

Developing A Python Script

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Team ID	PNT2022TMID03479
Project Name	IoT Based Smart Crop Protection System for Agriculture

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

#Provide your IBM Watson Device Credentials
organization = "us27lh"
deviceType = "CROP"
deviceId = "AAKASH123"
authMethod = "token"
authToken = "keekee123"

# Initialize GPIO
def myCommandCallback(cmd):
    print("Command received: %s" % cmd.data['command'])
    status=cmd.data['command']
    if status=="lighton":
        print ("led is on")
    elif status == "lightoff":
        print ("led is off")
    else : print ("please send proper command")

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(90,110)
    Humid=random.randint(60,100)
    data = { 'temp' : temp, 'Humid': Humid }
    #print data
    def myOnPublishCallback():
        print ("Published Temperature = %s C" % temp, "Humidity = %s %% " % Humid, "to IBM Watson")
```

myCommandCallback

[illegible]

```
*Python 3.7.0 Shell*
File Edit Shell Debug Options Window Help
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:/ibm python/python script.py =====
2022-11-16 19:52:33,189 ibmiotf.device.Client INFO Connected successfully: d:us271
h:CROP:KEERTHIKA123
Published Temperature = 93 C Humidity = 76 % to IBM Watson
Published Temperature = 95 C Humidity = 99 % to IBM Watson
Published Temperature = 92 C Humidity = 90 % to IBM Watson
Published Temperature = 100 C Humidity = 79 % to IBM Watson
Published Temperature = 106 C Humidity = 75 % to IBM Watson

Ln: 9 Col: 0
U: 1.34 kB/s
D: 7.35 kB/s
27°C Mostly clear
ENG 7:53 PM
IN 11/16/2022
```