

Fast, Compact, High Strength Magnetic Pulse Generator

EE 491 Weekly Report

May 15-30

Week 2 (9/8/14-9/15/14)

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 focused on learning more about the technical details of our project. We now have a better understanding of what is expected of us as a team now that we have had our first weekly meeting with our advisor, Robert. This week we focused on John's questions given to our team to refresh our memory of inductance, tools to measure current, ways to increase magnetic field strength, etc.

Meeting Notes

9/8 Group meeting with members

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

Purpose and Goals:

Met for the first time with all members. Looked through questions provided by John briefly. Set up group texting in order to be most effective in communication. Created doodle to have a better understanding of group members' schedules.

Achievements: All purposes and goals were met.

9/10 Group meeting with members & advisor, Robert

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

Purpose and Goals:

This meeting's goal was to get everyone on the same page. We really wanted to understand Robert's expectations of us in order for us to start in the right direction. Robert's questions made us realize that we need to understand the questions given by John even more in depth.

Achievements: Connecting with advisor. Going over expectations.

9/8 Group meeting with members

Duration: 0.75 hour **Members Present:** Adam, Greg, Megan, Brittany, Alain, Meiyong

Purpose and Goals:

Divided up John's questions to individuals so that we are fully prepared to answer Robert's questions during our next meeting. These questions will aid in our goal towards creating a system level design.

Achievements: Moving forward with answering John's questions.

Pending Issues

N/A

Plans for Next Week

Adam: Create a systems level view diagram after Monday meeting accessible for all team members online

Greg: The system level diagram and baking cookies

Meiyong: Help with the systems level diagram, review the other questions by John, look at the different software

Brittany: Aid in creating a systems level diagram. Start thinking about which software we would like to use. Continue education in our research.

Megan: Finish our initial systems level diagram after a Monday meeting with Robert. Make a decision on testing software afterwards. Review any answers we might need to after discussing them in the Monday meeting.

Brandon: Continue reviewing material given by John (more in-depth). Spend more time testing software. Create a tentative schedule for the rest of the semester.

Alain: Have a better understand of the system level diagram after today's meeting. We would also discuss with Robert to see how he can help with that.

Individual Contributions This Week

Adam: Attended core team meeting (1hr), attended group meeting with Robert (1hr), attended second team meeting to assess questions provided by John (.75hr), reviewed material given by John (1hr)

Greg: Attended core team meeting (1hr), attended group meeting with Robert (1hr), attended second team meeting to assess questions provided by John (.75hr), looked into boosting magnetic field using the coil and the circuit (1.5hr)

Meiyong: Attended core team meeting (1hr), attended group meeting with Robert (1hr), attended second team meeting (.75hr), reviewed material given by John: researched more on MOSFETs, BJTs and IGBTs (1.5hr)

Brittany: Attended core team meeting (1hr), attended group meeting with Robert (1hr), attended second team meeting to assess questions provided by John (.75hr), reviewed material given by John with an emphasis on ways to improve speed (1.5hr), wrote weekly report (.5 hr)

Megan: Attend Monday team meeting (1hour), attend advisor/team meeting on Wednesday (1hour), and participated in the Friday question review meeting (.75 hours), research before the Friday meeting.(.5 hours)

Brandon: Attended core team meeting (1hr), attended group meeting with Robert (1hr), reviewed material given by John with focus on circuit components and their arrangement (1hr), looked into software options - OrCAD (.75hr)

Alain: Attended the meeting this week on Monday and Friday, one with Robert (1hr) the other one with our group (1hr). Read document sent to us by John (the ITM link, 45min). Learned more about the technology of the MOSFET, BJT, IGBT and transistors.(1hr)

Total Contributions for Project

Adam: 3.75 hours

Greg:4.25

Meiyong: 4.25 hours

Brittany: 4.75 hours

Megan: 3.5 hours

Brandon: 3.75 hours

Alain: 3.75 hours