Gas Leakage Monitoring & Alerting System for Industries
IOT Assignment-1

Code:

```
int trig=2;

int echo=3;


void setup()

{

  Serial.begin(9600);

  pinMode(trig,OUTPUT);

  pinMode(echo,INPUT);

  pinMode(2,INPUT);

  pinMode(12,OUTPUT);

}


void loop()

{

 //PIR Motion Sensor

  int motion=digitalRead(2);

  Serial.print("Position is :");

  Serial.println(motion);


 //LED ON

 if(motion==1)

 {

  digitalWrite(12,HIGH);
```

```arduino
}

//Buzzer For ultrasonic Sensor
if(motion==100)
{
for(int i=0; i<=30000; i=i+100)
{
tone(12,i);
delay(1000);
noTone(12);
delay(1000);
}
}

  //Temperate Sensor
double a= analogRead(A2);
double tem=(((a/1024)*5)-0.5)*100;
Serial.print("Temp Value: ");
Serial.println(tem);
delay(1000);

//LED ON
if(tem>=100)
{
 digitalWrite(12,HIGH);
}

//Buzzer for Temperature Sensor
if(tem>=100)
```
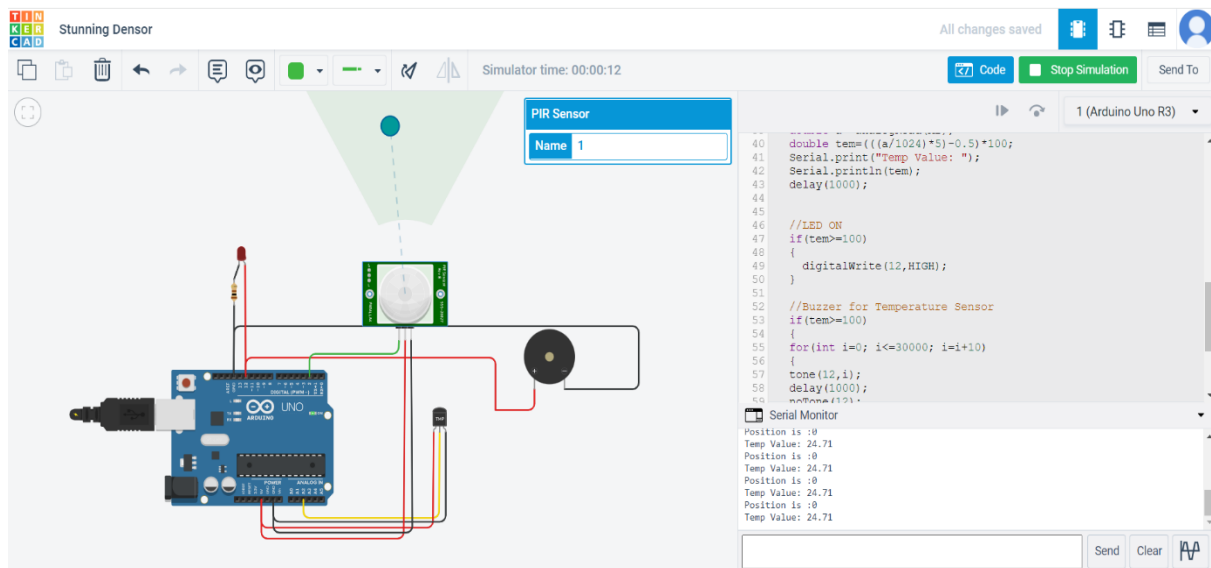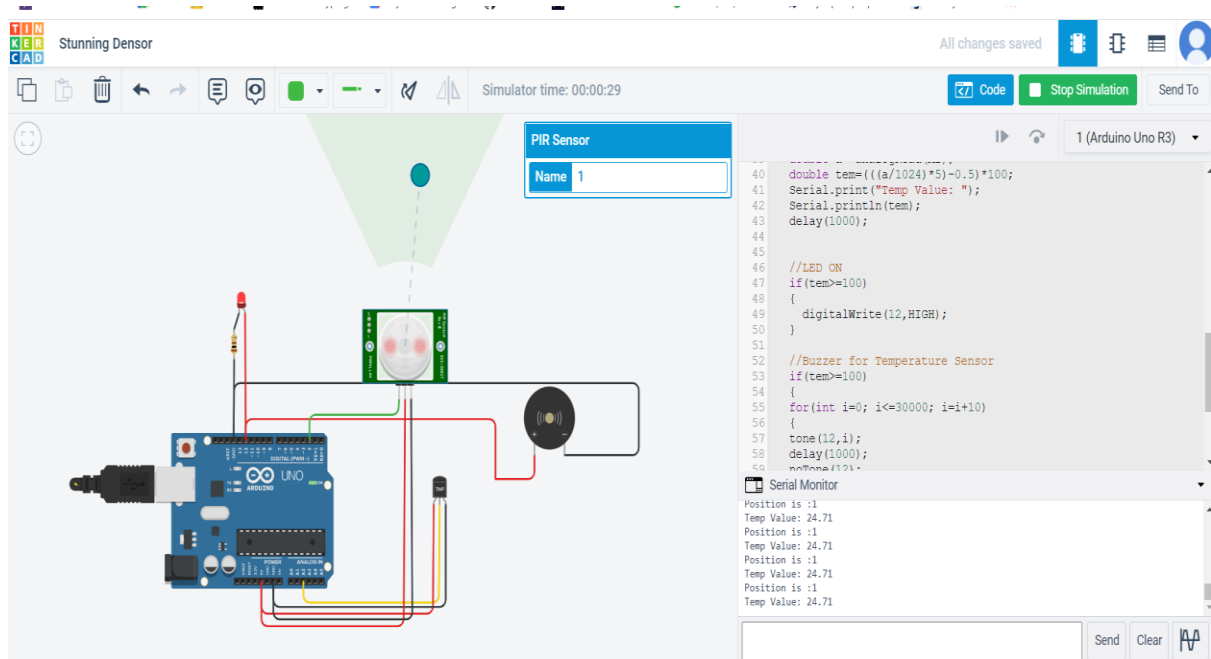
```
{
for(int i=0; i<=30000; i=i+10)
{
tone(12,i);
delay(1000);
noTone(12);
delay(1000);
}
}


 //LED OFF
if(tem<100)
{
 digitalWrite(12,LOW);
}
}
```

Output:

Motion is not detected

```
40    double tem=(((a/1024)*5)-0.5)*100;
41    Serial.print("Temp Value: ");
42    Serial.println(tem);
43    delay(1000);
44
45
46    //LED ON
47    if(tem>=100)
48    {
49      digitalWrite(12,HIGH);
50    }
51
52    //Buzzer for Temperature Sensor
53    if(tem>=100)
54    {
55    for(int i=0; i<=30000; i=i+10)
56    {
57    tone(12,i);
58    delay(1000);
59    noTone(12);
```

Serial Monitor

```
Position is :0
Temp Value: 24.71
Position is :0
Temp Value: 24.71
Position is :0
Temp Value: 24.71
Position is :0
Temp Value: 24.71
```


Motion detected

```
Position is :1
Temp Value: 24.71
Position is :1
Temp Value: 24.71
Position is :1
Temp Value: 24.71
Position is :1
Temp Value: 24.71
```

Change in Temperature