

# Python Program to Simulate Sensor Values

```
from random import randint as ri
from time import sleep as delay
from os import system as cmd

temperatureThresholdRange = range(20,31)
humidityThresholdRange = range(35,75)

def clrscr():
    try:
        cmd("cls") # for WINDOWS
    except Exception as e:
        cmd("clear") # for LINUX

def getHumidity():
    return(ri(0,100)) # returns moisture in %

def getTemperature():
    return(ri(0,45)) # returns temperature in °C

# Recursion is safer than while(True)
# Coz python has a built-in exception to stop the execution of code after about a 1000 recursive calls
def myRecursiveLoop():
    clrscr()

    t,h = getTemperature(),getHumidity(

    print(f"\n\nCurrent Temperature : {t} °C\nCurrent Humidity : {h} %\n")

    print(f"{'Dangerous levels of Humidity' if (h not in humidityThresholdRange) else ''}\n{'Danger
levels of Temperature' if t not in temperatureThresholdRange else ''}\n\n")

    # 1 sec delay before next execution
    delay(1)
    myRecursiveLoop()
try:
except RecursionError:
    print("Python safely terminated after about a 1000 recursive calls")
    exit()
```

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```
Current Temperature : 2 °C
Current Humidity : 9 %

Dangerous levels of Humidity
Dangerous levels of Temperature
```