

# **IBM ASSIGNMENT- I**

**TEAM ID : PNT2022TMID48183**

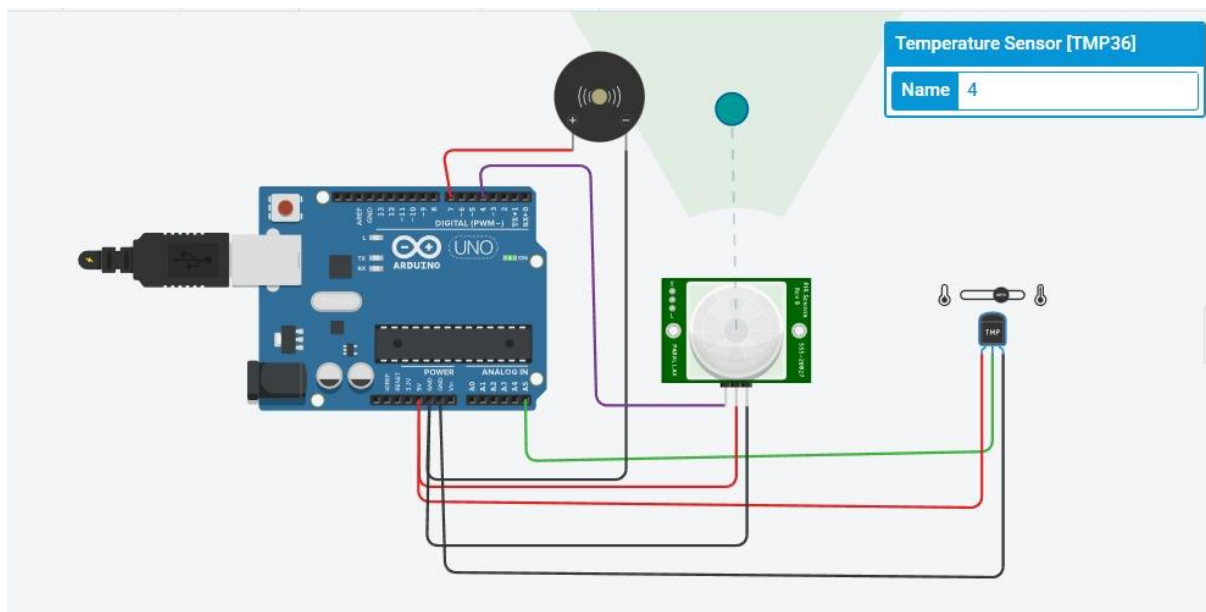
**NAME : JANARTHANAN R**

**ROLL NO : 912719104002**

Create a circuit with Piezo alarm, PIR Sensor, TMP Sensor with below functionalities:

- 1.Alarm should sound in one manner if temp is above 60C
- 2.Alarm should sound with another frequency if motion is detected in PIR Sensor.

## **CIRCUIT LAYOUT:**



## CODE:

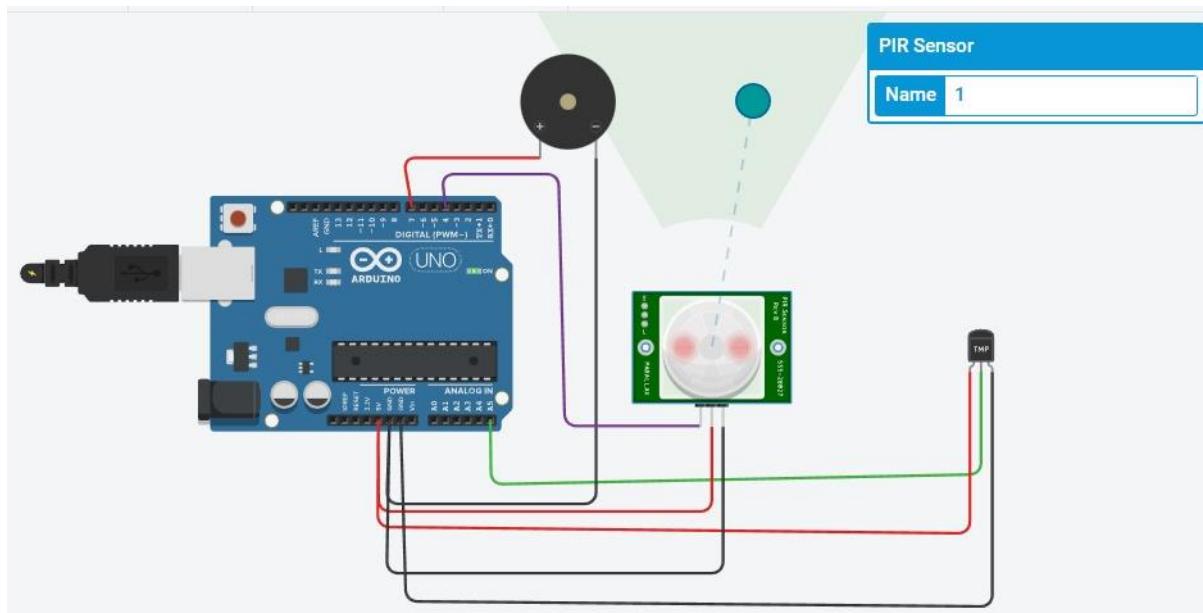
```
// C++ code
//
void setup()
{
  Serial.begin (9600);
  pinMode(4, INPUT);
  pinMode(7,OUTPUT);
  pinMode(A5,INPUT);
}

void loop()
{
  int motion = digitalRead(4);
  if (motion==1){
    Serial.println("Motion detected");
    tone (7,200);
    delay(350);
  }
  else{
    Serial.println("No Motion");
    noTone(7);
  }
}
{
  double data=analogRead(A5);
  double n=data/1024;
  double volt=n*5;
  double off=volt-0.5;
  double temperature=off*100;
  if (temperature>59.99){
    Serial.print("Temperature data:");
    Serial.println(temperature);
    tone(7,1000);
    delay(350);
  }
  else
    Serial.print("Temperature data: ");
    Serial.println(temperature);
}
```

```
noTone(7);  
}  
}
```

## OUTPUT:

### PASSIVE INFRARED SENSOR:



## TEMPERTURE SENSOR (AT 60°C):

