

# Flash a SD Card

TimeSquAir can be updated by flashing a new SDCard.



If upgrading, don't forget to **backup your data** first!

Two steps:

\*\* Get the binay file of the SDCard \*\* Unzip and write this file to a SDCard

## Necessary tools

Some tools are needed:

- A micro-SD card. On the Raspberry Pi computer, all the software is on a micro-SD Card. Thus the first step is to write the firmware (the software of the device) to the SD card.
- A Windows or Macintosh computer (with a SD port to access the SD card)
- The firmware you can download for free from the website,
- A particular application for the computer to write the downloaded firmware on the SDCard.

## Buy a micro-SDCard

Choose a 16Gb micro-SDCard like this one:

<https://www.amazon.fr/gp/product/B073K14CVB>



## Download the firmware

The firmware is a very big file (many Gb) that is downloaded from the

cloud and then written on the SDCard that will then be inserted in the Raspberry Pi. As this firmware runs on the Pi, it is the same if you use Windows or Macintosh.

Download the image from the web site:

<http://www.timesquair.io/download.html>.

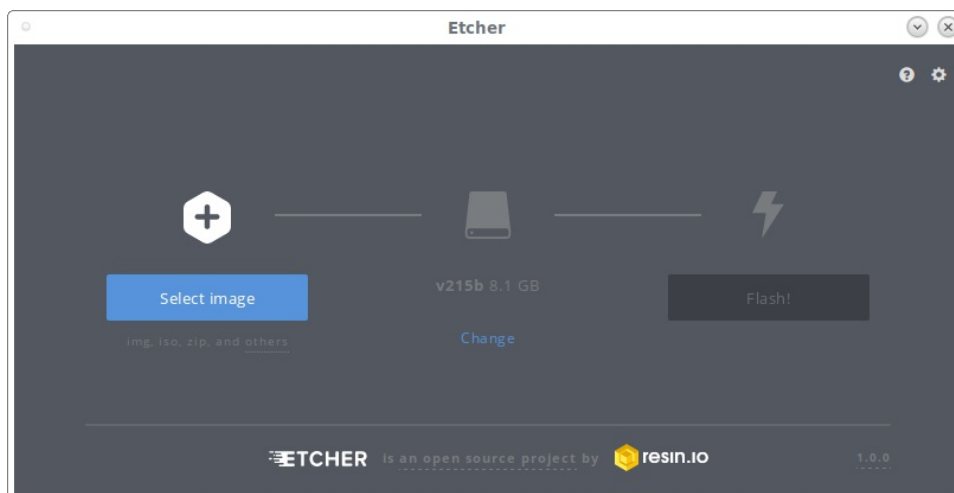
## Unzip it

This part depends on your computer.

## Download the application to write the firmware on the SD card

**Etcher** (<https://etcher.io/>) turns the whole process of flashing an OS image file into three simple steps: Select Image, Select Drive, and Flash Image. More importantly, the same program, with the same interface, is available on all three types of computer – Windows, Mac, and Linux – which makes it easy for everybody to understand.

More in <https://www.raspberrypi.org/magpi/pi-sd-etcher> :



- Download and install Etcher from the website. Double-click the .exe file in Windows and follow the Etcher setup wizard. Drag the Etcher app to your Applications folder on a Mac and double-click to open it. In Windows, run Etcher in Administrator Mode: right-click on Etcher and choose 'Run as administrator'.
- A common mistake is to flash the zip file to the SDCard: it should be unzipped first !!! Extract the content of the firmware from the zip file (It works well with **Bitser** or **WinRAR** on Windows and Stuffit on Mac but other zip software should work
- Click Select Image in Etcher. Use the file manager window and locate the image you unzipped in the previous step. Click Open. The image will appear under Select Image, and

Connect a drive will highlight red.



**Warning** : the SD card will be totally over-written, so this SD card will be used only for the Raspberry Pi. Don't forget to backup your Node-RED files if you update

- Insert your SD card in the computer. Etcher will select it automatically. Etcher won't write to your hard drives by default, but check that the SD card is listed correctly. Now click Flash! to write the image file to the SD card.

Etcher will format the SD card, before writing and verifying the image; this is shown by a progress bar. When done, remove the SD card, insert it into your Raspberry Pi, and power it up.

## Use the SDCard

Insert the SD card in the Raspberry Pi, connect it to the local network and switch it on. It takes about 50s to boot (on a Pi2) but **the first boot can be very long because it expands the SDCard** to use the free part of the SDCard then boot again.



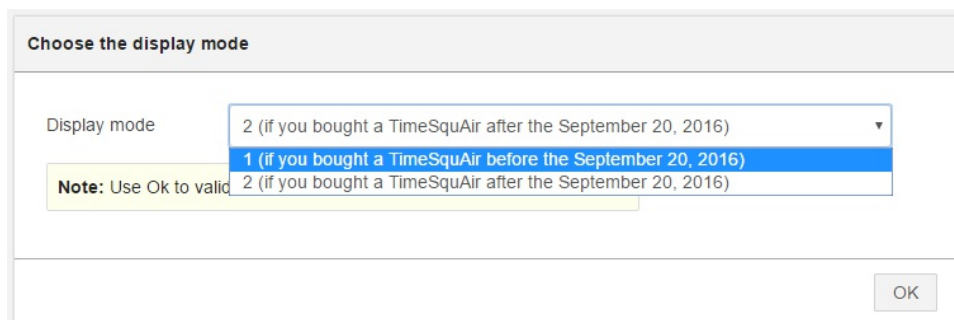
Plug the local network wire BEFORE powering the device.

## Restore your datas

If upgrading, don't forget to put back your userdir into the new SDCard.

## Eventually adapt the LEDMatrix settings

If you bought your TimeSquAir before 20 september 2016, you have to go to the settings page (using the right menu, then settings), and choose the display mode 1:



Choose the display mode

Display mode

2 (if you bought a TimeSquAir after the September 20, 2016)

1 (if you bought a TimeSquAir before the September 20, 2016)

2 (if you bought a TimeSquAir after the September 20, 2016)

Note: Use Ok to valid

OK

