

EE 491 WEEKLY REPORT 11

Date: 4/18/2016

Group number: DEC1619

Project title: Drive Circuitry for Ultrasound Brain Simulator

Client &/Advisor: Dr. Bigelow

Team Members/Role: Zechariah Pettit – Team Webmaster, Honghao Liu – Key Concept Holder, Miguel Mondragon – Team Leader and Webmaster

✓ Weekly Summary (Short summary about what you did this week)

Weekly meeting with advisor to ask questions regarding designs and materials desired for final evaluations. Work on final presentation, website, and design document for the semester continue. Designs for both filter and amplifier segments failed to meet functionality standards during additional testing so redesigns will continue through dead week. PCB board work halted till designs are reworked.

Programming work on the TI Launchpad continues.

✓ Past week accomplishments (please describe as what was done, by whom, when)

- ❖ Group meeting attended by all to discuss progress on TI Launchpad programming, issues with current analog designs, and desired materials for final evaluations.
- ❖ Further redesigning of circuits being done by Miguel and Zech as previous design was mistaken to have met functionality. Redesigning expected to run till the end of the semester.
- ❖ TI Launchpad programming work continued by Tom.
- ❖ Individual work on website, design documentation changes, and presentation slides work continued.

✓ Pending issues (if applicable)

- ❖ Low-pass filter design functions temporarily in Multisim but shortly after fails.
- ❖ Voltage amplification in the amplifier design is causing issues with the required source voltage for currently known designs to be unreasonable for this project.

✓ **Individual contributions**

<u>NAME</u>	<u>Individual Contributions</u>	<u>Hours this week</u>	<u>HOURS cumulative</u>
Honghao Liu	TI Launchpad Programming, Group Meeting	8	38
Miguel Mondragon	Analog Filter Design Work, Group Meeting	8	38
Zechariah Pettit	Amplifier Circuit Design Work, Group Meeting, Website Design Work	8	38

✓ **Comments and extended discussion**

None.

✓ **Plan for coming week (please describe as what, who, when)**

- ❖ Meet with Dr. Bigelow at 9AM on Wednesday.
- ❖ Miguel Mondragon will continue work and testing on the analog low-pass filter (currently a 6th order Butterworth filter).
- ❖ Zechariah Pettit will continue to make adjustment to the amplifier designs.
- ❖ Honghao Liu is continuing to work on the necessary programmable segment for the TI Launchpad.

✓ **Summary of weekly advisor meeting (if applicable/optional)**

