

Weekly Report 10  
Sddec24\_04

## **Weekly Summary:**

### **Past week accomplishments**

Updated code to optimize it and make it easier and faster to run the tests we want. This also helped improve our understanding of Python and the test code to give us ideas on creating our own test code. Worked on filling in more of the DAC conversion table and narrowed down selection of a DAC and microcontroller to implement in our design.

**Team Member 1(Justin):** This past week I worked on researching different DACs that we could possibly use in our design to get the required resolution. I found a couple that I think will work but need to review them with the rest of the team and Dr. Neihart to make sure. I also worked with the team to further test our communication with the Sukup board.

**Team Member 2(Tony):** Worked on the code to optimize it for the tests that we are conducting. Completed a rough test to see if there was a variation in temperature accuracy caused by the 1M ohm resistor and it resulted in a 6°F change. However, this difference could have been caused by the test and not the resistor.

**Team Member 3(Sam):** this week was a bit slower for me. I was unable to attend the team meeting this week due to other commitments. I worked on the documentation side more this past week and got our documents ready. I hope to work more this week helping with the temperature experiment along with selecting a DAC.

**Team member 4(Michael):**

### **Pending issues**

**Team Member 1(Justin):** I would still like to get a better understanding of the testing code that Sukup provided us so I can help write our own test program later.

**Team Member 2(Tony):** Talk with ETG about checking out a power supply so more testing can be done on the variations in temperature accuracy caused by the 1M ohm resistor.

**Team Member 3(Sam):**

**Team Member 4(Michael):**

**Individual contributions:**

<b>Name</b>	<b>Hours this week</b>	<b>Hours Cumulative</b>
<b>Tony Haberkorn</b>	<b>3</b>	<b>26</b>
<b>Samuel Estrada</b>	<b>2</b>	<b>25</b>
<b>Justin Garden</b>	<b>2</b>	<b>26</b>
<b>Michael Hurley</b>		<b>23</b>

**Comments and extended discussion**

**Plans for the upcoming week:**

Complete testing and documentation of the variation introduced by the 1M ohm resistor. Finalize a choice of DAC and microcontroller for our board. Prepare for faculty final presentation and documentation to put ourselves in a good position to end the semester.

**Summary of weekly advisor meeting:**

Talked about wrapping up the project for this semester and what we should have completed by the final presentation. Updated Neihart on the RTD testing we are conducting and the test code we are altering. Also discussed choosing a DAC for our board as well as selecting a microcontroller.