

# So You Hacked Your 3DS. Now What?

A Guide by PaperPal, Emulation Librarian, Edited by Shibo, Additional Info by Lily

- Special thanks to [Plailect and the fine people at the Nintendo Homebrew server](#) for the definitive 3DS hacking guide, [sthetix on YouTube](#) for the videos that explained how to do some of the more in depth stuff to me, and [lizzyTimestream](#) for innocently asking me to show her how to hack her 3DS, leading to this absurd tome.
- Fair warning, some of the more heavy duty software will be unplayable on an old 3DS, such as certain SNES and most PSX games.
- Oh, and I have comments enabled. If you think something is wrong, or think I don't explain something well, or just generally have something to say, please feel free to comment and let me know!
- My guide for Wii U can be [found here!](#)
- Shoutouts to all y'all with ADHD struggling to do this! I have it and struggled to write it.

## To do!

Manually patch and repack .cia installs for o3DS games because live patching causes issues.

Change title id to allow multiple installs

DLC ticket fix - remove nnid. Any downsides? Pokemon bank?

Find and link homebrew file trees for games

Find more and more homebrew games and standalone things (always)

Find Terraria Save Editor

FriendMii

Add diagrams

Upgrade glossary

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# An Introduction

You *need* to hack your 3DS. Especially if it's a new 3DS. This will open up your 3DS which, even if you never pirate software, is a straight upgrade to core features with no risk of bricking or being banned, so long as you don't cheat in multiplayer games. Think of it like running your 3DS as an administrator. To get started, [follow the instructions at 3ds.hacks](#). You'll just need a 2 GB or larger SD card ( [formatted first](#) ), and that's it! But, [the 3ds.hacks guide](#) (**which you need to follow first before doing anything past this intro**) doesn't really tell you what your console can actually do post hacking. You may be shocked to know it allows you to make save data backups, [dump](#) your games from physical to digital, install custom themes, bypass the region lock entirely, download save files, play [homebrew](#) games, use homebrew apps, access and use amiibo with any game, and run old 3DS games at the full processing power of the new 3DS (if you have one).

There are so many more things— oodles more than I could have possibly listed here. The last part of this massive guide will be further reading, believe it or not! If you'd like to read this guide first to understand what you'll soon be able to do, or to convince yourself this is worth doing, that's fine. Just remember to **hack the darn thing before you do anything else**. It'll take about an hour, all told. One last thing: I will try to credit everything in this document, but considering some of this stuff is literal crime, it may be difficult, impossible, or dangerous to find names. For that reason, some things on this list are not credited and some things are simply credited by the name of the account associated with it on github or GBAtemp or reddit or wherever I scraped the info from. And one last time: hack your 3DS via [the guide at 3ds.hacks](#) before doing anything on this document

TL;DR, context is for babies just link me the good stuff

[3DS hacking guide](#) by Plialect & FlimFlam69- Your first stop. Read carefully.

[Hshop](#): Premade ready to install game files for 3DS. Download and place into .cias folder on sd card via FBI, or scan QR code in FBI after selecting remote install. ([backup cias](#))

[3hs](#): 3DS app that downloads apps directly from Hshop to your 3DS significantly faster than FBI.

[TwilightMenu++](#) by RocketRobz- Not a DS emulator, but more accurately a card slot emulator.

Allows you to load DS and DSi games and files.

[/r/roms megathread](#): Roms from everything up to PS3 I think, in multiple formats. For PSX, download .chd files. You'll only need these instead of the .cias from above if you are using an emulator instead of [injection](#), so it's mostly for DS, PSX, and SNES. If this ever goes down, go to reddit's /r/roms group to find the new one. I'll try to keep it updated on my end.

[Myrient](#): Massive collection of ROMs and files from the developers of 3HS and the hShop.

[TopRoms](#): Another amazing collection of roms of top quality games

[Romhacking.net](#): Incredible collection of rom hacks. While it is no longer updated, the library more than stands the test of time.

[3DS theme plaza](#) - Custom 3DS themes, splash screens, and badges.

[GBAtemp 3DS homebrew list](#) - [3dbrew's list](#) - [gamebrew's list](#)

[Universal-DB](#) - Every application included on the Universal Updater, accessible on PC

[3dshacks reddit](#) - New stuff typically goes here. Not allowed to talk about or allude to piracy though, they're quick to ban.

[3dspiracy reddit](#) - Safe place to discuss piracy. Can't link ROMs though

[3DS save bank](#) by Ridley Larson- Upload or download game saves

[Title ID database](#) - The name that the 3DS knows games internally by. You may need it for other parts of this process, like adding cheat codes manually.

[Title ID database + eShop only titles](#) by Kartik - A complete list including eShop games. Check here if what you are looking for isn't in the link above.

[Rehid control remapper](#) app by Kartik, website by mcaboossec- Rebind controls, very useful for old 3DS games that assign buttons to the touch screen

[Wumiibo](#) by Kartik- NFC emulator that lets you fake any amiibo in game.

[GYTB](#) by MrCheese- Custom badge adding software. Can install premade badges from the theme plaza. Will not work unless you have a folder named badges on the root of your sd card.

[3DSbank](#) by RocketRobz- bypass the 300 apps limit on 3DS by making profiles that each have a 300 app limit that you can swap between

[GTA3 3DS](#) by AJM - Buggy, but still, wow. Allegedly works with Vice City as well.

[Half-life 3DS](#) by masterfeizz- Absurdly amazing. Loading is horrible, but that's it.

One last time: Don't do any of this stuff until after you [hack your goddamn 3ds](#).

# I: Post Hack Clarity: A Chad Only Zone

Congrats on hacking your 3DS! You now have a 3DS with like 5 new apps on it and nothing else visibly different. So, this section is to elaborate on what you've installed and what they actually do for you.

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## **Luma3DS by LumaTeam**

The sysNAND (more or less the operating system front end) replacement that allows you to do everything listed below in this guide. It runs at all times, but you can access the settings by holding SELECT as you power on the 3DS. Here are mostly options, but you can also add the GBA splash screen to GBA games injected to the 3DS, enable game patches (more on this later), and, most importantly, enable the increased new 3DS CPU power for all games if you have a n3DS. At a minimum, I recommend you do that one since it makes essentially everything run better. A small note, however: It has a small chance to crash games with this enabled. I had Yoshi's Woolly World crash on me one time in like 10 hours of gameplay. You may also have some mild gameplay issues, so if something isn't working, disable this feature using...

## **Rosalina (it is part of Luma, but deserves elaboration)**

By holding L, DPad Down, and Select while booted in a 3DS game, you can open the Rosalina menu. Here, you can toggle the 3DS clock speed increase, as well as take screenshots, apply filters, and enable the cheats that you added earlier in Checkpoint.

## **FBI by Stevelce10**

FBI is the backend where you install games/homebrew that are prepared in the .cia format to be installed. Nearly everything we install will be via this program. It is also a limited file manager,

allowing copy, paste, and deletion. To install multiple cia files loaded on the SD card, navigate to the folder and select the top option, and then select install and remove.

**Now this is important:** You boot into FBI, go to Remote Install, and select Scan QR code to easily download games from the Hshop without having to pop your SD card out of your console. You can also use 3HS to navigate and download entirely on console.

### **Homebrew Launcher by fincs (originally by smealum)**

Everything that we don't boot off of the 3DS home menu, we boot through here. It's essentially a home for certain apps that don't have or can't have a .cia installer, such as .3dsx files. After booting, you may need to scroll down to find the executables, since folders take priority in the app's list. You can press select to favorite a program, which will pin it to the top.

### **Checkpoint by flagbrew**

Checkpoint manages your save data backups and allows you to name and restore them. It also allows you to add cheats to your 3DS games. Not all games have cheats, and some games have cheats you can add yourself. We'll get to that later. To add cheats, select the game in Checkpoint, tap the cheats button on the bottom screen, and select as many as you want to make a list. You activate the cheats individually in game, and it pulls from the list you make here. Press B to exit, and then save the file when prompted. Once again, this does not activate any cheats, it merely adds them as an option within Rosalina.

It also allows you to adjust your play coin total by tapping the top right corner and putting in the desired number of coins. There is no visible button.

### **Anemone by astronautlevel2**

Allows you to browse, preview, download, and install custom 3DS themes. You can even make a theme yourself to download later. You can skip using the slow browser on the 3DS by

accessing the [3DS theme website](#) and using a QR code by hovering over the image on the site and scanning with the Anemone app on the 3DS. You can also add Splashes, which add an image to the initial boot of the 3DS.

### **Universal Updater** by Universal-Team

Contrary to the name, you can think of this app as the Homebrew Store. It has the latest versions of many of the apps listed above and below. It is original software for the most part, so you will find homebrew games and apps here. I'll note when an app below is available in the UU. That said, it is an Updater, so be sure to check here every once in a while for new versions of apps. Sadly, it doesn't scan for updates on apps automatically.

When you use UU, you can choose the format you install apps as. .cia will install to your 3DS' home menu, while .3dsx files will boot through the Homebrew Launcher.

### **GODMODE9** by d0k3

Allows you to just really mess around with files on the 3DS. It won't let you do damage without asking permission first, but regardless I don't recommend poking around in here unless you are instructed to. You access it by holding START on boot. I won't touch on GODMODE9 too much, since it just generally seems to be for people who know a lot more about computers than I do.

## II: Making your 3DS a Better 3DS

There are a lot of small quality of life improvements that I recommend here to make the 3DS just a generally improved and more effective console. We are still not really into hacking or 'theft' or anything yet, just... making what you have, better.

### (UU) Rehid

A vital app available in Universal Updater. Allows you to customize the control scheme in any 3DS game or application. For instance, in Minecraft 3DS, crouch is set to Dpad Down, and B drops your items, which is the opposite of literally every other version of the game. Swapping the inputs is extremely easy via rehid. Another notable case is Ocarina of Time 3D. You can bind the I, II, and Ocarina touch screen buttons to the unused ZL, ZR, and select buttons on n3DS. On old 3DS, you can at least bind one of those three to the unused Select button. This does only work with programs that run in 3DS mode, not GBA or DS emulation. You are able to edit through the website linked below, or on the 3DS itself via creating and editing a .txt file. I recommend the website, and then scanning the result with the Rehid app to apply the rebinding. Either install via UU or follow the link below.

[Rehid by Kartik](#)

[Profile Creator Website by mcabooseC](#) The above mentioned profile creation site. Open the Rehid app on your 3DS through the homebrew Launcher, scan the qr code, and choose the game to apply the control patch to.

[Profiles made by Nanashi13](#) A bunch of preset profiles made by one hero. Give them a look!

Games like Splinter Cell specifically benefit from this.

## Installing Ports, Fanworks, and Homebrew

So as your first morally gray choice, you can install games that never were released for money or were made specifically for the 3DS homebrew scene. It's basically just loading free content, so there's no harm in it, right? To install, you will typically just download the relevant .cia file, install it to the SD card, and unpack it with FBI. You can also scan a QR code to download the games, which I recommend if the games happen to be old or small, since most games before the DS and PSX are only a handful of bytes by comparison. If a bit of homebrew takes more effort to install than that, the page for their installation should clarify that. Flip forward to [Section VI](#) for homebrew ports and titles.

## Installing fanmade patches

Okay so you want to try changing things up in your games, or at least get the real head patting experience the way God intended. Easy as pie. To enable (or disable) realtime patching, simply boot the console on while holding SELECT and check the box that says Enable Game Patching. That's half of it. The other half is placing the patch into the luma/titles/[titleid]/ folder for the game you want to patch. I recommend using [this site to find the title ID](#) for the game you are patching. Then boot the game. Boom. That's literally it. [My list of patches!](#)

Worth noting is that you can prepatch and install these patches as a separate game entirely. This process is more complicated and involves editing the Title ID, which involved a Hex Editor last time I did it. I'm hoping it's easier now. [This guide](#) by Asia81 elaborates on the process.

## Load save files

If you'd like to download save files to skip grinding or for any other reason, the [3DS Save Bank by Ridley Larson](#) is your place to go. The main screen here has instructions, but I do want to

clarify that JKSM evolved into Checkpoint since the last time the website was updated. Just follow the same instructions in Checkpoint.

## Install cheats

You cheated not only the game, but yourself, etc. I mentioned above how you could use Checkpoint to add cheats from a curated list, but you can also manually add working cheats yourself, including cheats created on your own! To add cheats to a game, I recommend using Checkpoint to load all the cheats for the game in question and save it. This will generate a simple .txt cheat file on your sd card inside the cheats folder on the root. The file will be the title\_id of the game the cheats are for. Either plug your SD into the computer, or use FTPD to access the SD from a computer remotely, and open the proper .txt file. At the bottom, paste the cheat codes that you would like to add. You will see the codes in game along with the rest you install.

[Hazerou over on GBATemp made a thread](#) of cheat codes that allow you to increase the FPS of certain games on the new 3DS to either a stable 30 or even 60 frames per second! Please read carefully when installing, as some are 60 fps in name only, and double the gamespeed at the same time as the framerate. This also supersedes Checkpoint's built in cheat engine, unfortunately. Ideally, these cheats would be added to the Sharkive masterlist that Checkpoint pulls from, but I can't even figure out how to contact the devs. They are still active as of early December 2021, so hope is not lost! You'll need to manually add them as I describe below.

DS cheats will be noted [in a later section](#).

## Install Homebrew Utilities

You can manage your New Leaf town and even have more than one town! There are also Pokemon management utilities, which can be very nice moving pokemon from gen 1 up to gen 7 much faster than the nightmare daisy chain you'd face doing it all in game (as I have). I link a bunch of save editors like those in [Section VI](#). You can also unlock the [amiibo information in Samus](#)

[Returns](#), in case you don't have the needed amiibo, and probably my favorite, you can install the [OoT 3D randomizer](#), which is a fully featured logic fueled randomizer that allows you to set every setting you could want to make OoT 3D as wacky as you'd like. Couple this with 60 FPS cheat, the better controls, and the better Navi patches, and the game becomes an entirely new experience. A fun fact, the dev of that randomizer has released a [MM3D randomizer](#) as well!!

## Emulate Any Amiibo to access locked content

(UU)Wumiibo by Kartik is a plugin that runs within Rosalina to emulate the NFC reader. You can use this to emulate any amiibo in game, allowing you to access unavailable content. First, download it from the UU. Open it in the homebrew launcher, and it will prompt you to select games to download the amiibo data for. While in game, do L+DpadDown+Select, then enable plugins. After that, L+DpadDown+Start will open the amiibo selection menu.

A quick note: if your game crashes trying to load Amiibo, suspend to the home menu after loading the game, load the amiibo there, and then open the game back up.

<https://github.com/hax0kartik/wumiibo>

## Installing ROM Hacks

Although there are not many ROM Hacks of 3DS software, some do exist and they rule! Some are simply .cia files, while others have more elaborate install processes.

(UU)[CTGP is an unbelievably huge expansion of Mario Kart 7](#) that makes the game good. It adds in tracks from every game before as well as Mario Kart 8 and Crash Team Racing. It also adds Waluigi back in, along with Boshi of all people and other weirdos. [Animal Crossing: New Leaf: Welcome Luxury](#) is a hack that aims to make the game more luxurious and high class. Mostly this means massive quality of life changes, like shops are always open, mosquitoes never bite, simple things like that. It also makes you an instant mayor, which is nice.

## Dumping Physical Games

It's extremely simple to do this via GODMODE9. A very helpful poster named Lily had this to say: "If intending to install physical cartridges, you can use GodMode9 (v2.0.0 or newer) to directly install the game image (rather than dumping CIA and installing with FBI) through GAMECART -> (titleid).trim.nds -> Install game image."

You can also follow [the guide here by PixelSergey](#) to dump as a .cia.

## Resurrect the Miiverse

While it is not feature complete, [Pretendo](#) is an incredible attempt to bring back the entirety of the Miiverse across the Wii U and 3DS. Massive progress has been made to preserve and replicate the entirety of the Miiverse, and it is truly only a matter of time until it is complete.

Echo notes that [rverse](#) is another version of the same concept that is said to be compatible with Pretendo. I haven't used either of them and can't speak to their use or compatibility.

## Luma3DS Forks

While you have regular Luma3DS installed now, there are some very interesting forks of it that provide more specific benefits, such as redshifting to be easier on the eyes. Lily has generously provided me with some active forks! In Lily's words:

- Luma with redshift (more backlight control and a bunch of other things, see features list):

<https://gbatemp.net/download/luma-10-2-1-with-night-light-and-quick-switchers.35619/>

## III: CRIME.

So, these ones are distinctly less morally gray. It's just pirating, which rules and is always morally correct.

## Installing DS 'emulator', TwiLightMenu++ by DS-Homebrew

So maybe you are now thinking that you can play older Nintendo DS console games because they are not available to purchase from Nintendo or the original developers, and otherwise you'd never have the opportunity to play them. Sounds good to me! (UU)TwiLightMenu++ is your guide to this. **Please note** that the guide I'm about to link is slightly out of date. The Updater it mentions is no longer supported, because you are supposed to just download TwiLightMenu++ from the Universal Updater. [Guide I mentioned that is out of date](#)

a: Widescreen mod. It turns out almost every 3D game on the DS can be played widescreen on your 3DS. Once again, this guide is out of date that I'm about to link, but only at the start. Instead of downloading TWPatch where instructed in the guide, simply open the Universal Updater and download it from there. [Beyond that, follow the guide to the letter.](#) Two last notes here: One, they have a list of supported [widescreen games here](#). Two, if you boot TwiLightMenu++ and it itself is widescreen **before** booting into any game, you'll need to follow the instructions at the bottom of the above guide to reinstall it to fix the issue, otherwise it will boot every game in widescreen. Working correctly, it does not force every game to be widescreen. It's only the ones you enable.

b. Cheats! You can also load in other cheats, thanks to the [hard work of DeadSkullzJr.](#) On this page, scroll down to the Homebrew section and follow the instructions to install the cheat database. This guy tests everything personally, so it'll work.

## Injectors

Here's where stuff gets spicy. The 3DS contains the hardware for 3DS, DS, and GBA consoles. Because of this, you can inject nearly every single game from the GBA onto the 3DS. It comes at the cost of no quality of life features such as save states, though. You're playing vanilla, and you have nearly perfect emulation (because it isn't emulation. It's effectively just running the

game natively). In addition, there is no front end to boot GBA from. You'll need to dig up and install every individual game, which can be an issue when you are dealing with the 3DS having a hard coded limit of 300 games or apps installed at a time. One other fun fact: If you are using an SD card over 32 GB, you'll need to format it properly or it causes issues, with a notable one being major display errors specifically with GBA games. [Here is the guide on how to format your card via godmode9](#), accessed by holding start on boot. Be sure to copy all of your data to a PC before formatting, so you can transfer it back once it is formatted!

Lily chimes in with more info here as well: "64GB and larger SD cards MUST be formatted properly (they ship as exFAT rather than FAT32) or else the 3DS will not be able to read them. The issues with custom themes and GBA graphics occur due to allocation size, hence the need to manually specify 32768/32K for 64GB cards and 65536/64K for 128GB cards."

**One more note** here, once you go over 64 GB, the console will begin to load between things more slowly, with the larger SD cards causing lengthier load times. It never affects the speed once you are loaded in game, but if your goal is quickly picking up and playing games you'll want to keep your card at 128 or under. This guide used to suggest that having multiple smaller SD cards was a good idea, but Lily has pointed out this will cause wear on your SD card slot, and if your SD card slot breaks, your 3DS may be unable to load the boot.firm on start up and cause it to be unable to boot. If you need more than 128 GB of storage, it's better to just get a 256 GB card and deal with the graphical errors on GBA games and lengthier boot times. I personally maintain the files on a hard disk drive of my computer, and transfer games on and off using a FTP (file transfer protocol) programs on the PC and on my 3DS to wirelessly (and slowly) move the files. This causes some wear to the SD card, but losing an SD card is a temporary problem and losing the SD card slot is potentially the end of your system's ability to mod and homebrew. Thank you to David for asking me to elaborate here!

You can inject any console that Nintendo provided support for on the 3DS store, except DS games. DS games have to run through TwiLightMenu++, with the sole exception being Warioware:

Touched!, which Nintendo ported to DSiWare. You can manually add and create injectors for up to 40 DSiWare games (or more likely DS games you wrap in a DSiWare package) due to DSiWare having this limit built in internally. Thanks to hansol, you can now [install DS games to the 3DS mode](#), allowing you to have more than 40 DS games bootable from the home menu. NES, Famicom, SNES/Super Famicom, GB, GBC, GBA, Genesis/Mega Drive, Game Gear, and TurboGrafx-16/PC Engine can run via Nintendo's built-in emulators they used for game releases on eShop. Which are not perfect! But are often good enough.

ANYWAY. To actually inject games, you need the New Super Ultimate Injector. Just follow [the guide here!](#) You may be thinking 'well gee wiz i don't have dumps of my roms' well no worries. My guide is here to help you find out where to actually get stuff. [Go to this megathread and everything is there](#). Screw it. Have fun and either mass download or selectively grab whatever you want. **Note** that you should check the [hshop](#) first to see if you even need to make an injection of the games you want to install. Small note for PSX games: if you want to download those games to inject, you want the .chd files. They can be read much faster than other formats, making them playable.

## Installing emulators

On the 3DS, there are a handful of viable emulators outside of Nintendo's official ones. I'll have the recommended emulators for everything down below. The PSX ReARMED core in retroarch had some massive work done by Justin Weiss, and it is what lets you just... play FF7, or RE2, or Tony Hawk nearly flawlessly on your new 3DS. Some slight slowdown at times I guess but it's absolutely stunning how good PSX emulation is. I do want to note that there are essentially 2 splits on PSX emulation though. One lives in the retroarch system, while the other makes an injection, like the injectors in the section above. I believe retroarch's version is more up to date, but the inject includes L3 and R3 mapped to the touch screen, which is a vital piece to playing a certain

few games like Ape Escape that make use of the stick buttons. This comes at the cost of having the full retroarch menu.

I do also want to note that the head of retroarch is a horrible person who bullies people, including allegedly bullying Near to death and bullying many talented developers out of homebrew entirely. For this reason, I do not recommend sending money or vocally supporting them, despite certain emulators like pcsxe being only available through retroarch on the system. I'm hoping they oust their head and clean house, but until then I recommend exercising caution.

After that aside, we are going back to the psx emulation. Another weird thing, as I mentioned, is that there is no parity between the two and some games work better in one than the other. It's a long process to test compatibility and what settings can make things run better, and unfortunately, almost nothing has been tested for the latest release.

In addition to retroarch, there are also standalone emulators. In my research, I've learned that Bubbles2k16 converted 4 emulators explicitly for the benefit of people who only have an original 3DS. They are emulators for NES, SNES, Master System/Mega Drive, and Turbografx-16/PC-Engine. I'll elaborate more [below](#), but for most games on those platforms, it's the easy choice.

## Installing games

Alrighty, you've screamed I REJECT MY HUMANITY and are ready to hurt Nintendo's bottom line incredibly directly by not paying \$50+ for ten year old games in digital form that never go on sale anymore.

Oh, wait.

Now you can't even give Nintendo money for those games, consoles, or software.

Anyway! To install a 3DS game, [this is your website, the hShop](#). It's full of .cia files, ripe for the picking. Go have fun! **Please note** that for 3DS releases, you'll need the game's .cia file. You may also want to get the .cia files for the game's Updates or DLC, if they exist. If you click on the main

game file, the bottom of the page will have links to other related files. Also, you don't have to worry about install order. You can just batch install in FBI and it'll be fine. It will all just... work. Just make sure you have the right region for your 3DS unless you want to do some extra legwork.

The Hshop, as of 5/2022, has an app on 3DS called [3hs](#). It allows you to download games, homebrew, movies, and ROMhacks directly to your 3DS faster than FBI does via QR codes. Roughly 25% faster by my testing. For big games, this is a difference of 5 minutes or more. Install 3hs by scanning the QR in FBI and have fun!

**An important note of the ONE downside to 3DS hacking!** If you try to log on to the eshop once you download pirated DLC, it may remove your 'ticket' for the DLC and it will not be functional until you reinstall the DLC .cia file. Please be aware of this. I'm looking for a workaround or solution to this, because it is so annoying to accidentally go into the eshop and cause you to redownload all of your DLC in every game. For this reason, I recommend keeping a folder of the .cia files for the DLCs that you have installed on your 3DS at the moment so you can quickly restore from your computer or just disabling the internet on your 3DS until you need to go online.

Also a weird thing? Minecraft on 3DS has a second layer of protection that you need a [homebrew app to bypass](#), so you can access DLC character skins and build in the custom Mario Map. It's a one time thing, but it's weird. It's also [available on hshop now!](#)

Install .cias directly to SD card on computer via [Custom-Install](#):

By ihaveamac. This lets you bypass the 3DS' slow install speed and install 99.9% of a cia on the SD card directly while plugged into your PC. This is definitely my preferred way to install large files to the 3DS. To finish, just boot up the custom install finalize app in the homebrew Launcher menu, and install the tiny remaining files.

## Install .cia files wirelessly with Boop.

By miltoncandelerio. Sthetix's guide: [https://www.youtube.com/watch?v=4PB\\_pvlliP8](https://www.youtube.com/watch?v=4PB_pvlliP8), [imgur simple picture guide](#)

This app is useful for installing smaller homebrew that you are not downloading from hshop. Remember you can scan the QR code in FBI to download and install from hshop. This is mostly useful for .cia files or injects you have compiled yourself for smaller games. I think any FTP app like WinSCP or Filezilla will work with this, though. Be aware that Filezilla bundles itself with adware, so uncheck those boxes.

What makes Boop good is that it lets you install a cia without first putting it on the system. This is important, because putting, say, a cia of a 3DS game can be gigabytes of data, and it needs double the room to download and install. If you want to squeeze something in there, use Boop or direct install to the SD as above with Custom-Install.

## nDS forwarder generator for home menu DS games

By MechanicalDragon0687. So, while TwiLightMenu++ does enable play with nearly any DS game, you may want to simplify the process and make certain games bootable from the 3DS home menu. That's where this comes in. There is a hard limit of 40 DS games displayed at once though, and installing new ones will hide old ones. I personally do not recommend this method for playing DS games, as you lose the ability to customize your ROM settings, such as adding control pad and wide screen support to SM64DS, as well as cheat options if you like to mess around.

Please note the 40 DS games limit counts toward your 300 application limit as well. I highly recommend just booting your games using TwiLight Menu++ for that reason alone.

## Yet Another nds-Bootstrap Forwarder: DS forwarder for 3DS mode

By lifehackerhansol. The previous forwarder works great, but if you want over 40 games you can [use this to add DS games in 3DS mode](#). Wizardry. This counts toward your 300 application total, however.

## IV: Homebrew Games and Ports

These games are not technically being emulated, as they are not trying to emulate the hardware of other systems. Instead, the games are directly ported to work on 3DS, or created from the ground up to work on the console. **One important note** is that many of these are simply shells that need the game files from a legitimate install of a game to be placed inside.

<https://rentry.org/3ds-game-ports-guide> is a collection of every known port for 3ds. the author of the guide, susbaconhairman skribbler, reached out here to ask for it to be added!

(UU)[Minicraft](#) by DavidSM64 - 2D overhead Minecraft inspired game

(UU)[3DSCraft](#) by smealum - Minecraft clone for 3DS. Extremely cool, but early.

(UU)[Portal 3DS](#) by smealum - Adaptation of Portal.

[Lemmings for 3DS](#) by esoteric-programmer - Port of the DOS game and it's expansions.

[Minesweeper](#) by Cid2Mizzard- The classic windows game.

[Undertale tech demo](#) by kitlith - Incomplete tech demo.

(UU)[Zelda OLB 3DS](#) by nop90- First in a Zelda fangame trilogy

(UU)[Zelda Roth 3DS](#) by nop90- Second in a Zelda fangame trilogy

(UU)[Zelda 3T 3DS](#) by nop90- Third in a Zelda fangame trilogy

(UU)CS3DS - [CSPSP](#) by machinimentum. I guess this is Counter-Strike for PSP?

[ctrHexenII](#) by Rinnegatamante- Port of Hexen

(UU)[Dungeons of Daggorath](#) by pyroticinsanity- Port of Dungeons of Daggorath

(UU)[ctrQuake](#) by masterfeizz - Quake port

[Spectre3DS](#) by elhobbs- Quake port

[Osu-3DS](#) by daCyuubi - Osu! On the 3DS

[loQuake3DS](#) by masterfeizz - Quake 3 port

[DXX 3DS](#) by Dagger - Descent 1 & 2 port

(UU)[Quake2CTR](#) by MasterFeizz- Quake 2 port

[ctrWolfen](#) by Rinnegatamante - Wolfenstein 3D port

[Wolf4sdl\\_3DS](#) by Kartik - Wolfenstein 3D port

[Heretic 3DS](#) by elhobbs - Heretic port

[Blasphemer 3DS](#) by eviltoys - Blasphemer Port

(UU)[EDuke3D](#) by masterfeizz - Duke Nukem 3D Port

(UU)[PrBoom3DS](#) by elhobbs - Doom engine. You need to download the WADs yourself. [Here are some.](#)

(UU)[Halo Revamped](#) by TCPixel - Halo multiplayer in the Quake engine

(UU)[POWDER-3DS](#) by nop90 - Roguelike made for GBA emulators

[The Binding of Undertale](#) by sickneckbeardbro - Isaac fanmod port

(UU) [DevilutionX](#) by MrHuu - Diablo 1 port

[CookieCollector -3DS-](#) by GabrielRRussell

(UU)[Cookie Clicker 3DS](#) by AntiMach

[3DS Cookie Clicker](#) by Creckeryop

(UU) [Doki Doki Literature Club](#) by LukeZGD

(UU) [Sonic CD](#) by SaturnSH2x2

(UU)[Sonic ½](#) by JeffRuLz

Among Us 3DS [.cia](#)

Papers, Please Demo [.cia](#)

[Five Nights at Freddy's 1](#) by BumboDEV [.cia](#) (Don't buy these games, maker is a [right wing christian dude](#) who donates to Trump. Either pirate here or on PC)

[Five Nights at Freddy's 2](#) by BumboDEV [.cia](#)

Five Nights at Freddy's 3 (probably by BumboDEV) [.cia](#)

Five Nights at Freddy's 4 Most likely made by BumboDEV as the above 2 were, but there is no way to be sure since all I could find of the game is the .cia on the Hshop [.cia](#)

SM64 3DS (Port of the leaked PC build of Mario 64)There are a handful of versions of this on

the Hshop, but I recommend the [60 fps one](#) with a handy minimap

[Super Mario Star Road](#) by Skelux - Really good Mario 64 ROM hack. Press the bottom left of the bottom screen to change the pixel mode to 400 to have a rock solid 60 fps on n3DS and fairly good 20-30 on o3DS.

[Higurashi](#) 3DS by MyLegGuy- User deleted their account on GBAtmp, and there is no mention of their screenname on the page. Thank you for your help and hard work, kind person! -Edit!

Susbaconhairman Skribbler found their [page on gamebrew](#), confirming the author!

(UU)[Celeste Classic](#) by PsychicPersona

(UU) [Yet Another Mario Kart Clone 3DS](#) by PabloMK7

[Nyan Cat 3DS](#) by markwinap

[Fibbage 3DS](#) by LeifEricson

(UU)[Super Haxagon](#) by RedTopper

[KillerMan: Ghost Buster](#) by GreigaMaster - Mega Man Battle Network fan game

[LOVE](#) by Xavyrr - Undertale fangame?

[Sonic Robo Blast 2](#) by derrekr- Port

[OpenLara](#) - Port of Tomb Raider to 3DS

[Xash3DS](#) by masterfeizz - Half-life + Spinoffs (Blue Shift, Opposing Force). You'll also need to have the relevant half-life game installed on your computer to copy the directories to your 3DS.

[Re3 Engine](#) by AJM - Grand Theft Auto 3 and Vice City (not as stable). Probably the most impressive thing to run on the 3DS.

## V: 3DS Patches

3DS hackers and homebrew wizards have been hard at work making incredible patches to improve games. Even better, you can have it live patch your games, allowing you to uninstall incredibly easily. However, this taxes the 3DS and can cause slowdown or lag, especially on the o3DS. Don't lose hope though! You can just permanently patch and rebuild the game [using this guide](#).

Another neat feature of this tool is that you can use it to make extra installs of games. That means you can have multiple romhacks installed and bootable at any time, along with the base game! You just need to change the title ID.

Assorted english patches:

<https://archive.org/download/En-ROMs/En-ROMs/>

I do want to note that beyond what I list here, there are a bunch of english translation patches. The most famous of all was probably the [Great Ace Attorney translation project](#) by Uwabami that, until 2021, was the only way for English speakers to play the game.

[Etrian Odyssey IV Transparency Patch](#) by GlitchMC - clarifies the actual power and percentages of abilities to help the player make informed decisions. Vital!!!

[Etrian Odyssey U Transparency Patch](#) by GlitchMC - same deal.

[Majora's Mask 3D: Project Restoration](#) by leoetlino - restores swimming controls, time movement speed, deku acceleration speed, adds dpad mask transformations and more! It's just a better version of the game, and possibly the best version of the game that exists.

[Fire Emblem: Gay Awakening](#) (a lot of people have worked on it, but the current branch is by UnassumingVenusaur. I think)- makes the gay subtext not subtext

[Fire Emblem: Gay Fates](#) (originally by UnassumingVenusaur, current version by babysauce) - makes the gay subtext not subtext

[FE13: Good Guy Garon Edition](#) by AgahnimD - Attempts to make the plot functional.

[Fire Emblem Echoes Gender Lock Removal](#) - Allows access to male and female locked classes to

all units.

[More hacks for Awakening and Fates here!](#)

[Tr4sh](#) by JABrules, Breck - Sm4sh Rainbow Edition. Everyone is super broken. Have fun.

[USM-eM](#) by TheGag96- melee-like hack for sm4sh

[Hatsune Miku Project Mirai DX Mix Edition](#) by Stewie1.0 - more songs and stuff

Tons of pokemon hacks - I know this is a cop out but there are hundreds of these.

[Story of Seasons: Trio of Towns - True Love Edition](#) by silrae - gay/bi rights

[SoS: ToT - Hamtaro Restoration](#) by uber geek77 - hamster is back. Compatible with the True Love Edition!

[Animal Crossing New Leaf - Welcome Luxury](#) by kyusetzu - makes things easier and less of a chore. Good for returning players.

[Ocarina of Time 3D - Less annoying Navi](#) by peroxidex. Makes it so when she does the Hey Listen thing, it does not have her name pop up on the top screen. Her fairy icon does still pop up on the bottom screen, and you'll hear her as well.

[Ocarina of Time 3D randomizer](#) by gamestabled - STELLAR game randomizer, holy hell. Still under active development and even has Local Multiplayer with plans to do online multiplayer!

[Majora's Mask 3D randomizer](#) by Z3DR - A worthy followup to the previous randomizer. Also adds options from the Project Restoration hack to improve gameplay!

[M&L: Superstar Saga](#) GBA Soundtrack - by Shrinefox:

[M&L: Bowser's Inside story: DS Voice and Soundtrack restoration](#) by Blaze Heatnix - apparently Mario's fake Italian sucks in the remake? I dunno

New Super Mario Bros 2 has a lot of hacks too. I'm sure some of them rule but it's a lot to sort through!.

[Neko Atsume - English patch](#) by Lycanroc - just seems nice to acknowledge since this game made me smile like 10 years ago

[Yoshi's New Island Music Enhancement](#) by DPS2004- fixes the bad part of the game from what

I hear.

[Star Fox 64 DS](#) 64 voices by ThatInvaderGuy - N64 Voices - silly

[Majora n64 music restoration](#) by DeathWrench. According to the uploader, the music in the remake has a lot of reverb ruining it. This fixes that, apparently, by patching in the n64 audio files

[Majora n64 music remaster](#) by sygemdev. Replaces the music to be a bit different.

[Terraria 3DS Undertale music](#) by Lycanroc - Silly.

(UU)[CTGP-7](#) by [a large team](#) - massive fan expansion of Mario Kart 7. Features waluigi and funky kong. You'll need to install Mario Kart 7 first. Go play it! As of 12/12, they just added 16 more courses and Mission Mode from Mario Kart DS so it's even more of a wonder than ever!

## VI: Misc Apps and nonsense

With so many apps and mods clamoring for your attention, I wanted to make a quick and dirty list of the ones that I found to be of interest. None of these are as vital as anything above, but I just wanted to make note of everything your 3DS can do.

### Situationally useful and worth consideration

(UU) [3DSBank](#) by RocketRobz- Have multiple Nintendo 3DS folders to select, allowing you to bypass

the 300 application limit on the 3DS by loading different profiles which each have a 300 application limit

(UU) [GYTB](#) by MrCheese- allows custom badges. If you install via the UU, you need to add a folder to the **root** of the SD card called 'badges'. This will be where you install badge files. You can find premade ones on the themeplaza. It should dump your existing badges from the arcade as well, which means you won't lose any of them. If you would like to remove the arcade badges and only use custom badges, delete the badge application and the update and dlc data before running GYTB.

[Virtue's Last Reward safe Launcher](#) by lucaboy - The original release has a save destroying bug if you save in the PEC room. To make absolutely double sure you don't have this happen, this app auto creates a save backup on boot. You could also manually make a backup via Checkpoint.

[Gimme 300 coins](#) by Chelsea\_Fantasy - refills your playcoins instantly. Useful in a few games.

You can also tap the top right corner in Checkpoint to manually change your coin total

[For Anyone Who Walks A Lot](#) by iamevn- awards playcoins for over 1000 steps

(UU) [Demo-reset](#) - reset demo usages. Not the most useful thing if you are just going to pirate the game anyway, but could be situationally useful.

[Amiibo Collection](#) by Selliato- Fills album with amiibo you scan to track your collection

[Thenaya](#) by HiddenRambler - Create amiibo from blank NFC chips, like Tagmo for android. You can't rewrite amiibo, but if you order blank NFC chips this will work. (Suggested by [opcii](#))  
Zoklar provided the [combined file](#) required for Thenaya.

[Amiibo file masterlist](#)

(UU)[Specialize Mii+](#) by rboninsegna- give your Mii special gold pants, like nintendo employees, and manage mii ownership.

[3DSplit](#) by RootCubed - Speedrunning timer. Does not run in your games, to be clear. It's just a timer with splits.

[Snickerstream](#) by RattletraPM- Stream 3DS to PC - Allows you to send video from your 3DS to a PC, which is great for streamers. You need to plug aux from the 3ds to the PC to send sound. A helpful video by The RB Specialist 2:

<https://www.youtube.com/watch?v=QyBGppH7NLY>

[Kit-Kat-Slim](#) by GameinCanada - Allow you to stream 3DS video to PC and play with a PS4 controller. Appears to work really well, if [this video guide](#) by the creator is accurate.

[SaltySD](#) by shinyquagsire23- SD redirect patches for 3DS games. This means you can have multiple patches of a single game, which is most useful for Smash Bros, Fire Emblem, or New Super Mario Bros. 2

(UU)[Notepad3DS](#) RMcTn- allows you to make simple .txt files. Can be useful for making/editing cheat files or just taking notes. Please note that it allows you to edit your Rehid custom controls, and as such can be very useful if you want to edit controls without using a PC as a middleman.

(UU)FTP server- [ftpd](#) by mtheall - FTP server that can be paired with an FTP client on a computer to wirelessly transfer files. Please note this is pretty slow on the 3DS, so I wouldn't recommend sending files from PSX or 3DS wirelessly, or at least planning around potentially long download/upload times.

(UU)[3DS controller](#) by CTurt- Sends data to keyboard, joypad, and mouse from the 3DS, allowing you to use it as a controller for your PC

[CTROLLER for Android](#) by hacker1024- use 3DS as android controller

[3DS remote desktop](#) by retrozelda- Stream your Windows screen to 3DS and 3DS input to

Windows, allowing you to control windows from your 3DS. [direct link here!](#) Suggested by good bye

[PinBox](#) by namkazt- same thing. It's the most commonly used of the three, according to Lily.

[TinyVNC](#) by badda71- same thing. A new one, so there is always a chance it will become the best choice while I'm not looking.

[Video Player for 3DS](#) by Core\_2\_Extreme [.cia here!](#) - A video player for 3DS

[CTRmus](#) by MaK11-12 - Music player

[FourthTube](#) by erievs - Best way to watch Youtube videos on n3DS

[Video Inject](#) by ihaveamac - Inject videos to the 3DS

[Video Channels Creator](#) by Rinnegatamante - Same thing, but seems better?

## Chat Clients/Social Media

(UU)[Line for 3DS](#) by Core-2-Extreme- line client for 3DS. Last updated in 2021. This one may work?

[Fb43DS](#) by linoma - facebook chat client - why would you want this. Also it's 7 years old.

[Imgurup-3DS](#) by Kartik- imgur upload client could be nice to get screenshots off the console, assuming you can't dump to tumblr anymore via the browser

[Imgr3DS](#) by sereneblue - Imgur client - I guess you can navigate imgur with this?

[MapleIRC](#) by titegtnodl - IRC client - be the coolest person on the darkweb

## Save Managers

[PHBankGB](#) by gocario - Pokemon save editor for gen 1 and 2

(UU)pkmn-chest by Universal-Team - Same but gen 3-5

[GBAVCSM](#) by TurdPooCharger - GBA VC Save Manager

(UU)[PKSM](#) by FlagBrew - Pokemon gen 1-7 save editors. Widely considered the best, and still maintained and updated.

(UU)[PKCount](#) by SuperSaiyajinStackZ- Shiny Pokemon Counter Tool. I think it's just a counter you manually increment? I guess if you are shiny hunting and have a spare 3DS this could be helpful.

(UU)[Pokemon Dream Radar Save Game Editor](#) by suloku - Allows you to access the exclusive rewards in Pokemon Black/White from this app.

(UU)[LeafEdit](#) by Universal-Team - New Leaf Save editor with a GUI! Looks INCREDIBLE.

(UU)[Vapecord ACNL plugin](#) by RedShyGuy - Editor that works in game! Incredibly enough, it also works with the Welcome Luxury ROM hack! Suggested by Lily.

[Online ACNL Save Editor](#) by Marc Robledo - Edit your New Leaf files through this website, instead of on a 3DS. Suggested by Lily

[3DSync](#) by Kyraminol - Cloud saves for 3DS. Upload only atm if I'm reading this correctly.

(UU)[MK7 save editor](#) by Kartik - Edit your Mario Kart 7 save files

(UU)[TWLSaveTool](#) by TuxSH - (manage DS saves) Lily chimes in again and says 'Save data backup/restore/delete for DS cartridges. This functionality has mostly been cloned to Checkpoint with a more user-friendly UI but with no way to remove a save file from the cartridge.'

(UU)[Style Savvy Save manager](#) by RocketRobz - QoL changes to add contacts and import characters between games.

(UU)[Mod Moon](#) - Organize your mods for games like Smash 3DS to have different modpacks

## Literally Everything Else

(UU)[Forecast](#) by NatTupper - Check weather. Appears to be US centric, since it asks for a zip code. May crash on startup if wifi is not active, so don't be afraid to hold down the power button to power off and reboot the system.

(UU)[CalculaThreeDS](#) by LiquidFenrir - Scientific Calculator

Omega Scientific Graphing Calculator - Fully featured incredible port of calculator software.

Recommended by Lily.

[Dice 3DS](#) bu keanutah - roll dice. I think it's just a 6 sided dice?

(UU)[Orchestrina](#) by EBLEifEricson - Play the Ocarina and other zelda instruments in this app

[Fact Crow](#) by titegtnodl- Crow that tells facts

(UU)[MCU Bricker](#) by Sono - flashes LED in rainbow colors. Does not brick your console, it just has a silly name. I promise.

CtrRGBPATY by CPunch (recommended by Lily)- Allows more granular control of the LED.

## VII: Emulation on the 3DS

Emulation on this console is FASCINATING. GBA, DS, and 3DS run (mostly) natively, but everything else uses Nintendo built emulators. Bizarrely, the Sega emulators appear to generally be nearly perfect, while the SNES and other Nintendo emulators apparently have a few issues.

(UU) Retroarch deserves special mention here for a solid port of many emulators. While some have been minmaxed more in standalone releases, Retroarch's structure is really excellent for providing modern emulator comforts as well as effective emulation... at least on my new 3DS.

### Consoles/Handhelds

#### NES/FDS

Best: (UU)[VirtuaNES balloon2k16](#)

2nd: Injection

#### SNES/SFDS Two kinds of games, normal and Super FX/SA-1

Best: (UU)[SNES9x balloon2k16](#)

2nd: (UU via retroarch) snes9x2002, formerly known as pocketSNES.

3rd: Injection

#### N64

(UU)[Daedalusx64](#) by z2442

Be sure to install your roms to /3DS/Daedalusx64/roms/ or it will say the roms are not found and need a hard reboot. Only a handful of games are functional at the moment. It's a newish emulator so that may change, but we'll just have to wait and see. The compatibility list is short so I'll list the games that I care about that are playable here: Diddy Kong Racing,

Doom64, F-Zero X, Glover, Ocarina of Time, Mario Kart 64, Mario Party 1, Mega Man 64, Snowboard Kids, Star Fox 64, Super Mario 64, and Super Smash Bros.

## GB/GBC

Best: [mGBA](#) by Vicki Pfau (new3DS only)

(UU for the 3DS version, which is apparently not as good as the DSi version) [GameYob for DSi](#) by Drenn1 (load it through TwiLightMenu++)

2nd: Injection

## Virtual Boy

(UU)[r3Ddragon](#) by mrdanielps - Not perfect, but it works with the 3d of the console.

## GBA

Best: 3DS via [Open\\_agb\\_firm](#) by profi200. An early fascinating attempt to build a front end for the native GBA built into the 3DS. Could be useful if you have a lot of GBA games or are running up against the 300 application limit, since you don't have to create a separate injection for every game you want. It's constantly being worked on and updated, so right now they just added brightness, image scaling options, and gamma settings! Keep an eye on this one as it evolves. It'll only get better. As of February 2022, [here is a pros and cons list](#) of all GBA options provided by, you guessed it, Lily!

2nd: 3DS via Injection. Runs natively and perfectly, but with no emulation abilities like savestates.

3rd: (UU)[mGBA](#) by Vicki Pfau. GBA emulator. Only really usable on n3DS, and sacrifices perfect playback. It does have save states and cheats built in, and runs in 3DS mode, allowing you to access plugins such as streaming, as well as the 3DS accelerometers for games like Warioware Twisted. May be more compatible with GBA ROM hacks as well, since.

4th: GBARunner2. Included with TwiLightMenu++, but not recommended. Compatibility issues, due to GBA hardware being inaccessible in NDS mode and other minor translation issues that come from emulating a GBA through emulating a DSi.

## DS

Best: 3DS via TwiLightMenu++

2nd: r4 cart. Useful, but not preferred. Can apparently play Golden Sun: Dark Dawn, which for whatever bizarre reason does *not* run through TwiLightMenu++

## PSX

(UU via retroarch) PCSX ReARMed by Justin Weiss - The upside is that you can change the settings to your heart's content, and make profiles based on games. Most of them just run well out of the box, though. The downside is no L3 or R3, which can be an issue in certain rare games like Ape Escape. You can attempt to rebind with shortcuts, but it will always be a bit finicky to do. You'll always want to use **.chd** files for PSX emulation.

To use, just place the .chd game files in your roms/psx folder that is created when retroarch is installed. You'll also want to place the psx BIOS in the same folder as the program. You can grab that from the internet [archive here](#). Here is the name of the BIOS I recommend:  
SCPH101.BIN

[PCSX ReARMed Injector](#) by Sakitoshi- This one is fascinating. It doesn't use a build as recent as the one in retroarch, but it does have two notable features. First, it maps L3 and R3 to the bottom screen, solving that issue. Second, when you make the injection, it prompts you to choose between 5 settings prioritizing either emulation speed or accuracy, while showing you the settings it changes to do that! If you decide to just use the Retroarch core, it is very helpful to review the settings that this Injector changes so you can know how to troubleshoot performance in games. I should list those settings here because I can't get Red Alert to run on my 3DS.

One last thing, be sure to download and store the BIOS for the PSX injector in the same folder as the program. You can grab that from the internet [archive here](#). Here is the name of the BIOS I recommend: SCPH101.BIN

Megadrive/Genesis/MasterSystem/CD/32X

Best: (UU) [Picodrive by balloon2k16](#)

2nd: Injection

PC Engine/TurboGrafx

Best: (UU) [temperPCE by balloon2k16](#)

2nd: Injection

GameGear

Injection

**Please note** there are a LOT of other emulators as well, and this list is biased as all hell based on my interests. Sorry Sega!

All injectable systems. as listed from the Hshop:

Old 3DS and New 3DS: 32x, Arcade, Atari 2600, Atari 7800, Atari Lynx, Famicom Disk System, Game & Watch, Game Boy, Game Boy Color, Game Boy Advance, MSX Ports (SMS-SG), Neo Geo Pocket Color, Nintendo Entertainment System, Nintendo VS. System, Odyssey^2, Othello Multivision, SEGA Game Gear, SEGA Genesis, SEGA Master System, SEGA MegaDrive, SG-1000, Super Nintendo Entertainment System, SNES Satellaview, TurboGrafx-16, WonderSwan, and WonderSwan Color

New 3DS only: Arcade, CPS-1, CPS-2, Neo Geo, Sega CD, Sony Playstation, SuperGrafx, TurboGrafx CD

## Platforms

Porting a platform is in my understanding different from making an emulator. My flawed understanding is that porting a platform means you bring the whole thing over, so everything that runs on that platform should, in theory, work. I can't say that the platform is perfectly replicated, so there may be massive issues.

[VNDS-LOVE](#) by ajusa - Visual Novel Interpreter for 3DS. Still in very, VERY early beta. As in, pictures don't work yet I think?

[LOVEPotion](#) by lovebrew - Experimental VN Interpreter for 3DS

[VN3DS](#) by dfsa3fdvc1 - Same as above, but abandoned as of 2015. Apparently sound doesn't work with this one?

[VNDS](#) - Visual Novel Interpreter for DS. The good news is that it has Umineko and Higurashi ready to roll. The bad news is that it has DS resolution, hence the above projects. No joke, I partly made this guide to rekindle the 3DS homebrew scene specifically to get VNDS-LOVE to get upgraded. Save us, Ajusa!

Resources for the above, graciously provided by [opcii on tumblr](#)!:

[Digital-Haze's](#) VNDS installation and novels

[MEGA link](#) to other Novels.

[Crimson Scripter](#) by phalk- Sound Novel Interpreter. No clue how this one works, but it seems neat.

(UU)[EasyRPG Player](#) - RPG Maker 2000/2003. Unbelievably, this is still updated as of October 29th 2021. Not sure what you'd want to play here, but I'm certain some gold is buried in this forum.

ScummVM (Also available in retroarch)

[OpenBOR](#) - Side Scrolling Beat em Up Engine.

## Further Reading

For further reading, [GBATemp's 3DS forums](#) is the most active general modding community. Peek around there because there are miracles buried on this site. The weird thing is that the site prides itself on having a terrible search system. But, uh, navigating nearly 3000 pages of a forum manually to find a translation patch that has never been posted anywhere else is a daunting task.

However, the most useful general use site is [ROMhacking.net](#). Absolutely vital resource for thousands of ROMhacks. Patching your own ROMs can be a little bit of a headache, but I highly recommend giving it a shot.

[Gamebrew](#) also has a decent chunk of 3DS homebrew as well that is worth a look.

The [reddit for 3DS hacks](#) is interesting. People tend to post new releases and major breakthroughs there, and it's not so busy that it is unreadable. However, they are very explicitly against piracy and any mention of using your 3DS for piracy will be an instant ban.

The [reddit for 3DS piracy](#), however, lets you talk about pretty much anything, so long as you don't post links.

I'll try to keep my guide updated as well, but there's a lot here that I haven't even looked at yet, and I can't be sure it even works or is compatible with modern 3DS firmware. This guide will only get better, though. That much I'm sure of. Until next time, I'm sure I've given you plenty to do. Just wait until I do my Wii U/Wii guide. Have fun!

-Your PaperPal

# Bonus: PAPERPAL'S PREFERRED PLAYABLE PROJECTS

Due to this section becoming bigger than the entire rest of the guide, I've split it into [another document](#).

It's a look at the 3DS and Wii U as consoles and the games you can play the 'best' versions of on them, and also for game series and how good they are at playing games across series. If you'd like my recommendations, I'm of course happy to share if you simply click the link. As of 6/8/22, this guide is absolutely not finished, but what it is is about 75 pages of madman's scrawls.

As of 7/25/22, I've made a new document that is an excel sheet in a desperate attempt to improve the readability of the guide. It has not worked.... Yet. I'll keep tinkering.

## ii: Glossary

### Hobbyist terms you should know:

**3DS**- The handheld console you are trying to hack. Comes in 2 varieties that matter.

**Original Console**: original3DS(o3DS), o3DSXL, 2DS

**Upgraded Console**: new3DS(n3DS), n3DSXL, n2DSXL

**eShop**- Nintendo's official electronic shop, accessible via the 3DS home menu.

**Amiibo**- Scannable figurines or cards that unlock content in various games

**Themes**- Different looks, sounds, and music for the Home Menu

**Home Menu**- The menu where you can pick games or apps to load.

**Badges**- Small stickers you can place on the home menu or on folders

**Folders**- A way to organize your Home menu. Select an empty spot to create one.

**Physical Game**- A game card you can hold in your hand

**Digital Game**- A game installed to the SD card in your 3DS

**ROM/iso**- A catch-all term for digital files of video games

**ROMhack**- Edited versions of video games. Could be as simple as changed colors, to something as extreme as an entirely new game built out of the bones of the original game.

**Emulator**- Software that simulates hardware. A 3DS, for example, doesn't have the parts for a PSX or Gameboy inside of it. It can pretend it does via an emulator.

**SD Card**- Expandable storage for games and applications on original 3DS. The more games and software you add, the more of the card is filled

**Micro SD Card**- Same as above, but physically smaller. Can be used on n3DS and the o3DS (with an adapter)

**Hack/mod**- Modify a device in a way the original developer did not intend.

**Homebrew**- Software not released or approved by the hardware manufacturer

**Format(wipe, clean)**- Remove all information from a drive, and sometimes change the way information is stored.

**Dump**- Copying the files from a physical item to a digital format.

**Hardware**- The physical device that runs physical or digital software

**Software**- Any apps or code that run on the hardware

**Physical**- Software or hardware you can hold in your hand or touch. The 3DS and its game cards are all physical

**Digital**- Software or firmware stored on another physical device, eg. an SD card.

**Firmware**- The 'Operating system' of a console.

**Custom Firmware**- A replacement operating system.

**Port**- A game made to work on the 3DS that was originally from a different console or platform

**Injection**- Software that boots inside of other software, or by pretending to be other software.

**Debug**- A developer menu that allows you to adjust system settings beyond the scope of general use. Not for casual users.

**Splash Screen**- A screen that displays a custom image when you boot the 3DS

**Mapping/Remapping**- Changing what button is read as which, eg. swapping A to B.

**Apps**- Short for Applications. Anything you can select from the Home Menu that isn't a game.

**Cheats/Cheat codes**- Custom changes to the game's code made by players. Can do something as small as unlocking existing content, to stuff as big as invincibility.

**Boot/Reboot**- Another term for pressing the power button, or powering off and back on. Can also be used as a replacement for launch. Think of it as Start/Restart.

**Launch-** Selecting and playing an app.

**Bugs/Buggy-** When a game does not behave in the way it is supposed to. The buggier it is, the less the game is running how it should.

**Lag/Slowdown-** When a game actually slows down due to the console not being able to do what the software is asking of it.

**Install-** Take a downloaded file and change it to a usable state. On 3DS, that usually means making it an App or loading it from the Homebrew Launcher. On PC, it makes a shortcut to an app you can run.

**Download-** Get a file from somewhere else and place it on your PC or 3DS.

**Patch-** Custom changes to a game to alter the content. Can be temporary or permanent.

**Update-** Changes from a developer to their product made after it was initially released. Can be as small as spelling corrections, or as large as changing how games play.

## Abbreviations

**CFW-** Custom Firmware

**UU-** Universal Updater

**o3DS-** original 3DS

**n3DS-** new 3DS

NES - Nintendo Entertainment System

SNES - Super Nintendo Entertainment System

N64 - Nintendo 64

PSX - PlayStation (1994)

FTP - File Transfer Protocol

## File types

**.cia**- prepared packages ready to be installed to the 3DS via FBI application

**.3dsx**- files and apps bootable from the Homebrew Launcher application

**.gba**- Game Boy Advance Game file

**.nds**- Nintendo DS Game file

**.gb**- Game Boy Game file

**.gbc**- Game Boy Color Game file

**.chd**- PSX games formatted to work best on 3DS