



Audio Amplifier Project



Supervised by:

DR. Said Emam



Introduction

What is audio amplifier?

The main part is IC LM386.

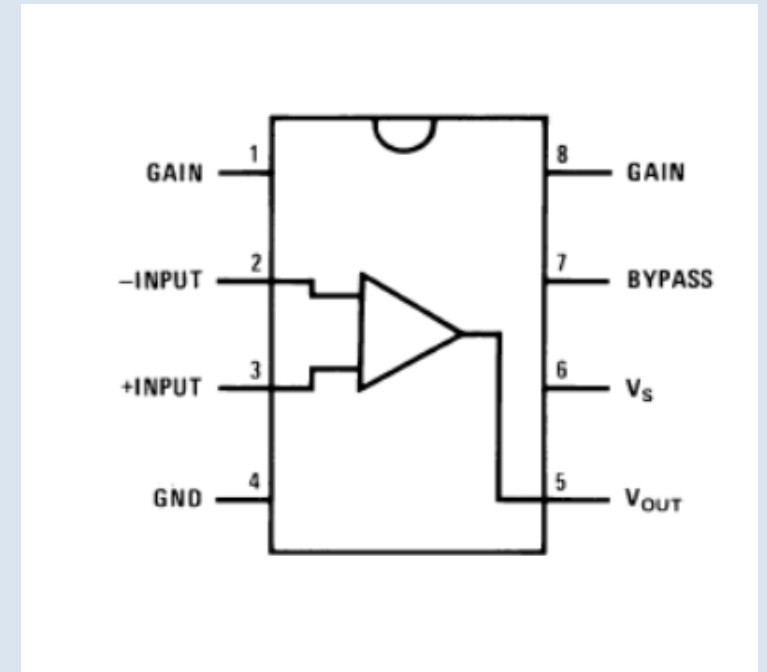
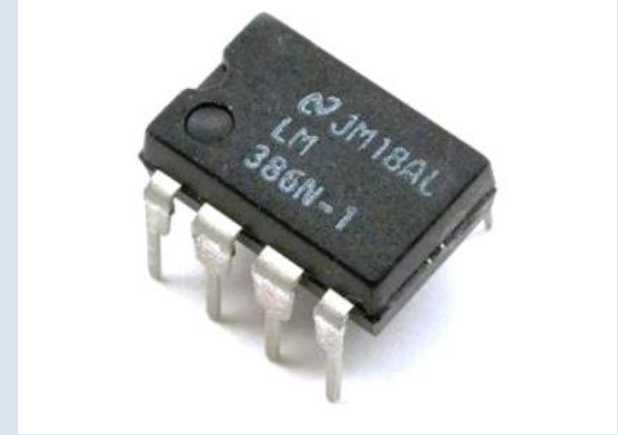
Input is given through phone.

List of components

NO.	Name	Value
1	IC	LM386
2	Ceramic Capacitors	0.1uf , 47nf
3	Polar Capacitor	220uf , 10uf , 100uf
4	Resistors	10-ohm , 1.2 ohm
5	Potentiometer	10k ohm
6	Speaker	8-ohm, 0.5 watt
7	Battery	9v
8	Input Jack	

IC LM386

- IC LM386 is a low power audio amplifier integrated circuit.
- It uses a set of transistors to amplify the sound.
- It is an 8 pin IC.
- It operates on 9v supply.



Polar Capacitor

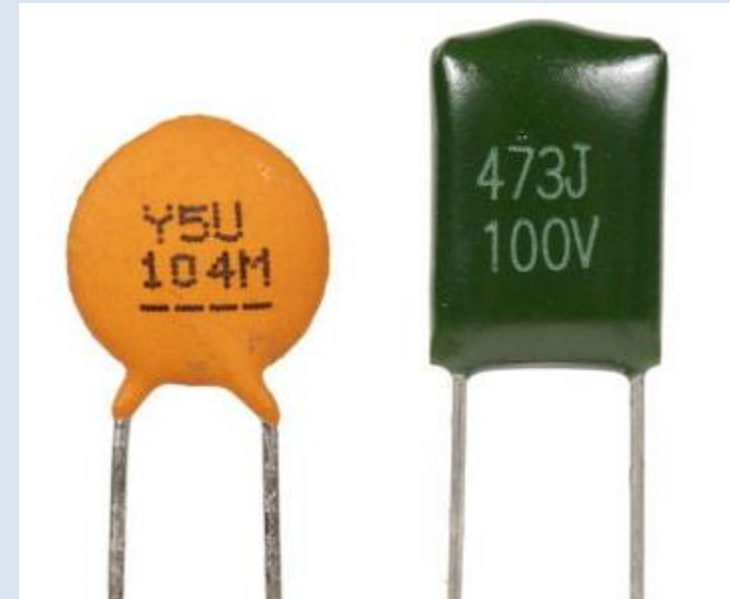
- They are used to reduce audio noise to keep a clean audio signal.
- An electrolytic capacitor is a type of capacitor that uses an electrolyte to achieve a larger capacitance than other capacitor types.
- The voltage on the positive terminal must be greater than the voltage on the negative terminal.



Ceramic Capacitor

Used in:

- Temperature compensation.
- Coupling and decoupling applications.
- Ac power supply applications.
- Bypassing applications.

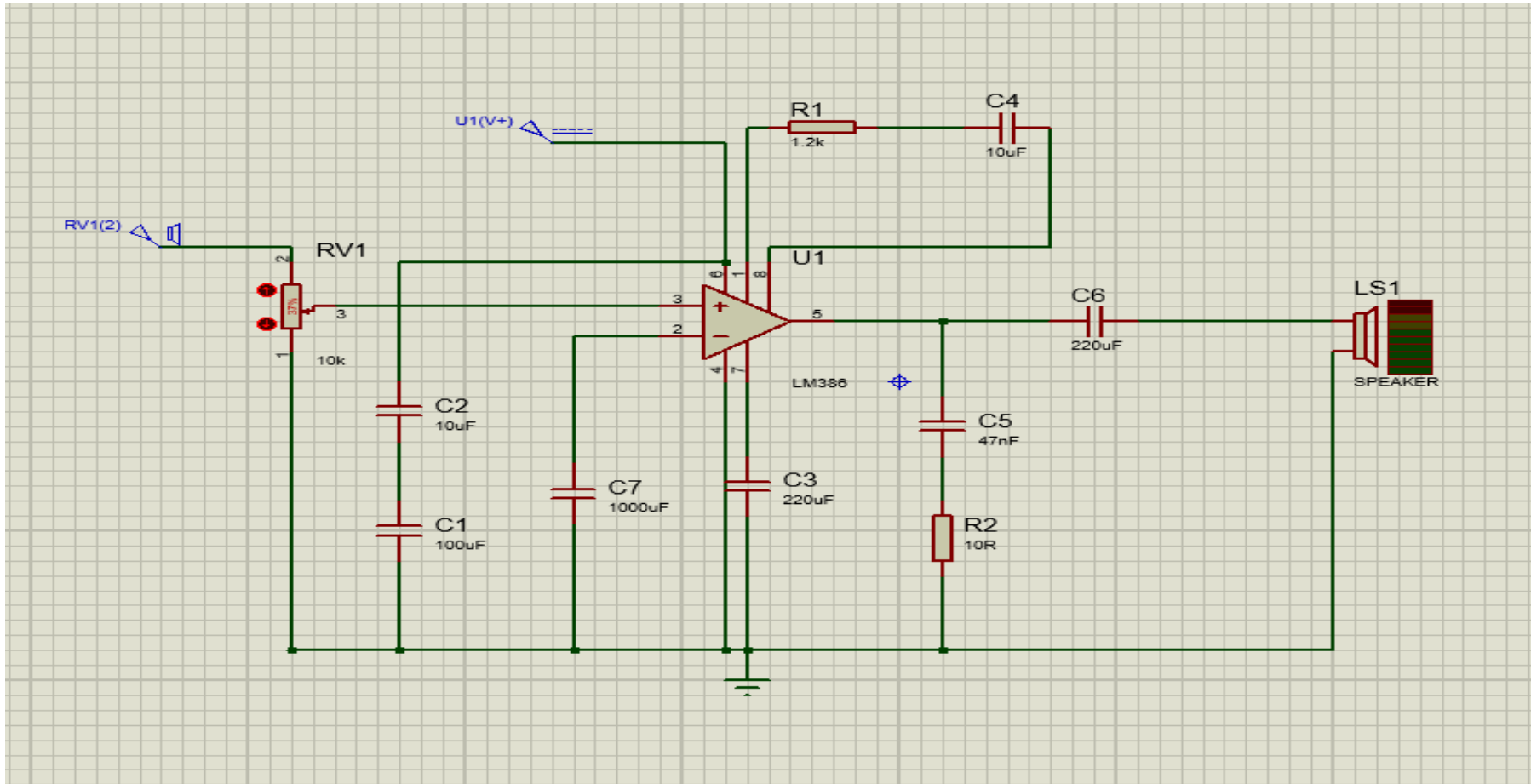


Resistors

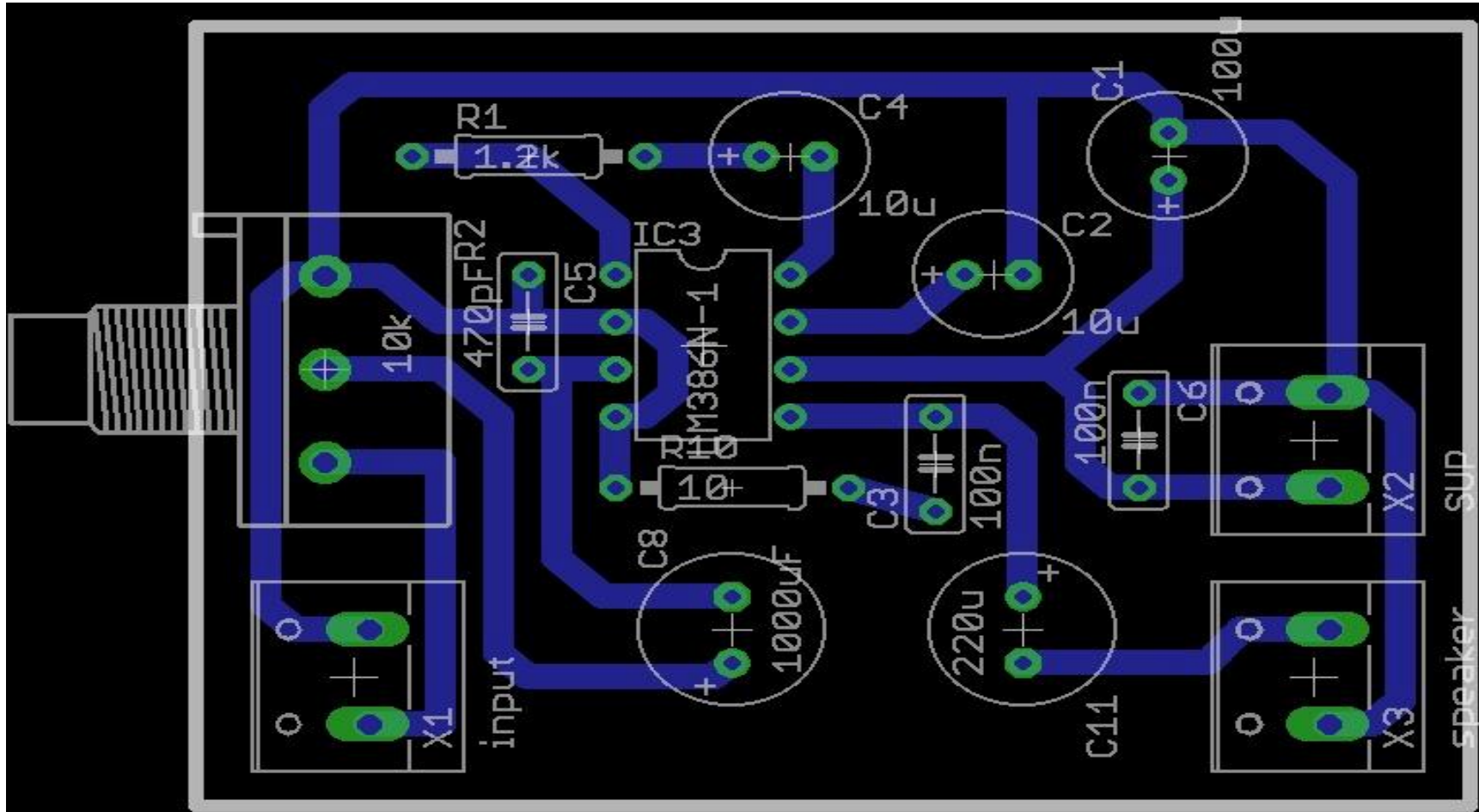
- There are many types of resistors, both fixed and variable.
- The most common type used is the carbon resistor.
- It lowers the voltage.
- The lower resistance path acts like a magnet that attracts the current to it.



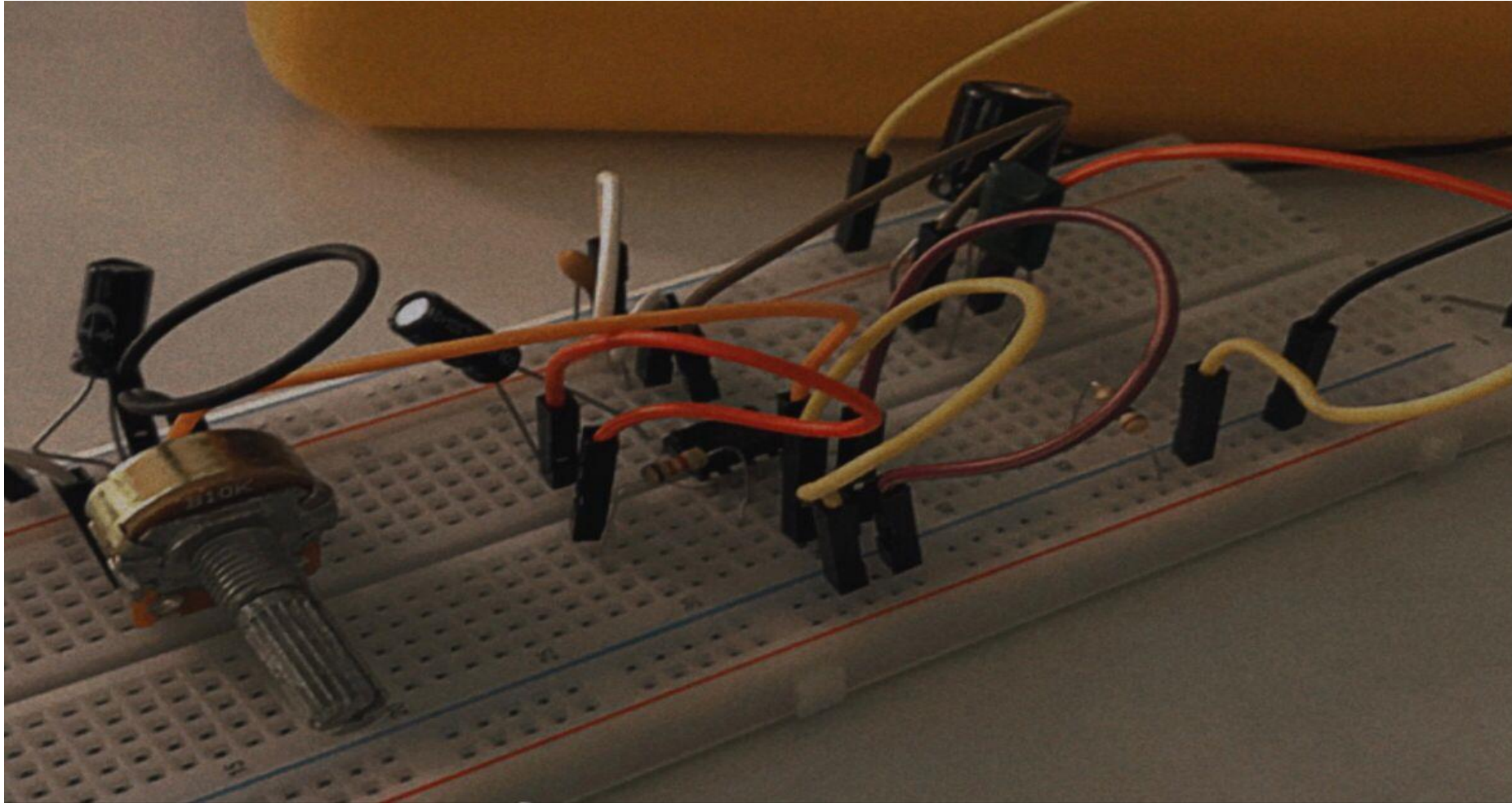
Circuit Diagram



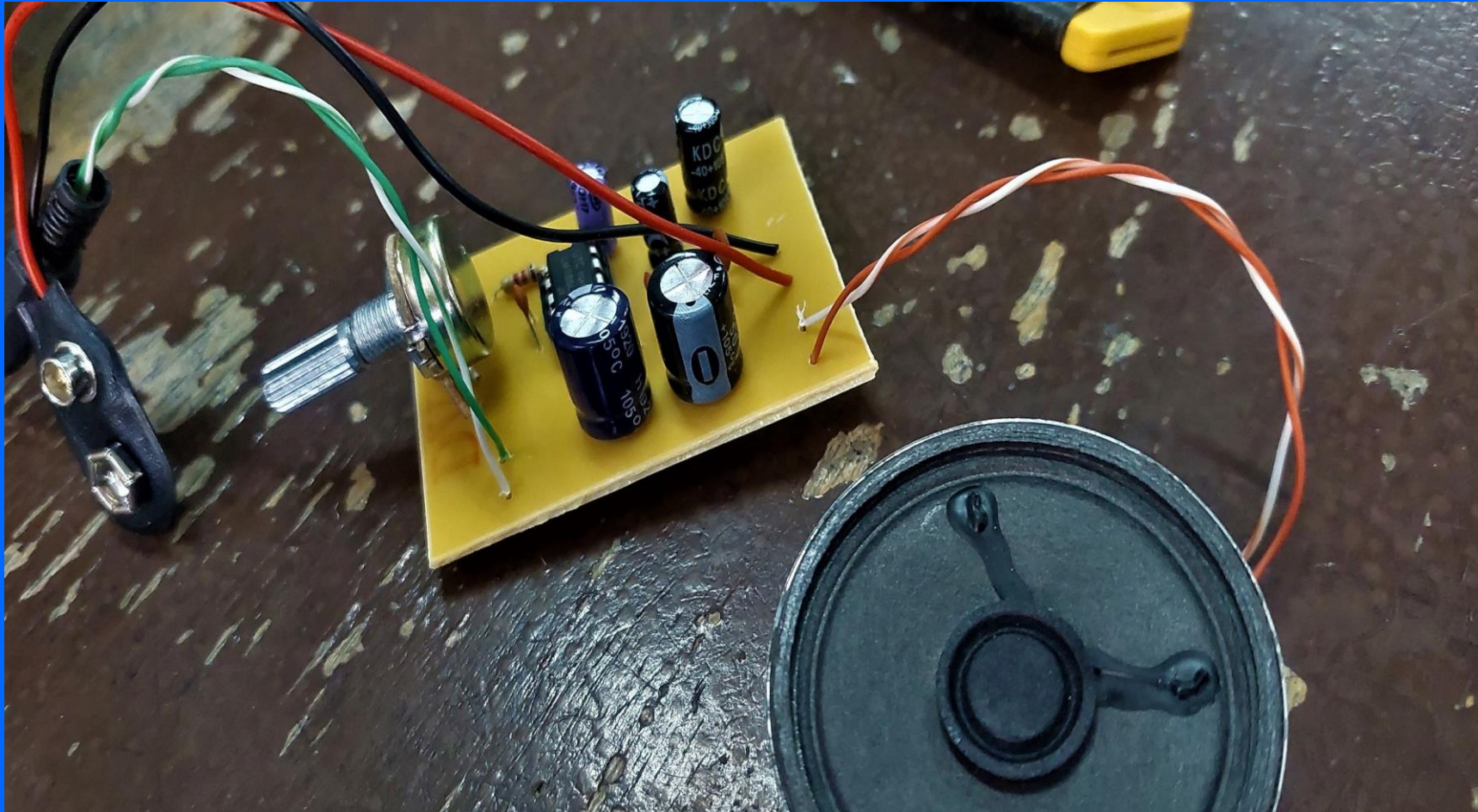
PCB Layout



Testing on Breadboard



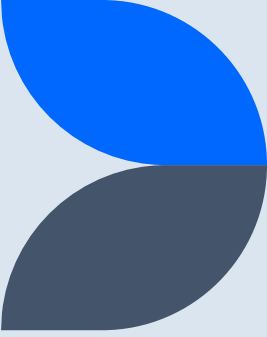
Components of Audio Amplifier



Conclusion

- The circuit of this amplifier is not so complex, so it is easy to make it.
- This amplifier circuit uses capacitor and resistor and an IC, due to the cost is very low.
- The reliability of this audio amplifier is also high.

Meet our team



Malak Mounir

Ahmed Khaled

Nourhan Farag

Youssef Mohamed

Habeba Alaa



Thank you