

# VIJITHA. R

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### Assignment question::

Using PIR sensor and tmp36(Temperature sensor), piezo alarm, please create a circuit with Arduino Uno with below functionalities.

1. Alarm should give one sound when there is a motion near PIR sensor
2. Alarm should sound with different sound when the temperature is above 60 degrees.

### Arduino code :

```
float temp; int
Buzz=A2;    int
sensor=12;  int
transistor=2;
void setup()
{
    Serial.begin(9600);
    pinMode(2,INPUT);
    pinMode(12,OUTPUT);
    Serial.println("waiting for motion");

}
void loop()
{
    double data=analogRead(A2);
    double n=data/1024;

    double vout=n*5;

    double off=vout-0.5;
```

```

double temperature=off*100;

Serial.print("Temperature data: ");

Serial.println(temperature);


if(temp>60)
{
    digitalWrite(Buzz,HIGH);
    Serial.println("temperature
detected"); tone(12,100); delay(1000);
    tone(12,200); delay(1000);
}

int val = digitalRead(2); if(val
==HIGH)
{
    digitalWrite(transistor, HIGH); Serial.println("Motion
Detected"); tone(12,100); //pin number, frequency,
delay(optional) delay(1000); tone(12,200); delay(1000);
}

if(temp <= 60)
{
    digitalWrite(Buzz,LOW);
    Serial.println("No temperature
detected"); noTone(12); delay(500);
}

if(val == LOW)
{

    digitalWrite(transistor,
LOW); Serial.println("NO
Motion"); noTone(12);
    delay(500);
}

```

```

}

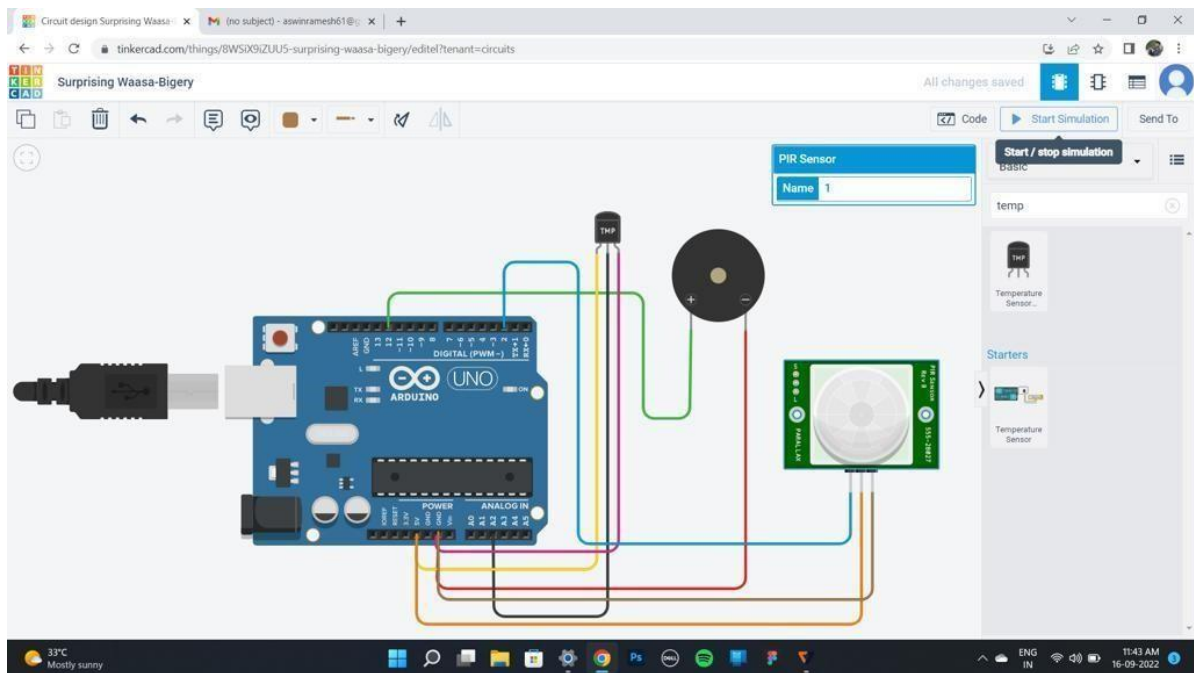
delay(1000);

}

```

SCREENSHOT :

Screenshot 1::



Screenshot 2 ::

Circuit design Surprising Waasa-Bigery

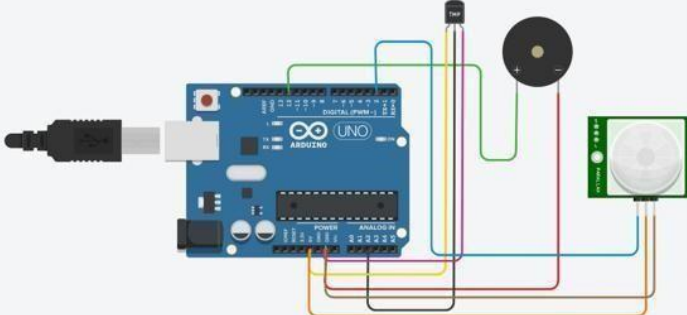
tinkercad.com/things/BWSiX9iZUU5-surprising-waasa-bigery/editel

Surprising Waasa-Bigery

All changes saved

Code Start Simulation Send To

1 (Arduino Uno R3)



```
31 tone(12,100);
32 delay(1000);
33 tone(12,200);
34 delay(1000);
35 }
36 int val = digitalRead(2);
37 if(val == HIGH)
38 {
39   digitalWrite(transistor, HIGH);
40   Serial.println("Motion Detected");
41   tone(12,100); //pin number, frequency, delay(optional)
42   delay(1000);
43   tone(12,200);
44   delay(1000);
45 }
46 if(temp <= 60)
47 {
48   digitalWrite(Buzz,LOW);
49   Serial.println("No temperature detected");
50   noTone(12);
51   delay(500);
52 }
53 if(val == LOW)
54 {
55   digitalWrite(transistor, LOW);
```

Serial Monitor

No temperature detected  
NO Motion  
Temperature data: 24.71  
No temperature detected  
NO Motion  
Temperature data: 24.71  
No temperature detected  
NO Motion

Send Clear

30°C  
Haze

ENG  
IN

04:14 PM  
16-09-2022