

# EE 491 Weekly Report    MAY 15-26    Week 10 (11/3/14-11/9/14)

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**Advisors:** David Jiles and Ravi Hadimani

**Client:** Iowa State University/Magstim Company LLC

**Members (roles):** Jessica Staley (GUI/Leader), Saurabh Minocha (SEMCAD/Webmaster), Anqi Deng (3D Design & Modeling/Communication), Yixiao Shen (Comsol/Key concept holder)

**Project Title:** Design and Development of Adjustable Halo coil for Non-Invasive Treatment of Brain Disorders

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## Weekly Summary

The main goal this week was to talk about our new design. We also had to get done with the second version of our project plan. Another purpose was to check our progress and make sure it is in sync with the schedule and our Gantt chart.

## Meeting notes

11/3    Group meeting with members

**Duration:** 60 min

**Members Present:** All

### Purpose and Goals:

We met to talk about the content which we may use in our second version of project plan. Since we made some changes to our new design, the purpose was to eliminate the irrelevant parts in the previous project plan and add new ideas we came up with. We also tried to get our website to publish using the domain name given to us.

### Achievements:

1. Shared opinion about new version of project plan.

2. Specific part distributed to each member.

### 11/7 Group meeting with members

**Duration:** 60 min

**Members Present:** All

#### **Purpose and Goals:**

The purpose of this meeting was to talk about our timeline with our design process and we set a proper plan to our final presentation in order to get enough time to prepare.

#### **Achievements:**

1. Hardware part ordering would be on our agenda.
2. Project plan 2 was in progress.

### **Pending issues**

1. Ask advisor for advice about how to order hardware part.
2. Finish the second version of project plan.

### **Plans for next week**

Jessica Staley: Troubleshoot remote start addition to GUI, continue to update GUI layout.

Saurabh Minocha: Get done with the website, Continue with simulations using different types of coils and heterogeneous head model, work on a new software with research students that might be useful for our project.

Anqi Deng: Get a complete 3D model with our design including the stand system and order hardware for our design.

Yixiao Shen: Prepare for the presentation; simulate the new design in COMSOL.

### **Contributions (individual)**

Jessica Staley: communication between members and Professors, attended the meetings, gave ideas of the report, wrote part of the project plan, reworked layout of GUI, researched and coded remote start to GUI ( 6 hrs.)

Saurabh Minocha: attended the meetings, helped compile the report, contributed in writing the design document, communication with graduate student working on SEMCAD, website building, SEMCAD simulations for bent figure 8 coil over a human head model and understanding different forms of results obtained and how they are useful to us. (7 hrs.)

Anqi Deng: Drew the part of our new design, modified the helmet to suit our new design,, finished my part of project plan on time, compiled the report, attended the meeting, and gave ideas of the report (8 hrs.)

Yixiao Shen: Simulate the heat and force of our design in COMSOL, attended the two group meeting, gave ideas of the report, contributed in writing the second project plan, meet with COMSOL masters to solve problems of my files. Give idea of structure design. (7hrs.)

### **Contributions (Total)**

Jessica Staley: 68 hrs

Saurabh Minocha: 76 hrs

Anqi Deng: 70 hrs

Yixiao Shen: 70 hrs.