

Raspberry Pi Image: RetroPie for Reviving Vintage Games

What is RetroPie?



RetroPie allows you to turn your Raspberry Pi into a retro-gaming machine. It builds upon Raspbian, EmulationStation, RetroArch and many other projects to enable you to play your favourite Arcade, home console, and classic PC games with the minimum set-up. **Learn more.**

RetroPie sits on top of a full OS, you can install it on an existing Raspbian, or start with the RetroPie image and add additional software later. It's up to you.

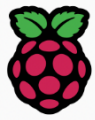
We are using Raspberry Pi Imager. We have a more detailed **tutorial** for imaging the Pi.

1. Using Raspberry Pi Imager

1. select Raspberry Pi Model
2. select the SD card



Raspberry Pi Imager v1.8.4



Raspberry Pi

Raspberry Pi Device

CHOOSE DEVICE

Operating System

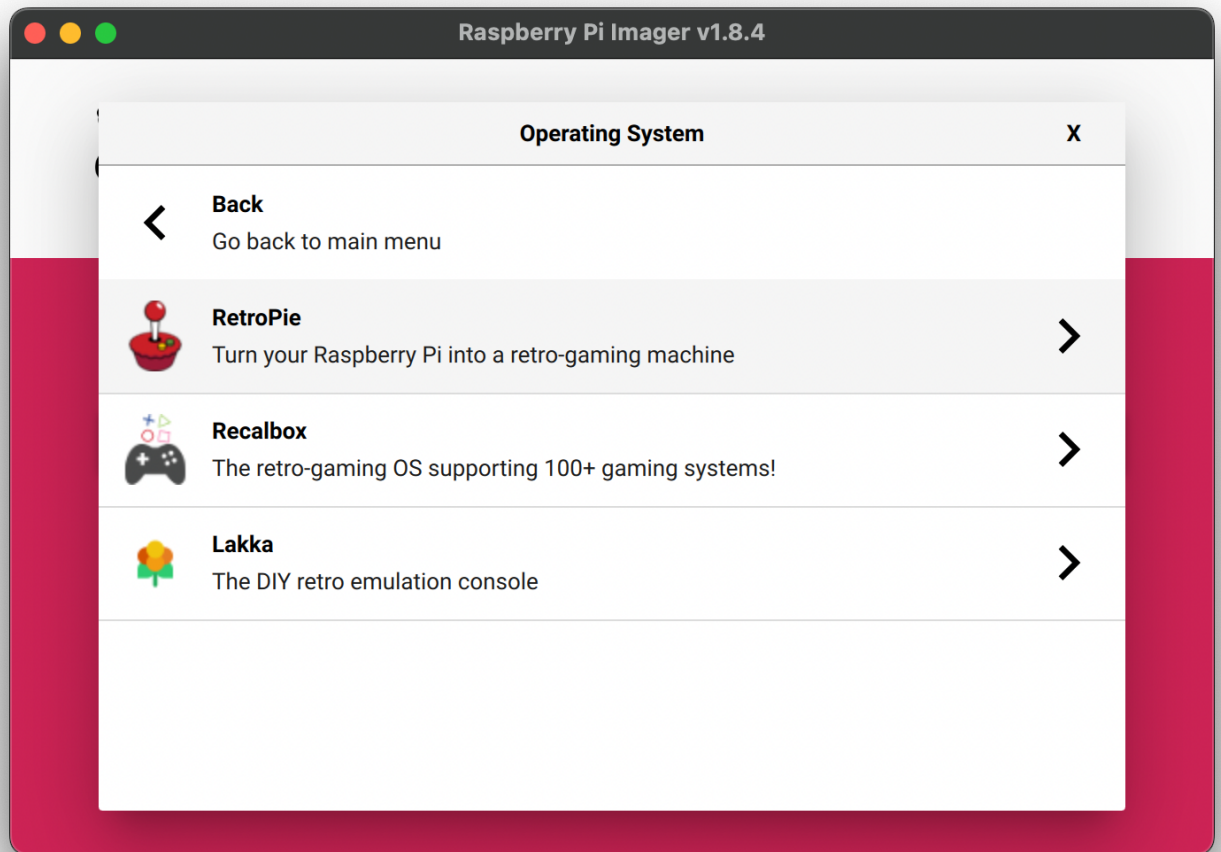
CHOOSE OS

Storage

CHOOSE STORAGE

NEXT

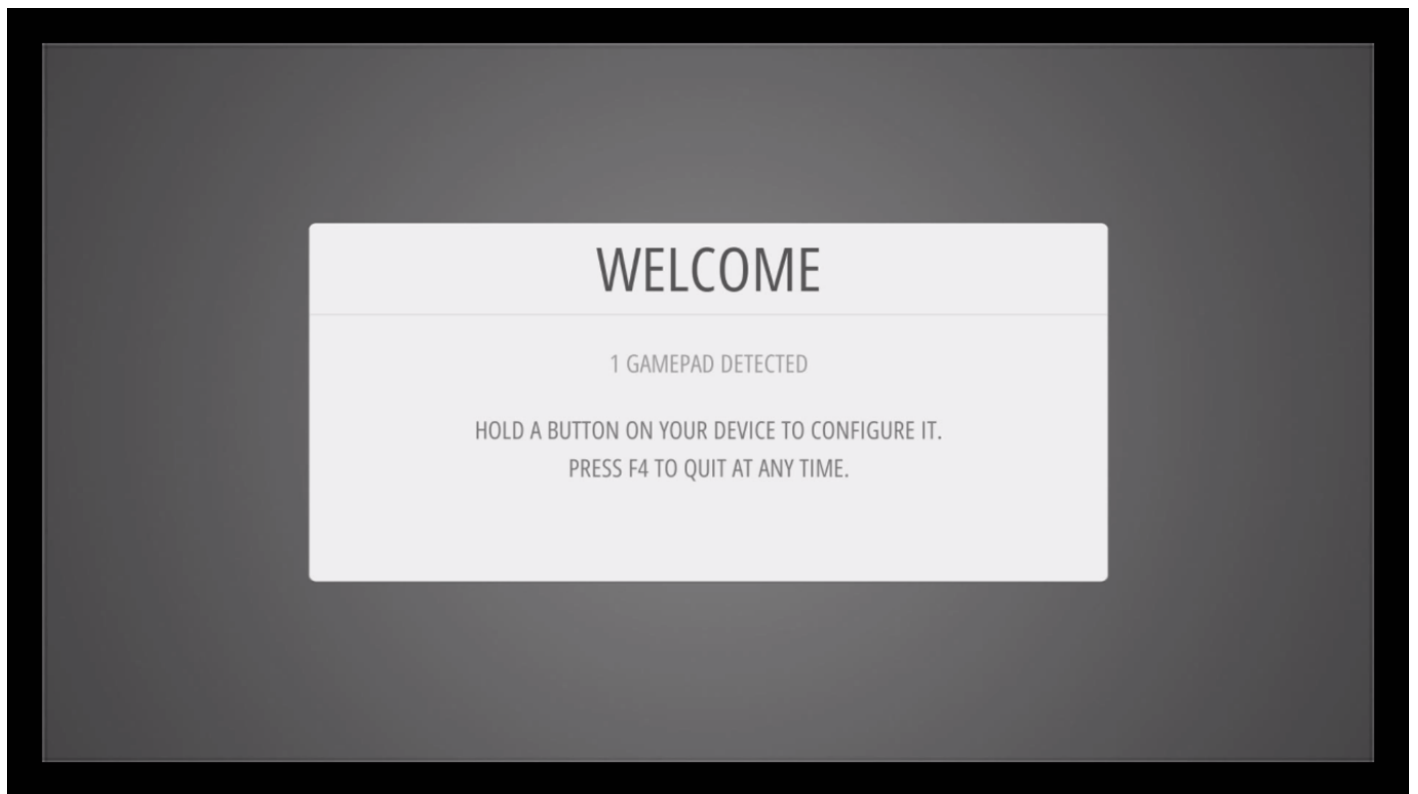
3. **Operation System** - select **Emulation and game OS** - select **RetroPie** - select your Pi model



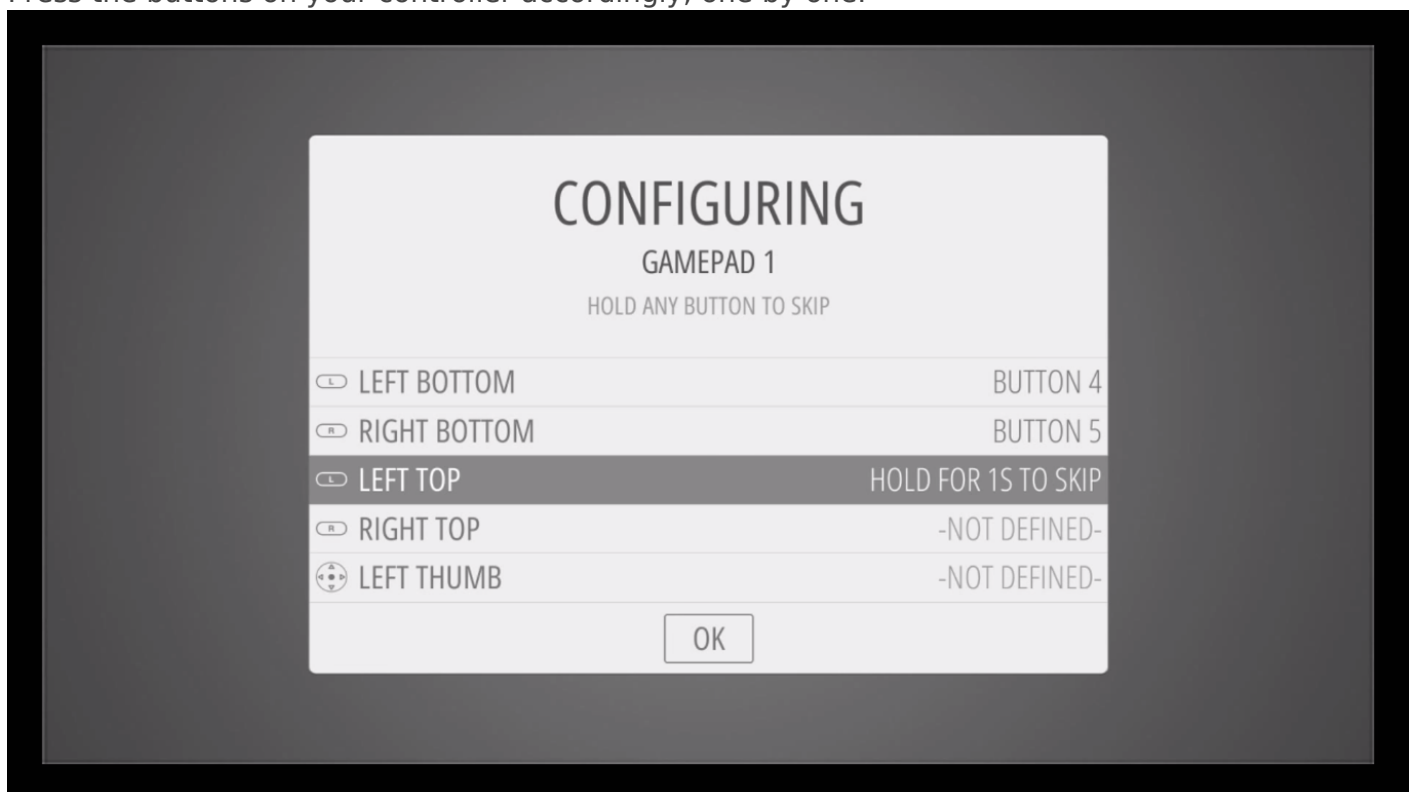
Your Pi is now an emulator ready to go!

2. Controller Configuration

RetroPie can support a range of controllers and even arcade buttons and joysticks. PS5 controller is not supported at the moment(02/2024). You will see the Welcome page, plug in your controller with a USB cable and hold any button on your device.



Press the buttons on your controller accordingly, one by one.



If you want to skip any button configuration, just hold any button.

There are some buttons that you **MUST** set up, including Hotkey, Start, Select, A and B.

3. Finding Roms

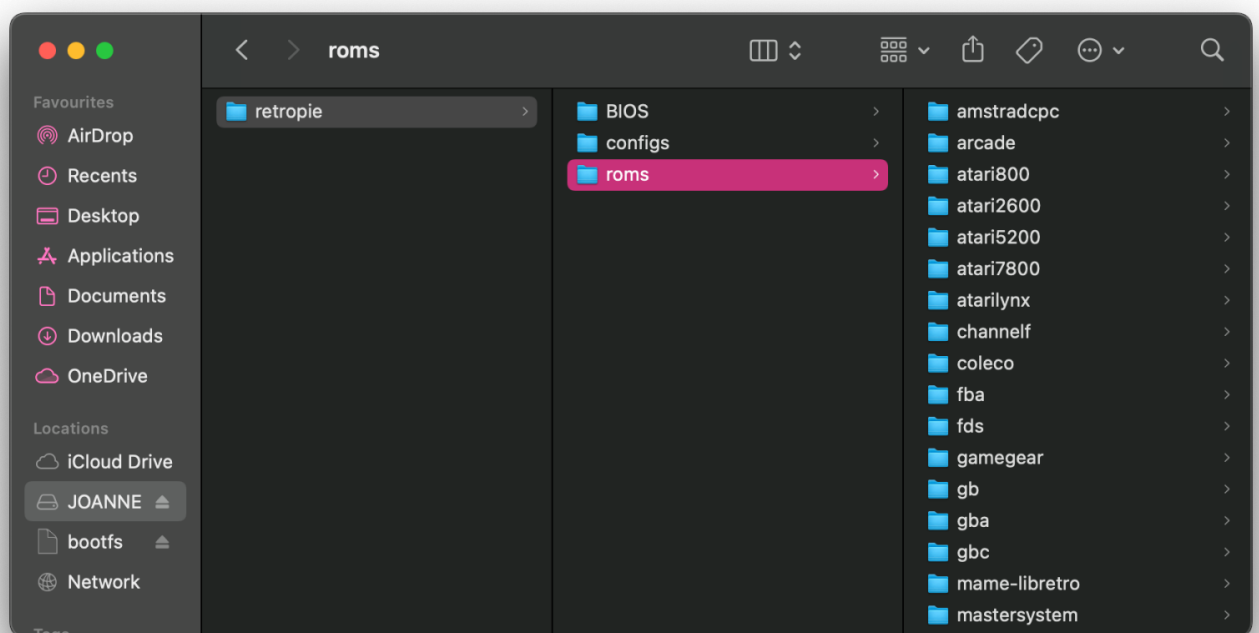
ROM is Read Only Memory, which can be seen as games that can be run on emulators. Thanks to the generosity of some of the original creators of the classic games that MAME® can emulate, several games have been released for free, non-commercial use on **MAMEdev**. The copyright laws around the use of ROMs are mostly between illegal and grey areas, so no suggestion on where to download ROMs will be provided in this tutorial and no one on our team will answer you in person either.

Different emulators require different file extension so the ROMs can be read properly, such as GBA needs `.7z`, `.gba` or `.zip`. Please see more **ROM file formats** here.

4. Transferring Roms

Transferring via a USB stick is the most straightforward method. You can find other ways of transferring in RetroPie Docs.

1. Format the USB stick as FAT32. (You can refer to #2 of this **tutorial**.)
2. Create a folder called `retropie` on the USB stick.
3. Plug the USB stick into the Pi and wait for 5-10 minutes.
4. Remove the USB stick and plug it into your computer.
5. You should see `retropie/roms/`, the Pi has created all the necessary folders for you in the USB stick.



6. Copy the ROMs to the according folder. For example, you can copy the MAME ROMs in `retropie/roms/mame-libretro`
7. Plug the USB stick back into the Pi, and wait for 5-10 minutes again.
8. Refresh the game listing in EmulationStation by pressing press **Start** on your controller - `Quit` - `Restart Emulation Station`

9. Now you should your game showing on the Pi and you can start playing your game!
10. If not, please go back to step 7 and do it again.

5. Want more?

RetroPie can be customized to a high extent, including controllers, UI, cheats, shaders etc.

For more detailed documentation, please visit [**RetroPie Docs**](#).

Revision #6

Created 30 January 2024 13:19:52 by Joanne Leung

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