IBM ASSIGNMENT- I

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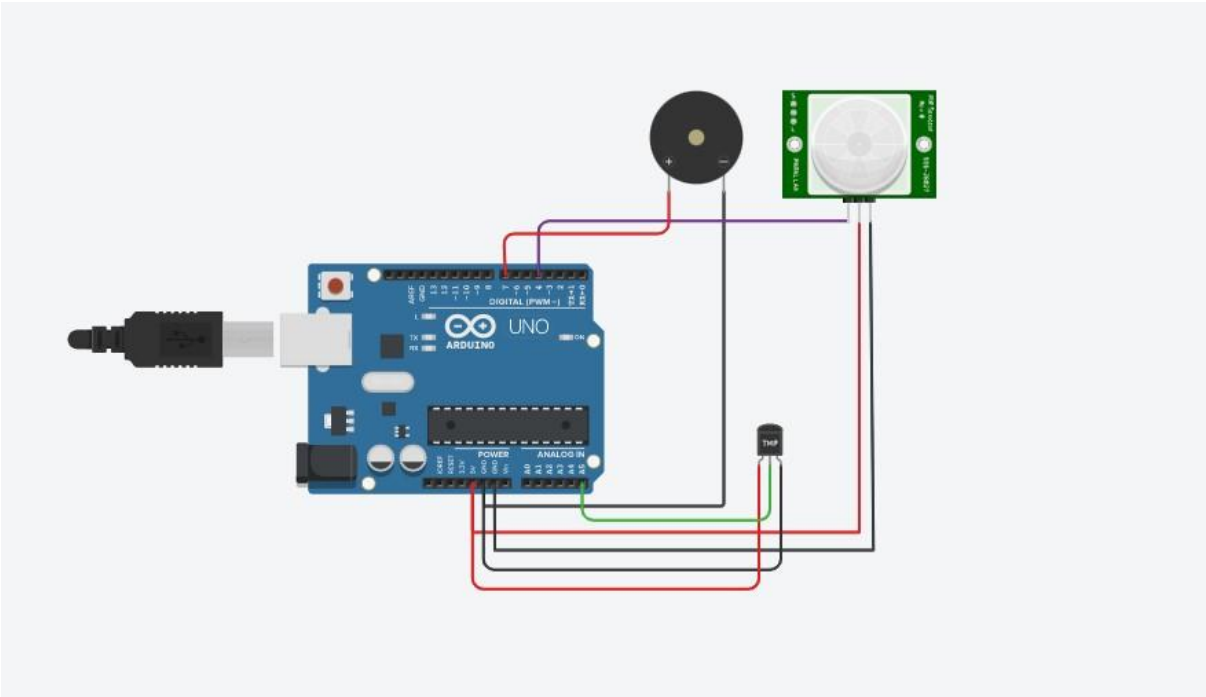
Create a circuit with Piezo alarm, PIR Sensor, TMP Sensor with below functionalities:

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:

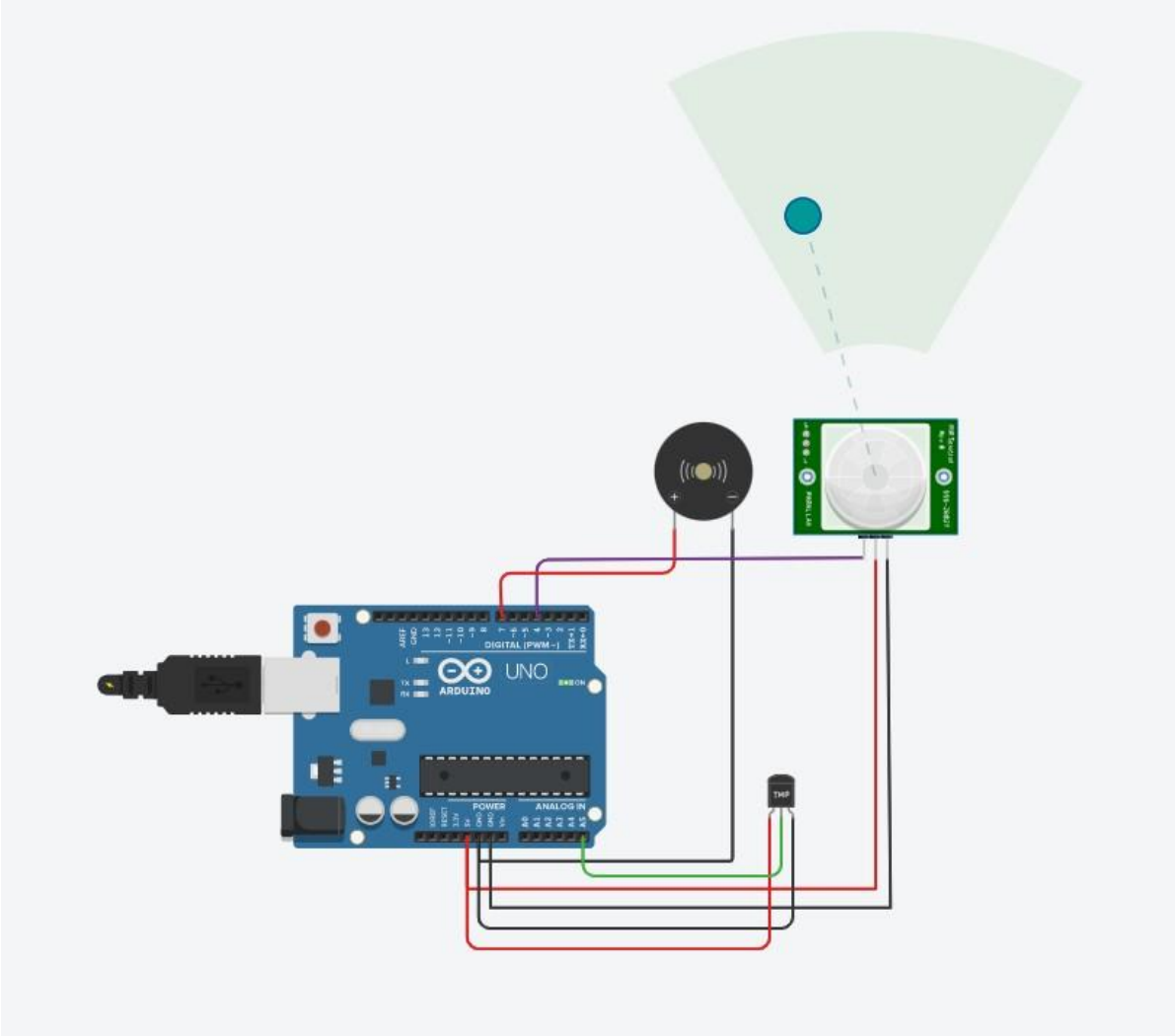
```
// C++ code
//
void setup()
{
  Serial.begin (9600);
pinMode(4, INPUT);
pinMode(7,OUTPUT);
  pinMode(A5,INPUT);
}

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
```

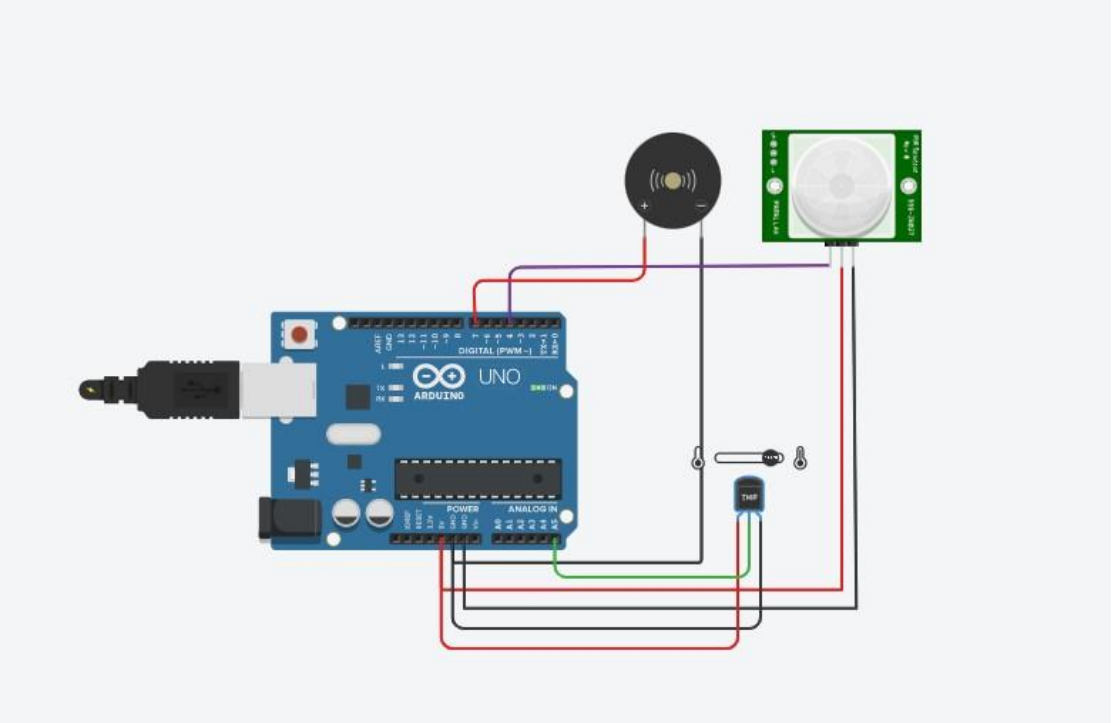
```
    Serial.print("Temperature data: ");
Serial.println(temperature);     noTone(7);
  }
}
```

OUTPUT:

PASSIVE INFRARED SENSOR:



TEMPERTURE SENSOR (AT 60°C):


UNO
ARDUINO
DIGITAL (PWM~)
POWER
ANALOG IN
TMP