

# To set up your Raspberry Pi you will need:

	Item	Minimum recommended specification & notes
1	SD card	<ul style="list-style-type: none"><li>Minimum size 4Gb; class 4 (the <i>class</i> indicates how fast the card is).</li><li>We recommend using branded SD cards as they are more reliable.</li></ul>
2a	HDMI to HDMI / DVI lead	<ul style="list-style-type: none"><li>HDMI to HDMI lead (for HD TVs and monitors with HDMI input).</li></ul> <b>OR</b> <ul style="list-style-type: none"><li>HDMI to DVI lead (for monitors with DVI input).</li><li>Leads and adapters are available for few pounds -- there is no need to buy expensive ones!</li></ul>
2b	RCA video lead	<ul style="list-style-type: none"><li>A standard RCA composite video lead to connect to your analogue display if you are not using the HDMI output.</li></ul>
3	Keyboard and mouse	<ul style="list-style-type: none"><li>Any standard USB keyboard and mouse should work.</li><li>Keyboards or mice that take a lot of power from the USB ports, however, may need a powered USB hub. This may include some wireless devices.</li></ul>
4	Ethernet (network) cable [optional]	<ul style="list-style-type: none"><li>Networking is optional, although it makes updating and getting new software for your Raspberry Pi much easier.</li></ul>
5	Power adapter	<ul style="list-style-type: none"><li>A good quality, micro USB power supply that can provide at least <b>700mA at 5V</b> is essential.</li><li>Many mobile phone chargers are suitable—check the label on the plug.</li><li>If your supply provides less than 5V then your Raspberry Pi may not work at all, or it may behave erratically. Be wary of very cheap chargers: some are not what they claim to be.</li><li>It does not matter if your supply is rated at <i>more</i> than 700mA.</li></ul>
6	Audio lead [optional]	<ul style="list-style-type: none"><li>If you are using HDMI then you will get digital audio via this.</li><li>If you are using the analogue RCA connection, stereo audio is available from the 3.5mm jack next to the RCA connector.</li></ul>

## Know your leads:



HDMI connector



HDMI to DVI lead



RCA composite video connector

# Preparing your SD card for the Raspberry Pi

The SD card contains the Raspberry Pi's operating system (the OS is the software that makes it work, like Windows on a PC or OSX on a Mac). This is very different from most computers and it is what many people find the most daunting part of setting up their Raspberry Pi. It is actually very straightforward—just different!

The following instructions are for Windows users. Linux and Mac users can find instructions at [www.raspberrypi.org/downloads](http://www.raspberrypi.org/downloads)

## 1. Download the Raspberry Pi operating system

The recommended OS is called *Raspbian*. Download it here:

<http://downloads.raspberrypi.org/images/raspbian/2012-12-16-wheezy-raspbian/2012-12-16-wheezy-raspbian.zip>

## 2. Unzip the file that you just downloaded

- Right click on the file and choose “Extract all”.
- Follow the instructions—you will end up with a file ending in *.img*

This *.img* file can only be written to your SD card by special disk imaging software, so...

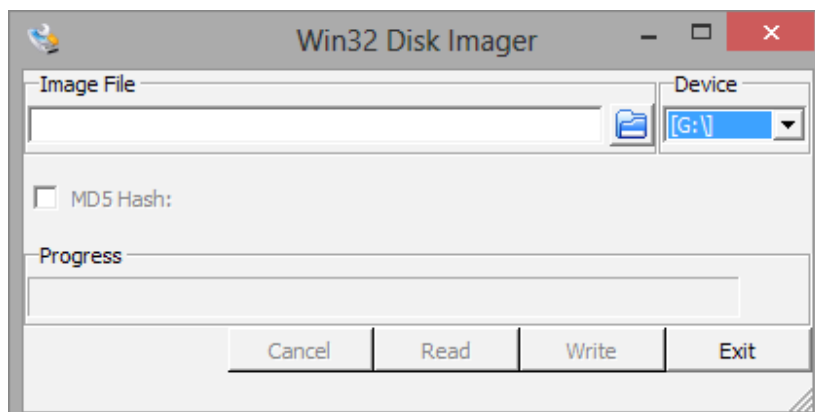
## 3. Download the Win32DiskImager software

- Download *win32diskimager-binary.zip* (currently version 0.6) from:  
<https://launchpad.net/win32-image-writer/+download>
- Unzip it in the same way you did the Raspbian *.zip* file
- You now have a new folder called *win32diskimager-binary*

You are now ready to write the Raspbian image to your SD card.

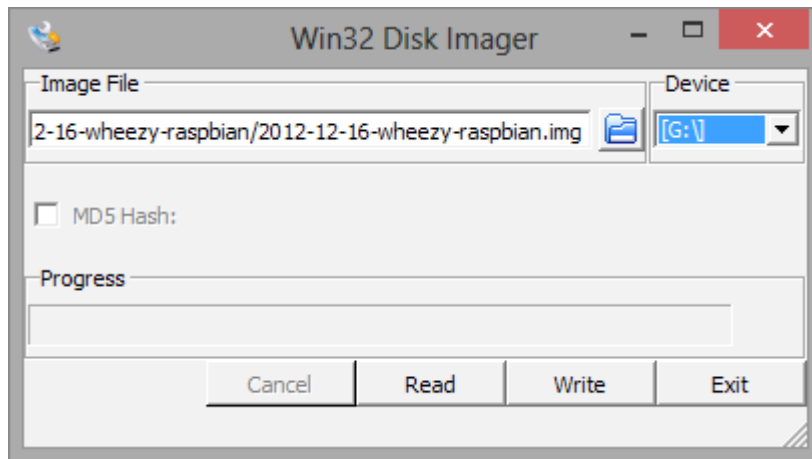
## 4. Writing Raspbian to the SD card

- Plug your SD card into your PC
- In the folder you made in step 3(b), run the file named *Win32DiskImager.exe* (in Windows Vista, 7 and 8 we recommend that you right-click this file and choose “Run as administrator”). You will see something like this:



- If the SD card (*Device*) you are using isn't found automatically then click on the drop down box and select it

- d) In the *Image File* box, choose the Raspbian *.img* file that you downloaded



- e) Click *Write*  
f) After a few minutes you will have an SD card that you can use in your Raspberry Pi

## 5. Booting your Raspberry Pi for the first time

- a) Follow the *Quick start* guide on page 1
- b) On first boot you will come to the `Raspi-config` window
- c) Change settings such as `timezone` and `locale` if you want
- d) Finally, select the second choice:  
`expand_rootfs`  
and say 'yes' to a reboot
- e) The Raspberry Pi will reboot and you will see **raspberrypi login:**
- f) Type:  
**pi**
- g) You will be asked for your **Password**
- h) Type:  
**raspberry**
- i) You will then see the prompt:  
**pi@raspberry ~ \$**
- j) Start the desktop by typing:  
**startx**
- k) You will find yourself in a familiar-but-different desktop environment.
- l) Experiment, explore and have fun!

For more details and where to go next visit [www.raspberrypi.org](http://www.raspberrypi.org) and the forums at [www.raspberrypi.org/phpBB3](http://www.raspberrypi.org/phpBB3)

The latest version of Raspbian can always be found at [www.raspberrypi.org/downloads](http://www.raspberrypi.org/downloads)