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Assignment question::

Using PIR sensor and tmp36(Temperature sensor), piezo alarm, please create a circuit with ArduinoUno 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 :

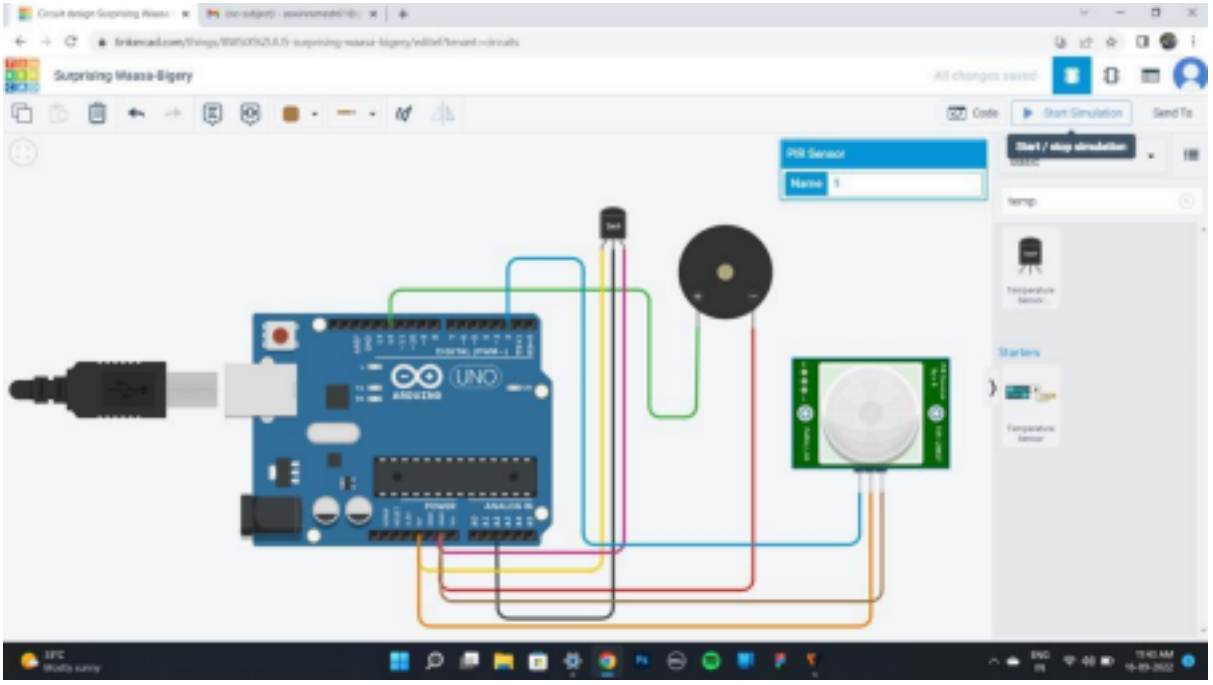
```
float temp;

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)
{
```

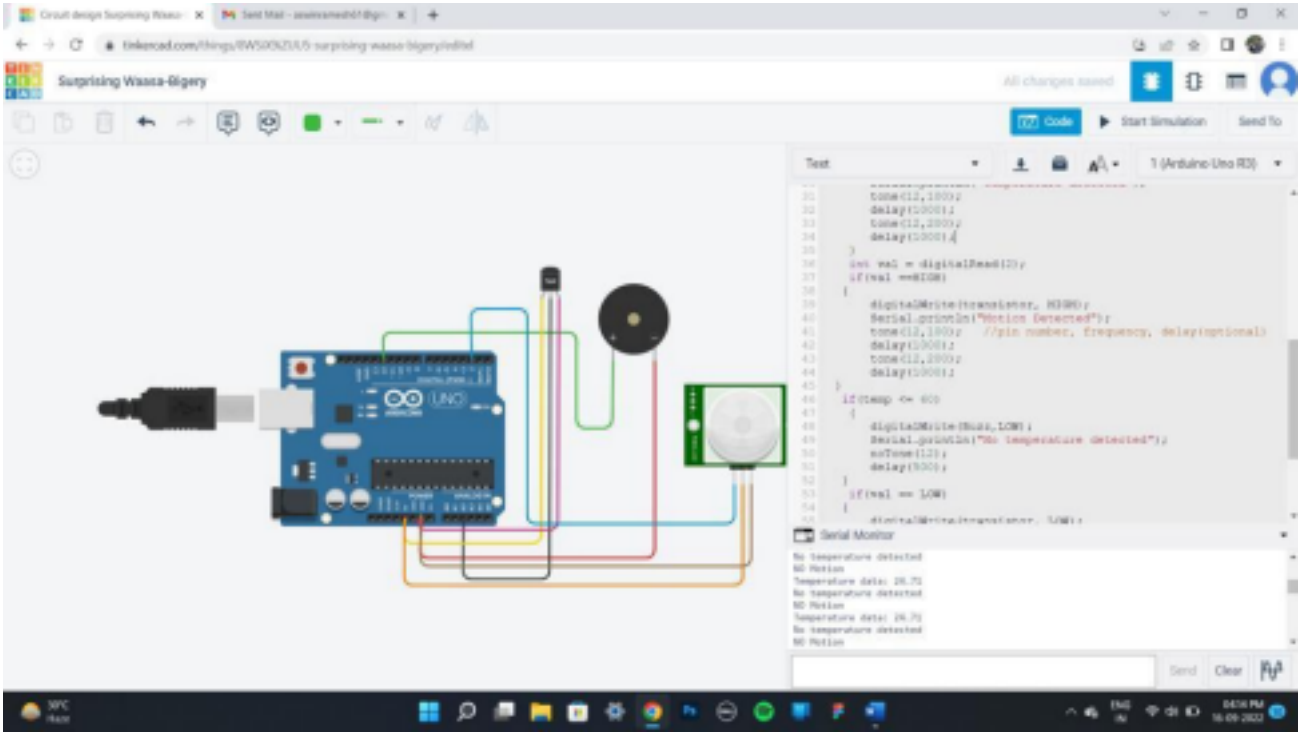
```
    digitalWrite(transistor, LOW);
    Serial.println("NO Motion");
    noTone(12);
    delay(500);
 }
  delay(1000);

}
```

SCREENSHOT :

Screenshot 1::



Screenshot 2 ::


Surprising Waasa-Bigery
Code
Start Simulation
Send To
Text
1 (Arduino Uno R3)
Serial Monitor
No temperature detected
NO Motion
Temperature data: 26.75
No temperature detected
NO Motion
Temperature data: 26.75
No temperature detected
NO Motion
Send
Clear