

EE 492 WEEKLY REPORT 11

Project title: Fast, Compact, High, Strength, Magnetic Pulse Generator

Group number: DEC1622

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Date: 7th November 2016

Team Leader: Wei Shen Theh

Team Webmaster: Wing Yi Lwe

Team Communication Leaders: Jia yu Hong

Key Concept Holder: Aqila-Sarah Zulkifli

Weekly Summary

For this week, we had second measurements on all working boards. We analyzed our measurement data, and had another idea to achieve our goals. After we had meeting with our advisor for our new results, we decided to search new FET components with an input capacitance around 1200 pF and order it as soon as possible. In addition, we modified eagle files and ordered the PCB from the osh park. Besides, we worked on the detail of our PowerPoint slides, and had a rehearse for our presentation.

Past week accomplishments

As same as the last week, we had second measurements. We started to analyze the data based on our measurements and understanding of MOSFET. We realized that that we decreased rising time a lot, but voltage crossed the sensing resistor dropped. Input capacitance in the gate helps to increase the depletion width from the drain to the source, so higher input capacitance allows more current flow through FET but it will increase raising time. After discussion, we decide to get a slightly higher input capacitance FET and ordered a new FET component with an input capacitance around 1200 pF. We also ordered the PCB from the osh park. Other than that, we also did re-measured the data that we have and plotted it on MATLAB.

Individual contributions

<u>NAME</u>	<u>Individual Contributions</u>	<u>Hours this week</u>	<u>HOURS cumulative</u>
Wei Shen Theh	Record and gathered second measurement, Modified PCB, work on Powerpoint slides	8	117
Wing Yi Lwe	Record and gathered second measurement, work on Powerpoint slides, and attended group-advisor meetings, weekly report	7	96
Jiayu Hong	Record and gathered second measurement, debug Gerber files for PCB, work on Powerpoint slides and made sure members contributed on the weekly report and submitted the report	7	113
Aqila-Sarah Zulkifli	Record and gathered second measurement, work on Powerpoint slides and attended group-advisor meetings, weekly report	7	92

Summary of weekly advisor meeting

We had discussion our new results, and analyze how new FET affect the output. And we discussed presentation issues and tried to fix it for a better presentation in the future.

Plan for coming week

First, we are going to have third measurements. And We will discuss poster, and have rough idea what to putting on our poster. We will give the presentation on Friday morning with Professor Amariucaí.