SIMPLEPLANES ON GNU/LINUX WITH PROTON

Please finish reading this guide completely before trying anything.

Why should you try gaming on Linux?

1. Linux is **free** and **open-source**, which means anyone can **see** and **edit** the source code.
   It also means you don't have to give Big Bill more money, so you can buy the new **Doom Eternal**, which is made by id Software, Published by Bethesda Softworks, owned by ZeniMax Media, which is an Xbox Game Studios subsidiary, which is a Microsoft division, wait… What?!
   My life is a lie!

2. There are many different "**Distros**", which are flavours of Linux. If linux is your grandma's family recipe, then different distros are different variations other family members have made over time. Each distro has its quirks, and some are similar while others are really different.

3. **Customisable**: don't like the desktop environment? Get a new one!

4. All the software you'll ever need, in more or less one place. Most distros, including all the ones we'll be using in this guide, have a software store. For example, **Ubuntu** has Ubuntu Software, **Linux Mint** has Mint Software Manager and **Pop!_OS** has Pop!_Shop.

Let's get started!

What you'll need:

- A PC/Laptop with **windows** and at least the following specs:
    - > 4GB RAM
    - > 2GHz Dual-core 64-bit processor
    - Internet access
    - Shader Model 3 512MB VRAM GPU

- On a desktop, I recommend a **SATA SSD** (min. 120GB) also, don't forget to buy a **SATA cable**
  If your budget is tight, you can also use **SATA HDD**, although not recommended
  However, if you have some more dough, you can buy an **NVMe** drive, if your motherboard supports it.
- On a laptop or a computer you shouldn't touch from the inside, you can use an **external SSD**, preferably with USB 3.0, unless your device doesn't support USB 3.0, then it's just a waste of money.
- A **> 16GB** USB 3.0 **empty** drive, USB 2.0 is fine as well, especially if you enjoy waiting.
- A **steam** account with **SimplePlanes** on it

Step 1: Create the installation media

Start up your windows machine, open your browser of choice (try to get used to **firefox**, because that's what you're going to be using on linux).
Select one of the distros below:

Ubuntu 20.04 - stock kernel - Working

Ubuntu 21.10 - stock kernel - Working

Ubuntu 22.04 - stock kernel - Worked at first, but then stopped launching

Pop!_OS 21.10 - stock kernel - Working

^ Proton 4.2-9

Linux Mint Cinnamon 20.3 - stock kernel - Not Working

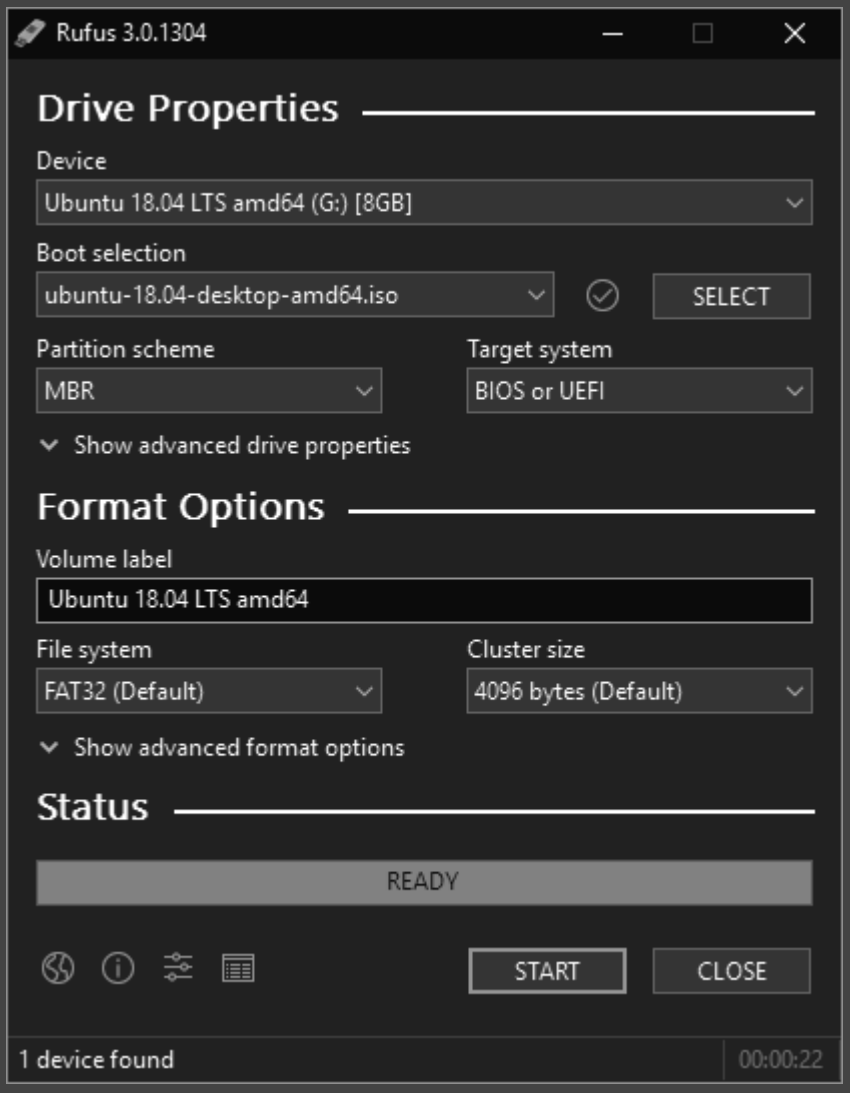
OpenSUSE Tumbleweed late Jul-early Aug - stock kernel - Not Working

Manjaro Plasma 21.3.1 - Linux 5.5 kernel - Not working

Manjaro Plasma 21.3.1 - Linux 5.19f kernel - Not working

^No protons working

Click on the **download** button. A file that ends in .iso and a CD/DVD disk icon should start downloading. If not, wait a few seconds, then look for a hyperlink saying "download not started?". Since this is quite a big file (1 to 4GB), you may have to wait a while depending on your internet speed.
Once the disk image (.iso) is downloaded, go to rufus.ie, then click on the top link, **rufus** **version number*.*
Insert your USB drive. To avoid confusion, **remove all other USB drives**. Make sure the drive is **clean**, or that it doesn't have any important stuff on it. **ALL DATA ON THIS DRIVE WILL BE DESTROYED**.
Run rufus.exe. You're not going to need to touch many settings. Firstly, we will select our USB drive in the "Device" drop-down menu. **Double-check** if it's the right one. Then, click the "**SELECT**" button, go to the **downloads** folder (or the folder you downloaded the .iso file into, if it's in a different one) and select your .iso file. Again, **double check** your chosen settings for any mistakes, then click "**START**".
This is going to take a while...



source: rufus.ie

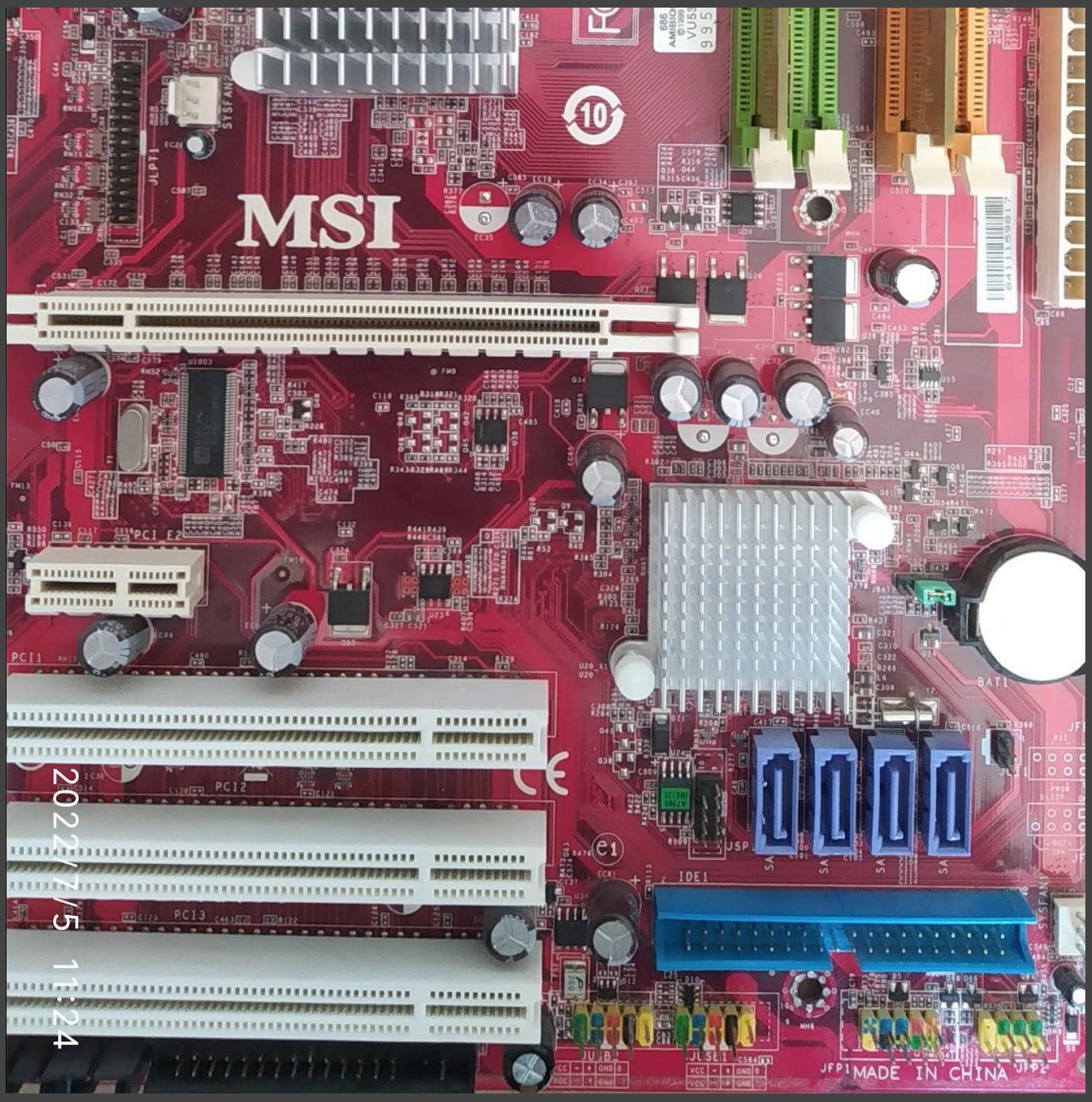
Step 2: Installing the SATA SSD or HDD

this step is only for desktop PCs that can be opened.

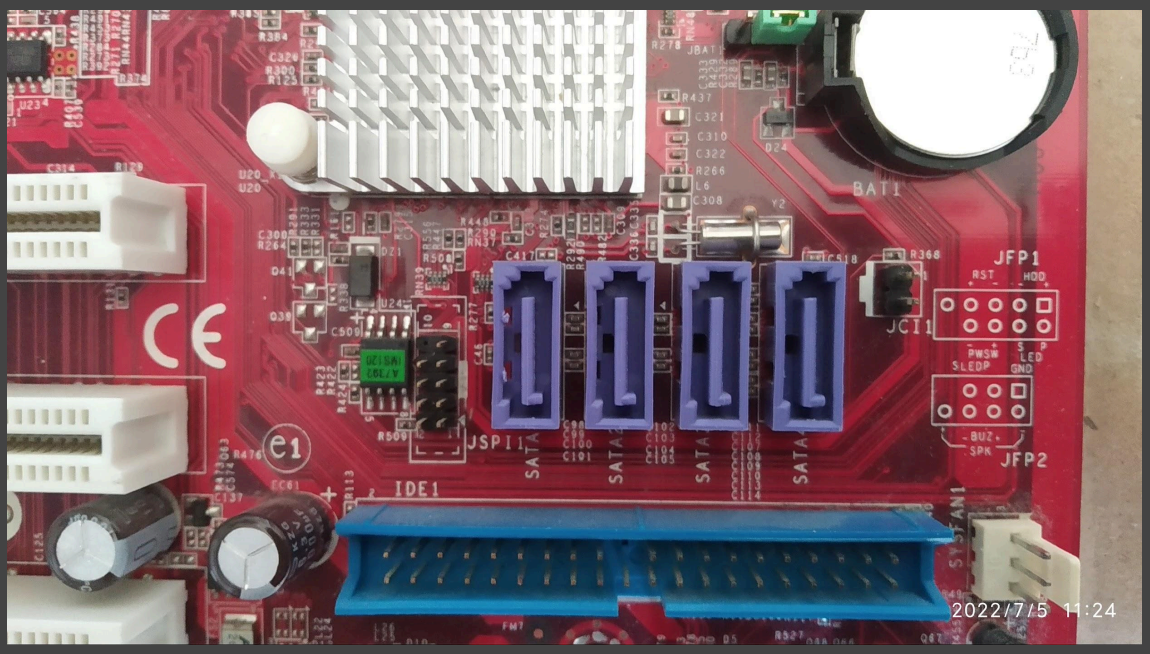
Once rufus is done, close all programs, eject your USB drive, then **turn off** your computer by pressing **Alt+F4** on the desktop. Select shut down. Wait until no noise is coming from the system and there isn't any display output. Now, **unplug** your PC from the wall. This and the following steps are VERY important. Depending on what part you touch, if you don't unplug your PC, you may get an electric shock, or fry some expensive components in your battlestation, which will permanently break them. Next, after you have unplugged your PC, hold down the power button and count to ten. **Your PC may start to turn on**, this is leftover electricity that was stored in capacitors. This electricity could have gone through your body, causing a short-circuit in your PC.

Anyways, now that's taken care of, let's move on to the installation of the **SATA SSD**. Open your PC's side panel. The first thing you want to do is locate the SATA ports on the motherboard. They can usually be found on the bottom right, in between the front

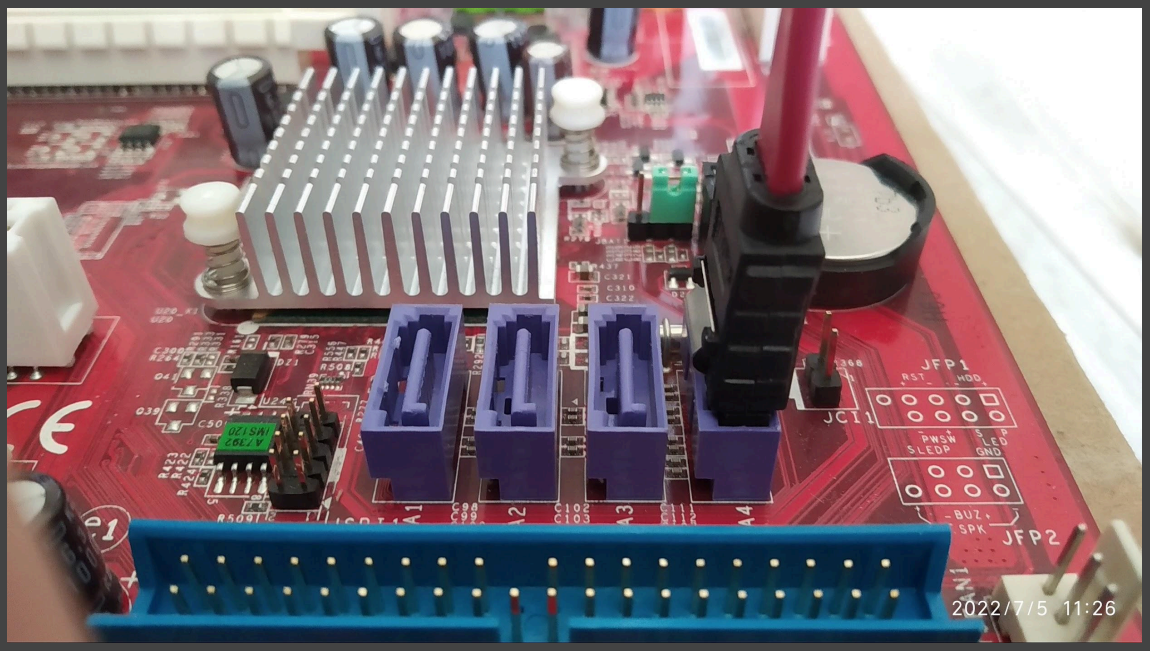
panel connectors and front USB connectors on the motherboard.



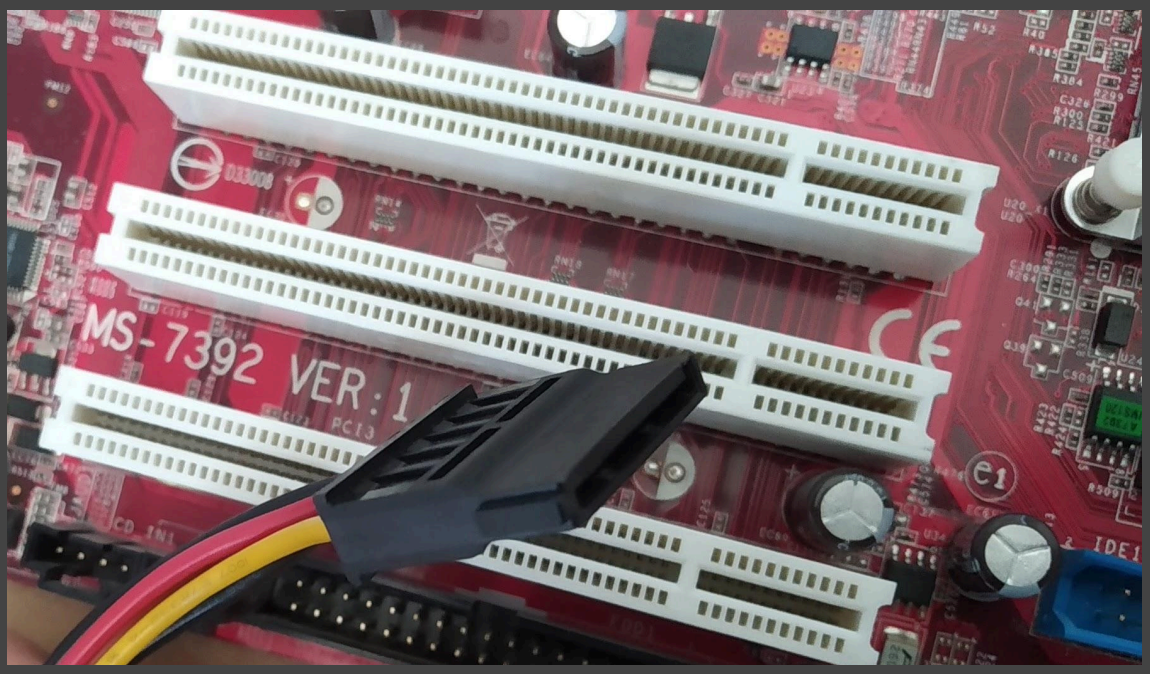
The southern half of a motherboard



SATA ports are used to connect hard drives and DVD players. South of the SATA ports is an IDE port, which is a similar, but older and slower connection interface. Modern motherboards don't include them anymore.



Plug the SATA cable into the port like this, then plug the other end into your SSD or HDD.



Grab the SATA power cable from the and put it in the slot on the **drive**.
Make sure everything is seated correctly, then **mount** the drive to the chassis using screws. This is optional when using an SSD, since it doesn't have any moving parts. When using an HDD (hard disk drive), however, it is necessary in order to prevent the drive rattling around within the case.

Step 3: Installing your Distro

Ubuntu

Ubuntu - booting
Ubuntu - Installing
Ubuntu - drive management
Ubuntu - Completing

Linux Mint

Mint - booting
Mint - installing
Mint - drivers
Mint - Multimedia codecs

Pop!_OS

Pop! - installing

Please refer to your distro's install manual if it isn't listed here.

Step 4: Installing Steam

There are three options:

1. Install steam from the website,
   Then double-click your downloaded .deb file
   A software manager window will open, click the **install** button
   Then, in your program search window ("show applications" → search window)
   Type "**Steam**"
   Click the Steam icon.

2. Install steam via your distro's **software manager**:
   Open your software manager; this varies per distro.
   Search for "**steam**"
   Select the first item that shows up: Steam, published by Valve.
   Click on "**install**"
   Then click on **open**, once it has been installed
3. Console/Terminal. Open your terminal app, then type one of these commands below, if it throws an error, try a different one. It will ask you for your password.:
   - sudo apt-get install steam
   - sudo pacman -S steam
   - Sudo yum install steam

Click "**I already have an account**" and enter your login information if you have an account, or "**create an account**" if you don't have one yet. Then, follow the instructions on your screen in order to create an account.
This guide assumes that you've already **bought** SimplePlanes. If you haven't, please buy it here.
If you're interested in SP's sister game, **SimpleRockets 2**, you can buy it in a **bundle** here. I've managed to get SR2 working on Linux (specifically Pop!_OS, it didn't work on other Distros I tried). During **summer sales**, the bundle usually sells for ~$13.

Step 5: Getting Proton working

In this step, we'll get **proton**, Valve's Linux **compatibility** layer, working with Simpleplanes. According to Protondb.com, Proton should work with SP with minor tweaks. I got it working on Pop!_OS without any tweaks using the default Proton **Experimental**, and SimplePlanes on Ubuntu 20.04 LTS, 21.10 and 22.04 LTS with ReShade using Proton 4.11-13 or 4.2-9. Sadly, Linux Mint didn't work with any version or tweaks. We'll get to that later, though.
First, open your "**Library**" tab, and select SimplePlanes.
To the far right of the grey, unclickable "Install" button, there's a **gear icon**. Click it, then select "**properties...**" in the drop-down menu that will appear. A window will appear. On the left side of this window, select **compatibility**.
Check the box in the field "Force the use of a specific Steam Play compatibility tool"
If you're on Pop, leave the field below on Proton Experimental.
On Ubuntu, select version 4.11-13 or 4.2-9. Both may work.

Now, the button should be blue and **clickable**. Click it, agree to the EULA, then check the box that says “Launch when complete”.

Step 6: ReShade

This is very distro-specific.

Other games that work with this process, verified by me

Remember that many games have native linux support. They aren’t listed here.

- SimpleRockets 2
- Scrap Mechanic
- Mafia 1 original
- Cry of Fear
- POLYGON
- Sprocket
- Stay Out
- TM Nations Forever
- Bitburner
- Left 4 Dead
- World of Tanks Blitz

Known Issues

- When the computer is suspended (put to sleep in Windows), the game freezes and shows a black screen.

- When selecting a blueprint, a window opens like normal (although it looks like pre-windows 10, which is something wine/proton does). When you try to select a picture, the game freezes, stops responding and shows a black screen. No custom thumbnails for ya unless you have a windows install.