

# Gumstix Raspberry Pi Compute FastFlash

## Tutorial: Flashing Your Disk Image to the Raspberry Pi Compute Module's eMMC

The Gumstix Raspberry Pi Compute FastFlash expansion board allows you to quickly overwrite the CM's embedded storage with a new disk image, or mount the file system to your PC. The process of flashing the Raspberry Pi Compute Module is a bit more involved than writing a disk image to an SD card.

The \$19.00 FastFlash provides a cost-effective solution for deploying Raspberry Pi Compute Modules in your Geppetto boards. The hardware required to include this ability on your board could consume valuable real estate in your design in order to perform a task that need only be done once.

The instructions below are for flashing the Compute Module's eMMC with a Raspbian Linux image that includes support for the Gumstix Pi Compute Dev Board. Complete the steps below and your RPCM will be ready to deploy.

## For Linux users:

The first step is to install the Raspberry Pi's USB Boot tool.

1. Make sure you have **Git** and **libusb** installed
2. Clone the Raspberry Pi Tools repository and go to the **usbboot** directory from the console
  - a. `git clone https://github.com/raspberrypi/tools.git`
  - b. `cd tools/usbboot`
3. Compile the code and install it
  - a. `make`
  - b. `sudo make install`

Once USBboot is installed, it's time to flash your CM.

1. First, download the [disk image](#) from Gumstix and decompress it
2. Meanwhile, connect the Raspberry Pi Compute Module to the FastFlash board's SODIMM connector and the USB cable to your PC, and plug in the board
3. type `sudo rpiboot` to sync with the CM and mount its eMMC to the file system

4. You can now write the disk image to memory. Enter the following command:

```
sudo dd if=/path/to/disk_image.img of=/dev/sdx bs=4MiB
```

where “sdx” is the device name of the CM’s eMMC in the /dev folder.

## For Windows Users

The Raspberry Pi community has provided a [Windows Installer](#)

1. Download and run the installer
2. Download the [disk image](#) from gumstix and decompress it using [7zip](#) or [WinZip](#)
3. Connect CM, USB and power to the FastFlash board
4. run `RPiBoot.exe`. After a moment, the eMMC will appear as a drive in Windows Explorer
5. Using an application like [Win32 Disk Imager](#), write the decompressed disk image to the eMMC drive