass Cold Test

Breadboard Copy Progress

In order to test at workstation and on cooler system, a secondary breadboard was made.

The copy is be will the cleaner, finalized version of the breadboard.

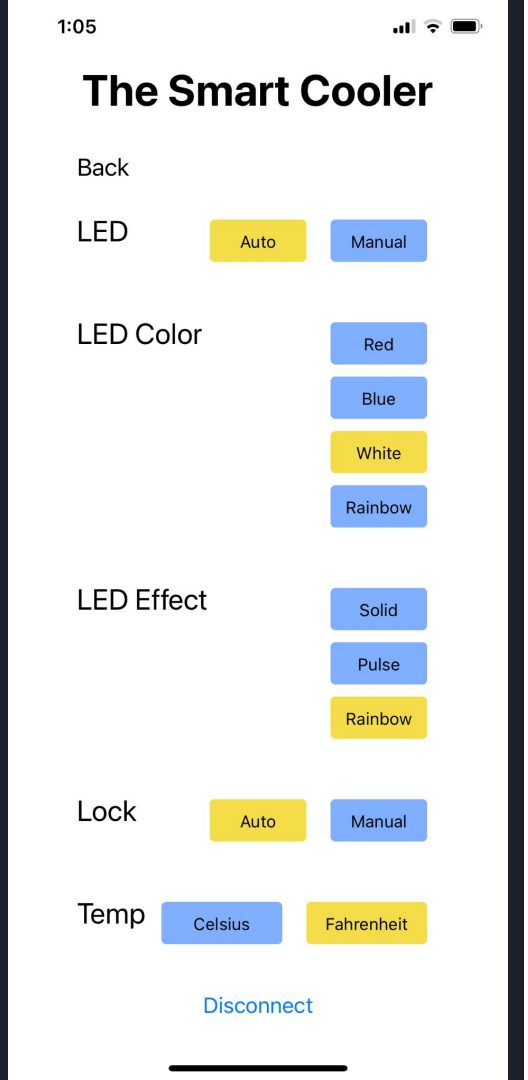


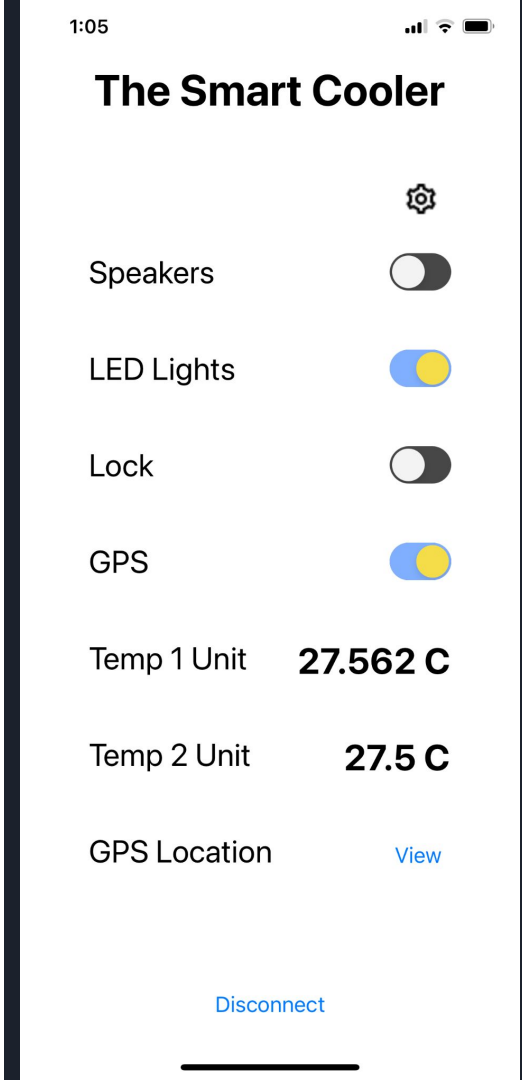
Settings Screen Progress

The settings screen now has buttons

Mode that is selected is yellow.

Unselected modes are blue.





Goals for the Month

Here are the priorities for next week:

- Design 3D printed parts
- Install Breadboard and confirm Operation
- Install Touch Screen
- Sand out charging pad locations
- Finish breadboard copy