EE 491 Weekly Report   **MAY1612   Week 10 (10/27/15-11/2/15)**

Advisors: Mani Mina, John Pritchard   **Client:** Minnetronix

Members (roles):   Brandon McDonnell, Group Lead; Justin Long, Web Master

Timothy Dee, Key Concepts; Corey Wright, Communications

Project Title: Remotely Connected Electric Field Generator for Particle Separation in a Fluid

Weekly Summary

This week we met in the newer 201 lab on the second level of Coover hall to continue working on the minigen and digital potentiometer. During this time we worked through the two raspberry pi devices to get each of the minigen and potentiometer working. These devices use python code to run. We were able to successfully get the potentiometer to work correctly and can give a voltage out varying from 0V to 3.3V over 128 steps. We also have the program able to return data about the voltage that is should be generating. The minigen is still having problems creating the 3.3V sine wave that we want. We have narrowed the problem down to improper register writing and will need to fix that portion.

Meeting notes:

In class we reviewed and handed in our first design document. This document basically outlines how the whole system will fit together and gets

Pending issues

1. We have the type of amplifier circuit that we want narrowed down but need to find a commercially manufactured circuit that will fill our needs, ideally.
2. We need to get the minigen to create the proper waveform and have it be variable based on programed input.
3. We will then connect the successful minigen and potentiometer programs to our web interface.

Plans for next week

Describe who will do what …..
1. All: Further work on the minigen and actually get it to write to its registers properly
2. Corey: Find a commercial amplifier that will work for our circuit
3. All: Meet with John Pritchard via Skype to discuss our progress

Individual Contributions (this week)

Brandon McDonnell   (4.5hr)
     -worked on the digital potentiometer code in lab
Justin Long   (2hr)
     -worked on the website including bios
Tim Dee   (5.5hr)
     -worked on the minigen/pi circuit
Corey Wright   (4hr)
     -assisted on the digital pot, wrote the lab report,

Total contributions for the project

Brandon McDonnell   (19.5hr)
Justin Long   (15hr)
Tim Dee   (29hr)
Corey Wright   (20hr)