

How to transform Raspberry Pi into SNES Classic

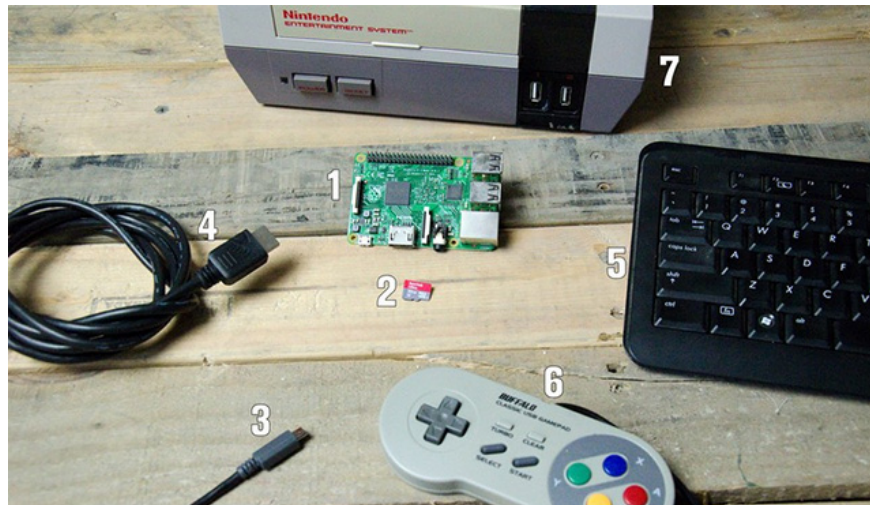
Let's build your own retro gaming space right at home with Raspberry Pi!

For the childhood of many of us Nintendo's gaming devices like SNES or NES Classic are too expensive dreams. Now, when we are fully financially capable, these devices are too old and very difficult to get good ones. But having a ready friend can easily help us relive the beautiful emotions of that childhood - Raspberry Pi.

We can absolutely play every NES, SNES, Master System and TurboGrafx game ever released with Raspberry Pi. These hand-crafted classic gaming machines are really lovely and you can completely own one for yourself.

The following article hopes to help you "manipulate" the classic game simulation system from your own Raspberry Pi.

Necessary tools



1. **A Raspberry Pi** : Raspberry Pi 2-B or Raspberry Pi 3-B . all.The biggest difference between the two is that only 3-B has Wi-Fi integration and 2-B does not.
2. **A Micro SD card** : For me a SanDisk 32GB memory card is enough.Pay attention to avoid using fake and fake cards.
3. **A power supply for your Raspberry Pi** via micro USB port.You can add a power button to turn it on and off more easily.
4. **HDMI cable** to connect to your TV or monitor.
5. **USB keyboard** for use during installation.
6. **USB game controller:** Actually, it is not required, but having the right controller gives you more real feelings when playing.Buffalo Classic is highly appreciated for bringing true feeling to users, you can try

if you have no choice for yourself.

7. **A set of cases to put Raspberry Pi** : We can get an old NES shell as a case to look more 'vintage'. But if you want to save money you can use simple materials and cheaper prices. It is possible to find a classic style case on Amazon, such as the NESPi Retroflag case for only \$ 25 but with both the power button and USB port. If you like the design of SuperNES, you can buy a Kintaro SNES case for just \$ 15. Generally it depends on your preference.

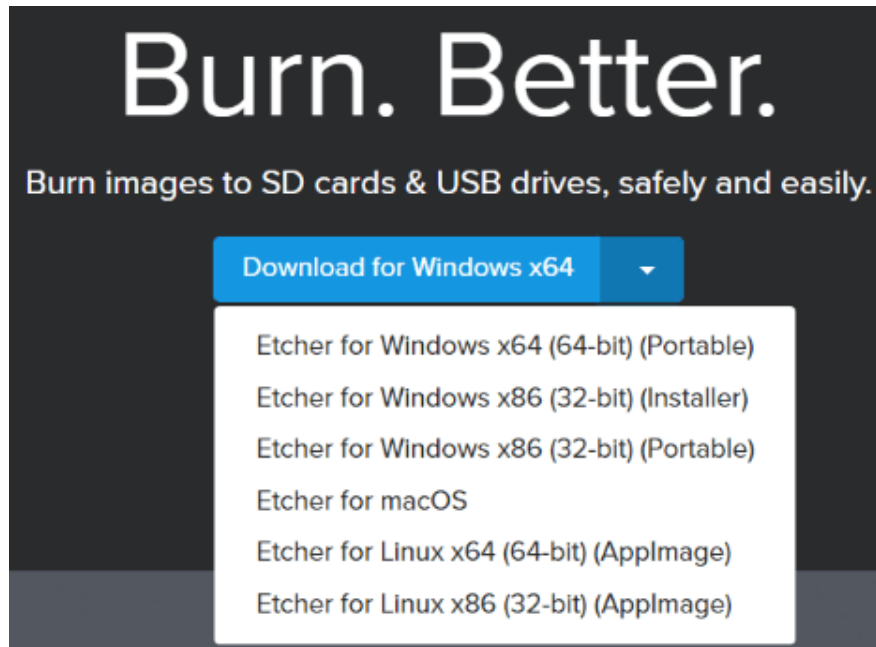


Install images to SD card On computer

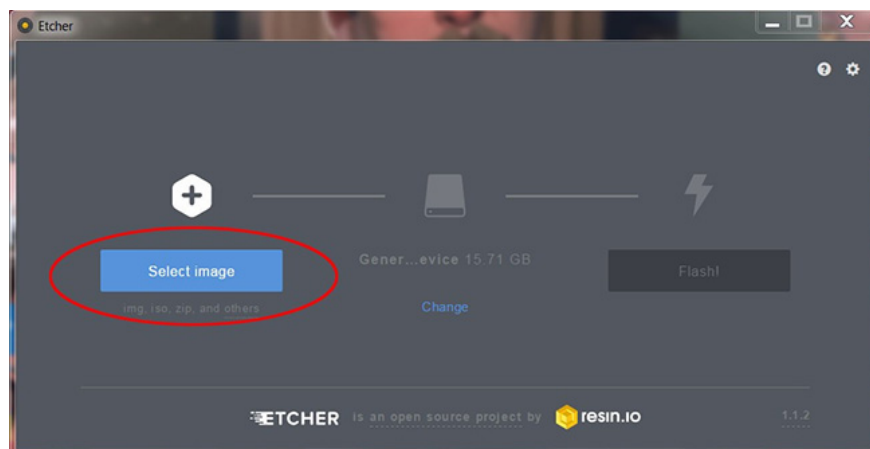
1. Visit <https://retropie.org.uk/download/> and download the image file of "Raspberry Pi 2/3". Be sure to remember where you saved it!



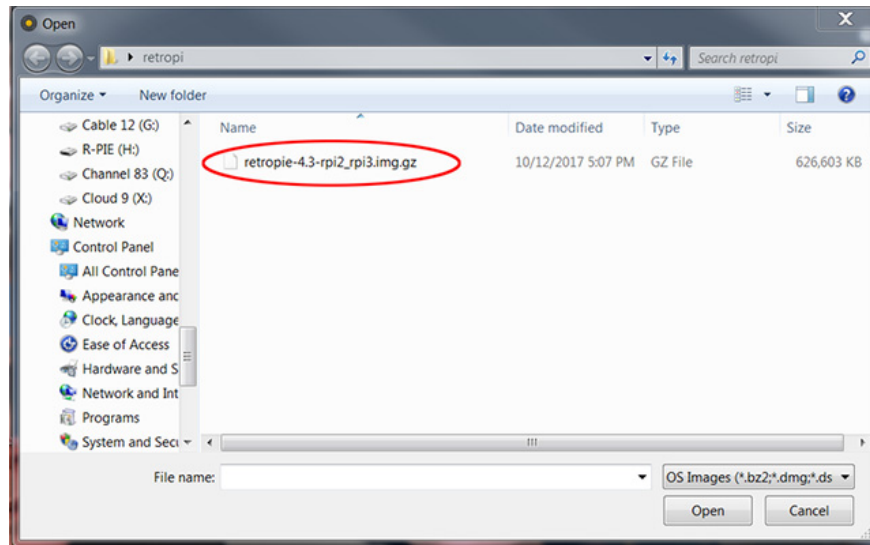
1. Visit <https://etcher.io/> and download the appropriate version for your system, then proceed with the installation. Etcher is quite standard because it gives a simple interface and good compatibility with Windows, Mac and Linux.



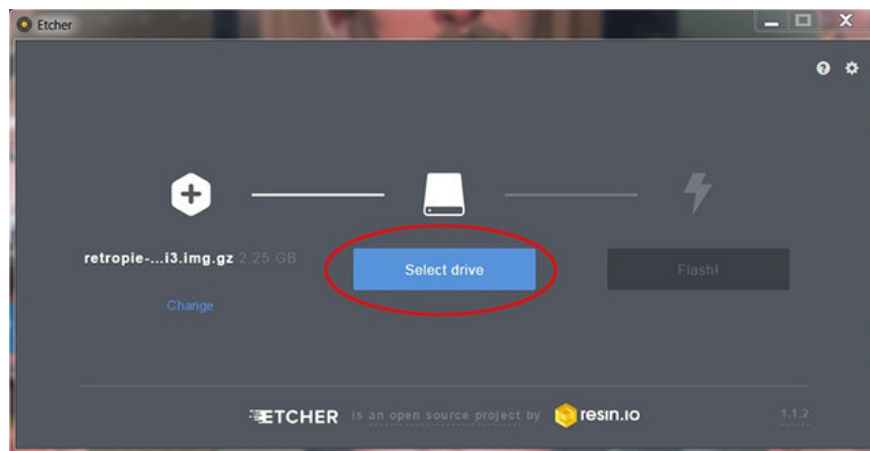
1. Open **Etcher** and click **Select image** .

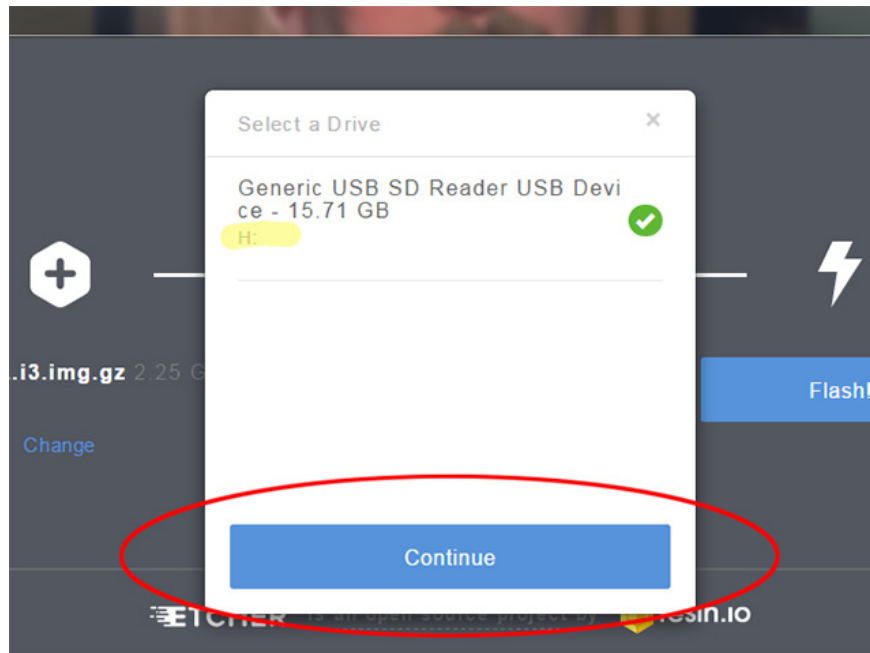


1. Scroll to where you saved the image file of **RetroPie** and select it.

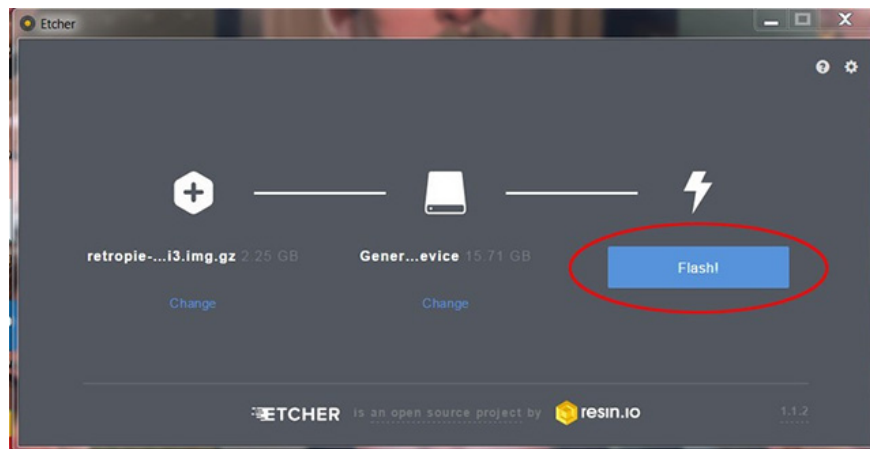


1. Next click **Select drive** .
1. Choose your SD card, make sure you choose the correct drive letter. You will definitely not want to write your operating system drive with the image file of Retropie! Then click **continue**.





1. Click the **flash** button .



It will take a few minutes to process the device, after the process is complete, the SD card is ready to save the game!

On Raspberry Pi: SD is ready to save your game

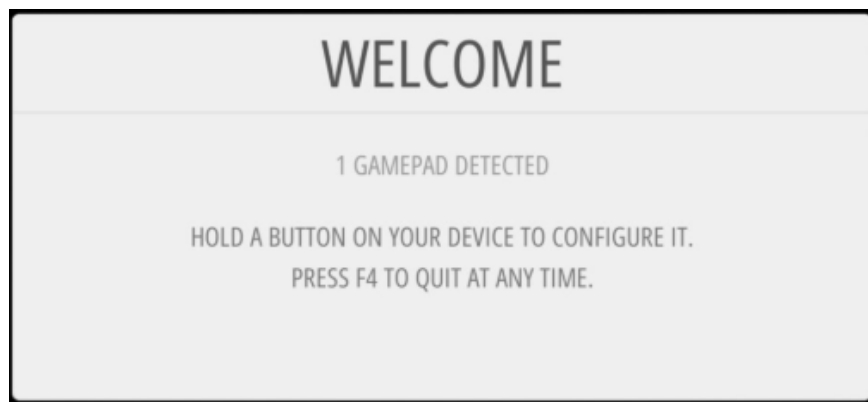
1. Insert a new micro SD card flashed into your Raspberry Pi.
2. Network connection for Raspberry Pi.
3. Plug in your HDMI cable connecting your Raspberry Pi to the TV or monitor.
4. Plug the USB controller into the Raspberry Pi.
5. Finally, supply power to the Raspberry Pi so that it starts up.(Click on image to see more)

```
Starting Remount Root and Kernel File Systems...
[ OK ] Started Remount Root and Kernel File Systems.
Starting Load/Save Random Seed...
[ OK ] Reached target Local File Systems (Pre).
[ OK ] Started Load/Save Random Seed.
[ OK ] Reached target Sound Card.
[ 5.522061] systemd-fsck[2141]: fsck.fat 3.0.27 (2014-11-12)
[ OK ] Started File System Check on /dev/disk/by-partuuid/5728b712-01.
[ 5.542316] systemd-fsck[2141]: 0x25: Dirty bit is set. Fs was not properly unmounted and some data may be corrupt.
[ 5.553909] systemd-fsck[2141]: Automatically removing dirty bit.
[ 5.569555] systemd-fsck[2141]: Performing changes.
[ 5.581941] systemd-fsck[2141]: /dev/mmcblk0p1: 142 files, 10764/29117 clusters
Mounting /boot...
[ OK ] Mounted /boot.
[ OK ] Reached target Local File Systems.
Starting Tell Plymouth To Write Out Runtime Data...
Starting Create Volatile Files and Directories...
Starting LSB: Raise network interfaces...
[ OK ] Reached target Remote File Systems.
Starting Trigger Flushing of Journal to Persistent Storage...
Starting LSB: Switch to ondemand cpu governor (unless shift key is pressed)...
Starting LSB: Prepare console...
[ OK ] Started Tell Plymouth To Write Out Runtime Data.
[ OK ] Started Create Volatile Files and Directories.
[ OK ] Started Trigger Flushing of Journal to Persistent Storage.
Starting Update UTMP about System Boot/Shutdown...
[ OK ] Started Update UTMP about System Boot/Shutdown.
[ OK ] Started LSB: Prepare console.
Starting LSB: Set console font and keymap...
[ OK ] Started LSB: Set console font and keymap.
[ OK ] Started LSB: Raise network interfaces.
[ OK ] Started LSB: Switch to ondemand cpu governor (unless shift key is pressed).
[ OK ] Reached target System Initialization.
[ OK ] Listening on Avahi mDNS/DNS-SD Stack Activation Socket.
[ OK ] Listening on D-Bus System Message Bus Socket.
[ OK ] Reached target Sockets.
[ OK ] Reached target Timers.
[ OK ] Reached target Basic System.
Starting LSB: Apply config from /boot/os_config.json...
Starting LSB: Resize the root filesystem to fill partition...
Starting dhcpd on all interfaces...
Starting Regular background program processing daemon...
[ OK ] Started Regular background program processing daemon.
Starting System Logging Service...
Starting Avahi mDNS/DNS-SD Stack...
Starting Regenerate SSH host keys...
Starting Login Service...
Starting D-Bus System Message Bus...
[ OK ] Started D-Bus System Message Bus.
[ OK ] Started Avahi mDNS/DNS-SD Stack.
Starting LSB: triggerhappy hotkey daemon...
Starting LSB: Autogenerate and use a swap file...
[ OK ] Started System Logging Service.
[ OK ] Started Login Service.
[ OK ] Started LSB: triggerhappy hotkey daemon.
[ ** ] (1 of 5) A start job is running for dhcpd on all interfaces (30s / 1min 33s)_
```





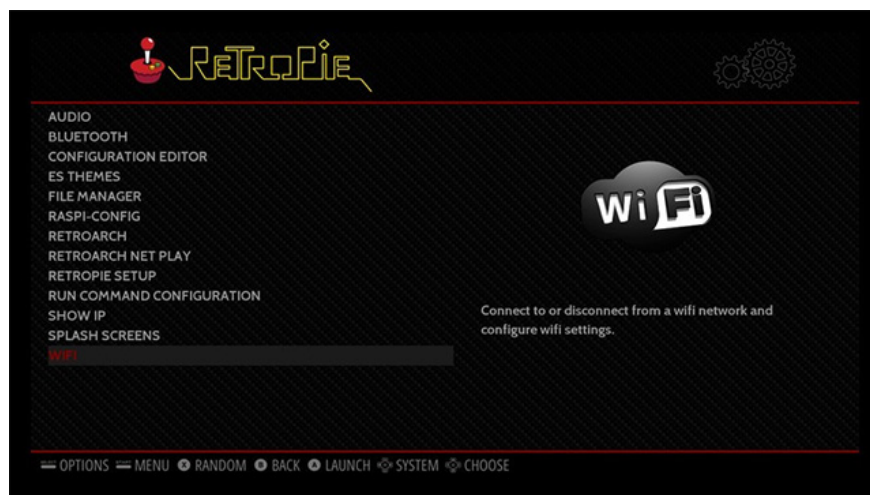
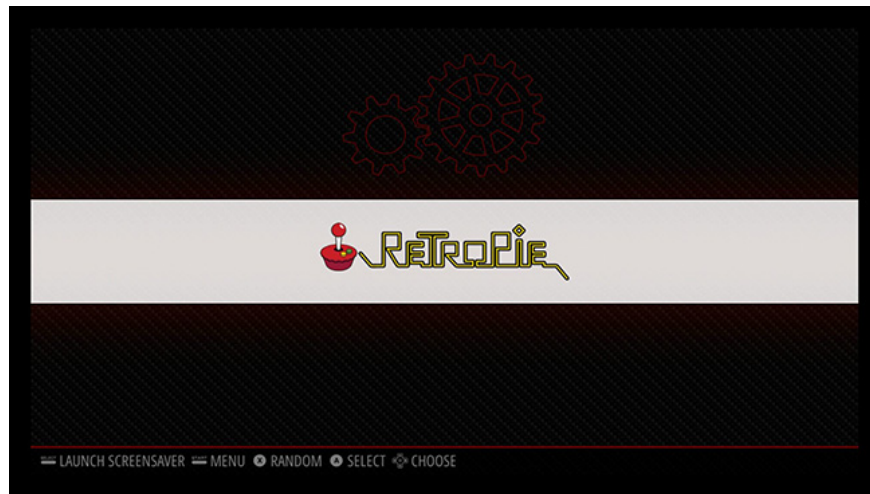
1. Follow the on-screen instructions to configure your USB controller.



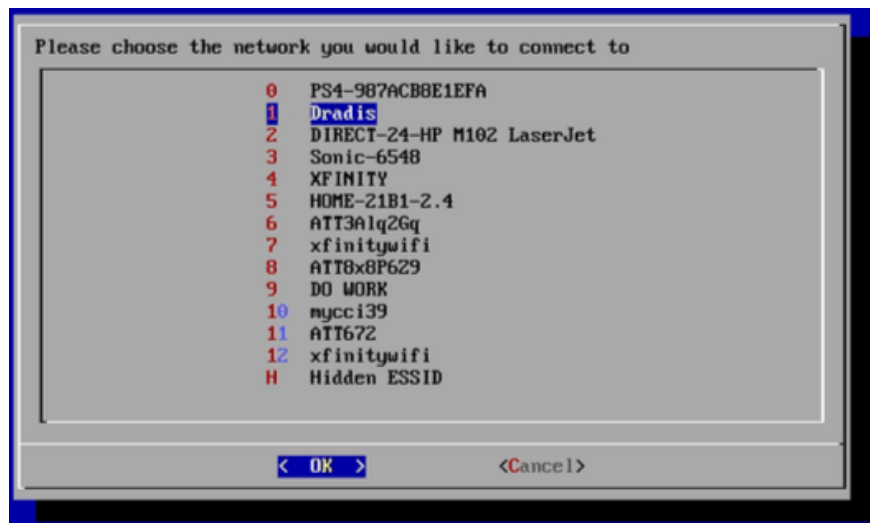
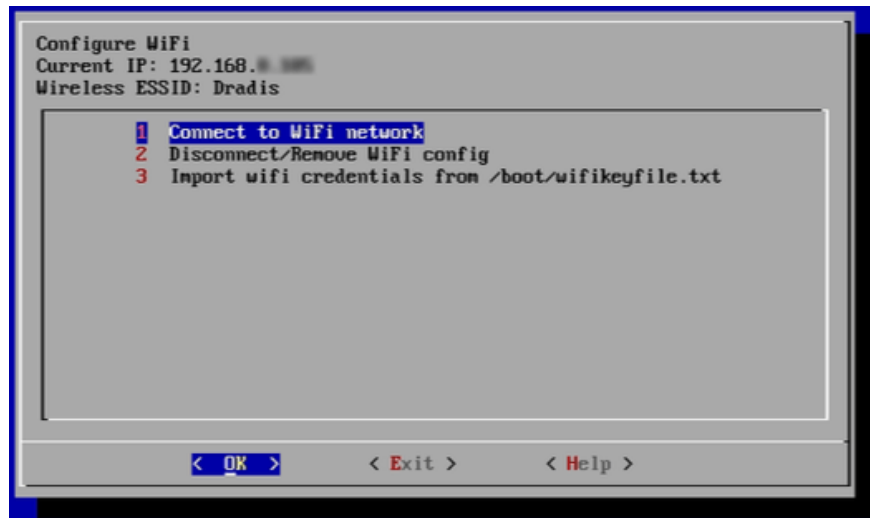
On Raspberry Pi: Set up Wi-Fi connection

If you do not want to connect to the internet via a cable, it is now time to set up WiFi for Raspberry Pi. You will need a USB keyboard to enter the password, so plug in the keyboard prepared into your Raspberry Pi.

1. Scroll to the **Retro Pie** configuration page.
2. Scroll down to the bottom and select the Wi-Fi option.



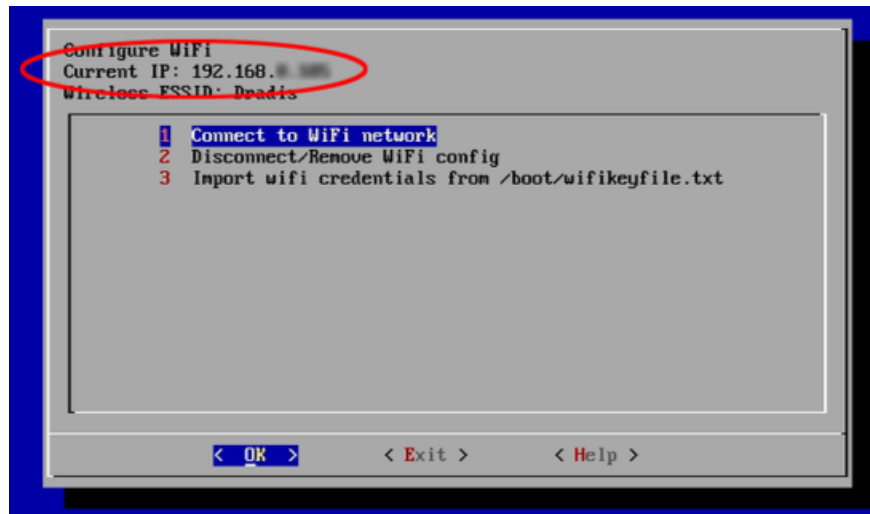
1. Next select **Connect to Wi-Fi Network** and select the **network** you want to connect.



1. You will then be prompted to enter your Wi-Fi password. This is when you will need that keyboard.



1. After you have successfully connected to the Wi-Fi network, remember to record your IP address.



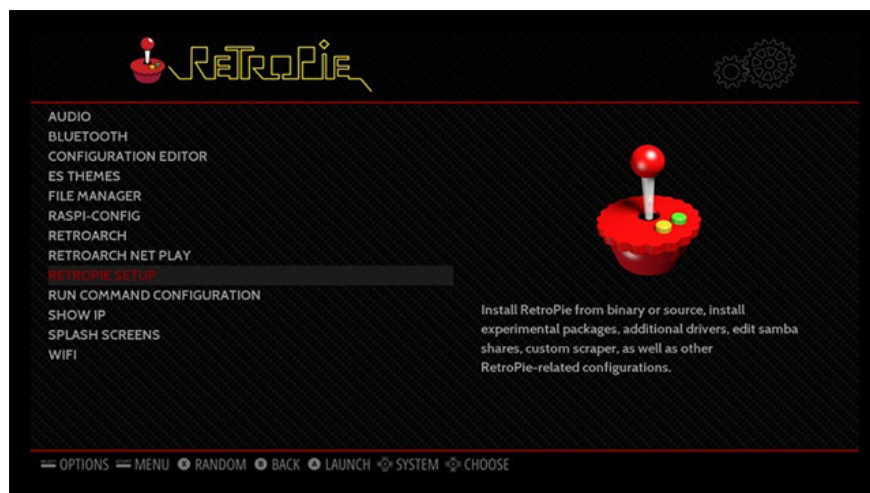
More games

Your new Raspberry Pi / RetroPie system comes with all the emulators you need to install. The emulator uses things called ROMs to boot and play games. So you will have to load up your system all the ROMs you want to play. Now I can't tell you exactly where to download the ROM, but if you only need a little Google search skills, there won't be any big problems.

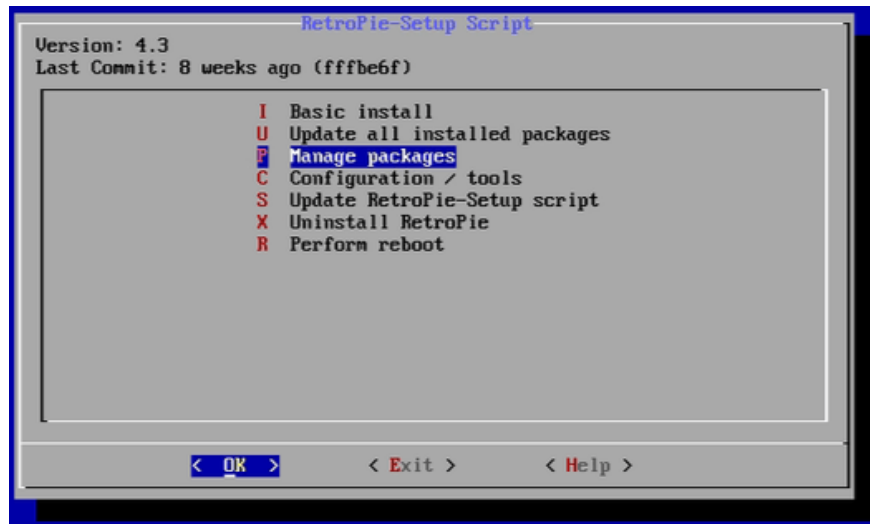
There are several different methods to transfer ROMs to your system. The most commonly used method is to use RetroPie Manager (RetroPie Manager). It allows you to move the ROM directly from the computer you downloaded the ROM to Raspberry Pi with your computer's browser.

On Raspberry Pi: Turn on RetroPie Manager

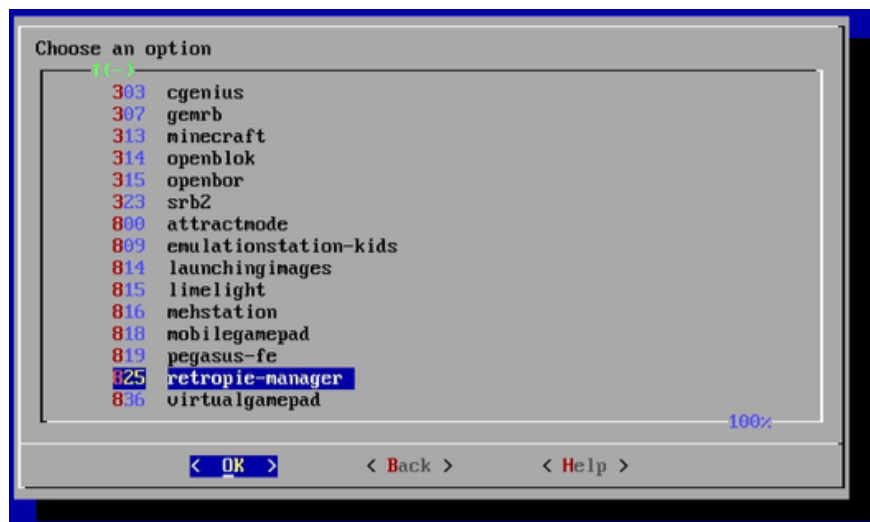
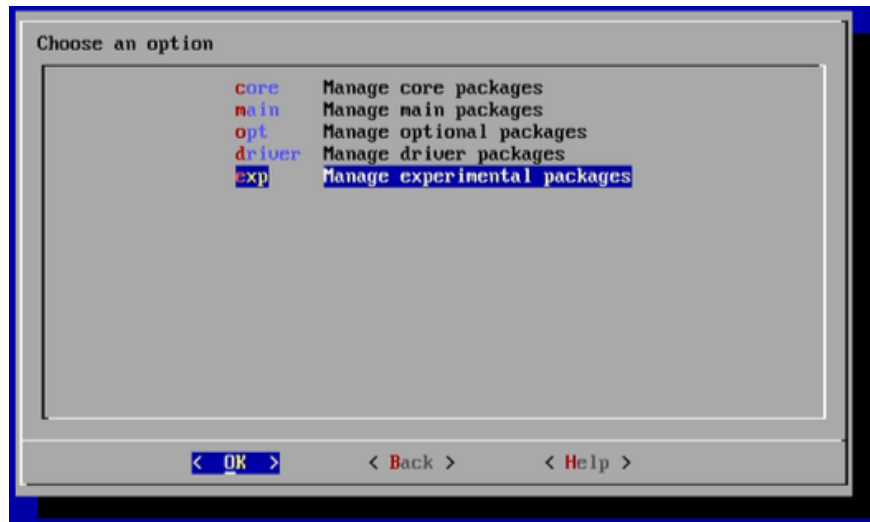
1. Scroll to **the settings menu** on the Raspberry Pi and select **RetroPie Setup**.



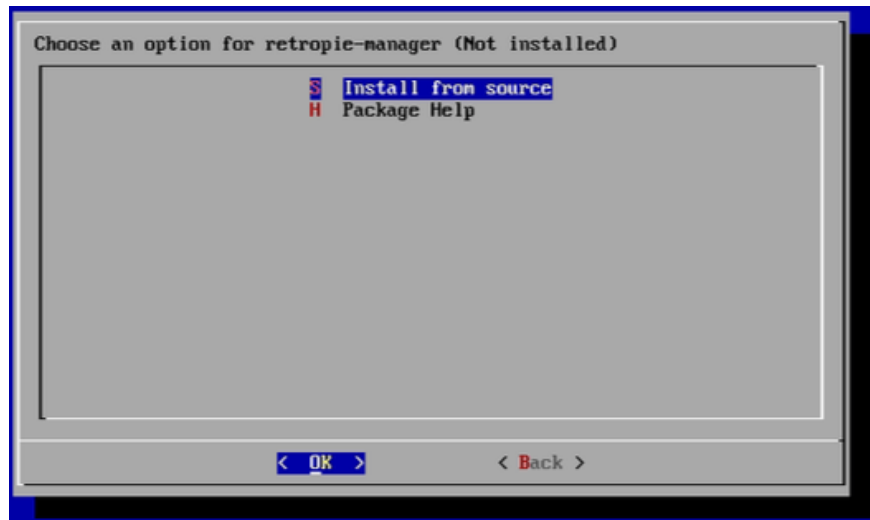
1. Select **Manage Packages**



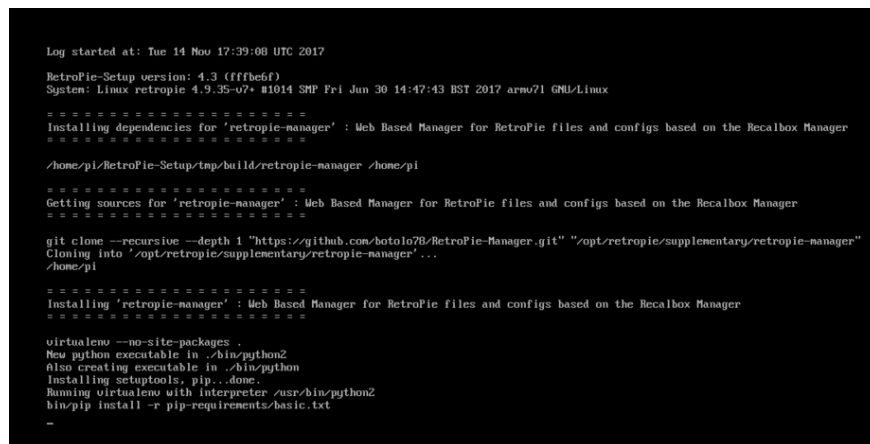
1. Select the **Manage experimental packages** , close the end of the **package** and select **RetroPie manager**.



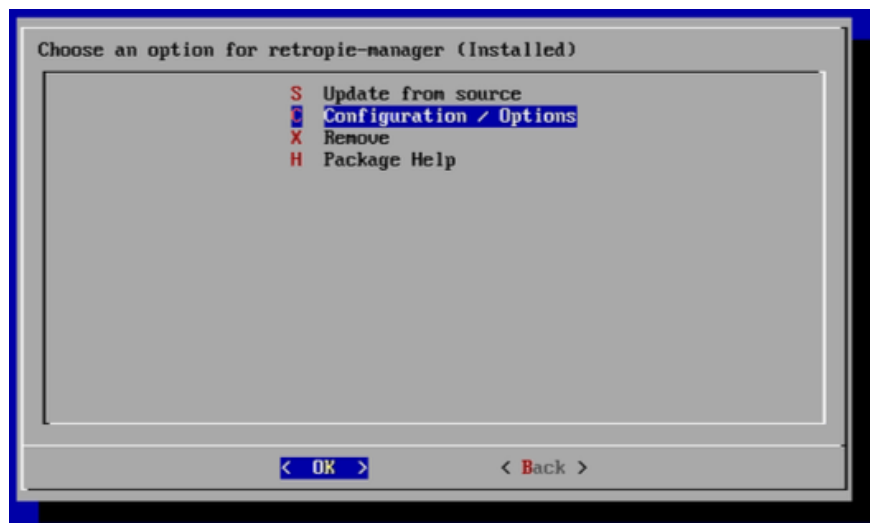
1. Select **Install from source** .



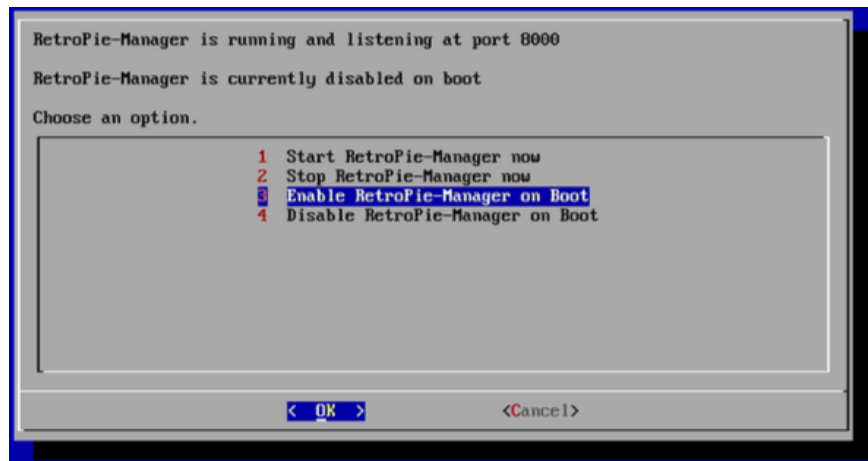
1. Now your system will run a script that automatically downloads and installs the RetroPie manager for you. Click on the image and enlarge the image to see more clearly.



1. Once completed, select **Configuration / Options**.



1. Select **Enable RetroPie-Manager on Boot** .

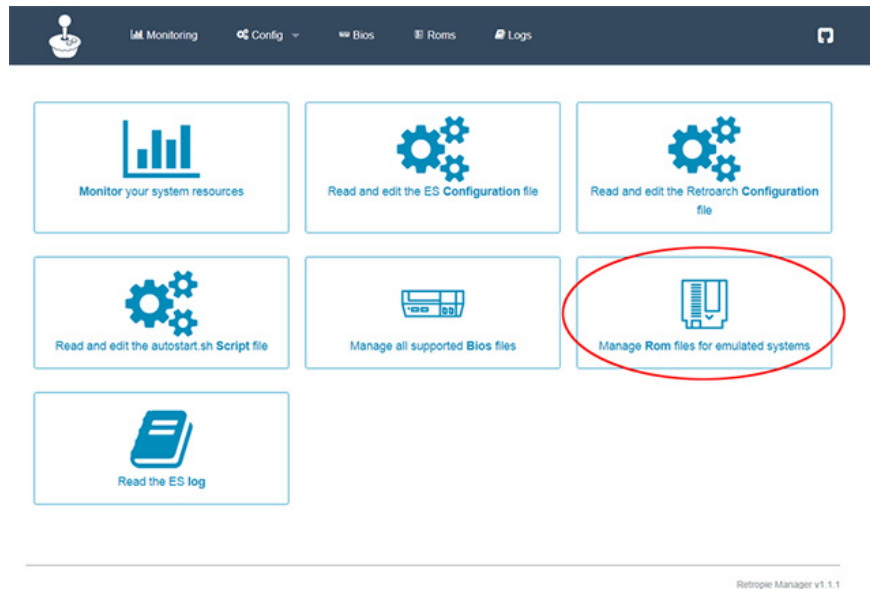


1. Finally, restart the system.

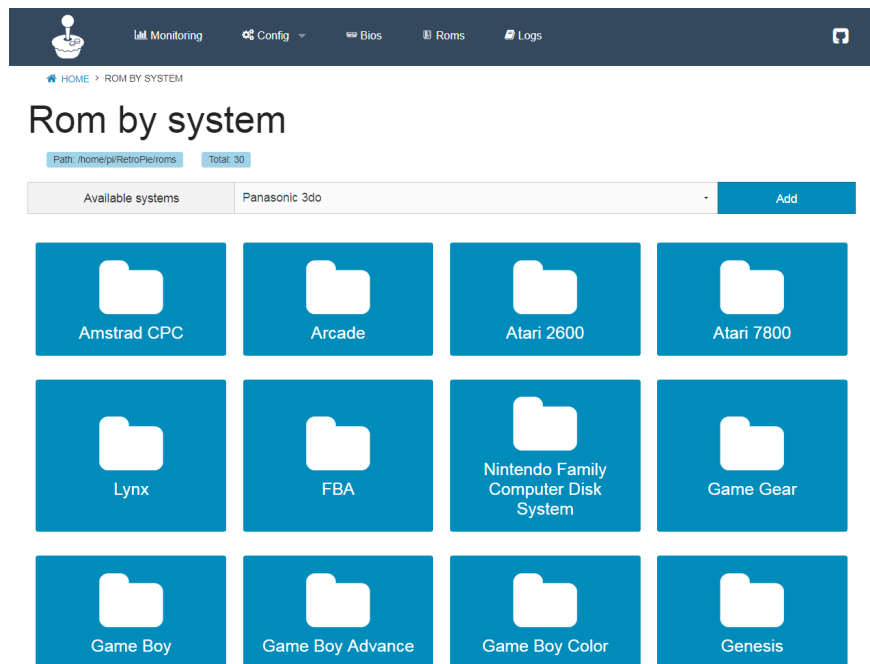


Go back to your computer to move the ROMs

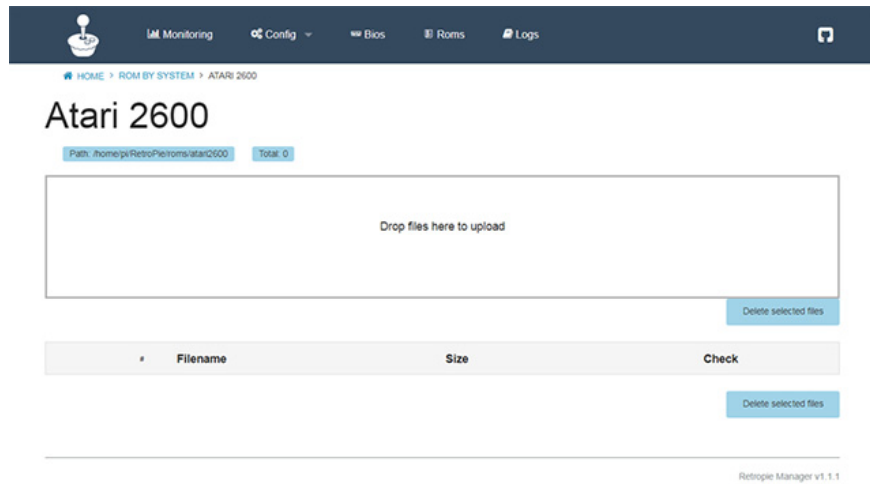
The computer you will use should contain the full ROM you need and need to be connected to the same network as the Raspberry Pi. Open any internet browser, In the address bar, enter the IP address of the Raspberry Pi that you noted earlier and enter ": 8000" at the end of the IP address. The IP address will now look like this: 192.168.X.XXX:8000. You will then be taken to the RetroPie Manager page. This page has a lot of interesting and useful data, but now, all you need to do is .



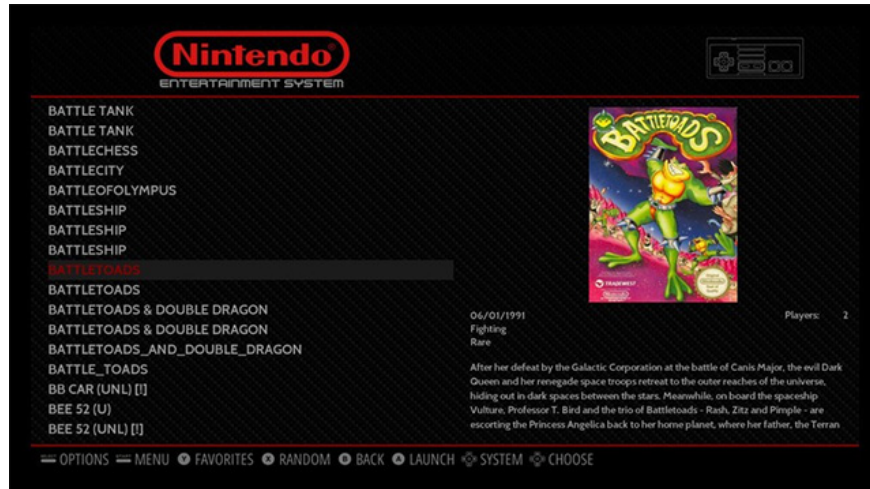
1. Click **Manage Rom files for emulated systems**.
2. Here you will find all the simulation systems on your Raspberry Pi. Select the system you want to add ROM by clicking on it.



1. Now, drag and drop your ROMs into this window:



1. After you've downloaded the entire ROM onto the system, restart the Raspberry Pi and start the battle.



See more:

1. 7 great ideas using Raspberry Pi as a server
2. How to install Minecraft on Raspberry Pi
3. Create your own wireless printer with Raspberry Pi
4. How to set up Raspberry Pi touch screen

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