REQUIREMENTS NOT MET

- **Requirement 1:** The requirement was not met because of this reason.
- **Requirement 2:** The requirement was not met because of this reason.
- **Requirement 3:** The requirement was not met because of this reason.

PROBLEMS ENCOUNTERED

- **Problem 1:** The problem was encountered because of this reason.
- **Problem 2:** The problem was encountered because of this reason.
- **Problem 3:** The problem was encountered because of this reason.

INTRODUCTION

Now we start our introduction to our write up For your write up, write a brief introduction to what you are doing in the in lab. two to four sentences. Omit this section for the prelab.

DISCUSSION

10.4 Pre-Lab Requirements:

Image of the spice schematic and a plot of the input and all subsequent out- puts (outputs of each individual stage) for a transient simulation for Jingle19 submitted to Canvas. Include the plot of the output and a circuit schematic, nothing else. The schematic and plot should be appropriately labeled. Images that are unclear or vague will receive little to no points. Your plot must include the following in different plot planes: input voltage, output of the high pass filter, output of the variable gain amplifier, output of the buffer stage (at least one), and the current of both LEDs. The gain doesn't need to be high enough to induce clipping in order to show that both LEDs turn on but the first LED should turn on.

- Stage 1: Active High Pass Filter

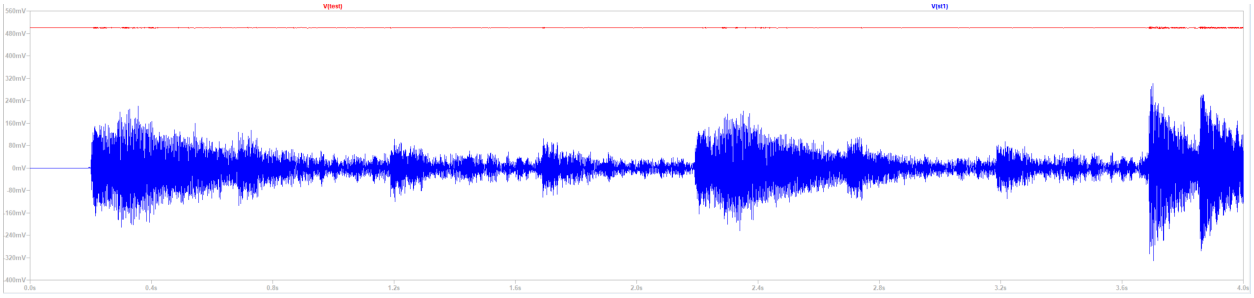

Figure 1: Active High Pass with a Gain of 10

- Stage 2: Active High Pass Filter

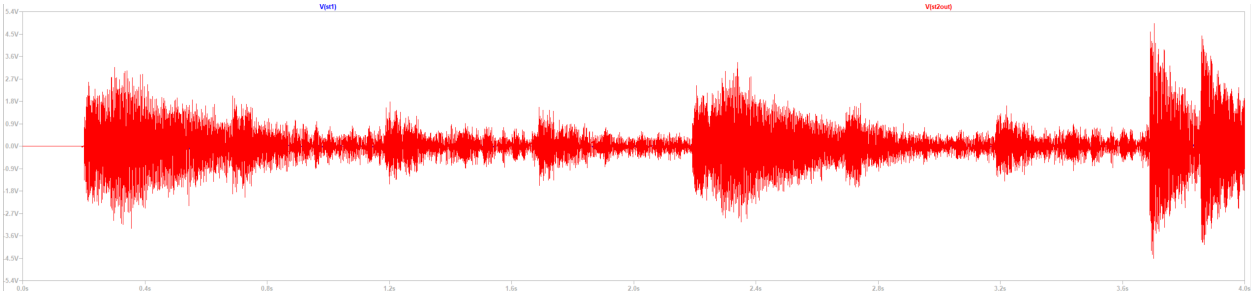

Figure 2: Inverting Amplifier with a Gain of 15

- Stage 3: Comparator Stage

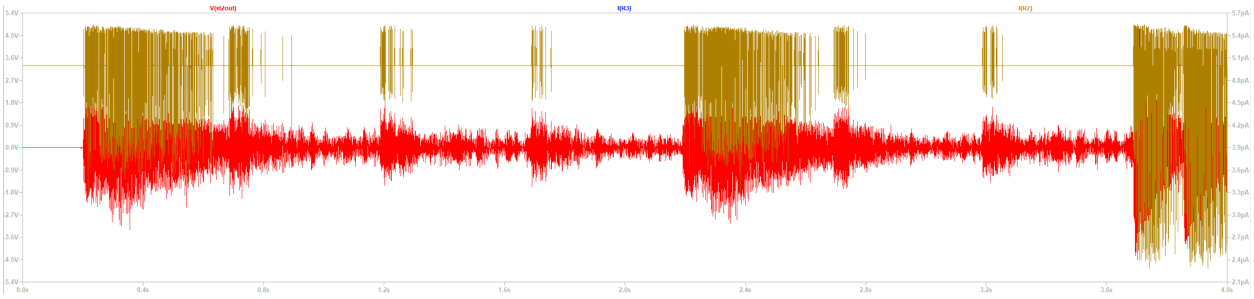

Figure 3: Comparator measuring current through the LED

- Stage 4: Buffer Stage

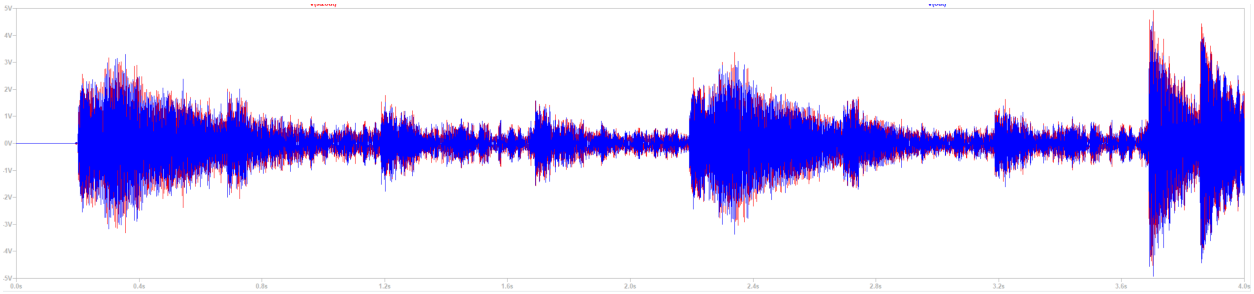

Figure 4: Voltage Following Buffer Stage

- Circuit Schematic

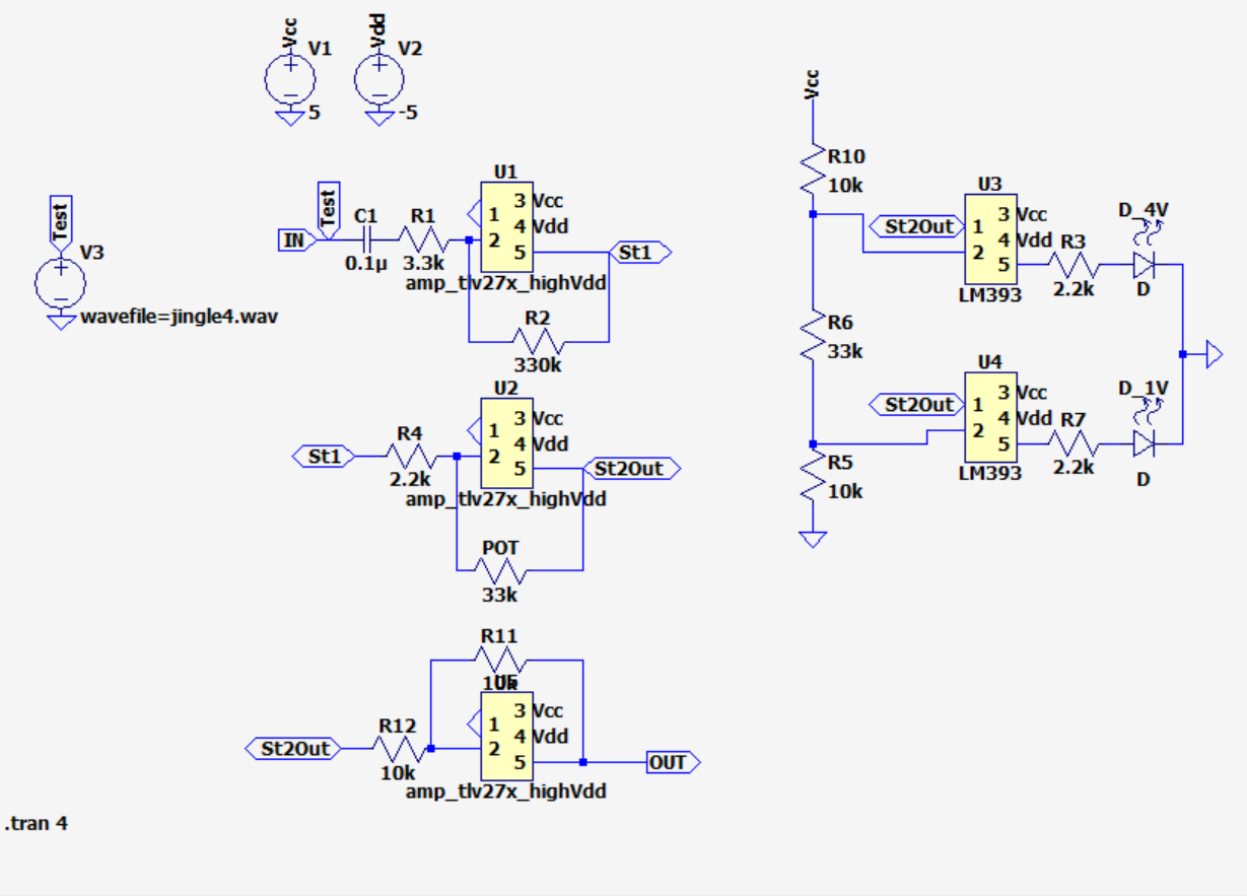

Figure 5: Full Schematic of the Circuit and each stage

CONCLUSION

This is where I start to answer the questions in the lab. We only need to do this for the write up.