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\* Requirements:

\*

\* Arduino Uno

\* 220 ohm resistor X4

\* led X4

\* Potentiometer

\* ends to +5V and ground

\* buzzer

\* photoresistor

The Potentiometer circuit:

\* Terminal 1 to ground, Terminal 2 to +5v

\* Wiper (middle) to Analog IN A0.

The Photo Resistor Circuit:

\* photoresistor one pin to A1, another to +5v

\* resistor 10k, one pin to photo-resistor leg 2,

another to ground.

The Buzzer Circuit:

- \* One leg to ground and other to PWM pin 3.

- \* Tutorial page: <https://arduinogetstarted.com/tutorials/arduino-potentiometer-triggers-piezo-buzzer>

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```
const int POTENTIOMETER_PIN = A0; // Arduino pin connected to Potentiometer pin
```

```
const int BUZZER_PIN = 3; // Arduino pin connected to Buzzer's pin
```

```
const int ANALOG_THRESHOLD = 500;
```

```
const int PR = A1; //define a pin for Photo resistor
```

```
int analogValue = 0;
```

```
int temp = 0;
```

```
void setup()
```

```
{
```

```
  Serial.begin(9600);
```

```
  pinMode(13, OUTPUT);
```

```
  pinMode(12, OUTPUT);
```

```
  pinMode(11, OUTPUT);
```

```
  pinMode(10, OUTPUT);
```

```
  pinMode(BUZZER_PIN, OUTPUT);
```

```
  pinMode(POTENTIOMETER_PIN, INPUT);
```

```
}
```

```
void loop()
```

```
{
```

```
  // analog read potentiometer
```

```
analogValue = analogRead(POTENTIOMETER_PIN);
```

```
// analog read photo resistor
```

```
temp = analogRead(PR);
```

```
// glowing leds
```

```
if(temp < 80) {
```

```
    digitalWrite(13, HIGH);
```

```
    digitalWrite(12, HIGH);
```

```
    digitalWrite(11, HIGH);
```

```
    digitalWrite(10, HIGH);
```

```
}
```

```
else if(temp < 600) {
```

```
    digitalWrite(13, HIGH);
```

```
    digitalWrite(12, HIGH);
```

```
    digitalWrite(11, HIGH);
```

```
    digitalWrite(10, LOW);
```

```
}
```

```
else if(temp < 800) {
```

```
    digitalWrite(13, HIGH);
```

```
    digitalWrite(12, HIGH);
```

```
    digitalWrite(11, LOW);
```

```
    digitalWrite(10, LOW);
```

```
}
```

```
else if(temp < 900) {
```

```
    digitalWrite(13, HIGH);
```

```
    digitalWrite(12, LOW);
```

```
    digitalWrite(11, LOW);
```

```
    digitalWrite(10, LOW);
```

```
}
```

```
else {
```

```
digitalWrite(13, LOW);  
digitalWrite(12, LOW);  
digitalWrite(11, LOW);  
digitalWrite(10, LOW);  
}  
  
// change tone according to the potentiometer  
analogWrite(BUZZER_PIN, analogValue); // turn on Piezo Buzzer  
  
// display intensity in the serial monitor  
Serial.println(temp);  
  
delay(1000);  
  
}
```