



SD Card Images for Freeplay Zero (2021 or prior) / Freeplay CM3

If you have a 640x480 LCD model of the Freeplay Zero, you should **NOT** be using these SD image files!

I will try to keep the latest SD image and the previous image here.

Images are named like Freeplay_Zero_YYMMDDVV.img.gz with Year, Month, Day, and Version as the identifier. Since the previous SD image is from the Game Pie Advance project, I will include that here for the time being.

*** On first boot, the SD should resize itself and then shut down the system. Just boot it up again after that. ***

--== ATTENTION ==--
NOTE!!!

Some people have had problems with RetroPie 4.4 lately. Some experience a white screen. Some experience a pause or freezeup during boot.

So far it seems that moving back to RetroPie 4.3 (Freeplay release 18032101) solves these problems for them.

We are researching this to come up with a fix moving forward.

--== ATTENTION ==--

Freeplay Zero2

NOTE: The **Raspberry Pi Zero 2** is currently experimental for the Freeplay Zero, but it seems to work very well in the initial test using this image.

Freeplay_CM3-and-Zero2_Test_21110201.img.gz

Test image for Pi Zero 2 on Freeplay Zero

Freeplay CM3:

Freeplay_CM3_Test-RetroPie-46-20051302.img.gz

RetroPie 4.6

Freeplay_CM3_20051201.img.gz

RetroPie 4.5

Includes Hermes, Fruity, SQRXZ 2, SQRXZ 4, and Xump by RetroGuru

System Updates

Fix for brightness controller

Updates for joystick and some small fixes

Fix for rc.local formatting problem

Added watchdog to shutdown if system locks up

Fix for default ABXY setup

Set to "default" LCD driver

Fix to remove frame rate counter from emulation

Reduced SD Image size

Updated system

Fix for backlight dimmer setting during boot up

Updated system to accommodate RPi CM3+ Lite

Updated to mk_arcade_joystick_rpi v0.1.5.10

Switch to juj/fbcp-ili9341 for LCD driving.

Switch to systemd for LCD startup.
RetroPie 4.4
Added rkill enable/disable WiFi/BT to RetroPie menu
Switched to RxBrad/Freeplay theme
Added backlight brightness controller
Added new testing LCD driver (juj/fbcp-ili9341 version 0b4a6cb)
selectable from RetroPie menu

Freeplay_CM3_18032101.img.gz

RetroPie 4.3

Freeplay Zero:

Freeplay_Zero_Test-RetroPie-46-20051302.img.gz

RetroPie 4.6

Freeplay_Zero_20051301.img.gz

RetroPie 4.5
Includes Hermes, Fruity, SQRXZ 2, SQRXZ 4, and Xump by RetroGuru
Updates to OS and RetroPie
Fix to remove frame rate counter from emulation
Updates for joystick and some small fixes
Updated system and fixed minor bug with backlight brightness setting
Updated Exp_Zero (juj/fbcp-ili9341) driver to work with more emulators
Updated system, and updated mk_arcade_joystick_rpi driver
Switch to juj/fbcp-ili9341 for LCD driving.
Switch to systemd for LCD startup.
RetroPie 4.4
Updated to latest RetroPie/kernel.
Added rkill enable/disable WiFi/BT to RetroPie menu
Switched to RxBrad/Freeplay theme
Added backlight brightness controller
Added new testing LCD driver (juj/fbcp-ili9341 version 0b4a6cb)
selectable from RetroPie menu

Freeplay_Zero_18032101.img.gz

RetroPie 4.3

Notes:

Pressing the power button and holding it down will shut down the Freeplay Zero/CM3.

Exiting an emulator has changed a bit. HOTKEY+START will exit most emulators. Some will require START+SELECT.

HOTKEY

The system now uses a "hotkey" to enter a state where each button has an alternate function. Usually, in most RetroPie builds, this hotkey is pressed at the same time as the button. A might do one thing, and HOTKEY+A might do another. With the Freeplay Zero/CM3, we are now using the power button as a hotkey toggle, because it can be difficult to hold the power button and another button at the same time (especially since the power button can also shut down the Freeplay Zero/CM3).

In the Freeplay Zero/CM3, the power button acts as a hotkey TOGGLE. Pressing it once (and quickly releasing it) puts the system into hotkey mode. Pressing any other button then does the hotkey function for that button. To exit hotkey mode, press the power button (and quickly release it) once again. This will return the system to normal button mode.

In Hotkey mode, here are the button mappings.

X	- Emulator menu (this is likely the most useful, as it gives access to other functions while pausing emulation)
B	- Reset (exits some emulators)
R shoulder	- Save current state to current slot
L shoulder	- Load state from current slot
R dpad	- Increment current slot
L dpad	- Decrement current slot
START	- Exit emulator (some emulators require START+SELECT or just use HOTKEY+START+SELECT to cover all the bases)

See <https://github.com/RetroPie/RetroPie-Setup/wiki/RetroArch-Configuration#default-joypad-hotkeys> and `/opt/retropie/configs/all/retroarch-joypads/GPIOController1.cfg`

If you upgrade RetroPie (using `'sudo ~/RetroPie-Setup/retropie_setup.sh'`) and get a new kernel in the process, you may need to add the joystick drivers to this new kernel. After rebooting to the new kernel, the following commands should build and install the drivers. Then reboot, and the buttons/dpad should work again.

```
dkms build -m mk_arcade_joystick_rpi -v 0.1.5.6
dkms install -m mk_arcade_joystick_rpi -v 0.1.5.6
```

NOTE: You may not have version 0.1.5.6 depending on which SD image you started from. To determine which yours is, use the following command, and replace the version number accordingly.

```
ls /usr/src/mk_arcade_joystick_rpi*
```

——= Freeplay Zero CHANGELOG =——

20051301: Added Sqrzx 2, Sqrzx 4, and Xump by RetroGuru and brought system up to date
20031301: OS and RetroPie updates
19062002: Fix to remove frame rate counter from emulation
19060602: Minor updates/fixes/etc
19011601: Updated system and fixed minor bug with backlight brightness setting
18091302: Updated Exp_Zero (juj/fbcp-ili9341) driver to work with more emulators
18091101: Updated system, and updated mk_arcade_joystick_rpi driver
18081001: Switch to juj/fbcp-ili9341 for LCD driving. Switch to systemd for LCD startup.
18070601: Updated to latest RetroPie/kernel
18062501: Added rfkill enable/disable WiFi/BT to RetroPie menu
18062201: Small update/fix for new test LCD driver.
18062101: Switched to RxBrad/Freeplay themed. Added backlight brightness controller option in RetroPie menu. Added new LCD driver [(juj/fbcp-ili9341 version 0b4a6cb) selectable from RetroPie menu] that should be
18042301: Tiny fix to allow the image to run on CM3 (forgot to add in previous release)
18042102: Error in img file which needed to be replaced. Do not use this version.
18042101: Update to RetroPie 4.4
18032101: Added waveshare32b-fp.dtbo which is better (but likely unnoticeable to users).
18011901: Minor updates to the base system (mainly just apt updated).
17111701: Now featuring Hermes.

17100501: Adding preliminary Freeplay CM3 compatibility.
17100401: Now includes /boot/freeplayfbcp.cfg for tweaking LCD parameters.
17092101: Updated to RetroPie v4.3
17091902: Added pre-configured keyboard support (for testing Pi Zero without FPZ board attached)

——= Freeplay CM3 CHANGELOG =——

20051201: Added Sqrzx 2, Sqrzx 4, and Xump by RetroGuru and brought system up to date
19110701: Added Hermes and Fruity by Retroguru (and added some system updates)
19082001: RetroPie 4.5
19061802: Operating System Updates
19061701: Fix for brightness controller
19060603: Minor updates/fixes/etc
19051402: Added watchdog to shutdown if system locks up, Fix for default ABXY setup, Set to "default" LCD driver
19051002: Updated system, removed frame rate counter from emulation, and reduced SD Image size
19042901: Updated system and added small fix for backlight dimmer during bootup
19030101: Updated system to accommodate RPi CM3+ Lite. Updated to mk_arcade_joystick_rpi v0.1.5.10
18090501: Updated system, and updated mk_arcade_joystick_rpi driver
18081001: Switch to juj/fbcp-ili9341 for LCD driving. Switch to systemd for LCD startup.
18070601: Updated to latest RetroPie/kernel
18062101: Minor update for detecting backlight brightness controller (error message if not detected)
18061901: Switched to RxBrad/Freeplay themed. Added backlight brightness controller option in RetroPie menu. Added new LCD driver [(juj/fbcp-ili9341 version 0b4a6cb) selectable from RetroPie menu] that should be faster.
18042001: Minor config changes
18041901: Updated to RetroPie v4.4
18032101: Removed Hermes due to crashes on CM3 (does not affect FPZ).
Added waveshare32b-fp.dtbo which is better (but likely unnoticeable to users).
18010801: Updated RetroPie and all core packages.
17111701: Now featuring Hermes.
17103001: Initial (testing) release.