

Python code to publish and subscribe to IBM IoT platform

```
import wiotp.sdk.device
import time import os
import datetime import
random myConfig = {
    "identity": {
        "orgId" : "92zbfc",
        "typeId": "ESP32",
        "deviceId": "1234"
    },
    "auth": {
        "token": "12345678"
    }
}
client=wiotp.sdk.device.DeviceClient(config=myConfig,logHandlers=None)
client.connect()

def myCommandCallback(cmd):
    print("Message received from IBM IoT platform: %s" % cmd.data ['command'])
    m=cmd.data['command']    if(m=="motoron"):
        print("motor is switched on")
    elif(m=="motoroff"):
        print("motor is switched off")
    print(" ") while True:    soil=random.randint(0,100)
    temp=random.randint(-20,125)    hum=random.randint(0,100)
    myData={'soil_moisture':soil,'temperature':temp,'humidity':hum}
    client.publishEvent(eventId="status",msgFormat="json" ,data=myData
    ,qos=0,onPublish=None)
    print("published data successfully: %s",myData)
    time.sleep(2)
    client.commandCallback=myCommandCallback
    client.disconnect()
```

```
import sys
import time
import os
import datetime
import random

myConfig = {
    "identity": {
        "type": "ESP32",
        "typeId": "ESP32",
        "deviceId": "1234"
    },
    "auth": {
        "token": "12345678"
    }
}

client = Wiotp.sdk.device.DeviceClient(config=myConfig, logHandler=None)
client.connect()

def myCommandCallback(cmd):
    print("Message received from IBM IoT platform: %s" % cmd.data["command"])
    if cmd.data["command"] == "switch":
        print("Motor is switched on")
        # If the motor is switched on
    elif cmd.data["command"] == "stop":
        print("Motor is switched off")
    print("")

while True:
    # Generate random data
    temp = random.randint(0, 100)
    hum = random.randint(0, 100)
    myData = {
        "temp": temp,
        "hum": hum
    }
    client.publishEvent(event="temp", msgFormat="json", data=myData, qoS=1)
    print("published data successfully: %s" % myData)
    time.sleep(10)
    client.disconnect()

client.disconnect()
```

```
Python 3.6.2 Shell
Python 3.6.2 (v3.6.2:5fd33b5, Jul 8 2017, 04:14:34) [MSC v.1900 32 bit (Intel)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: E:\shenwei\iot\p.py =====
2022-11-09 02:10:12.901 Wiotp.sdk.device.client.DeviceClient INFO Connected success
fully: d192abfc:ESP32:1234published data successfully: %s
('soil_moisture': 80, 'temperature': 96, 'humidity': 77)
published data successfully: %s ('soil_moisture': 4, 'temperature': 88, 'humidity': 48)
published data successfully: %s ('soil_moisture': 80, 'temperature': 114, 'humidity': 75)
published data successfully: %s ('soil_moisture': 20, 'temperature': 25, 'humidity': 14)
published data successfully: %s ('soil_moisture': 32, 'temperature': 53, 'humidity': 64)
published data successfully: %s ('soil_moisture': 58, 'temperature': -12, 'humidity': 11)
published data successfully: %s ('soil_moisture': 1, 'temperature': 79, 'humidity': 57)
published data successfully: %s ('soil_moisture': 6, 'temperature': 128, 'humidity': 77)
published data successfully: %s ('soil_moisture': 59, 'temperature': 20, 'humidity': 17)
published data successfully: %s ('soil_moisture': 22, 'temperature': 48, 'humidity': 0)
published data successfully: %s ('soil_moisture': 85, 'temperature': 57, 'humidity': 89)
published data successfully: %s ('soil_moisture': 29, 'temperature': 94, 'humidity': 66)
published data successfully: %s ('soil_moisture': 57, 'temperature': 120, 'humidity': 27)
published data successfully: %s ('soil_moisture': 96, 'temperature': 112, 'humidity': 63)
published data successfully: %s ('soil_moisture': 27, 'temperature': 101, 'humidity': 20)
published data successfully: %s ('soil_moisture': 37, 'temperature': 31, 'humidity': 83)
published data successfully: %s ('soil_moisture': 15, 'temperature': 53, 'humidity': 84)
published data successfully: %s ('soil_moisture': 7, 'temperature': 93, 'humidity': 81)
published data successfully: %s ('soil_moisture': 27, 'temperature': 45, 'humidity': 5)
published data successfully: %s ('soil_moisture': 89, 'temperature': 123, 'humidity': 123)
```

Device ID	Status	Device Type	Class ID	Date Added
1234	Connected	ESP32	Device	Nov 6, 2022 5:16 AM
12345	Disconnected	esp32	Device	Nov 1, 2022 9:23 AM
2001	Disconnected	raspberrypi	Device	Oct 14, 2022 7:05 AM

Identity	Device Information	Recent Events	State	Logs
Device ID	1234			
Device Type	ESP32			
Date Added	Nov 6, 2022 5:16 AM			
Added By	910619106069@smartintenz.com			
Connection Status	Connected			
	Connection Time: Nov 9, 2022 2:02 AM			
	Client Address: 112.133.193.253 SecureToken			