

```
import time
```

```
import sys
```

```
import ibmiotf.application
```

```
import ibmiotf.device
```

```
import random
```

```
#Provide your IBM Watson Device Credentials
```

```
organization = "9anun7"
```

```
deviceType = "1911104"
```

```
deviceId = "1911104-iot"
```

```
authMethod = "token"
```

```
authToken = "12345678"
```

```
# Initialize GPIO
```

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

```
    print("Command received: %s" % cmd.data['command'])
```

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

```
    if status == "alarmon":
```

```
        print ("Alarm is on please all Evacuate Fans On")
```

```
    elif status == "alarmoff":
```

```
        print ("Alarm is off and Fans Off")
```

```
    elif status == "sprinkleron":
```

```
    print ("Sprinkler is On Evacuate Faster")

elif status == "sprinkleroff":

    print("Sprinkler is Off")

else:

    print("Please send proper command")

#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 random function
```

```
temp=random.randint(0,120)

Humid=random.randint(0,100)

gas=random.randint(0,1500)

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

#print data

def myOnPublishCallback():

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


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

    if not success:

        print("\n Not connected to IoT")

    if temp>60 :

        print("\n Fire Detected due to gas Leak ! Alarm ON! Sprinkler ON! Call The Fire Police \n")

    elif gas>350:

        print("\n Gas is Leaking \n")


    time.sleep(10)


deviceCli.commandCallback = myCommandCallback


# Disconnect the device and application from the cloud

deviceCli.disconnect()
```

