

# ELECTRONIC STETHOSCOPE

Kanishkan M S,ME19B192

02/05/2020

## Project Aim

To build a Electronic Stethoscope that amplifies the sound

## Project description:

- This project is to build a low-cost Electronic Stethoscope
- This stethoscope amplifies the sound listened to.

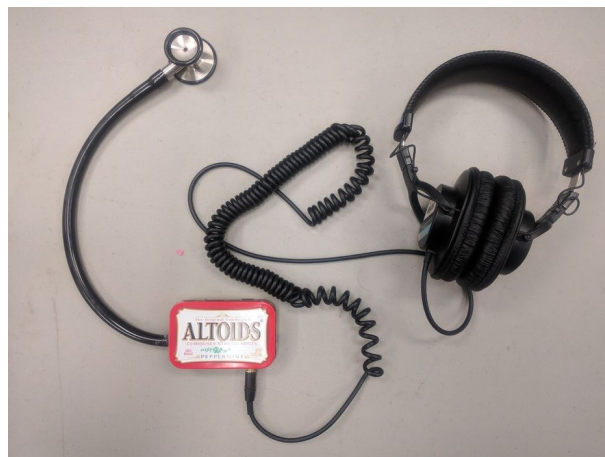


Figure 1: The device

## Hardware Used:

- Cheap acoustic stethoscope
- MEMS microphone breakout board
- 12V step-up regulator
- USB LiPo Charger
- Breadboard and Protoboard
- Resistors,Capacitors,OpAmp,AudioJack
- SPDT slide switch and LED

## Approach

1. The stethoscope is cut and MEMS microphone is kept at the cut end of the part of the stethoscope which has diaphragm.

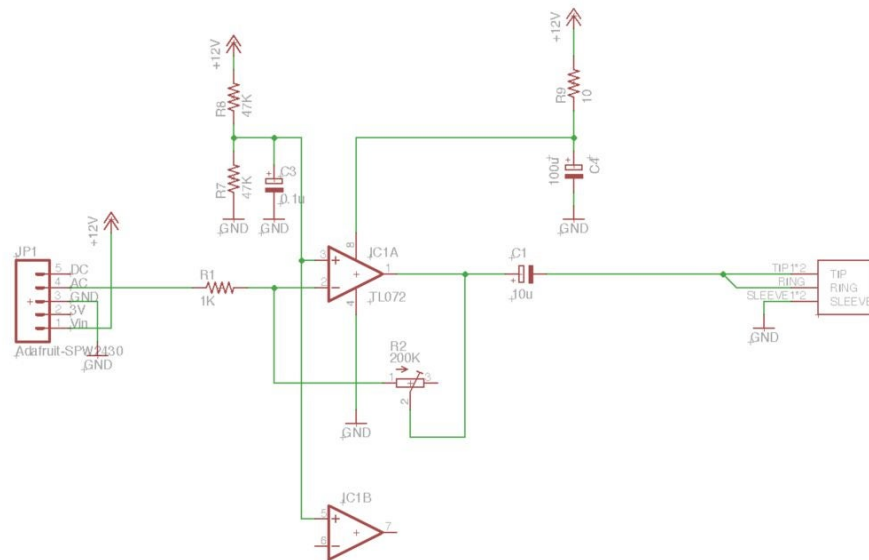


Figure 2: Amplification Circuit

2. This MEMS microphone is attached to amplifier circuit. This amplifies the signal and this is listened in Headphone using AudioJack
3. Given below is the circuit that powers this device.

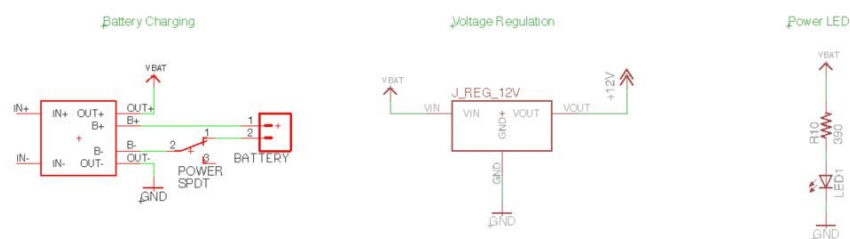


Figure 3: Power Circuitry