

SPRINT-1

Date	17 November 2022
Team Id	PNT2022TMID22894
Project Name	Smart Farmer-IoT Enabled Smart Farming Application

Python code:

```
#IBM Watson IOT Platform
```

```
#pip install wiotp-sdk
```

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

```
import time
```

```
import random
```

```
myConfig = {
```

```
    "identity": {
```

```
        "orgId": "ih2ifs",
```

```
        "typeId": "NodeMCU",
```

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

```
    },
```

```
    "auth": {
```

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

```
    }
```

```
}
```

```
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(" ")

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

while True:

    temp=random.randint(-20,125)
    hum=random.randint(0,100)
    moist=random.randint(0,14)

    myData={'temperature':temp, 'humidity':hum, 'Moisture':moist}
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)
    print("Published data Successfully: %s", myData)

    client.commandCallback = myCommandCallback

    time.sleep(2)

client.disconnect()
```

Output:

```
Published data Successfully: %s {'temperature': 50,
10}
Published data Successfully: %s {'temperature': -4,
6}
Published data Successfully: %s {'temperature': 29,
13}
Published data Successfully: %s {'temperature': 32,
5}
Message received from IBM IoT Platform: motoroff
Motor is switched off

Published data Successfully: %s {'temperature': 34, '
9}
Published data Successfully: %s {'temperature': -15,
9}
Message received from IBM IoT Platform: motoron
Motor is switched on

Published data Successfully: %s {'temperature': 43, 'h
5}
Published data Successfully: %s {'temperature': 116, 't
0}
Published data Successfully: %s {'temperature': 40, 'hu
3}
Published data Successfully: %s {'temperature': 24, 'hun
3}
Published data Successfully: %s {'temperature': 51, 'hum
2}
```