EE/CprE/SE 491 WEEKLY REPORT 3

26/9/24 - 3/10/24

sdmay25-16

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 Hulinksy, Ryan Ellerbach

- <u>Weekly Summary:</u> This week, the group completed the simulations needed to start building
 the first stage of the amplifier. We decided to keep using Ni Multisim and finalized the values
 of the capacitors and the library files we needed to use to obtain the simulation readings we
 needed to continue with the project.
- o Past week accomplishments Member 1: Worked on... ☐ Team Member 2:
 - Finalized the capacitor values needed to obtain the proper readings
 - Did multiple frequency response simulations at multiple values
 - Finished the first part of the project
- o **Pending issues**
- Need to reach out to project contact to see what the next steps of the project are.

Individual contributions

NAME	Individual Contributions (Quick list of contributions. This should be short.)	<u>Hours this</u> <u>week</u>	HOURS cumulative
Jonathan Wetenkamp	Worked on finding the values of the coupling capacitor.	3	9
Yash Gaonkar	Worked on finding the values of the coupling capacitor.	3	9
Ryan Ellerbach	Worked on getting the proper frequency response needed for the amplifier circuit	3	11
Ethan Hulinsky	Worked on getting the proper frequency response needed for the amplifier circuit	3	11

o Comments and extended discussion (Optional)

Finding the library files for the MAR6sPlus proved to be a little challenging.

o Plans for the upcoming week

Meet with our project contact, Avishek, to see what the next steps for the projects are.