

# How to use the Xbox or PS4 game console with Raspberry Pi

Today's article will show you how to make RetroPie work, before attaching a gaming handle to the Raspberry Pi.

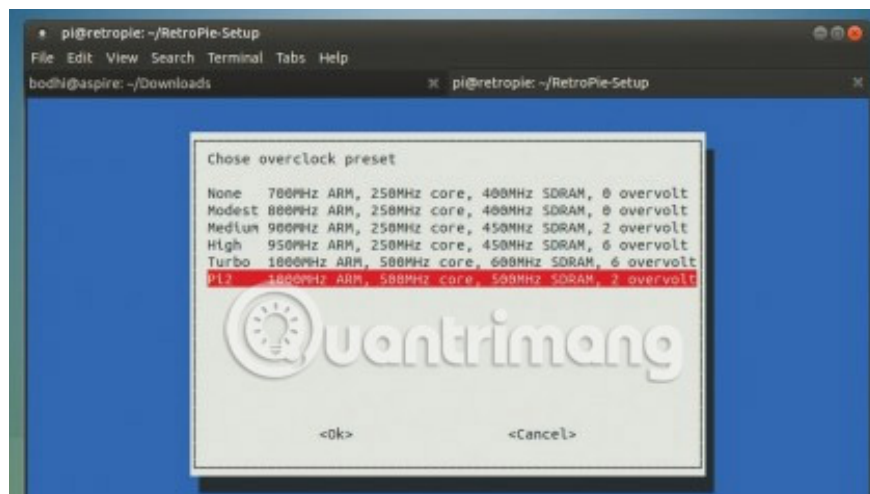
Videogame in the 1980s was quite different from today's shooters. They are 8-bit graphics masterpieces that are 'crafted', with storyline and gameplay that enthrall gamers for hours.

If you're a nostalgic person, you can simulate the golden era of game consoles on your modern hardware.

Raspberry Pi 3 quad core has outstanding power to reconstruct previous video game consoles. Most software that creates platforms that no longer exist are available as open source software, so users can install on Raspbian distributions.

However, the easiest way to start playing classic games on the Raspberry Pi is to install the RetroPie distribution with a lot of emulators.

TipsMake.com has articles: Things you need to know about retro gaming on Raspberry Pi. Today's article will show you how to make RetroPie work, before attaching a gaming handle to the Raspberry Pi.



## Connect the Xbox or PS4 gaming console to the Raspberry Pi

1. Basic setup
2. Drivers for game handles
3. Use virtual gamepad

To ensure safety, try playing the game at the default clock speed, before trying to overclock the Raspberry Pi.

You can manually install RetroPie on an existing Raspbian distribution, but it is more convenient to use an existing image file. In addition to Raspberry Pi 3, this distro also works with older models, so be sure to get the right image.

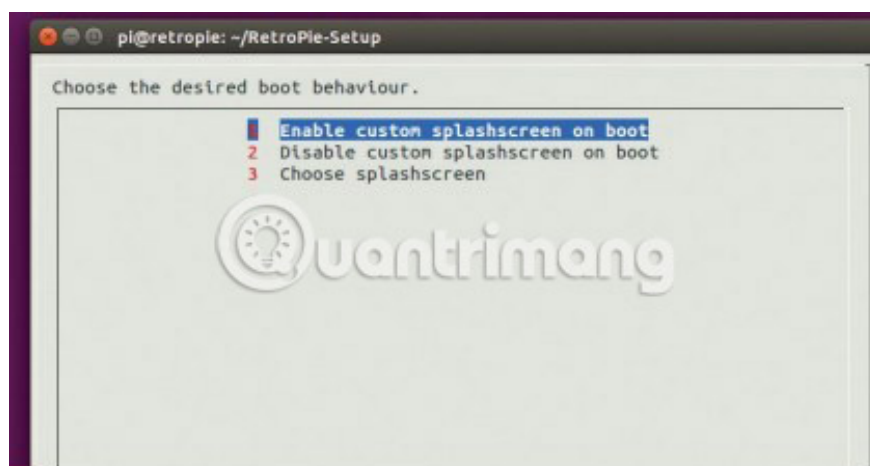
You need to convert this image to a 4GB (minimum) card, using the dd command in Linux, such as:

```
$ dd if=retropie-rpi2.img of=/dev/sdd
```

Requires USB keyboard and mouse for some initial settings, cannot be remotely executed via SSH. Here, we will also connect WiFi adapters compatible with Raspberry Pi. This part will not work immediately, but we will deal with it later.

Most importantly, be sure to have some gaming hands in hand to enjoy compelling games and RetroPie can work with a variety of control handles, from low-cost options to game players High-end games like PS4 and Xbox One.

Once you've prepared the memory card and RetroPie image, plug it into the Raspberry Pi, connect the handle, WiFi adapter, speakers and USB input devices, connect it to the HDMI monitor and turn on the power.



Raspberry Pi will boot directly into **Emulation Station**. This is a graphical interface used by Raspberry Pi to allow switching between emulators. The interface requires users to configure the game handle. However, before doing that, need to adjust some settings.

Press **F4** on the keyboard to exit **Emulation Station**, then go to **Xterminal**.

## Basic setup

The first thing to do is expand the image so that it takes up the entire card. To do this, start the Raspbian configuration utility with:

```
$ sudo raspi-config
```

Then, select the first option to expand the filesystem. When done, go to the second option to change the default password for Pi users.

Next, go to **Advanced Options** and select **SSH** to allow remote access. To ensure maximum memory usage for the game, go to the Memory Split option. If you're using Raspberry Pi 3 or Raspberry Pi 2, allocate 512 for the GPU.

If you use an older B + model, you should spend 256 for the GPU. Finally, scroll down to the **Overclock** option, where if using Raspberry Pi 2, select **Pi2**. When you're done making all the changes, go back to the main menu and select '**Finish**' to restart the Raspberry Pi and save the changes.

After backing up, press **F4** again to exit **Emulation Station**. Now, the WiFi adapter will work. Open the configuration file with:

```
$ sudo nano /etc/network/interfaces
```

And then change its content like this:

Be sure to replace the text in **wpa-ssid** line with **SSID** and password for WiFi network. Press **Ctrl + X** to save the file and exit the text editor. Now restart Raspberry Pi with **sudo restart**. When it works again, the WiFi adapter will connect to the router.

From this point on, users can perform remote configuration with another computer. Exit **Emulation Station** again and note the RetroPie IP address assigned by the router.

Assuming it's **192.168.3.111**, you can now log into it from a different computer than:

```
sudo ssh pi@192.168.3.111
```

Regardless of how you are accessing the Raspberry Pi, the next thing to do is adjust some settings related to RetroPie. Change to **RetroPie-Setup** folder with:

```
$ cd /RetroPie-Setup
```

and execute the configuration script with:

```
$ sudo ./retropie_setup.sh
```

The script fetches any required packages that are missing during the installation process. When it is ready, the script will display a menu based on Ncurses. First, scroll down to the second option to update the RetroPie-Setup script itself.

When done, relaunch the script and scroll down to the third option, labeled **Setup / Configuration**. Here, scroll down and select '**323**', make the necessary changes to display the RetroPie configuration menu in Emulation Station.

This helps make changes to the distribution without going back to the command line. Now, depending on the audio device and how it is connected to the Raspberry Pi, it may be necessary to hold RetroPie before it can send the audio output correctly.

Select the **'301' option** to configure audio settings. If the automatic default option does not emit any sound, scroll down and select the output to which the speaker is connected. The menu also offers a mixer option to adjust the volume.

Now restart the last distribution and this time continue with Emulation Station. If the game handle is connected, the distribution will select it.

Press and hold any key on the gaming handle to help the distro determine the exact object. You will then be asked to map the keys on the game handle. Please note that this basic mapping operation is only for navigation around the graphical interface and helps to switch between simulation and game selection systems.

Once you've set up the game console, continue to switch to the main menu of the Emulation Station interface. Now, to set up the gaming handle, go to the RetroPie menu in Emulation Station and select **'Configure RetroArch Keyboard / Joystick'** .



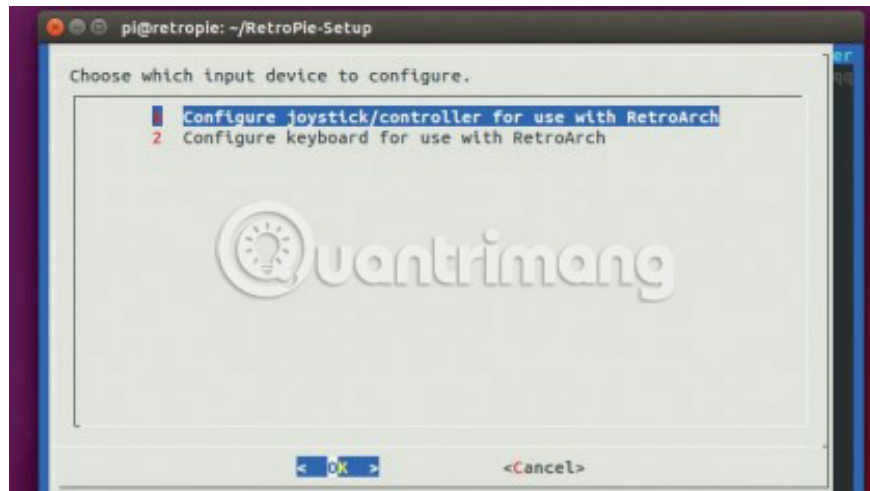
Emulation Station displays the number of games inside a specific emulator. Use the keyboard and select the first option, labeled **'Configure Joystick / Controller'** . Then follow the prompts on the screen to set up the game handle. If the controller does not have the required buttons, just wait for a few seconds and the setting will move to the next node.

## Drivers for game handles

If using the Xbox 360 or PS3 gaming console, first install the drivers for them (before RetroPie can choose these handles). In previous versions, several command line tips were used to do this.

However, in the latest version of the distribution, it is a very simple and easy to understand task. Go to the **RetroPie-Setup option** in the RetroPie menu inside Emulation Station.

It will open the **Nurses** menu of the previous RetroPie-Setup script. Use the keyboard to select the third option to configure the distribution.



Scroll through the list and select the relevant option to install the driver for the gaming handle - number '**318**' to install the PS3 and '**332**' drivers to install the Xbox 360 driver.

The Xbox360 script downloads the xboxdrv driver and modifies the **/etc/rc.local** file to boot the driver when the system boots. Script to add items for wired 360 game handle. If you're using a wireless gaming console, open the file **/etc/rc.local** in the text editor, search for lines starting with xboxdrv and replace the **--id** option with **--wid**.

If you are using a PS3 game console, once you have installed the driver using the script described earlier, users will be prompted to plug in the Bluetooth adapter for the gaming handle.

Even after doing so, RetroPie will not detect the game handle. This will be overcome by developers in the future. Exit script and Emulation Station. When returning to the command line, switch to the directory **/opt/retroPie/supplementary/ps3controller/** and enter:

```
$ sudo ./sixpair
```

This handy little utility detects Bluetooth adapter and makes it recognized by RetroPie.

Now restart the Raspberry Pi and, after backing up, change to the **/dev/input** directory and list its contents with **ls**. If the game handle has been detected, it will be listed as **js0**. Can check the gaming handle using:

```
$ jstest /dev/input/js0
```

This command opens the **jstest** program, which is designed to test the features of the game handle. Return to the RetroPie menu in Emulation Station and use the '**Configure RetroArch Keyboard / Joystick**' option to set up the gaming handle.

Now, the game handle has been set up and ready to operate. It is possible to do the same with any existing game player. RetroPie will save the configuration and automatically load it whenever users plug in the gaming handle.

Users can now scroll through Emulation Station and play pre-installed games with the game console.



## Use virtual gamepad

Without a game handle, users can create and use virtual handles in phones or tablets. To create a virtual gamepad, go to XTerminal and enter the following commands to install the required components:

```
$ sudo apt-get update $ sudo apt-get upgrade $ wget http://node-arm.herokuapp.com
```

Next, switch to root user with the su command. You are prompted to enter the root user (raspberrypi) password. After authentication, enter:

```
# git clone https://github.com/miroof/nodevirtual-gamepads # cd node-virtual-gamepads
```

The above steps will take some time to complete. When finished, you can launch the controller handle and allow it to automatically start when booting:

```
# pm2 start main.js # pm2 startup # sudo pm2 save
```

Now take the phone or tablet, open the web browser (the developer recommends Google Chrome for the best results) and enter the Raspberry Pi IP address in the address bar. You will see a virtual handle on the page.

Note that you need to configure this virtual handle with RetroArch just like you do with a physical handle. The gaming handle web application also creates tactile feedback. If it is uncomfortable, you can turn it off by turning off vibrate on the device.

Hope you are successful.

You finished reading the article "**How to use the Xbox or PS4 game console with Raspberry Pi**" edited by the [TipsMake](#) team. We hope this article has provided you with many useful tech tips and tricks. You can search for similar articles on tips and guides. Thank you for reading and for following us regularly.