

Lab 7 Pre-prep
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1. Overview

- 1.1. Objectives: This project's purpose is to design our pcb that we will be using in the final lab.
- 1.2. Roles and Responsibilities: As a group, we will design project we will later implement in the final lab. We will design the circuit schematic that we will be using and design the pcb using that schematic. The clients for the project are the graders; the TAs and Professor McDermott.
- 1.3. Interactions with Existing Systems: At this moment, we do not expect to be connecting to any other existing systems.

2. Function Description

- 2.1. Functionality: Right now we are planning on doing some sort of dual channel output speaker device
- 2.4. Performance: For audio, a major measurement would be the amount of noise in our system because with less noise, the system would sound more appealing. Other factors like the quality of the envelope we use are harder to have a specific measurement to grade the system on.
- 2.5. Usability: The system is likely going to have either a potentiometer or two buttons for volume control, as well as a pause/play button and a reset button. The output will be able to go to either a dual speaker setup or a 3-pin headphone jack

3. Deliverables

- 3.1. Reports:
the reports for Labs 7 and 11 will be written
- 3.2. Outcomes:
 - A) Objectives
 - 1-page requirements document
 - B) Hardware Design
 - Regular circuit diagram (SCH file)
 - PCB layout and three printouts (top, bottom and combined)
 - C) Software Design
 - Include the requirements document (Preparation a)
 - D) Measurement Data
 - Give the estimated current (Procedure d)
 - Give the estimated cost (Procedure e)
 - E) Analysis and Discussion
 - Include a copy of the reviewed SCH/PCB and signed by your professor (Procedure XXX)