

FFETCHING DATA FROM THINGSPEAK CHANNEL USING RASPBERRY PI

(Using MQTT protocol)

This manual is about fetching data from ThingSpeak channel. It is an extension to previous projects. To learn how to connect DHT11 with RaspberryPi and then update ThingSpeak Channel with Temperature and humidity values you can download these projects form the following links:

Connecting DHT11 with Raspberry pi:

<https://github.com/ashishk7/raspberrydht11.git>

Updating Thingspeak Channel with DHT11 sensor values:

<https://github.com/ashishk7/raspberryUpdateData>

1. Installing required libraries

Keeping in mind that you have already installed previous libraries required for this project, you can now install the following library:

First you need to get this “requests” module to be installed on to your board.

pip install requests

2. After that write a simple program of GET request:

```
import requests
data=requests.get('https://api.thingspeak.com/apps/thinghttp/send_request?api_key=JOEIT0XF42Y00RBJ')
print r.data
```

3. Program to fetch values from ThingSpeak Channel

```
import json
import requests
myserverURL =
"https://api.thingspeak.com/channels/573086/feeds.json?api_key=1135FZD12JH7H
P5P&results=1"

data=requests.get(myserverURL)
if data.status_code!=200:
    print("error");
try:
    data=json.loads(data.text)
except:
    data=None;
if data!=None:
    temperature =data["feeds"][0]["field1"]
    humidity  =data["feeds"][0]["field2"]
    print("Temperature = %s    Humidity = %s" % (temperature, humidity))
```

4. Program to fetch values from ThingSpeak Channel in a loop

```
import json
import requests
import time
myserverURL =
"https://api.thingspeak.com/channels/573086/feeds.json?api_key=1135FZD12JH7H
P5P&results=1"
while(True):
    data=requests.get(myserverURL)
    if data.status_code!=200:
        print("error");
    try:
        data=json.loads(data.text)
    except:
        data=None;
    if data!=None:
        temperature =data["feeds"][0]["field1"]
        humidity  =data["feeds"][0]["field2"]
        print("Temperature = %s    Humidity = %s" % (temperature, humidity))
        time.sleep(2)
```