

# PYTHON SCRIPT

TEAM ID	PNT2022TMID17342
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 = "u9qhfi"
deviceType = "Devicetype1"
deviceId = "DeviceID1"
authMethod = "token"
authToken = ")hSb7_ZD+ev12fRhXi"

# 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(1)

deviceCli.commandCallback = myCommandCallback

# Disconnect the device and application from the cloud

deviceCli.disconnect()

```