

EE 492 WEEKLY REPORT 11

Date: 11/11/2016

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 Communications

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

Meeting with 492 Professor to make 20-minute presentation of work done in senior design. Meeting with Dr. Bigelow on the 11/10/2016 to receive information for said presentation and discuss final parts and board order. Soldering and testing of filter PCB completed with a fairly of the opamp now being contributed to too high a conductive load.

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

- ❖ Miguel and Zech finished soldering of filter segment but the opamp selected was unable to handle input signal being received. Testing resulted in the belief that the part failure was due to a conductive load outside acceptable parameters. That paired with the unavailability of said opamp for 8 channel production resulted in a redesign of the filter segment.
- ❖ Practice for the 492 meeting with the professor was performed by all group members and on the 11th the meeting was held with instructor feedback best described as positive.
- ❖ TI Launchpad programming by Tom will continue but in a limited fashion with the only remaining goals is the functionality across all 8-channels.

❖ Work on the final PCB and parts order commenced with the main time loss being the current amplifier redesign.

✓ **Pending issues (if applicable)**

❖ Time constraints and budgetary concerns may result in a nonfunctional end result. Work on the PCB and parts order need to be completed ASAP to ensure delivery within workable time.

❖ Work regarding current amplifier (the design was dependent on results of the voltage amplifier) need to be completed quickly.

✓ **Individual contributions**

<u>NAME</u>	<u>Individual Contributions</u>	<u>Hours this week</u>	<u>HOURS cumulative</u>
Honghao Liu	TI Launchpad Programming, presentation.	2	37
Miguel Mondragon	PCB, parts orders, presentation, and administrative work.	6	46
Zechariah Pettit	Current amplifier design, and presentation.	5	40

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

❖ Meeting with Dr. Bigelow 11/17/2016.

❖ Work on final PCB with a goal to complete by Wed the 16th.

❖ Final parts order being prepared.

❖ Tom continues work on TI Launchpad Programming in a limited fashion.