Audio Project: The Transmitter

Abstract

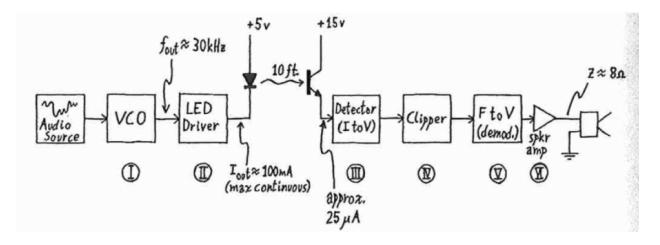
An audio transmitter and receiver project typically involves the design and implementation of a system that can transmit audio signals from a source to a receiver. The transmitted audio signals can be received and played back on a device such as a speaker or headphones. The project may involve the use of various technologies such as radio frequency (RF) transmission, infrared (IR) transmission, or sound waves. The aim of the project is to develop a functional and efficient system that can transmit and receive audio signals over a certain distance with minimal distortion or interference.

Introduction

This type of project is often undertaken in the fields of electrical engineering and computer science, as it involves the use of various technologies and techniques for transmitting and receiving audio signals. The goal of the project is to develop a functional and efficient system that can transmit and receive audio signals over a certain distance with minimal distortion or interference. In this report, we will provide an overview of the various components and technologies used in an audio transmitter and receiver system, as well as the design and implementation of the system. We will also discuss the results and performance of the system, and provide some conclusions and future work.

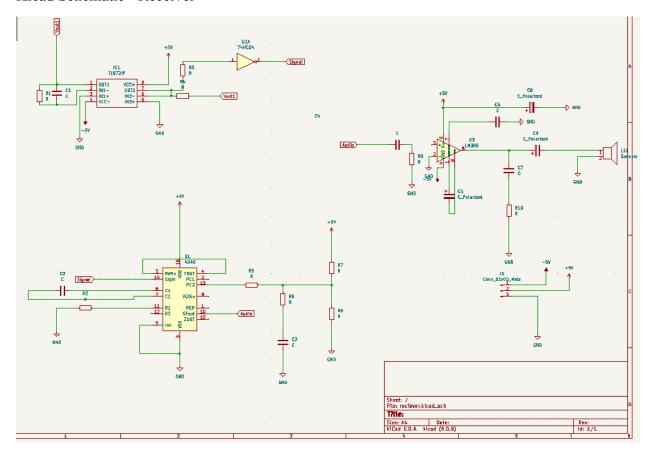
Description

An audio transceiver is a device that can both transmit and receive audio signals. It typically consists of a microphone for capturing sound, an amplifier for boosting the signal, and a speaker for playing back the audio. Some audio transceivers may also have additional features such as noise-canceling technology or the ability to connect to other devices wirelessly. These devices are commonly used in a variety of settings, such as for communication between people, for listening to music, or for recording and playback of audio.

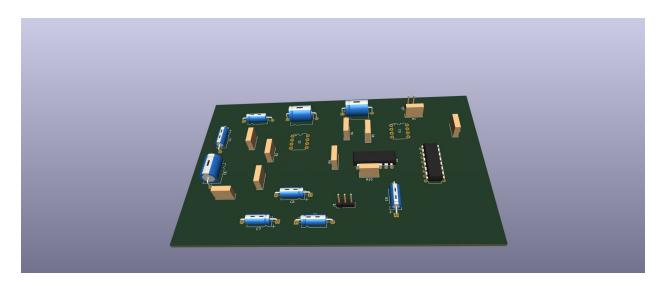


Implementation

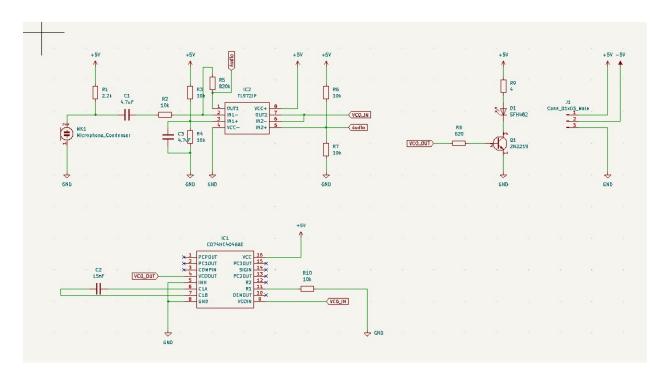
Kicad Schematic - Receiver



Kicad 3D PCB - Receiver



Kicad Schematic - Transmitter



Kicad 3D PCB- Transmitter



Conclusion

Overall, the design implemented seems similar to the schematics. During the experience, we were able to learn how to use new programs such as KiCAD. Here we learned to build schematics and design our PCBs. Some setbacks we encountered during the project included missing footprints when using the KiCAD program for our PCB designs. Learning to use the program in general was a bit time consuming but worth the effort. Aside from the KiCad program, we also faced some difficulty with printing the PCB designs due to the bit breaking off.