

WEEKLY STATUS REPORT

DATE: 2/21/16 – 2/27/16

What I did this week:

- Created GUI template using GLADE
- Tested current sensor and sensoray using various power supplies. After plotting the data, the results show the current sensor with the regulator, the 15V outlet power supply, and the welder turned off shows a periodic waveform capping out at around 6.2V. When the welder is off, we can see very fast fluctuations of the voltage. The maximum voltages range from 6.2V – 7.1V. Removing the voltage regulator and adding a voltage divider, we see results very similar to the first test. However, in this plot, the voltage caps out around 5.45V. Using the adjustable lab power supply, no voltage divider, and taking measurements from the sensoray board, we see a very small range of voltages ranging from 5.97V - 6.07V. Finally, the last test was the adjustable lab power supply, no regulator, and taking measurements from the current sensor. This test shows lots of randomness with maximum voltages around 6.7V. Conclusion was to purchase a new current sensor.
- Tested overall program – weld is still blobbly, unsure about CNC speed
- Completed Weekly Status Report

Any issues I encountered:

- Thought I could easily transition the GUI template sketch into GLADE. Looks like the best way to do it is to “slice” the sketch into a row/column (cell) design. Will need to organize what I have into this type of layout.
- Issues with current sensor outputting range of voltages (6.2V, 5.1V, 6.7V)

What I will be working on next:

- Going through more GLADE tutorials. Learn to program the GUI, understand how parameters are passed.
- Talking with applications engineer at Honeywell. Discuss why original current sensor is giving us issues and which would be best new replacement for our application.

Notes:

None