IBM PROJECT

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Source Code:

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

#Provide your IBM Watson Device Credentials
organization = "9lglg1"
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 IoTF")
          time.sleep(1)
         deviceCli.commandCallback = myCommandCallback

        # Disconnect the device and application from the cloud
           deviceCli.disconnect()
```