

How to build GameBoy Raspberry Pi

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Many options are available, from adjusting an existing case to attaching a Raspberry Pi to a 3D printed Nintendo Gameboy.

Read the following article to learn everything about building your own Gameboy Raspberry Pi from a kit.

Instructions on how to build GameBoy running Raspberry Pi

1. Which Raspberry Pi model should you use for the Gameboy case?
2. Additional hardware for Raspberry Pi Gameboy
3. Is playing retro games legal?
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Which Raspberry Pi model should you use for the Gameboy case?



Almost all Raspberry Pi models can be used for a Gameboy style project. However, each model has advantages and disadvantages.

1. **Raspberry Pi A** : Lower CPU and RAM speed, fewer USB ports. Pi A models will accomplish this task, but most cases are inconsistent.
2. **Raspberry Pi B / B +** : From the original Pi B to the Raspberry Pi 4, motherboard B is best suited for emulators. B boards also have more connectivity options.
3. **Raspberry Pi Zero** : Compact, but slower and lacks USB connectivity without an adapter. The various Gameboy Raspberry Pi projects are based on Pi Zero. With an affordable board, this is the best option if you're new to Raspberry Pi.

Although other PCB printed circuit boards can be used in Gameboy-style handheld game systems, Raspberry Pi is best suited.

Additional hardware for Raspberry Pi Gameboy

You will need more than Raspberry Pi for a Gameboy style project.

1. PiGRRL 2 PCB: This device allows you to control your Pi and games
2. PiTFT Screen: 2.8-inch TFT resistive touch screen 320 × 240 pixels
3. 1000 PowerBoost charger
4. Lithium Polymer battery
5. Rubber buttons
6. Audio amplifier: Adafruit PAM8302 is a good choice
7. Mini speaker
8. Optional Gameboy (or Gameboy Advance) case with 3D printing optional
9. The switches and buttons, depending on the Gameboy case you choose
10. Conductor matching

You should also have a soldering iron, wire cutter and microSD memory card with RetroPie (retro game set) installed.

Is playing retro game legal?

You might be wondering about some of the things surrounding retro gaming, especially with the acquisition of ROM. These are essentially disk images of cartridges, cassettes, disks and other media from classic game systems. The problem is, if you don't own the original version, you can't use the ROM legally.

So use retro games that you already own or buy on eBay.

3 ways to build a Gameboy Raspberry Pi



What is the best way to build a Gameboy handheld with a Raspberry Pi? You have 3 main options, each with different complexity.

1. Adjust an existing Gameboy
2. In 3D Gameboy case
3. Buy a Gameboy Raspberry Pi kit

Let's take a look at some of the best Raspberry Pi gaming console builds you can carry in your pocket.

1. Revive an old Gameboy with a Raspberry Pi

If you have an old Gameboy unused in a drawer, it makes sense to take advantage of this case. Although you cannot use the contents, there is still enough space for the Pi. You can even adjust additional, unused 3D print cartridge cases for Pi Zero.

You should also find room for monitors and PCB controllers. For a realistic feel, keep the original buttons.

The video above shows the use of the old Gameboy case, while retaining all the original hardware inside. If you like this rooted device, this is the method you should choose.

Various configuration options are available when ordering, from standard Gameboy buttons to purple SNES buttons. Running Raspberry Pi Zero, this is the authentic Gameboy experience you'll get.

A Gameboy kit without a Raspberry Pi

Finally, if you want a great modular gaming experience like Gameboy but don't want to touch the Raspberry Pi, consider Gameshell from Clockwork.

Gameshell is a modular device that even includes an HDMI output port. This is a great little device especially suited to the games Gameboy, Gameboy Advance, NES and MAME. Other platforms can be set up and the device has a PICO8 game kit to build your own games. You can even run Kodi on Gameshell!

Pocket-sized game consoles like the Gameboy that run on a Raspberry Pi are great, right? Now you have ideas on some of the best options. You can adjust the old Gameboy, print 3D case or buy the Gameboy Raspberry Pi kit.

Whichever way you choose, the result is a game console that you can carry around in your pocket and play anywhere. You can limit your choices to Gameboy and Gameboy Advance titles. In addition, you can "embrace" the entire retro game library. That will definitely keep you busy!

As noted, you'll need to use a retro gaming console to run the Raspberry Pi just like Gameboy. RetroPie is an option. Besides, there are many other things related to playing retro games on the Raspberry Pi.

Wish you find yourself a suitable choice!

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