

Date: April 6, 2014

<b>Group Number and Name</b>	<b>DEC14-06 TMS: Transcranial Magnetic Simulation</b>
<b>Client/Advisor</b>	<b>Mani Mina</b>
<b>Attendees/Role</b>	<b>Josh Abbott- Leader Spencer Ulven- Communicator Zhongheng Wang- Idea Master Kaiyue Zheng- Webmaster</b>

## Past week accomplishments

What was done, who did it, and when it was done

- ❖ A – Josh – Finished the final layout of our design circuit with optimal devices, met with Robert on Tuesday with Spencer to discuss circuit problems with prices and optimization and capacitor size with voltage allowed. Created a bill of materials spreadsheet and helped find optimal components to recreate the multisim circuit. Before meeting with Robert finalized bill of materials and justifications for each expense of the bill of materials.
- ❖ B – Spencer – Wrote the weekly report, helped Josh with final layout of circuit with optimal devices, met with Robert on Tuesday with Josh to discuss capacitor theory and prices of certain components. Researched into and found components for our capacitors, inductors, resistors, casing diameters, and ground bar. Met with Robert to discuss final circuit and our bill of materials. Also helped Josh with making the PCB layout for our design and successfully created all components with the right dimensions.
- ❖ C – Kaiyue – Looked for a real life component of transformer that matched our multisim one. Found the transformer we need and also looked into what type of IGBT we need. Met as a group with Robert to discuss final circuit and our bill of materials.
- ❖ D – Zhongheng – Helped find the components we needed for IGBT's, attended meeting with Robert discuss final circuit and our bill of materials, and looked more into what type of material we can use for

casing entire circuit.

- ❖ E – As a group we finished our final design of circuit, finished looking into components and created a bill of materials. Also looked into casing and different types of push buttons for casing.

## Plan for coming week

What to do, who, and when should it be done

- ❖ A – Finish looking into casing and decide on dimensions and how to build it. Finalize project plan version two.
- ❖ B – Fully finalize our bill of materials and begin to order parts for fabrications.
- ❖ C – Make final PCB layout that will allow circuit to work without overheating and/or exploding.
- ❖ D – Have Kaiyue update the website with current documents.

## Pending Issues

- ❖ A – Finding the right IGBT to work with our high current design.
- ❖ B – PCB layout might give us trouble with component sizing.
- ❖ C

## Individual Contributions

- ❖ A- Josh- Finalized circuit design, started bill of materials, started PCB layout.
- ❖ B- Kaiyue- Looked for components for circuit such as transformer and IGBT's, also updated the website
- ❖ C- Spencer – Wrote the Weekly Report, helped finalize design, found components for circuit such as resistors, capacitors, inductors, and casing

parameters.

- ❖ D- Zhongheng- Helped with the research into what components we need for circuit, and looked more into casing material.

## Individual hourly Contributions

<b><u>NAME</u></b>	<b><u>Hours this week</u></b>	<b><u>HOURS Cumulative</u></b>
Josh	13	75
Spencer	11	70
Kaiyue	6	67
Zhongheng	5	66

Comments and extended discussions: