FINALCODE

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PROJECTNAME:IOTBasedSmartcropprotectionfor Agriculture

```
import
timeimport
sys
import ibmiotf.application # to install pip install
ibmiotfimportibmiotf.device

#Provide your IBM Watson Device
Credentialsorganization = "hrodmj" #replace the ORG
IDdeviceType = "NODEMCU1"#replace the Device type
wideviceId="12345"#replaceDeviceID
authMethod="token"
authToken="kp1234"#Replacetheauthtoken

def myCommandCallback(cmd): # function for
    Callbackprint("Commandreceived:%s"%cmd.data)
    if
        cmd.data['command']=='motoro
        n':print("Motor OnISRECEIVED")

    elif
        cmd.data['command']=='motoroff'
        :print("Motor OffISRECEIVED")

    ifcmd.command=="setInterval":
```

if'interval'notincmd.data:

```
                print("Error - command is missing required information:
            'interval'")else:
                interval =
        cmd.data['interval']elifcmd.command
        =="print":
            if'message'notincmd.data:
                print("Error - command is missing required information:
            'message'")else:
                output=cmd.data['message']
                print(output)
        deviceOptions = {"org": organization, "type": deviceType, "id": deviceId, "auth-
method":authMethod,"auth-token":authToken}
        deviceCli =
        ibmiotf.device.Client(deviceOptions)#.....
        .....
        exceptException ase:
        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"10times
deviceCli.connect()
whileTrue:
        deviceCli.commandCallback =
myCommandCallback#Disconnect the device and
application from the clouddeviceCli.disconnect()
```