

TEMPERATURE SENSOR PROGRAM

```
#program for temperature sensing
import random
i=1
while i<=1:
    c=random.choice(range(15,30,1)) #random temp readings
    x=c
    print(x)
    if x>15:
        if x<25:
            print("normal temperature") #temp between 15 to 25
        else:
            print("high temperature") #temp greater than 25
            print("alarm detected")
    else:
        print("low temperature") #temp less than 15
```

HUMIDITY SENSOR PROGRAM

```
#program for temperature sensing
import random
i=1
while i<=1:
    d=random.choice(range(30,90,1)) #random temp readings
    h=d
    print(h)
    if h>30:
        if h<60:
            print("normal humidity") #humidity between 30% to 60%
        else:
            print("high humidity") #humidity greater than 60%
            print("alarm detected")
    else:
        print("low humidity") #humidity less than 30%
```

RANDOM SWITCHING OF TEMPERATURE AND HUMIDITY SENSORS PROGRAM

```
import random
sen=random.choice(range(1,3,1)) #random switching logic
print("sensor switching",sen)
if sen==1: #if sen =1 then temperature sensor comes into action
    i=1
    while i<=1:
        c=random.choice(range(15,30,1)) #random temp readings
        x=c
        print(x)
        if x>15:
            if x<25:
                print("normal temperature") #temp between 15 to 25
            else:
                print("high temperature") #temp greater than 25
                print("alarm detected")
            else:
                print("low temperature") #temp less than 15
    else: #if sen = 2 then humidity sensor comes into action
        i=1
        while i<=1:
            d=random.choice(range(30,90,1)) #random temp readings
            h=d
            print(h)
            if h>30:
                if h<60:
                    print("normal humidity") #humidity between 30% to 60%
                else:
                    print("high humidity") #humidity greater than 60%
                    print("alarm detected")
                else:
                    print("low humidity") #humidity less than 30%
```