

A.ARUN PANDI

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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);
}

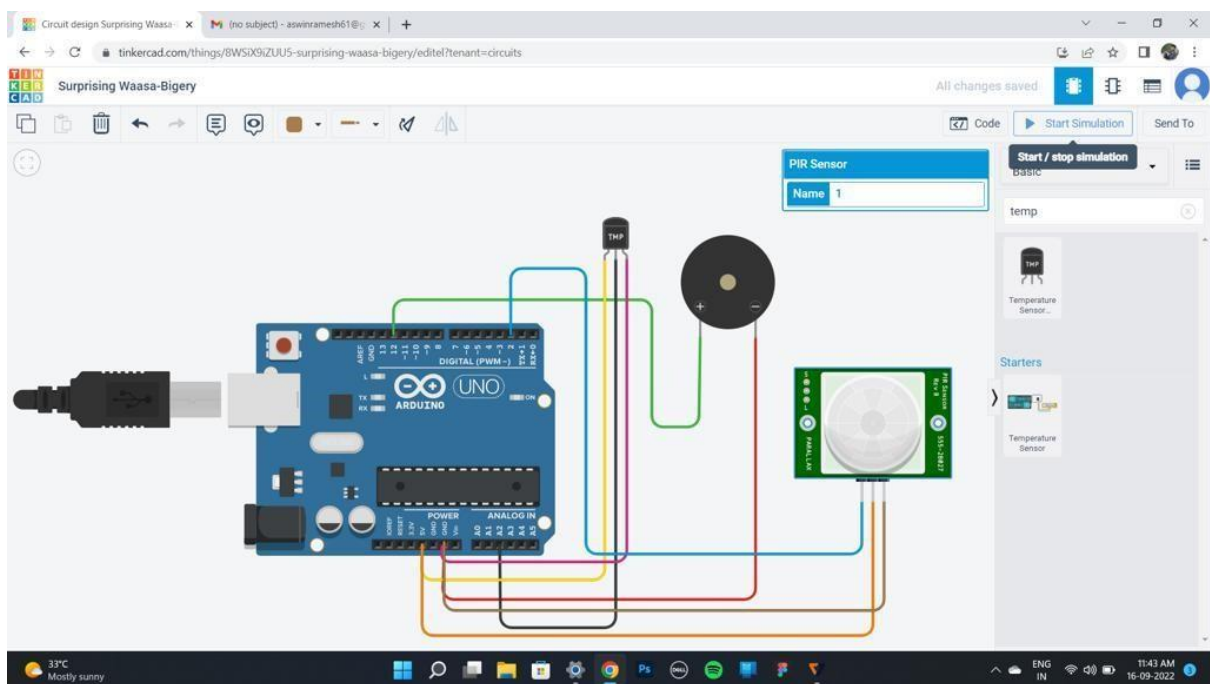
```

```
delay(1000);
```

```
}
```

SCREENSHOT :

Screenshot 1::



Screenshot 2 ::

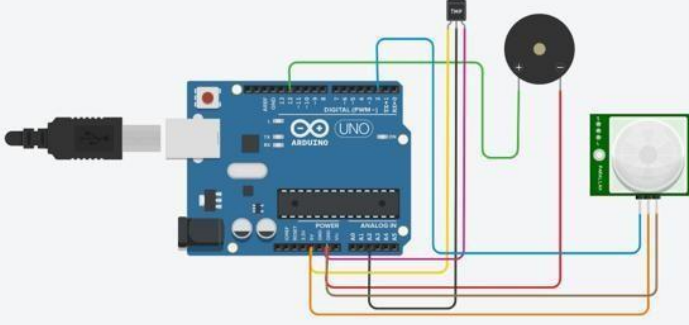
Circuit design Surprising Waasa - x Sent Mail - aswinramesh61@gmail.com x +

tinkercad.com/things/8WSiX9iZUU5-surprising-waasa-bigery/editel

Surprising Waasa-Bigery

All changes saved

Code Start Simulation Send To



```
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 04:14 PM 16-09-2022