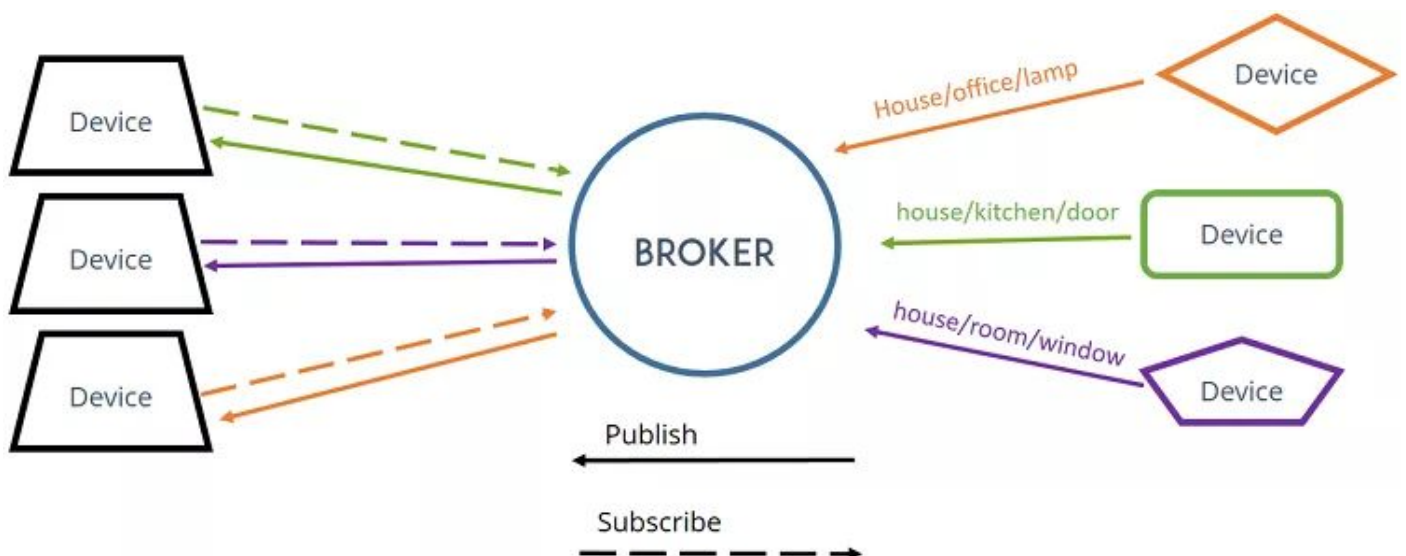# How to Install Mosquitto Broker on Raspberry Pi

This guide explains how to install the Mosquitto Broker for MQTT communication on a Raspberry Pi board.
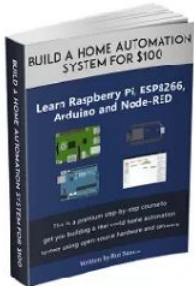
The broker is primarily responsible for **receiving** all messages, **filtering** the messages, **decide** who is interested in it and then **publishing** the message to all subscribed clients.

Prerequisites

Before continuing with this tutorial

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- You should be familiar with the Raspberry Pi board – read Getting Started with Raspberry Pi;
- You should have the Raspbian or Raspbian Lite operating system installed in your Raspberry Pi – read Installing Raspbian Lite, Enabling and Connecting with SSH;
- You also need the following hardware:
  - Raspberry Pi board – read Best Raspberry Pi Starter Kits
  - MicroSD Card – 16GB Class10
  - Raspberry Pi Power Supply (5V 2.5A)

If you like home automation and you want to build a complete home automation system, I recommend downloading my home automation course.

After having your Raspberry Pi board prepared with Raspbian OS, you can continue with this tutorial. Let's install the **Mosquitto Broker**.

Open a new Raspberry Pi terminal window:
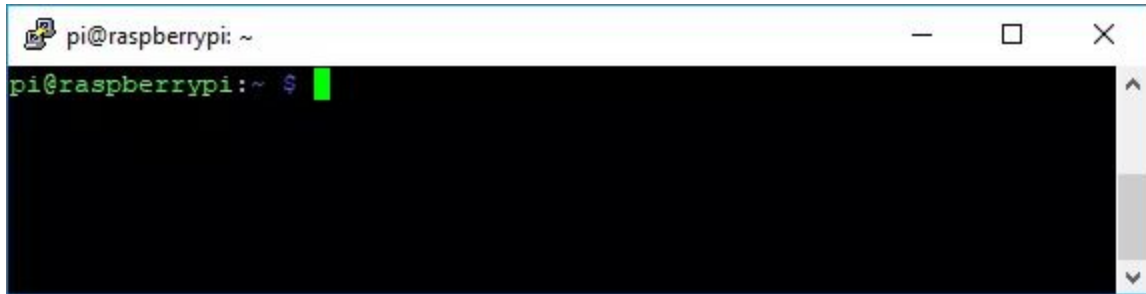
To install the Mosquitto Broker enter these next commands:

```
pi@raspberry:~ $ sudo apt update
pi@raspberry:~ $ sudo apt install -y mosquitto mosquitto-clients
```

You'll have to type **Y** and press **Enter** to confirm the installation. To make Mosquitto auto start on boot up enter:
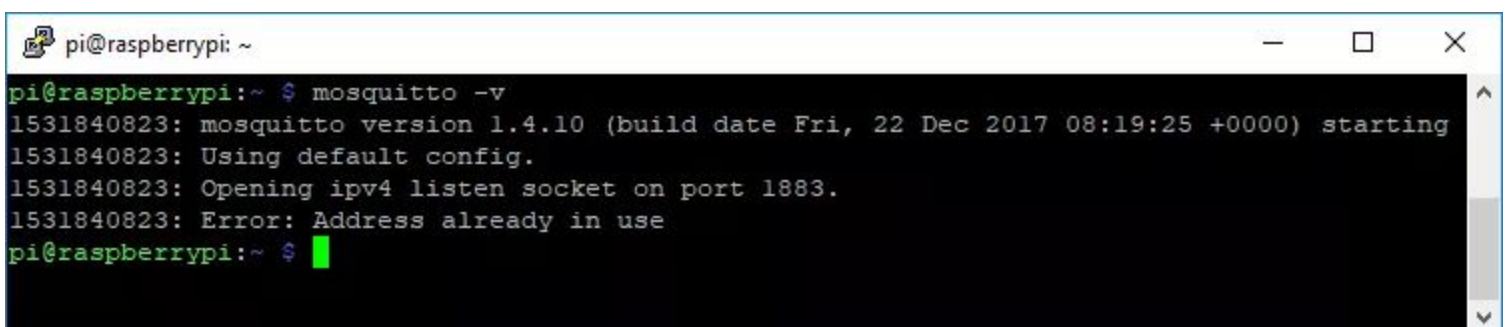
```
pi@raspberry:~ $ sudo systemctl enable mosquitto.service
```
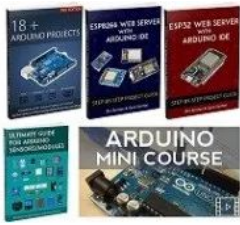
Testing Installation

Send the command:

```
pi@raspberry:~ $ mosquitto -v
```

This returns the Mosquitto version that is currently running in your Raspberry Pi. It should be 1.4.X or above.

already running, so don't worry about that.

Raspberry Pi IP Address

To use Mosquitto broker later on your projects, you'll need your Raspberry Pi IP address. To retrieve your Raspberry Pi IP address, type the next command in your Terminal window:

```
pi@raspberry:~ $ hostname -I
```


In our case, the Raspberry Pi IP address is **192.168.1.144**. Save your Raspberry Pi IP address because you'll need it in future projects.

Testing Mosquitto Broker and MQTT Client

After installing the Mosquitto broker, you should test you installation. You can follow the next tutorial:

- Testing Mosquitto Broker and Client on Raspbbery Pi

Like home automation? Learn more about Node-RED, Raspberry Pi, ESP8266 and Arduino with my course: Build a Home Automation System for $100.

Do you have any questions? Leave a comment down below!

Thanks for reading. If you like this post probably you might like my next ones, so please support me by subscribing my blog.
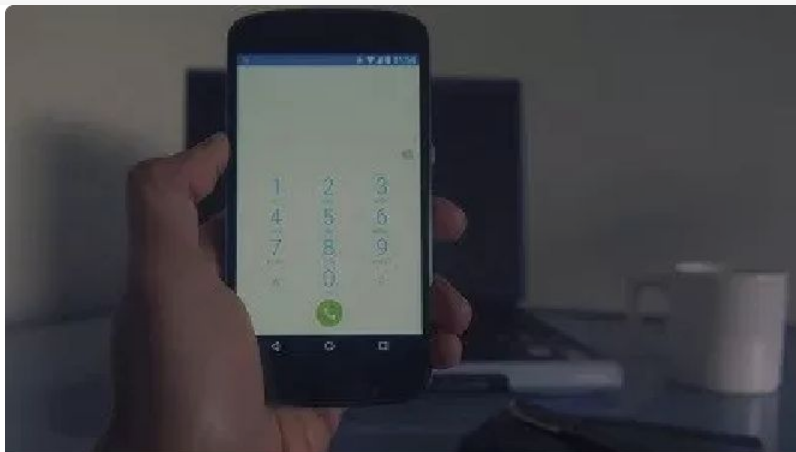
Updated June 4, 2019
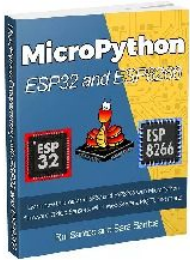
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Learn how to program and build projects with the ESP32 and ESP8266 using MicroPython firmware **DOWNLOAD »**

Recommended Resources

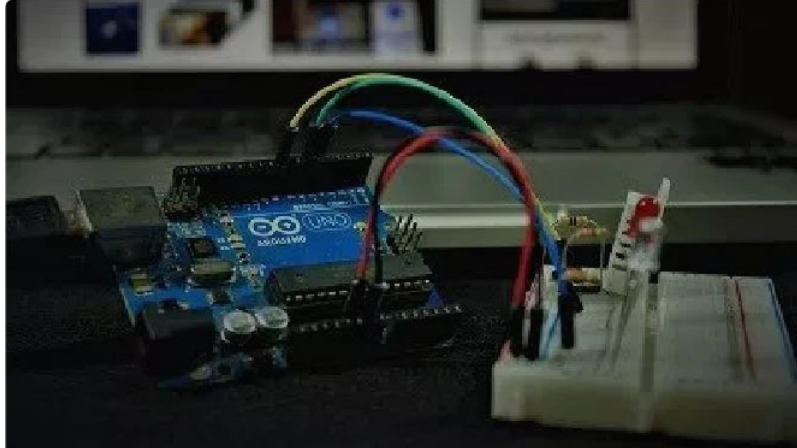**Build a Home Automation System from Scratch »** With Raspberry Pi, ESP8266, Arduino, and Node-RED.

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What to Read Next...

ESP32 with BMP180 Barometric Sensor – Guide

[Visualize Your Sensor Readings from Anywhere in the World (ESP32/ESP8266 + MySQL + PHP)](#)

[Install uPyCraft IDE – Mac OS X Instructions](#)

[Decoding and Encoding JSON with Arduino or ESP8266](#)

[Power ESP8266 with Mains Voltage using Hi-Link HLK-PM03 Converter](#)

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10 thoughts on "How to Install Mosquitto Broker on Raspberry Pi"

Rosen Georgiev
March 6, 2017 at 11:27 am | Reply

One of the best and clear tutorial I ever seen.
I will be very much appreciated if you upgrade this tutorial to setup Mosquito server running on Raspberry Pi with TLS security connection and CA key(port 8883).
Everything else is compromise. Specially when the raspberry is open to the Wide WEB.
There is a lot post about that, but I did`t find good enough to work out of the box.
Thank you and keep going
Rosen

Rui Santos
March 31, 2017 at 9:59 am | Reply

Thanks for the suggestion Rosen!

Prasanna K

May 11, 2017 at 2:45 pm | Reply

Hi Rui, I'm getting "1494513510: Error: Address already in use" message al of a sudden, it was all running ok, any help on what's happening....thank you!

Prasanna K

May 11, 2017 at 3:45 pm | Reply

Hi Rui,

Thanks. I found my mistake, it was the mqtt server ip that was not updated right in esp8266 client side code. Thanks for your tutorial (got some time for myself to follow your home automation course book).

ibobinator

January 24, 2018 at 2:21 am | Reply

This doesn't seem to work with Stretch. Is there an update to this instruction set? "The following packages have unmet dependencies: . . ."

Sara Santos

January 24, 2018 at 6:49 pm | Reply

These instructions work.
I followed this installation procedure three weeks ago and it worked on a fresh

You might have the Mosquitto software repositories outdated, which results in that exact problem. (You need to remove the repositories)
Starting with a new installation and only following these instructions should install Mosquitto successfully.
I hope this helps.

ibobinator
January 24, 2018 at 8:55 pm | Reply

YES! Thanks. That worked.

ibobinator
January 25, 2018 at 12:25 am | Reply

This also worked for me when I did a fresh install of the full version of stretch. I need the full version so that I can do some real time data analysis with the spreadsheet.

Alexis
September 23, 2018 at 4:35 pm | Reply
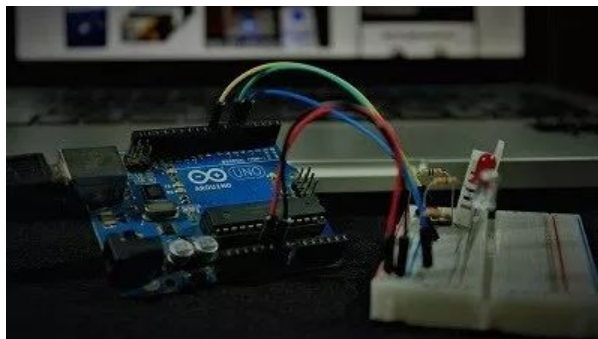
It works on RbPi3B+? im running stretch

Sara Santos
September 24, 2018 at 8:53 am | Reply

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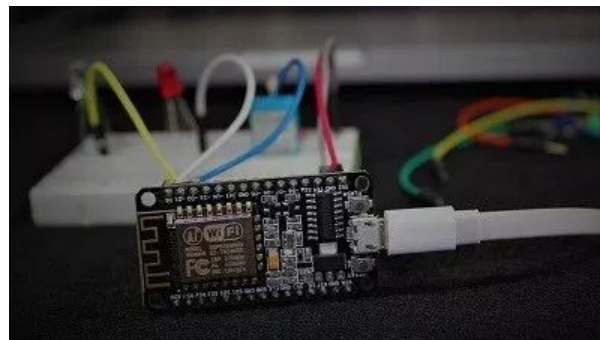
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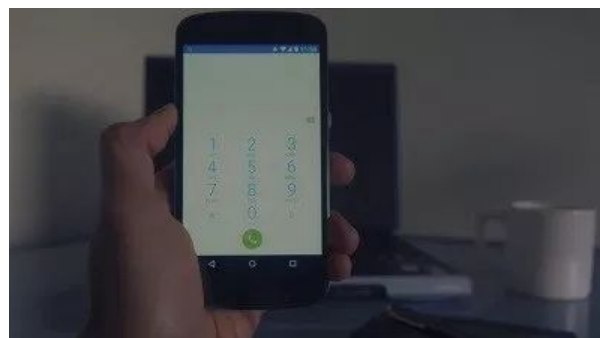Post Comment

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