

IBM ASSIGNMENT- I

TEAM ID :PNT2022TMID26639

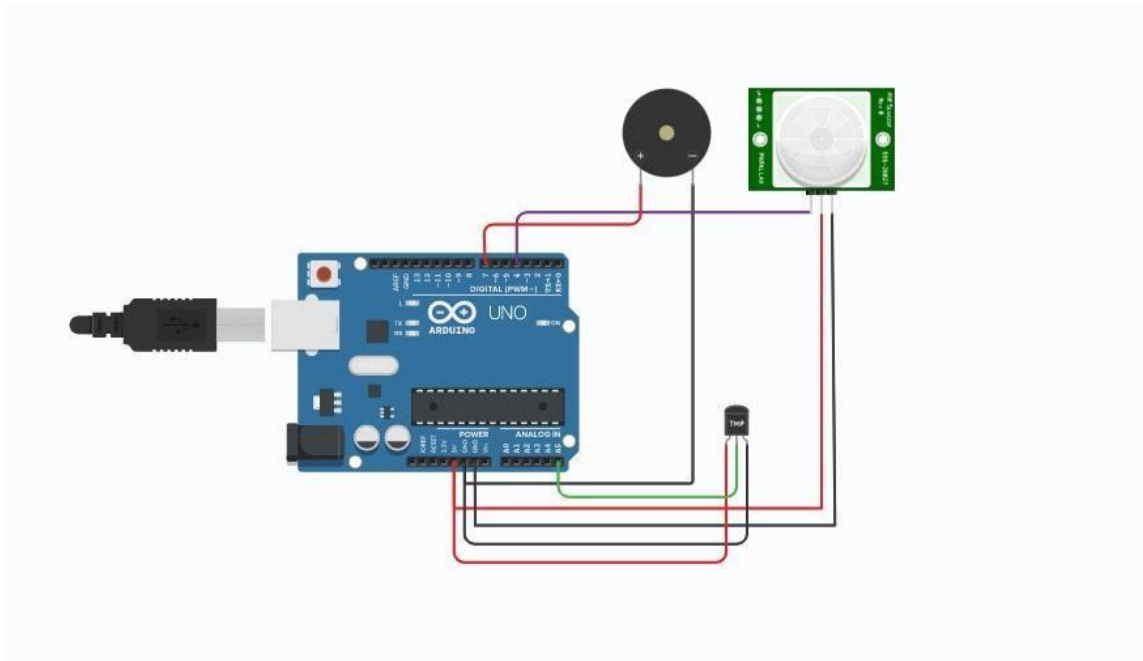
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Create a circuit with Piezo alarm, PIR Sensor, TMP Sensor with below functionalities:

- Alarm should sound in one manner if temp is above 60C
- 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);
}

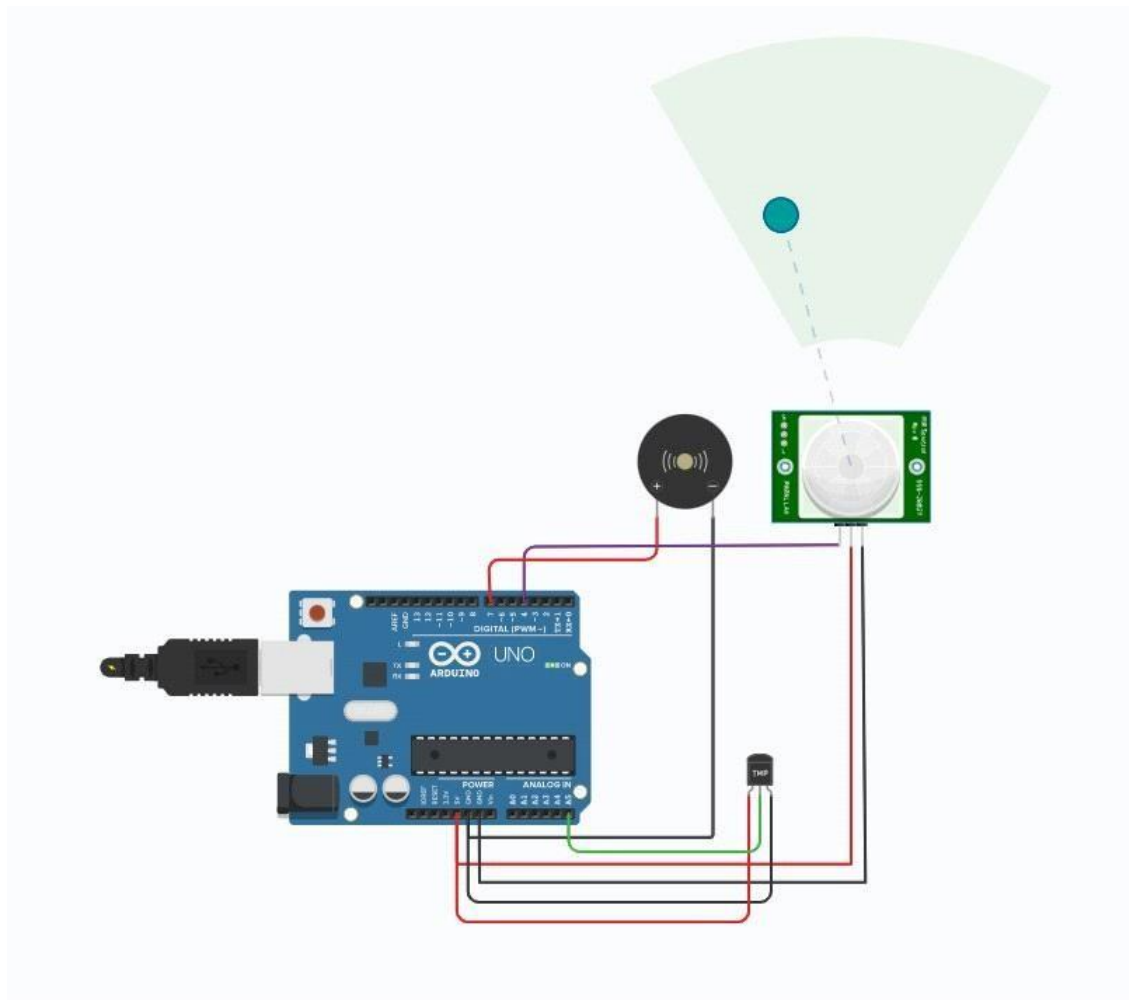
void loop()
{
  int motion = digitalRead(4);
  if (motion==1){
    Serial.println("Motion detected");
    tone (7,200); delay(350);
  }
  else{
    Serial.println("No Motion");
    noTone(7);
  }
}

{
  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):

