

IBM ASSIGNMENT- 1

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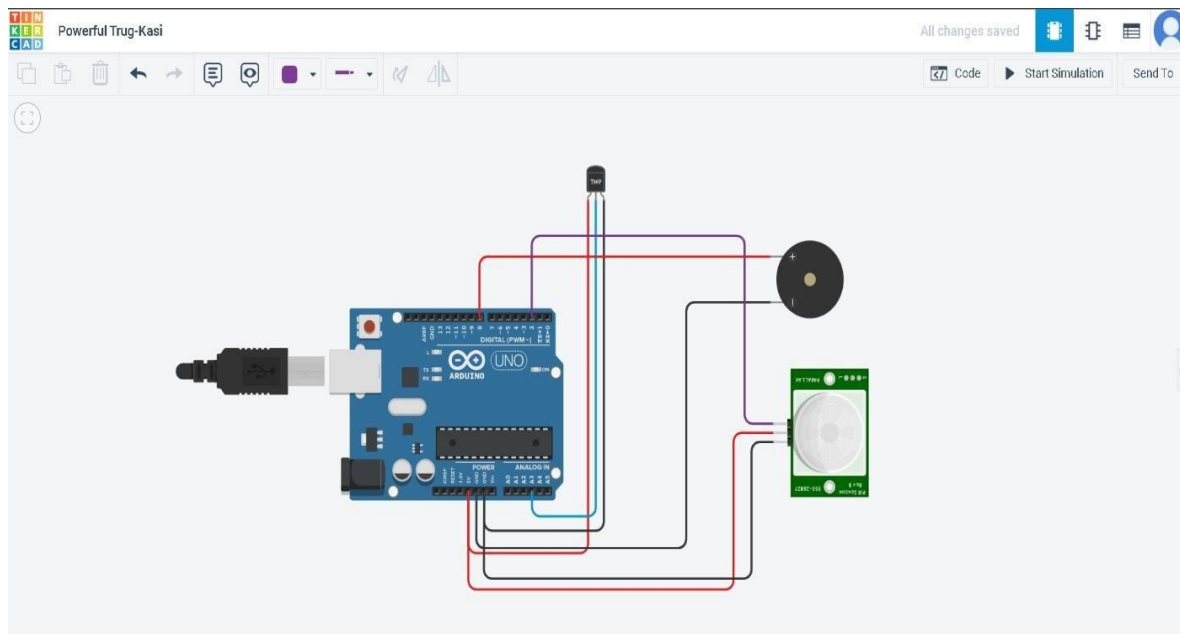
Functionalities:

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.

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

CIRCUIT LAYOUT:



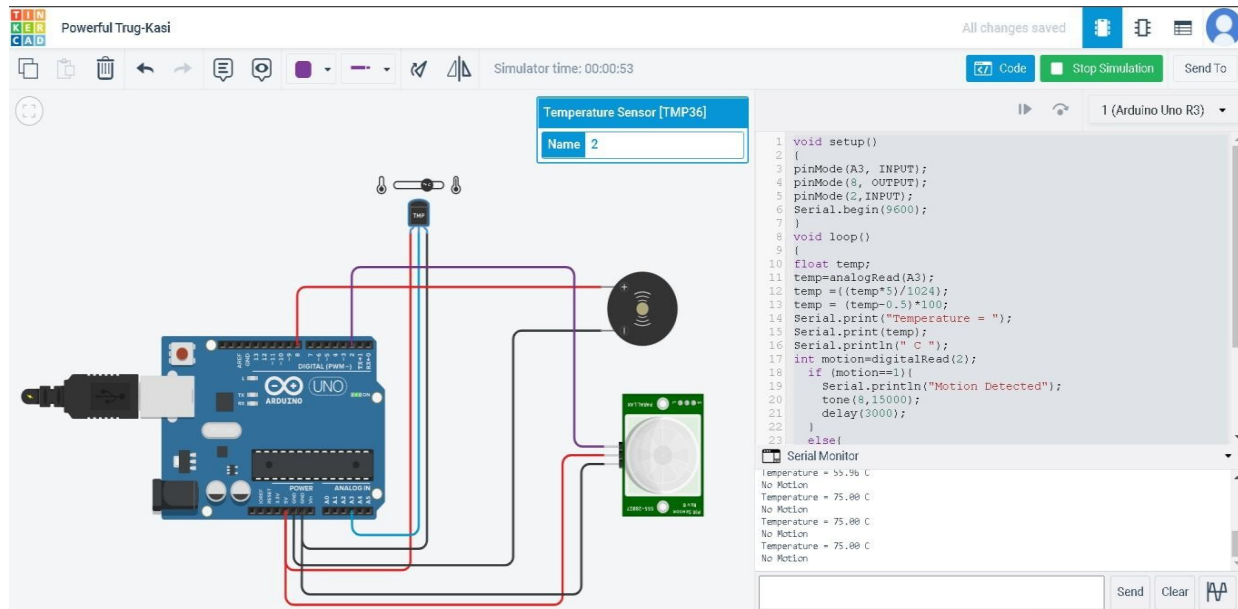
CODE:

```
void setup()
{
  pinMode(A3, INPUT);
  pinMode(8, OUTPUT);
  pinMode(2, INPUT);
  Serial.begin(9600);
}

void loop()
{
  float temp;
  temp=analogRead(A3);
  temp=((temp*5)/1024);
  temp = (temp-0.5)*100;
  Serial.print("Temperature = ");
  Serial.print(temp);
  Serial.println(" C ");
  int motion=digitalRead(2);if
    (motion==1){
    Serial.println("Motion Detected");
    tone(8,15000);
    delay(3000);
  }
  else{
    Serial.println("No Motion");
    noTone(8);
  }

  if (temp<59)
    noTone(8);
  if (temp>=60)
    tone(8,1000);
    delay(5000);
}
```

PASSIVE INFRARED SENSOR:



TEMPERATURE SENSOR (AT 60°C):

