

TeamID	PNT2022TMID00416
Date	12th November 2022
Project name	Hazardous area monitoring for industrial plants by IoT

Python Script

```
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random

#Provide your IBM Watson Device Credentials

organization = "slxa7t"
deviceType = "Hazard_iot"
deviceId = "hazard"
authMethod = "token"
authToken = "abcd1234"

# 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 DHT11

    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(10)
        deviceCli.commandCallback = myCommandCallback
# Disconnect the device and application from the cloud
deviceCli.disconnect()

```