ASSIGNMENT 1

ASSIGNMENT DATE	15-SEP-2022
STUDENT NAME	Mr. MANNE NAGA BHARATH
STUDENT ROLL NUMBER	111519106084
MAXIMUM MARK	2 MARKS

QUESTION:

Using PIR sensor and tmp36(Temperature sensor),piezo alarm. 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 degress.

Solution:

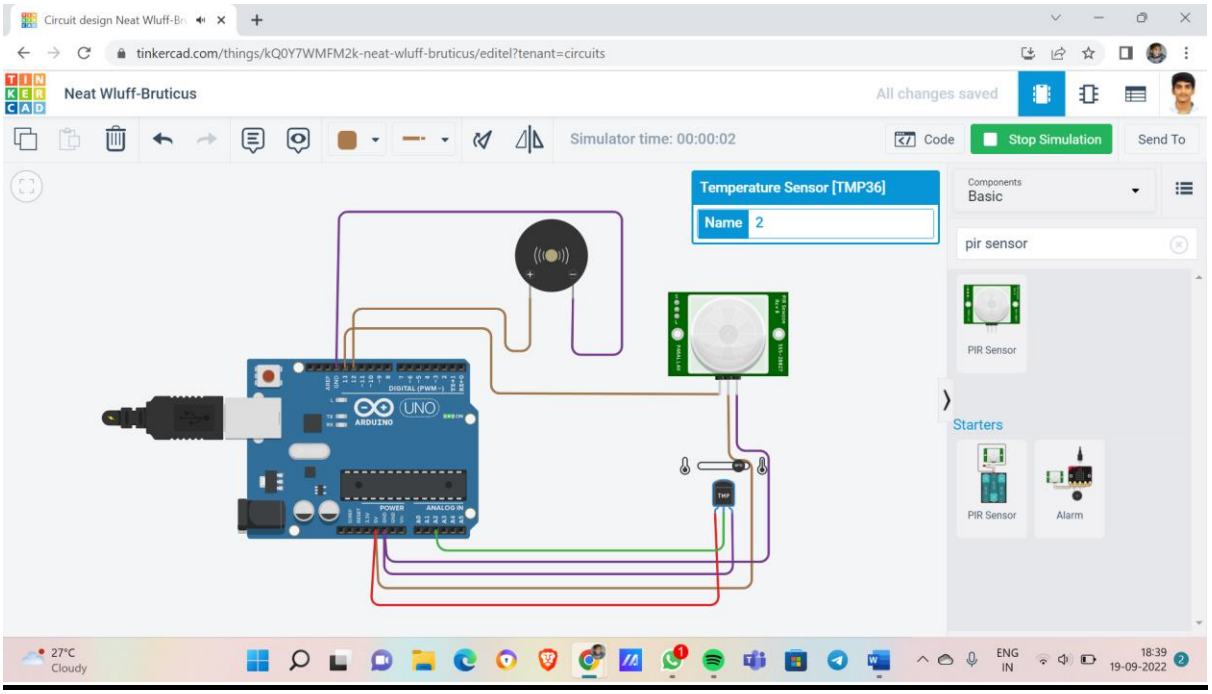
CODE:

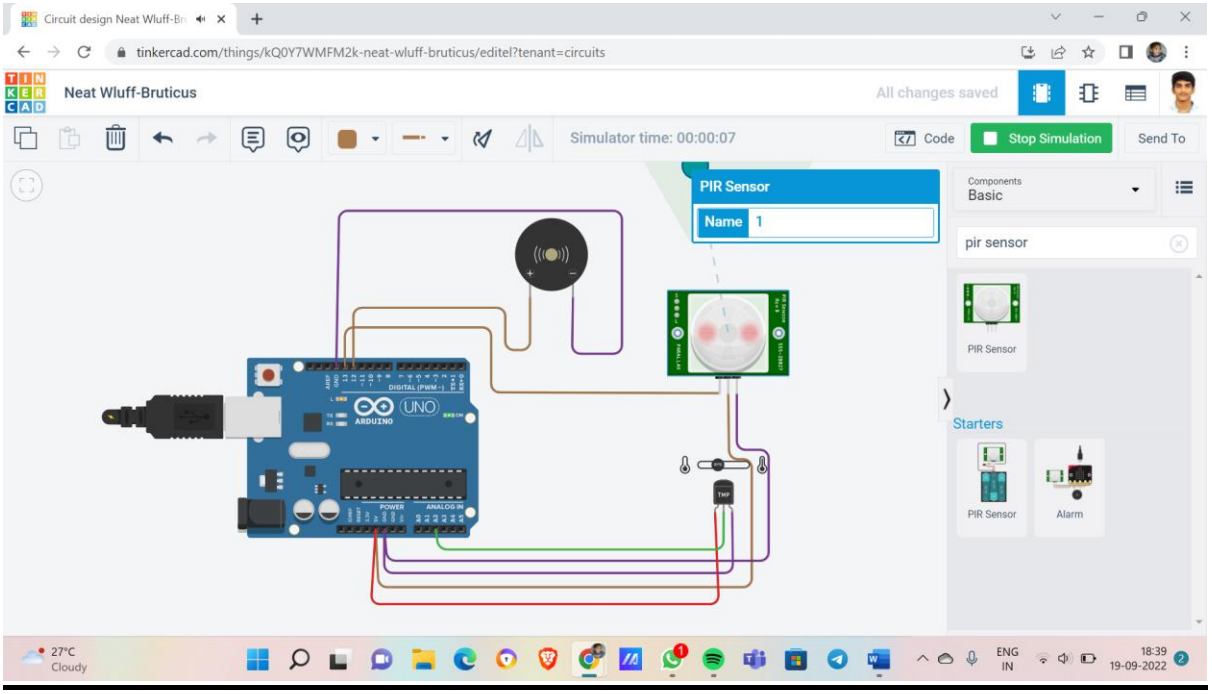
```
void setup()
{
 Serial.begin(9600);
  pinMode(13,INPUT);
  pinMode(12,OUTPUT);
}

void loop()
{
  double data=analogRead(A2);
  double n=data/1024;
  double volt=n*5;
  double off=volt-0.5;
```

```
 double temperature=off*100;
 int motion=digitalRead(13);
 for(int freq=4;freq<=5;freq++)
 {
  if(temperature>=60)
  {
   Serial.println("Temperature is above 60");
   tone(12,freq);
   delay(100);
  }
  else
  {
   Serial.println("Temperature is below 60");
   noTone(12);
  }
 }
  for(int freq=2;freq<=3;freq++)
  {
  if(motion==1)
 {
   Serial.println("Motion Detected");
  tone(12,freq);
   delay(200);
 }
 else
 {
  Serial.println(" No Motion");
  noTone(12);
 }
 }
}
```

Circuit:


Circuit design Neat Wluff-Br
tinkercad.com/things/kQ0Y7WMFM2k-neat-wluff-bruticus/editel?tenant=circuits
Neat Wluff-Bruticus
All changes saved
Simulator time: 00:00:02
Code
Stop Simulation
Send To
Temperature Sensor [TMP36]
Name 2
Components
Basic
pir sensor
PIR Sensor
Starters
PIR Sensor
Alarm
27°C
Cloudy
ENG
IN
18:39
19-09-2022


Circuit design Neat Wluff-Br
tinkercad.com/things/kQ0Y7WMFM2k-neat-wluff-bruticus/editel?tenant=circuits
Neat Wluff-Bruticus
All changes saved
Simulator time: 00:00:07
Code
Stop Simulation
Send To
PIR Sensor
Name 1
Components
Basic
pir sensor
PIR Sensor
Starters
PIR Sensor
Alarm
27°C
Cloudy
ENG
IN
18:39
19-09-2022

COMPONENTS:

Quantity	Component
1	Arduino Uno R3
Few	Connecting Wires
1	Buzzer
1	Temperature Sensor [TMP36]
1	Ultrasonic Distance Sensor

Video Link:

https://drive.google.com/file/d/1BUIcXIWF5g41gDOEseeGlPAbi2KPwFdp/view?usp=sharing