

PROJECT - Signs With Smart Connectivity For Better Road Safety

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DEVELOP A PYTHON SCRIPT & PUSH DATA TO CLOUD

```
import wiotp.sdk.device
```

```
import time
```

```
import random
```

```
import requests, json
```

```
myConfig = {
```

```
    "identity": {
```

```
        "orgId": " z78lx0",
```

```
        "typeId": " raspberrypi",
```

```
        "deviceId": " 12345"
```

```
    },
```

```
    "auth": {
```

```
        "token": " 12345678 "
```

```
    }
```

```
}
```

```
def myCommandCallback(cmd):
```

```
    print("Message received from IBM IoT Platform: %s" %  
cmd.data['command'])
```

```
    m=cmd.data['command']
```

```
client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
```

```
client.connect()
```

```
BASE_URL = "https://api.openweathermap.org/data/2.5/weather?"
```

```
CITY = "Hyderabad"
```

```
URL = BASE_URL + "q=" + "chennai" +  
"&appid=" + "c4aa755540f66e8c800cbfd67df6ddcb"
```

```
while True:
```

```
    response = requests.get(URL)
```

```
    if response.status_code == 200:
```

```
        data = response.json()
```

```
        main = data['main']
```

```
        temperature = main['temp']
```

```
        humidity = main['humidity']
```

```
        pressure = main['pressure']
```

```
        report = data['visibility']
```

```
        repo=random.randint(0,5)
```

```
        if repo==1:
```

```
            prt="SLOW DOWN , SCHOOL IS NEAR"
```

```
        elif repo==3:
```

```
            prt="SLOW DOWN , HOSPITAL NEARBY"
```

```
        elif repo==5:
```

```
            prt="NEED HELP, POLICE STATION NEARBY"
```

```
        else:
```

```
            prt=""
```

```
        speed=random.randint(0,150)
```

```
        if speed>=100:
```

```
            prt3="SLOW DOWN , Speed Limit Exceeded"
```

```
        elif speed>=60 and speed<100:
```

```

        prt3="Moderate
Speed"else:
        prt3=""
sign=random.randi
nt(0,5)if sign==1:
        prt2="Right
Diversion ->"elif
sign==3:
        prt2="Left
Diversion <-"elif
sign==5:
        prt2="
U Turn"
else:
        prt2=""
if temperature<=50:
        prt4="Fog Ahead,
Drive Slow"else:
        prt4="Clear Weather"

else:
        print("Error in the HTTP request")
        myData={'Temperature':temperature, 'Message':prt, 'Sign':prt2,
'Speed':prt3,'Visibility':prt4}
        client.publishEvent(eventId="status", msgFormat="json",
data=myData,qos=0, onPublish=None)
        print("Published data Successfully: %s",
myData)    client.commandCallback    =
myCommandCallbacktime.sleep(5)
client.disconnect()

```