

# CLAP DETECTOR

```
#define Sensor 8

#define RELAY_PIN 7


int clap = 0;

long detection_range_start = 0;

long detection_range = 0;

boolean status_lights = false;

void setup() {

    pinMode(Sensor, INPUT);

    pinMode(13,OUTPUT);

    pinMode(RELAY_PIN, OUTPUT);

    digitalWrite(RELAY_PIN, HIGH);

}

void loop() {

    int status_sensor = digitalRead(Sensor);

    if (status_sensor == 0)

    {

        if (clap == 0)

        {

            detection_range_start = detection_range = millis();

            clap++;

        }

        else if (clap > 0 && millis()-detection_range >= 50)

        {

            detection_range = millis();

            clap++;

        }

    }

    if (millis()-detection_range_start >= 400)

    {
```

```
if (clap == 2)
{
  if (!status_lights)
  {
    status_lights = true;
    digitalWrite(13, HIGH);
    digitalWrite(RELAY_PIN, LOW);
  }
  else if (status_lights)
  {
    status_lights = false;
    digitalWrite(13, LOW);
    digitalWrite(RELAY_PIN, HIGH);
  }
}

clap = 0;
}
```