Installation and Configuration Guide

Raspberry Pi 3 model B

# Download SD Card Formatter

In order to use a Raspberry Pi, an SD Card is required to store the operating system and data. The first thing we need to do with an SD Card is to format the card using an Advanced SD Formatter. The default operating system formatters are not optimized for SD/SDHC/SDXC Cards and it may result in lower performance.

## Step 1:

Go to <https://www.sdcard.org/downloads/formatter_4/>

A screenshot of a computer screen

Description generated with very high confidence

## Step 2:

Click on SD Memory Formatter for Windows Download if you are using Windows.

A screenshot of a computer screen

Description generated with very high confidence

## Step 3:

Accept the terms and conditions.

A screenshot of a computer screen

Description generated with very high confidence

## Step 4:

Click ‘save file’ to download the file and then locate the downloaded file and run it in order to install.

A screenshot of a computer screen

Description generated with very high confidence

## Step 5:

Once it is installed, run the file. Insert an SD card and select the SD card drive. Then toggle quick format and click format as shown below:

A screenshot of a cell phone

Description generated with very high confidence

# Download NOOBS

**NOOBS** is an easy operating system installer which contains [Raspbian](https://www.raspberrypi.org/downloads/raspbian/), the official operating system for **all** models of the Raspberry Pi. It also provides a selection of alternative operating systems which are then downloaded from the internet and installed.

## Step 1:

Once the SD card is formatted, go to <https://www.raspberrypi.org/downloads/> and click on the NOOBS to download the ZIP package.

A screenshot of a cell phone

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## Step 2:

Locate the downloaded ZIP package, right click on it and Extract All..

A screenshot of a cell phone

Description generated with very high confidence

## Step 3:

It will then ask you where to extract the ZIP package. Click on ‘browse..’ button and select the SD Card drive directory to extract NOOBS onto the SD Card.

A screenshot of a social media post

Description generated with very high confidence

## Step 4:

Safely remove the SD card from laptop and insert into the Raspberry Pi. Power on the Raspberry Pi and connect it up to a television or monitor using the HDMI cable.

# Install Raspbian Operating System

Raspbian is the official operating system used on all Raspberry Pi models.

## Step 1:

Connect a mouse to the Raspberry Pi and tick the box for Raspbian. Then click ‘Install’ at the top to install Raspbian. The installation will take roughly 40 to 50 minutes.

A screenshot of a cell phone

Description generated with very high confidence

# Connect Raspberry Pi to laptop via Ethernet cable

Power on the Raspberry Pi and Laptop. Then connect a Ethernet cable to both devices. On the laptop, open up a command terminal and enter the following:

Ping -4 raspberrypi.local

This command will get the IP address of the raspberry pi.

Next, we need to download PUTTY to ssh into the raspberry pi. Download and install PUTTY:

<https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html>

Then open up PUTTY and do the following:

1. Enter the IP address of the Raspberry Pi here:

A screenshot of a cell phone

Description generated with very high confidence

1. Under Connection type, click SSH and then click open

A screenshot of a cell phone

Description generated with very high confidence

A new terminal will open up that will be connected to Raspberry Pi terminal.

The default login is “pi” and the password is “raspberry”. Press enter and you are logged into the raspberry pi console.

A picture containing object

Description generated with high confidence

Enter the following to open up Raspberry Pi settings:

A close up of a logo

Description generated with very high confidence

# Download VNC

<https://www.realvnc.com/en/connect/download/viewer/>