
EE/CprE/SE 491 WEEKLY REPORT 4

3/10/24 - 10/10/24 sday25-16

Project title: Multi-Channel High-Gain Low Noise Amplifier for High-Frequency Ultrasound Signal Acquisition

Client &/Advisor: Manojit Pramanik

Team Members/Role:

Jon Wetenkamp, Yash Gaonkar, Ethan Hulinsky, Ryan Ellerbach

- **Weekly Summary:** This week we had to continue working on the simulations. Unfortunately, the results we had last week were not ideal, so we ran another round of simulations to get better results. We tried to acquire the spice files for the amplifier from the manufacturer but were unable to get them so we are trying to work around that. We have also planned a meeting with Avishek our project contact to see what the next steps for the project are.
- **Past week accomplishments**
 - Finalized the filter capacitor values needed to obtain the proper readings
 - Did multiple frequency response simulations at multiple values
- **Pending issues**
 - Need to reach out to project contact to see what the next steps of the project are.
 - Simulations are not yet proving to be fruitful.
- **Individual contributions**

<u>NAME</u>	<u>Individual Contributions</u> <i>(Quick list of contributions. This should be short.)</i>	<u>Hours this week</u>	<u>HOURS cumulative</u>
Jonathan Wetenkamp	Used simulations to test different values for the dc blocking capacitor.	3	12
Yash Gaonkar	Used simulations to test different values for the dc blocking capacitor.	3	12
Ryan Ellerbach	Continued to work to find a frequency response in the simulation that matches the physical design.	3	14

Ethan Hulinsky	Continued to work to find a frequency response in the simulation that matches the physical design.	3	14
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- **Plans for the upcoming week**

We are going to meet again with our project contact, Avishek to see how he thinks we should proceed, seeing as the simulations do not seem to be as helpful as we expected they would be at this point.