

ASSIGNMENT - 1

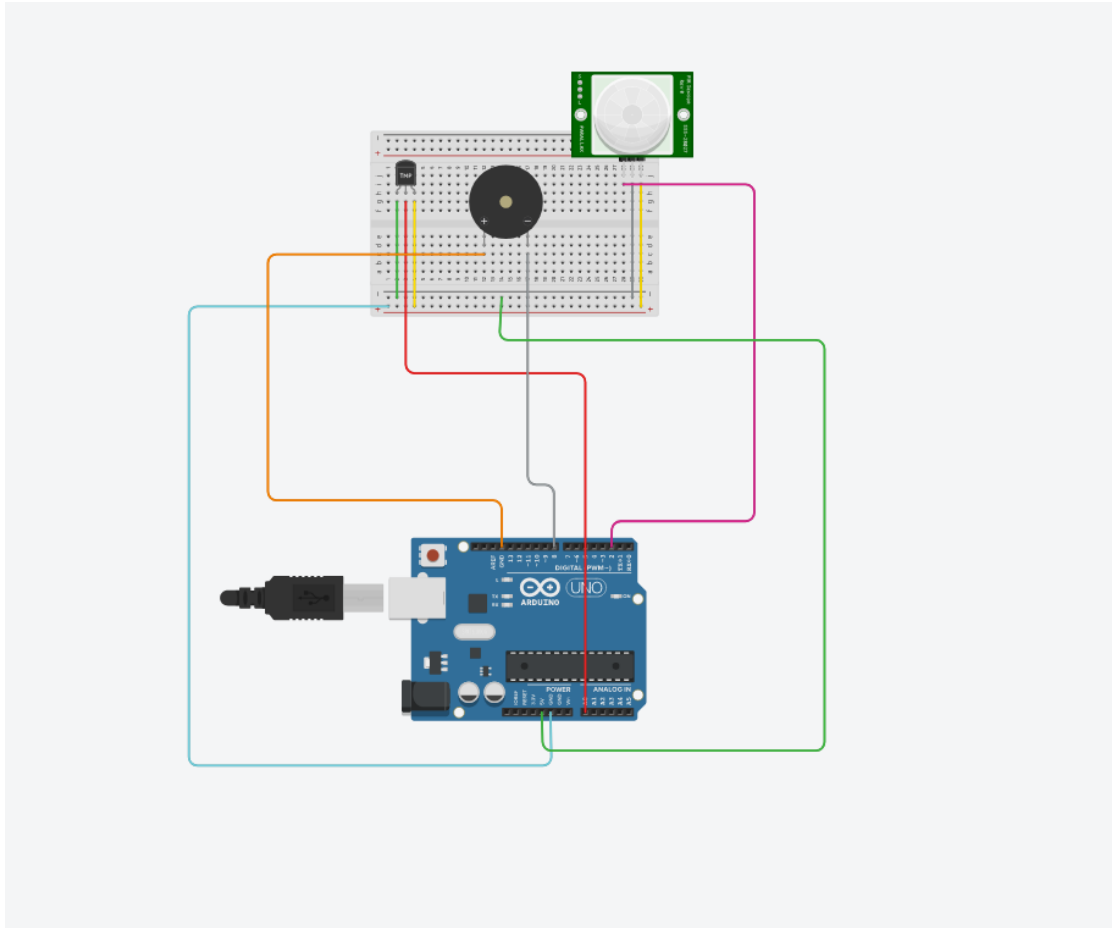
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QUESTION :

Design a circuit with piezo alarm,PIR sensor,temperatue 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.



CODE:

```
int temppin=A0;
float temp=0;
int piezoPin= 8;
float PIR=2;
void setup() {
  Serial.begin(9600);
  pinMode(temppin,INPUT);
  pinMode(PIR,INPUT);
  pinMode(piezoPin,OUTPUT);
}
void loop() {
  if(digitalRead(PIR)==HIGH){
    digitalWrite(piezoPin,HIGH);
    tone(piezoPin,1000);
    Serial.println("Movement Detected");
  }
  else
  {
    if(digitalRead(PIR)==LOW){
      digitalWrite(piezoPin,LOW);
      noTone(piezoPin);
      Serial.println("No Movement Detected");
    }
  }
}

double data=analogRead(temppin);
double n=data/1024;
double temp=((n*5)-0.5)*100;
Serial.print("Temperature: ");
Serial.println(temp);
if (temp >60) {
digitalWrite(piezoPin,HIGH);
tone(piezoPin,500);
Serial.println(" Temperature High");
}
}
```