

ASSIGNMENT 1

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PROJECT NAME	GAS LEAKAGE MONITORING AND ALERTING SYSTEM FOR INDUSTRIES

Code

```
int LED1 = 12; int LED2 =  
11 int buzzer = 10; int  
smoke = A5; int bulb = 2;  
int fan = 3; int  
smokeThreshold = 500;  
int inputPir = 9; int  
baselineTemp = 0;  
int celsius = 0; int  
val = 0;  
  
void setup() {  
  pinMode(LED1, OUTPUT);  
  pinMode(LED2, OUTPUT);  
  pinMode(buzzer, OUTPUT);  
  pinMode(smoke, INPUT);  
  pinMode(inputPir, INPUT);  
  pinMode(bulb, OUTPUT);  
  pinMode(fan, OUTPUT);  
  Serial.begin(9600);  
}  
  
void loop() {  int analogSensor =  
  analogRead(smoke);
```

```
val = digitalRead(inputPir);
```

```
baselineTemp = 40;
```

```
celsius = map(((analogRead(A0) - 20) * 3.04), 0, 1023, -40, 125);
```

```
Serial.print(" TEMP: ");
```

```
Serial.print(celsius);
```

```
Serial.print(" C, ");
```

```
if (celsius < 25) {
```

```
    digitalWrite(fan, LOW);
```

```
}
```

```
if (celsius > 25) {
```

```
digitalWrite(fan, HIGH);
```

```
}
```

```
Serial.print("Co2: ");
```

```
Serial.print(analogSensor);
```

```
if (analogSensor > smokeThreshold)
```

```
{
```

```
    digitalWrite(LED1, HIGH);
```

```
digitalWrite(LED2, LOW);
```

```
tone(buzzer, 1000, 350);
```

```
}
```

```
else
```

```
{
```

```
    digitalWrite(LED1, LOW);
```

```
digitalWrite(LED2, HIGH);
```

```
noTone(buzzer);
```

```

}

delay(100);

Serial.print(" , PIR: ");

Serial.println(val);

if(val == HIGH)

{

    digitalWrite(bulb, HIGH);

delay(2000);

}

else

{

    digitalWrite(bulb, LOW);

delay(300);

}

}

```

