
EE/CprE/SE 491 WEEKLY REPORT 9

7/11/24 - 14/11/24

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 Hulinsky, Ryan Ellerbach

- **Weekly Summary:** This week we ordered several components off digikey based on the tests we ran on the prototype and simulations. The components we ordered are several resistors ranging from 143 ohms to 705 ohms. We also ordered an amplifier called the MAR3SMplus. We ordered these components on the eighth and are waiting for them to arrive. Orther than that we have worked on another simulation this time with the spice files of an amplifier that is like the amplifier that we are using. Unfortunately, the simulation does not seem to work with the spice files we are using. The outputs we are getting are independent of the input bias voltage, which cannot be true.
- **Past week accomplishments** Member 1: Worked on... □ Team Member 2:
 - Yash Gaonkar: Worked on re-writing some of the design documents based on comments from the TA.
 - Ethan Hulinsky: Worked on the simulation in NI-Multisim and ordered parts from digikey
 - Ryan Ellerbach: Ordered the components from Digikey and worked on the simulation.
 - Jon Wetenkamp: Worked on re-writing some of the design documents based on comments from the TA.

Pending issues

Waiting on the components from Digikey and have sent the simulation to our project contact to see if he can discern what is wrong with the simulation.

Past week accomplishments

- **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	Worked on re-writing some of the design documents based on comments from the TA.	1	27.5
Yash Gaonkar	Worked on re-writing some of the design documents based on comments from the TA.	1	25.5
Ryan Ellerbach	Ordered the components from Digikey and worked on the simulation.	3	31.5
Ethan Hulinsky	Worked on the simulation in NI-Multisim and ordered parts from digikey	3	35

- **Plans for the upcoming week**

In the upcoming week we will use the components we have ordered on digikey and try to fix the simulations.