

IBM PROJECT

TEAM ID: PNT2022TMID17466

Source Code:

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

#Provide your IBM Watson Device Credentials
organization = "9lg1" deviceType = "Arduino"
deviceId = "1234567" authMethod = "use-token-
auth"
    authToken = "123456789"

# Initialize GPIO def
myCommandCallback(cmd):
    print("Command received: %s" %
cmd.data['command'])    status=cmd.data['command']
if status=="motoron":    print("Motor is ON")    else:
    print("Motor 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)
    pulse=random.randint(0,100)
    moisture= random.randint(0,100)
    humidity=random.randint(0,100);
    lat = 17      lon = 18
    data = { 'temp' : temp, 'humidity' : humidity, 'Soil Moisture' : moisture}
    #print data      def
myOnPublishCallback():
    print ("Published Temperature = %s C" % temp, "Humidity = %s %" %
humidity, "Soil Moisture =          %s %" % moisture,"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()

```