

EE/CprE/SE 491 WEEKLY REPORT 6

3/7/2022 - 3/13/2022

Group number: SDDEC22-01

Project title: Plastic Machine Embedded IOT Controller

Client &/Advisor: Mark Hansen & Dr. Jones

Team Members/Role:

Stone Widder - Technical Lead

Joshua Baringer - Software Lead

Rachel Teberg - Historian/Reporter

Evan Pasero - Project Manager

Charles Sang - Controls Lead

○ **Weekly Summary**

Since this was the week before spring break we used a lot of our in person meetings to work on the class assignments. We also had a meeting with our client where we demoed a video of us controlling the relays while reading the values from the thermocouple. Our advisor was very pleased with this progress. We also had a lengthy discussion about a TEDx talk that he was recently in and how our work is impacting his goals.

○ **Past week accomplishments**

- Began work on the command line for GUI - Josh
- Done building thermocouple circuit. Just doing tuning and adjustment of filter frequencies
- Demo for Client - Stone
 - Got it finished and on the test stand and Demoed to client
- Updating Hardware block diagrams with client feedback - Rachel

○ **Pending issues** *(If applicable: Were there any unexpected complications? Please elaborate.)*

- Can't get the PID library to Install on the beaglebone

○ **Individual contributions**

<u>NAME</u>	<u>Individual Contributions</u> <i>(Quick list of contributions. This should be short.)</i>	<u>Hours this week</u>	<u>HOURS cumulative</u>
Stone Widder	Thermo-couple and Relay Demo	4	35
Rachel Teberg	Updating Hardware block diagrams	5	32
Joshua Baringer	Worked on command line for GUI	4	32
Evan Pasero	Started work on KiCad pcb	4	32
Charles Sang	Thermocouple circuit design	4	32

○ **Plans for the upcoming week**

Joshua: Continue to work on command line for the UI.

Stone: Get PID working, Plan for next steps. Perhaps continue the control system code.

Rachel: Plan for next steps. Work with Evan on schematic

Charles: Finish tuning the thermocouple and get designs ready for prototyping

Evan: Working pcb schematic for review.

○ **Summary of weekly advisor meeting**

Our meeting with our advisor this last week was shorter due to some time conflicts. We didn't discuss much, but instead gave brief updates about what we had been doing over the last week. Stone was able to talk about the demonstration of the beaglebone taking readings from the thermocouple via client's adafruit thermocouple amplifier and hopefully show the client our next steps once we integrate our own circuit with the system.