

Fast, Compact, High Strength Magnetic Pulse Generator

EE 492 Weekly Report

May 15-30

Week 4

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
Website: <http://may1530.ece.iastate.edu>

Weekly Summary

This week, our team has been testing our prototype. We aren't seeing expected results, so more testing is needed in this upcoming week. We have created a breakaway board with only the MOSFET on that board so that it will be easier to do testing. A new layout for the complete circuit has been created as well, so next week we will be doing much more testing.

Meeting Notes

2/06 Print out breakaway board

Duration: 1 hour **Members Present:** Meiyong & Alain

Purpose and Goals:

Met with Lee to use the Protomat to create the breakaway board for the MOSFET.

Achievements:

All purposes and goals were met.

2/06 Testing

Duration: 3 hours **Members Present:** Brittany, Greg, Meiyong, Megan

Purpose and Goals:

Solder MOSFET on break away board. Test with all three sources connected together as well as different inputs.

Achievements:

All purposes and goals were met.

Pending Issues

N/A

Plans for Next Week

Adam: Test the MOSFET on the breakaway board to obtain the I-V characteristics to ensure we are operating the MOSFET correctly

Greg: Test the mosfet on the breakaway board and hopefully gain some insight into our problems

Meiyong: Help with testing, hopefully get the parts and board for our next prototype and populate the new prototype.

Brittany: Test with breakaway board after new board is created. Start seeing positive results and improvement to our board.

Megan: Test with breakaway board after new board is created. Re-examine the initial steps of testing we are working on - should we start with DC testing (suggestion by Pandey)?

Brandon: Look into parts to make the board "user friendly" as well as enclosure options. Look to improve design based on testing.

Alain: waiting for the parts to test the new circuit and see if we would get better results than the two previous weeks

Individual Contributions This Week

Adam: Group meeting (1hr), Testing prototype (1 hr)

Greg: Group meeting (1hr), Testing prototype (2 hr)

Meiyong: Helped Brandon with creating layout for the next prototype (1 hr), met with Lee and Alain to make a breakout board for the MOSFET (1 hr), attended group meeting (1hr), soldered on the MOSFET to the breakout board (1 hr).

Brittany: Testing our prototype and making changes to prototype (5 hrs). Group meeting (1 hr).

Megan: Testing our prototype and making changes to prototype (2 hrs). Group meeting (1 hr).

Brandon: Altered layout for the next prototype with Meiyong (1 hr), attended group meeting and created breakaway board (1 hr), began process of looking for alternate DC power inputs (1 hr).

Alain: Attend team meeting on thursday(1hr), re-soldered and re-tested old circuit board(1hr), made new breakout board with Lee and Meiyong (1hr).

Total Contributions for Project (This Week / Total for Semester)

Adam: 2 hrs / 2 hrs

Greg: 3 hrs /3 hrs

Meiyong: 4 hrs/4 hrs

Brittany: 6 hrs/ 6 hrs

Megan: 3 hrs/3 hrs

Brandon: 3 hrs/ 3 hrs

Alain: 3hrs / 3hrs