

Fast, Compact, High Strength Magnetic Pulse Generator

EE 491 Weekly Report

May 15-30

Week 3 (9/15/14-9/22/14)

Advisors: Mani Mina, John Pritchard, Robert Bouda
Client: High Speed Systems Engineering Lab
Members: Team Leader – Adam Kaas
Team Webmaster – Gregory Fontana, Meiyong Himmtann
Team Communication Leader – Brittany Duffy
Team Key Concept Holder – Megan Sharp, Brandon Dixon
Team Commissioner – Alain Ndoutoume



Weekly Summary

This week, we met with both John and Robert for the first time to get a better direction of the project.

Meeting Notes

9/15 Group meeting with members + Advisors

Duration: 1 hour **Members Present:** All Members, Robert, John

Purpose and Goals:

During this meeting, we discussed our answers to John's questions related to electromagnetism. John provided us more insight on how the questions relate to the project. At the end of this meeting we were given a couple group tasks. One task involved watching a video regarding the simulation software (ORCAD) we may be choosing as our software base. Another task involved solving a couple basic equations such as how to calculate the field at the center of a coil and the inductance of a coil.

Achievements: During each meeting, we are gaining more and more knowledge on how to begin creating our project. During this meeting, we became familiar with digikey and how to order parts online.

9/16 Group meeting with members

Duration: 1 hour **Members Present:** All Members

Purpose and Goals:

This meeting was held during our scheduled class time. As a group, we developed a detailed timeline of major events. We answered questions such as "What's going to be the biggest hurdle to get over during your project?". Together, we have a good idea of what is expected of us when and how long different tasks will take in order to fulfill our design specifications at the end of the semester.

Achievements: All purposes and goals were met.

Pending Issues

N/A

Plans for Next Week

Adam: Look into designing a simple circuit to create a magnetic field with Megan

Greg: Help Megan get a simplified prototype started.

Meiyong: Help out with the simplified prototype, continue looking into MOSFETs and related circuits, help choose software.

Brittany: Help team in choosing software, continue with research on MOSFETs and circuitry related to the design, attend Monday and Wednesday meetings, write weekly report.

Megan: Attend Monday team meeting and Wednesday meeting with John. Get a simplified prototype started. OFFICIALLY CHOOSE software we will use (ORCAD???).

Brandon: Attend team meeting with John. Research MOSFETs and related circuits. Research Eagle PCB and review Multisim to help make a choice on software.

Alain: Attend the meeting on Monday with John and the rest of team members. Improving and reviewing our understanding of the system level diagram. Decide on what software we would use.

Individual Contributions This Week

Adam: Meeting with John and Robert (1hr), worked on Mani's handout with project plan for the year (1 hour), Watched video on simulating parts (15 minutes), replicated video procedures with a different part (30 minutes), Looked into questions posed by John (30 minutes)

Greg: Meeting with John and Robert (1hr) Watched video on simulating parts (15 minutes), Looked into questions posed by John (1hr)

Meiyong: Meeting with John and Robert (1hr), watched video provided by John (.25hr), reviewed questions by John (.5hr), created project plan with team (1hr)

Brittany: Meeting with John and Robert (1hr), watched video provided by John and related videos (.5hr), reviewed questions by John (.5hr), worked on Mani's handout with project plan for the year (1 hour), wrote weekly report (.5hr)

Megan: Meeting w/ John and Robert (1hr), worked on questions set by John in that meeting (2hr)

Brandon: Attended core team meeting with John and Robert (1hr), watched video given by John (.25hr), research on MOSFETs (.5hr), read book about PCB and OrCAD (.5hr), made project plan for the rest of the year (1hr)

Alain: Made our project plan for fall and spring semester with the team members (1hr), attended meeting on Monday (1hr), learned how to order parts of the project with John. Watched the MOSFET simulation in OrCad video sent by John and similar videos online, watched simulation with multisim videos (1hr30)

Total Contributions for Project

Adam: 3.25 hrs

Greg: 2.25 hours

Meiyong: 2.75 hours

Brittany: 3.5 hours

Megan: 3 hours

Brandon: 3.25 hours

Alain: 3.5 hours