

PYTHON SCRIPT

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<i>PROJECT NAME</i>	<i>PROJECT- SMART WASTE MANGEMENT FOR METROPOLITAN CITIES</i>

PYTHON SCRIPT:

```
import time  
import sys
```

```
import ibmiotf.application  
import ibmiotf.device  
import random
```

```
#Provide your IBM Watson Device Credentials  
organization = "ctmv6u"  
deviceType = "NodeMCU"  
deviceId = "106003"  
authMethod = "token"  
authToken = "123456789"
```

```
# Initialize GPIO
```

```
def myCommandcallback (cmd) :  
    print ("Command received: %s" % cmd.data[ 'command' ])  
    status=cmd.data['command']  
    if status=="lighton" :  
        print ("led is on")  
    else :  
        print ("led is off")
```

```
# print(cmd)
```

```
try:  
    deviceoptions = {"org": organization, "type": deviceType,"id": deviceId,"auth-  
method":authMethod,"auth-token":authToken}  
    deviceCli = ibmiotf.device.Client(deviceoptions)
```

```
except Exception as e:  
    print ("caught exception connecting device: %s" % str(e))
```

```
sys.exit ()
```

```
# Connect and send a datapoint "hello" with value "world" into the cloud as an event of  
type "greeting" 10 times  
deviceCli.connect ()
```

```
while True:
```

```
#Get Sensor Data from DET11
```

```
temp=random.randint (0,100)
```

```
Humid=random. randint (0, 100)
```

```
data = { 'temp': temp, 'Humid': Humid }
```

```
#print data
```

```
def myonPublishCallback () :
```

```
    print ("Published Temperature = %s C" % temp, "Humidity = %s %%" % Humid, "to  
IBM Watson")
```

```
    success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0,  
on_publish=myonPublishCallback)
```

```
    if not success:
```

```
        print ("Not connected to IoT")
```

```
    time.sleep(1)
```

```
devicecli.commandcallback = myCommandcallback
```

```
# Disconnect the device and application from the cloud
```

```
deviceCli.disconnect ()
```

