Smart Farmer - IoT Enabled Smart Farming Application

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Source Code:

```
import wiotp.sdk.device
import time
import os
import datetime
import random
import sys
import ibmiotf.application
import ibmiotf.device

#Provide your IBM Watson Device Credentials
myConfig={
   "identity":{
      "orgId":"stioda",
      "typeId":"RASPBERRY_PI",
      "deviceId":"123456789"
      },
      "auth":{
      "token":"123456789"
      }
}
client=wiotp.sdk.device.DeviceClient(config=myConfig,logHandlers=None)
client.connect()

#Initailize the command to get Motor On and Off
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(" ")

#Generate Random values for Temperature, Humidity and Soil Moisture
while(True):
   soil=random.randint(0,100)
   temp=random.randint(-20,125)
   hum=random.randint(0,100)
   myData={'soil_moisture': soil,'temperature':temp,'humidity':hum}

#Print the data
def myOnPublishCallback():
   print("Published data Successfully: ")
   print(myData)
success=client.publishEvent(eventId="IoTSENSOR",msgFormat="json",data=myData,qos=0,onPublish=myOn
PublishCallback)
   if not success:
      print("Not Connected to IOT")
   time.sleep(5)
   client.commandCallback=myCommandCallback

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