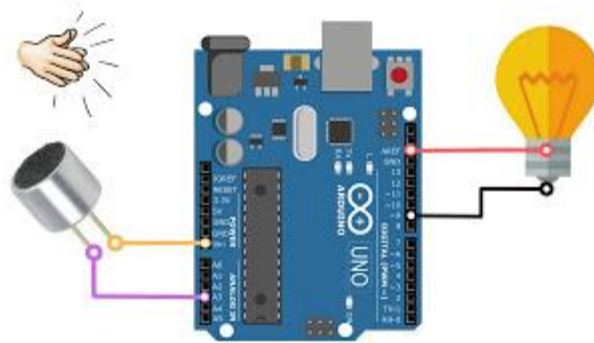


# Simple Clap Switch using a clap sensor

In this project we will make a simple clap switch using a clap sensor module.



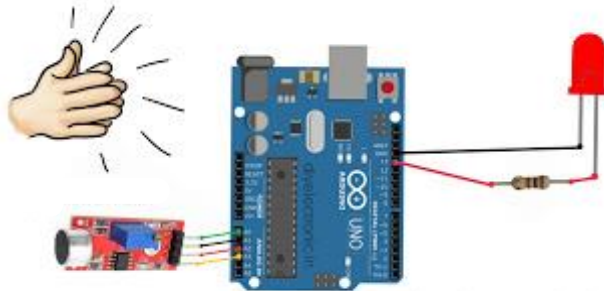
## Components Needed -:

1. Arduino Uno
2. Sound sensor
3. Led
4. Bread board
5. Jumper wires

## Introduction

As you know there are so many ways to make a clap switch. We can also make it using hardware parts such as transistors or ICs. And there are also other ways to make a Clap Switch using Arduino projects and its circuit diagrams available on Google , but most of the circuit diagrams are quite difficult. So most of the people face difficulties in making a clap switch. So here we are with a simple clap switch just with the help of Arduino and sound sensor

module. Isn't it very simple , by just clapping you can control your electronic devices.



In a circuit diagram as you can see a small LED is connected. Now you must be having in mind how you will run a 220 volt AC application. It is simple, you only have to connect a 5-volt relay even if you don't have a 5-volt relay then you can use BT136 Triac.

## **Code :**

```
int micPin = A0;    // pin that the mic is attached to

int gndPin = A1;
int powerPin = A2;
int micValue1 = 0;
int micValue2 = 0; // the Microphone value
int led1 = 13;
boolean lightOn = false;
void setup() {
  pinMode(led1, OUTPUT);
  pinMode(powerPin, OUTPUT);
  pinMode(gndPin, OUTPUT);
  pinMode(micPin, INPUT);
  digitalWrite(gndPin,LOW);
```

```
delay(500);
digitalWrite(powerPin,HIGH);
Serial.begin(9600); //for test the input value initialize serial
}
void loop()
{
micValue1 = analogRead(micPin); // read pin value
Serial.println(micValue1);
delay(1);
micValue2 = analogRead(micPin);
Serial.println(micValue2);

if (micValue1-micValue2 > 2||micValue2-micValue1 > 2)
{
lightOn = !lightOn;
delay(100);
digitalWrite(led1, lightOn);
}
}
```