

# How to turn a Raspberry Pi into a home automation panel

In this tutorial, you'll learn how to set up Domoticz, a powerful home automation control panel, on the Raspberry Pi to track, configure, and interact with various smart devices scattered throughout the home.

Do you want to access and control all your smart devices from one location? In this tutorial, you'll learn how to set up Domoticz, a powerful home automation control panel, on the Raspberry Pi to track, configure, and interact with various smart devices scattered throughout the home.

Using Domoticz, you can read and write data from physical smart home sensors and access data from popular virtual services, like the Open Weather Map.

## What to prepare

To complete this tutorial, you will need:

1. Raspberry Pi runs Raspberry Pi OS
2. The power cable is compatible with the Raspberry Pi model
3. External keyboard and how to attach it to a Raspberry Pi
4. External screen
5. HDMI or micro HDMI cables, depending on the Raspberry Pi model
6. Mouse or trackpad (optional)

When you have all the tools, you are ready to install Domoticz's home automation system.

## Updated Raspberry Pi

Attach an external keyboard, monitor, mouse, and any other peripheral device to the Raspberry Pi, then plug the Pi into a power source.

Before you begin, you should check that your Raspberry Pi is fully updated. On the Raspberry Pi, launch Terminal and run the following command:

```
sudo apt update && sudo apt -y upgrade
```

If the Raspberry Pi installs any updates, then you should restart the Pi:

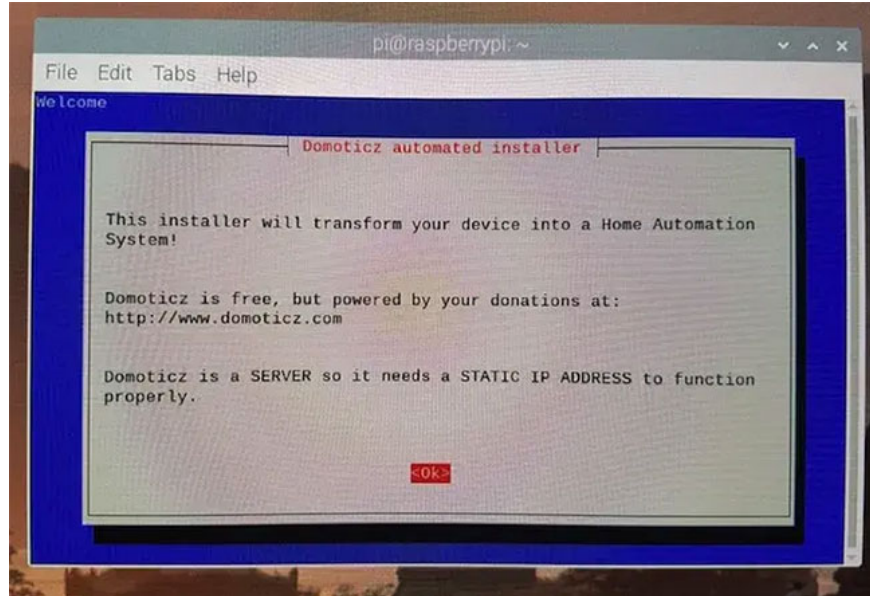
```
reboot
```

# Install home automation hub Domoticz

To run the Domoticz installation script, enter the following command in Terminal:

```
curl -L https://install.domoticz.com | bash
```

Read the information on the screen and if you agree, press the key `Enter` on the keyboard.



Read the information on the screen and press `Enter`

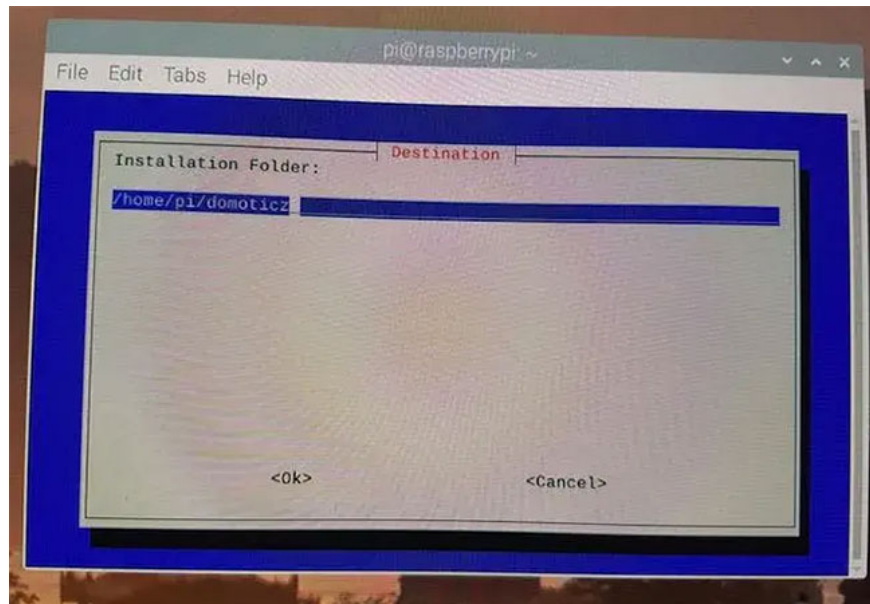
You now have the option to disable HTTP or HTTPS. HTTPS is much more secure than HTTP, so you may want to consider disabling access via HTTP. You can move between these options with the arrow keys on your keyboard, then turn on and off HTTP / HTTPS with spaces.

If you have HTTP enabled, then Domoticz will ask which port you want to use for your HTTP connections (the default port is 8080). Assuming that you want to use this port, press the key `Enter`.

Domoticz will ask which port you want to use for HTTPS (the default port is 443). If you are satisfied with sticking to the default option, press `Enter` to move to the next screen.

Next, you will need to select an installation directory for Domoticz. By default, the installation script will automatically install Domoticz to the home directory, but you can choose a different directory if needed.

You can install Domoticz to any folder on your Raspberry Pi.



You can install Domoticz to any folder on your Raspberry Pi  
After installation, reboot the Raspberry Pi.

## Access the Domoticz dashboard

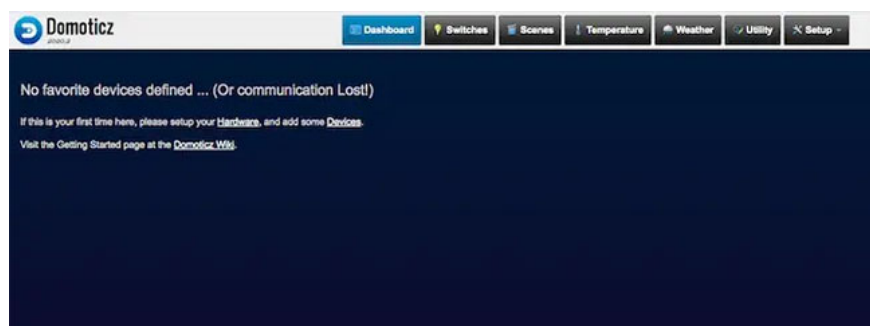
To access the Domoticz control panel, you will need to know the local IP address of the Raspberry Pi. If you don't know, open Terminal on Raspberry Pi and run the following command:

```
hostname -I
```

The terminal will display your Raspberry Pi IP address.

In the address bar of the web browser, enter the IP address of the Raspberry Pi plus the port configured to use HTTP or HTTPS. For example, if you have HTTP enabled and use the default port (8080), you can access Domoticz at the following URL:

<https://raspberrypi-ip:8080>



Access the Domoticz dashboard  
You will now have access to the Domoticz web interface.

# Add device

Now you can add all the smart home devices, sensors, applications, services, and technologies you want to monitor and control from the Domoticz dashboard. The process will vary depending on the hardware or software you are trying to add, and this tutorial will show you how to add Open Weather Map to the Domoticz dashboard, as you can create the required API key as long as charge.

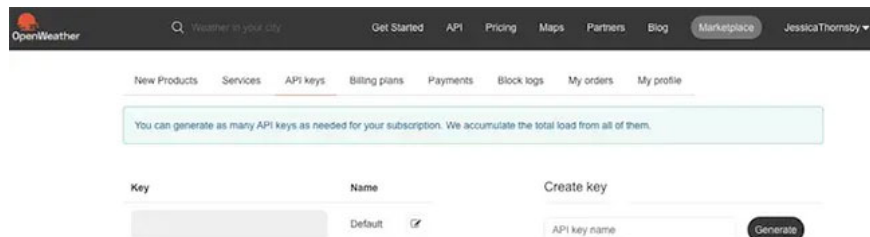
Open Weather Map provides weather data for over 200,000 cities around the world, including wind speed, temperature and humidity. To access this data, you will need to create an Open Weather Map account and create an API key:

1. Visit the Open Weather Map website and sign up for a free account.

[https://home.openweathermap.org/users/sign\\_up](https://home.openweathermap.org/users/sign_up)

2. Once you are logged into your Open Weather Map account, select your username in the upper right corner.

3. Select the **API keys** tab .



Select the API keys tab

4. In the **Create Key** box , enter a name for the key and click **Generate**.

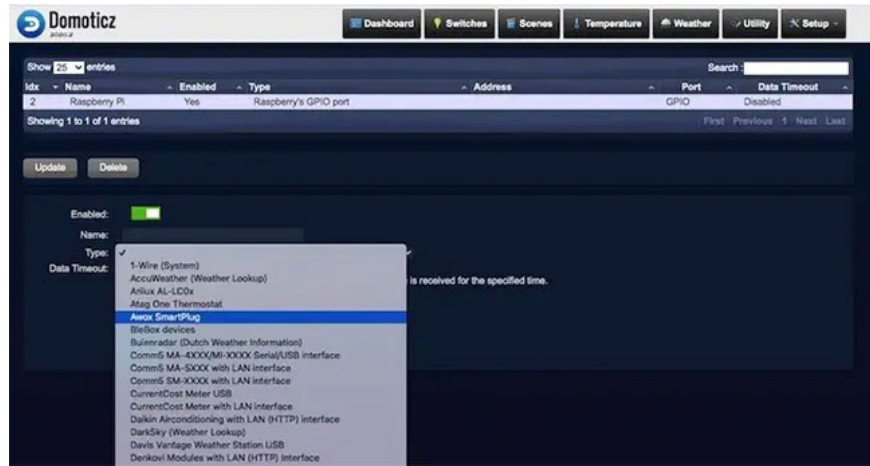
5. Open Weather Map will now create API keys that you can add to the Domoticz dashboard.

To add Open Weather Map as a service:

6. Open the Domoticz control panel. In the menu bar, choose **Setup> Hardware** .

7. Click **Add**.

8. Open the **Type** drop-down menu . Now you can see all the smart devices, applications and services that Domoticz supports. Select **Open Weather Map** .



Select Open Weather Map

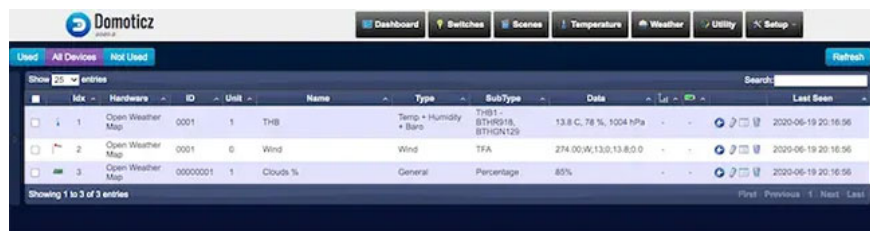
9. In the **Name** field , give the service a name.

10. In the **API key** , enter the Open Weather Map API key you just created.

11. In **Location** , enter the location you want to track. Note that while Domoticz accepts location data in a number of formats, including latitude and longitude, the author only succeeds in entering the name of the nearest city.

12. When you are satisfied with the information you have entered, click **Add**.

13. Assuming that Domoticz successfully connects to the hardware, service or application you just added, it will create one or more devices. To view these devices, navigate to **Setup> Devices** . Open Weather Map is listed as an available device.



Open Weather Map is listed as an available device

14. Select the **Add device** icon .

15. In the pop-up window that appears, give this device a name.

16. Click **Add device**.

17. On the toolbar, select the **Weather** button - you will see all Open Weather Map data for the location you have chosen.



On the toolbar, select the Weather button

If you want this information to appear on the main Domoticz dashboard, click on the small star icon. Now, if you select the **Dashboard** tab , you will see that the weather information is listed on the main Domoticz dashboard.

The process of adding all your smart home devices, applications and services to Domoticz will be different, but as a general rule, you will need to repeat the process of adding this item as a hardware component ( **Setup > Hardware** ) and then add it as a device ( **Setup> Device** ).

Each device and service you add to Domoticz will have its own settings, allowing you to create some unique and interesting home automation effects.

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