

## CMPE 460 Laboratory Exercise 8

### Heartrate Monitor

Mohammed Fareed  
Trent Wesley  
Performed: November 8, 2023  
Submitted: November 29, 2023

Lab Section: 1  
Instructor: Prof. Hussin Ketout  
TA: Andrew Tevebaugh  
Colin Vo

Lecture Section: 1  
Professor: Prof. Hussin Ketout

By submitting this report, you attest that you neither have given nor have received any assistance (including writing, collecting data, plotting figures, tables or graphs, or using previous student reports as a reference), and you further acknowledge that giving or receiving such assistance will result in a failing grade for this course.

Your Signature: \_\_\_\_\_

# Abstract

yeehaw

## Design Methodology

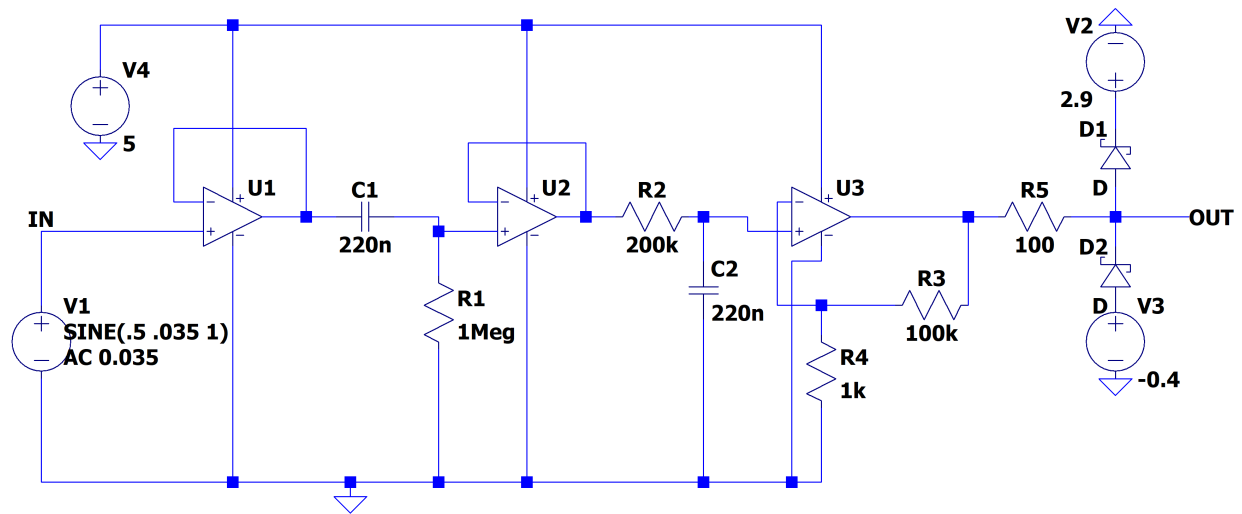


Figure 1: LTspice Schematic

## Results and Analysis

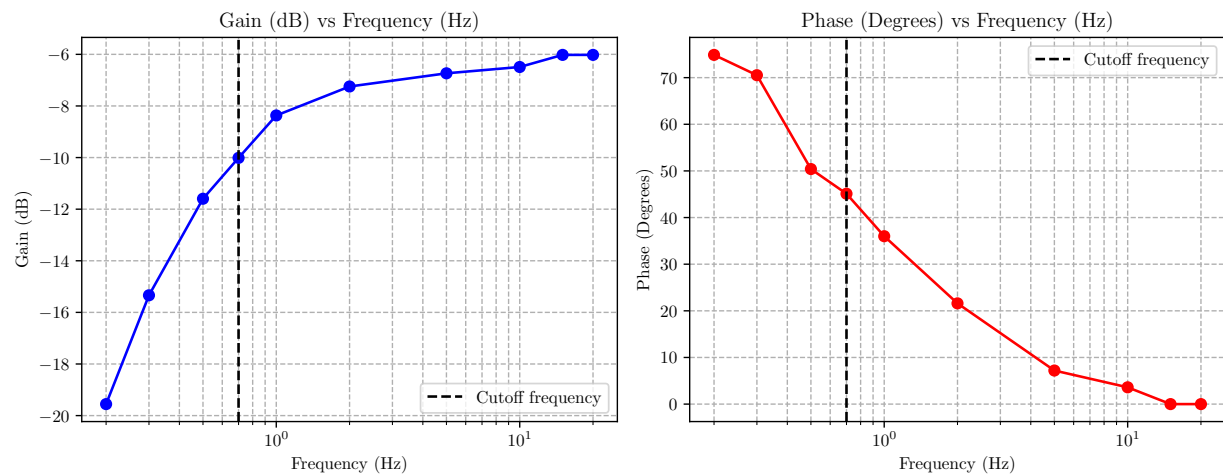


Figure 2: High-Pass Filter Bode Plot

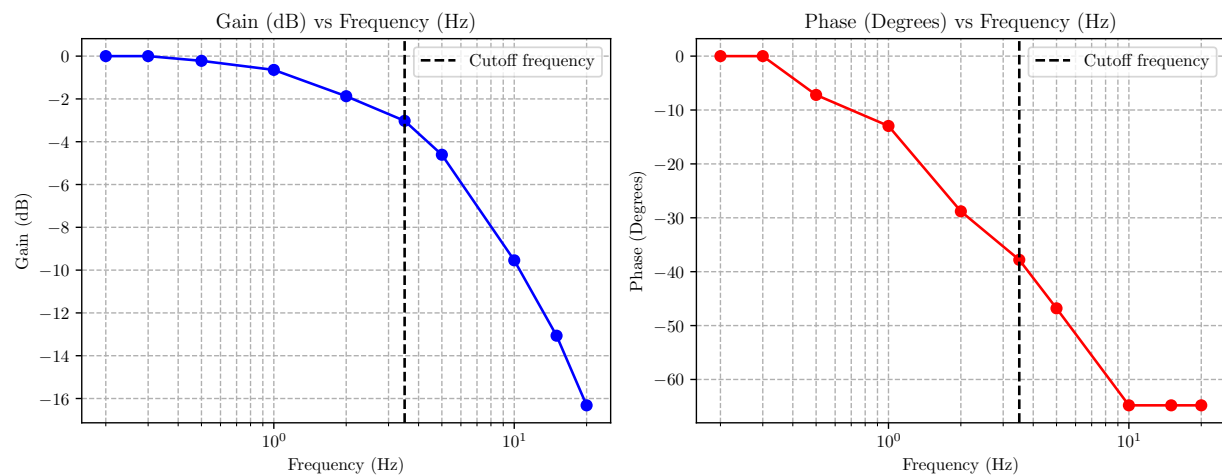


Figure 3: Low-Pass Filter Bode Plot

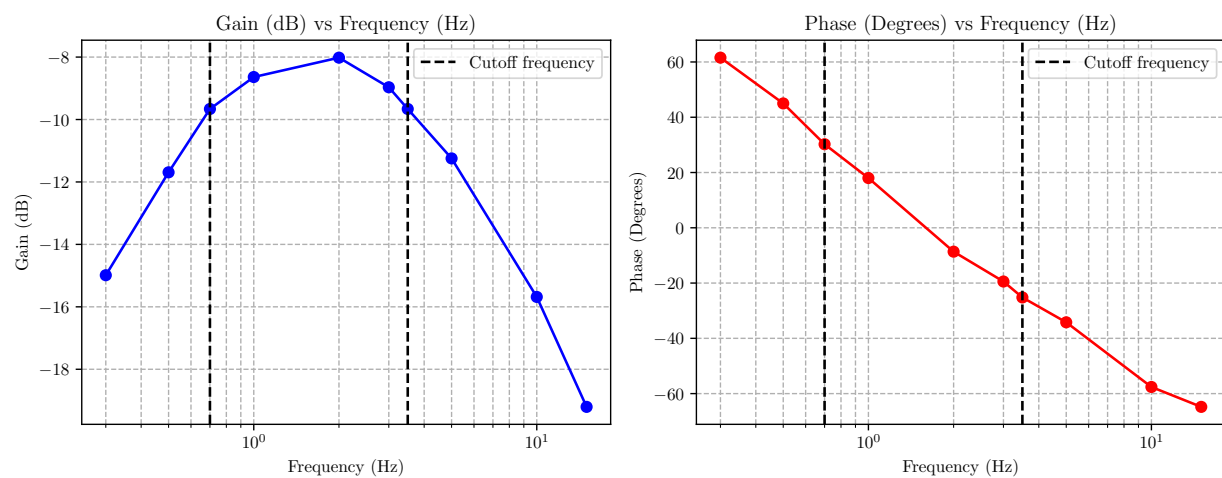


Figure 4: Band-Pass Filter Bode Plot

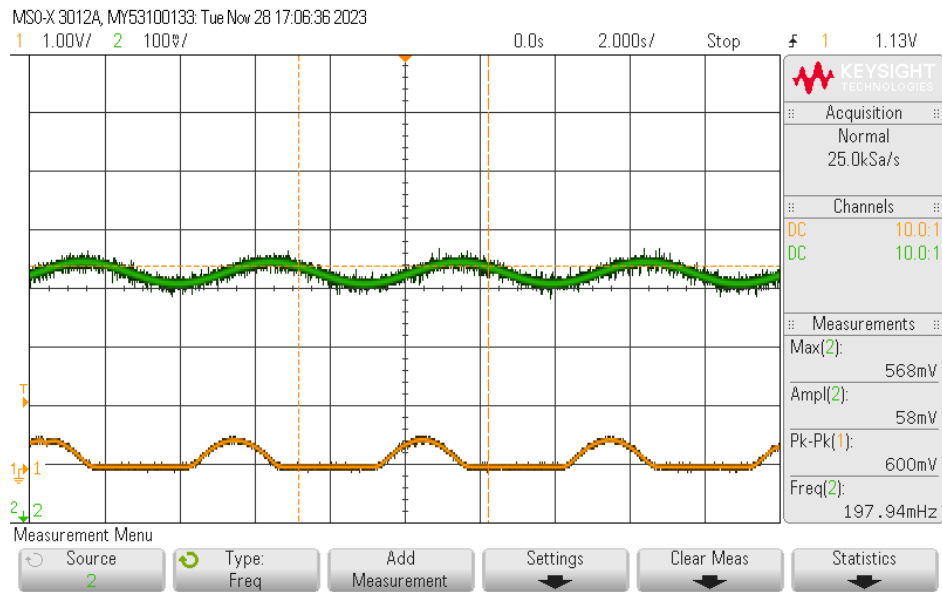


Figure 5: Oscilloscope SHTUFF

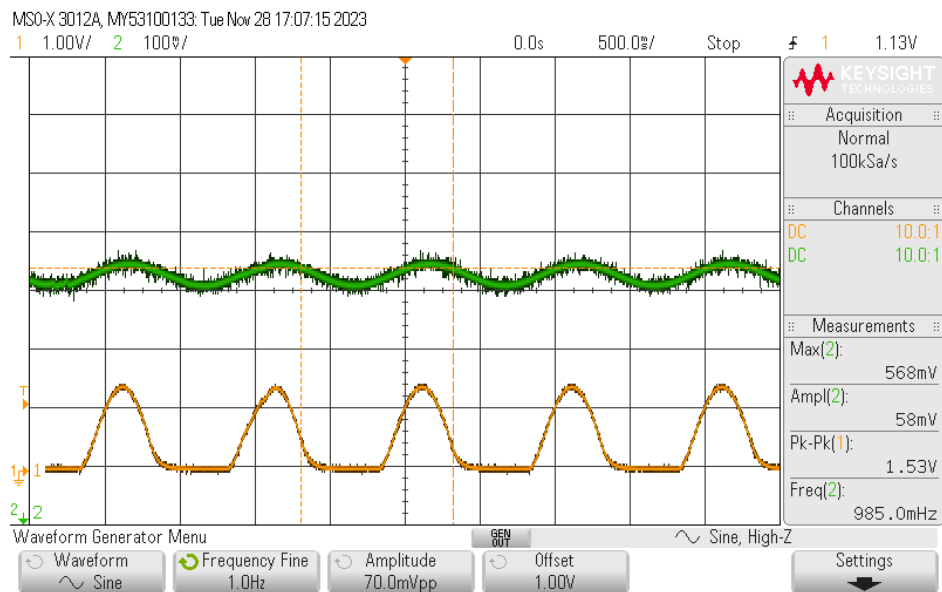


Figure 6: Oscilloscope SHTUFF

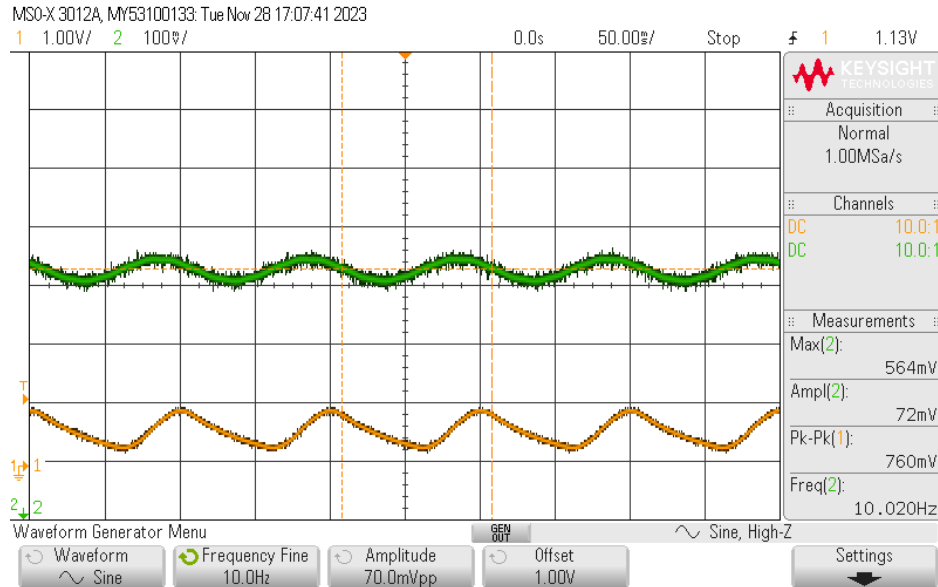


Figure 7: Oscilloscope SHTUFF

## Questions

1. What is the ERC and DRC for?

ERC stands for Electrical Rule Check and DRC stands for Design Rule Check. The ERC checks for electrical errors in the schematic, such as unconnected pins. The DRC checks for design errors in the schematic, such as incorrect pin types.

2. Did your circuit cutoff frequencies match your expected/calculated values? Explain

3. Did the gain of the circuit match the expected/calculated values? Explain

## Conclusion

