

How to force YouTube to maintain the quality of uploaded videos

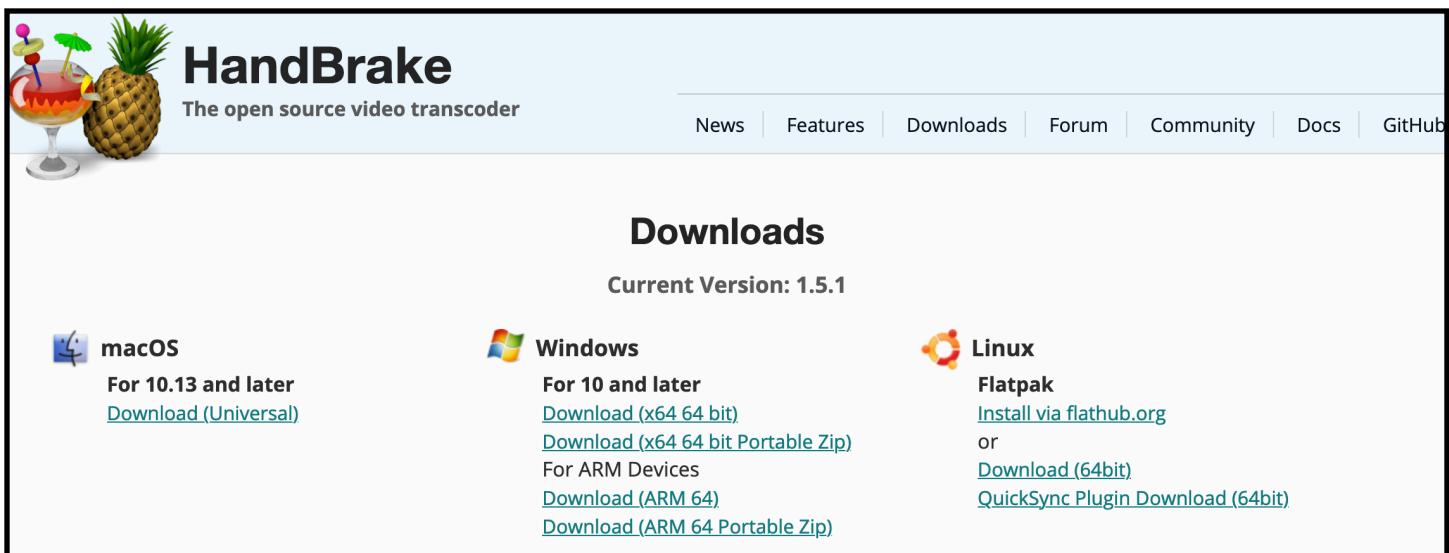
When you upload a video to YouTube, how it looks is different from what you originally recorded. It is “compressed” by YouTube, not only to reduce the space taken up on their servers but also because original-quality videos require fast internet connections to watch. YouTube prioritizes more popular channels in terms of maintaining the quality of their videos, but this guide aims to **trick** YouTube to compress videos as little as possible no matter how many views you get.

This guide assumes that you have videos on your computer that you wish to upload or have the capability to record them (via OBS, NVIDIA ShadowPlay, AMD Radeon ReLive, or other means). Any computer running a desktop operating system (such as Windows, macOS, or Linux) should work, but this guide was written specifically for a MacBook Pro running macOS 12 Monterey.

1. Setup HandBrake

HandBrake is an application available for download from <https://handbrake.fr/downloads.php> whose purpose is to transcode (convert) video files from one format to another. It is a very versatile program with many uses, but we will be focusing on its ability to **upscale** videos to a higher resolution for this process.

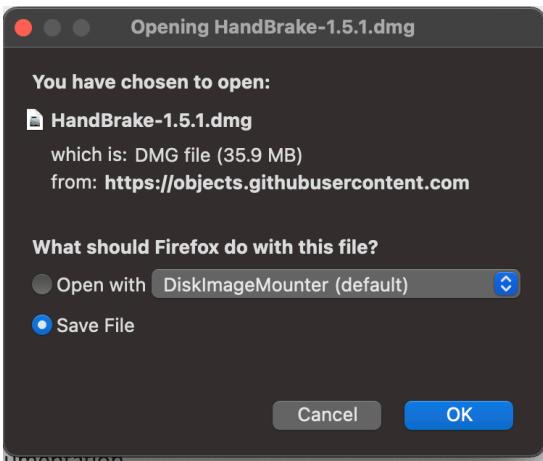
This is what you see when navigating to the link above:



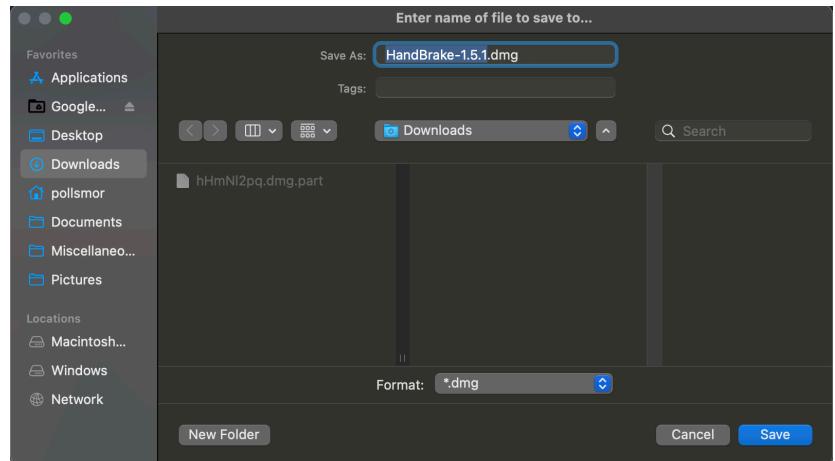
The screenshot shows the HandBrake website's "Downloads" page. At the top, there are icons for a cocktail and a pineapple. The title "HandBrake" is displayed with the subtitle "The open source video transcoder". A navigation bar at the top right includes links for News, Features, Downloads, Forum, Community, Docs, and GitHub. Below the navigation bar, the word "Downloads" is centered in a large font. Underneath it, "Current Version: 1.5.1" is shown. The page is divided into three main sections: "macOS", "Windows", and "Linux".

- macOS**: Shows the macOS logo and text "For 10.13 and later".
[Download \(Universal\)](#)
- Windows**: Shows the Windows logo and text "For 10 and later".
[Download \(x64 64 bit\)](#)
[Download \(x64 64 bit Portable Zip\)](#)
For ARM Devices
[Download \(ARM 64\)](#)
[Download \(ARM 64 Portable Zip\)](#)
- Linux**: Shows the Linux logo and text "Flatpak".
[Install via flathub.org](#)
or
[Download \(64bit\)](#)
[QuickSync Plugin Download \(64bit\)](#)

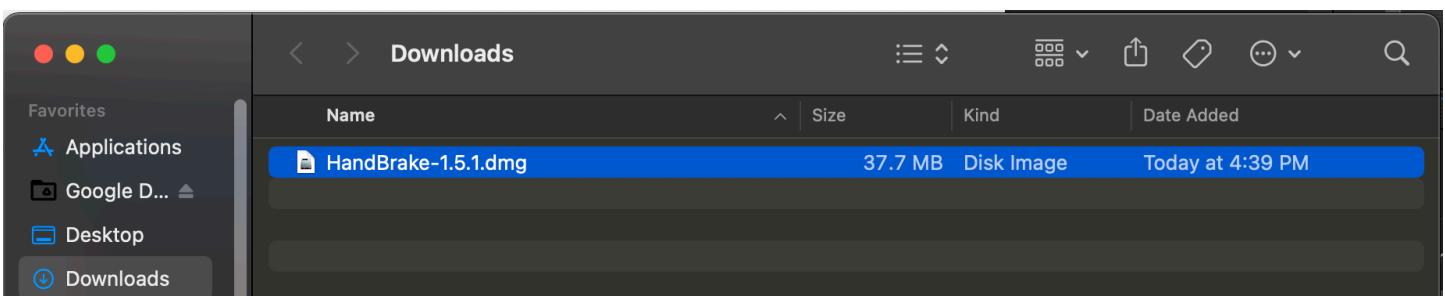
Click the download link for the OS you are running.



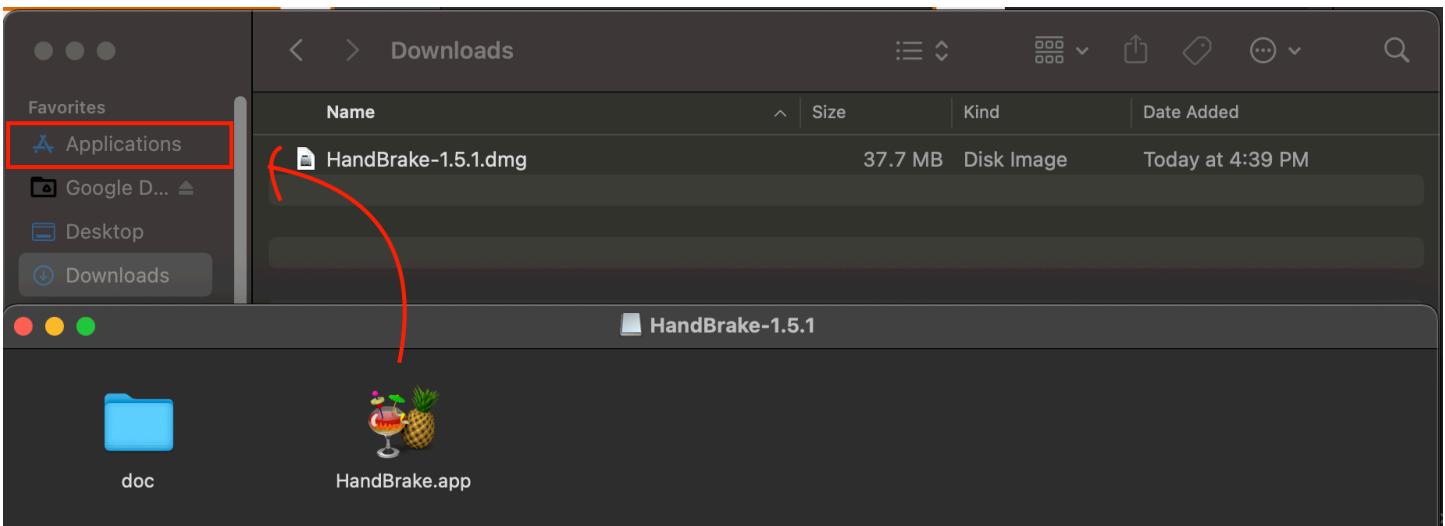
You want to save the installer somewhere.



Probably the default “Downloads” folder.



Double click to run the installer.

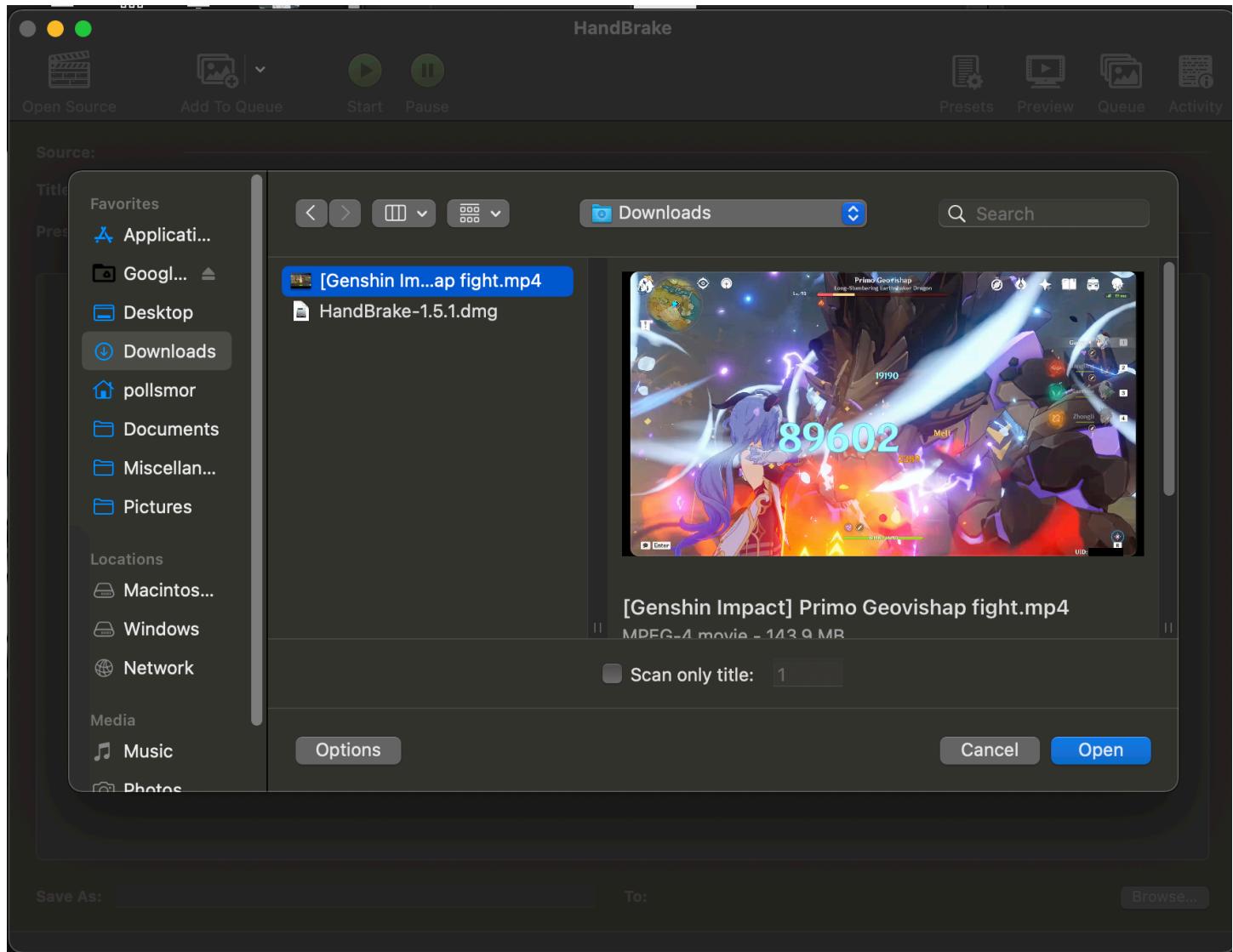


Drag “HandBrake.app” to the **Applications** folder to install it. From there, you only need to double click HandBrake to open it like you would any other program.

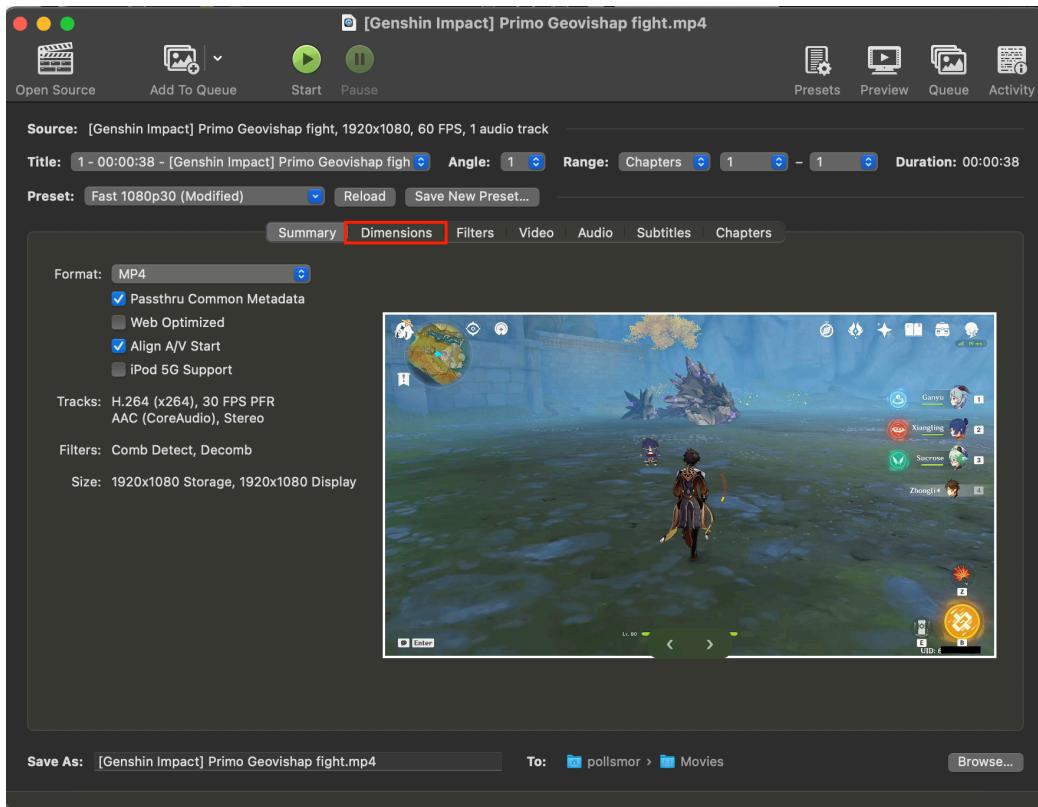
2. Choosing the correct/relevant HandBrake settings

This is where the trick comes in: all YouTube videos uploaded at 1440p quality or higher will sustain minimal compression. Therefore, you want to **upscale** (increase the resolution of) videos of less than 1440p quality, to 1440p. Even though you can't fill in the details after recording a lower resolution video (say, in 1080p), this still tricks YouTube into not butchering the quality of the video once uploaded.

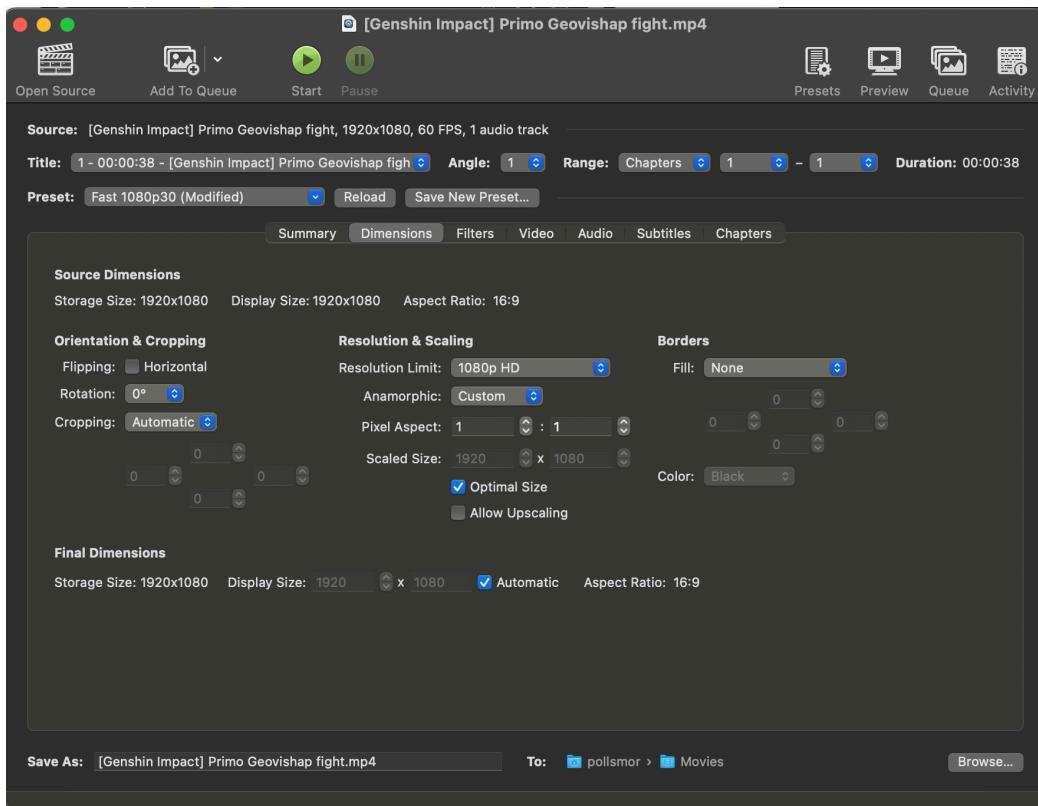
When you open HandBrake, it opens this window asking for an input video file:



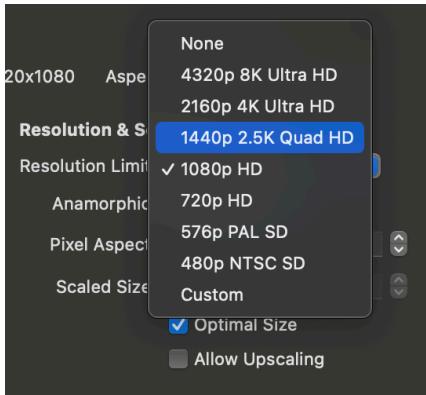
I oblige with this 38 second Genshin Impact video clip and click “Open”.



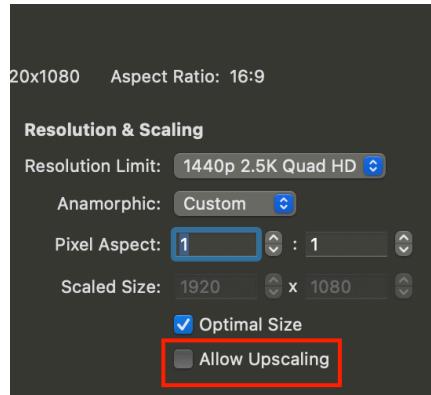
Click the “Dimensions” tab at the top.



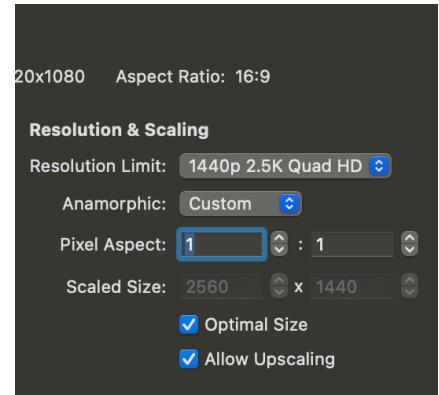
This is the **Dimensions** tab, where you can change the resolution.



Set the **Resolution Limit** to 1440p.



Tick **Allow Upscaling**.



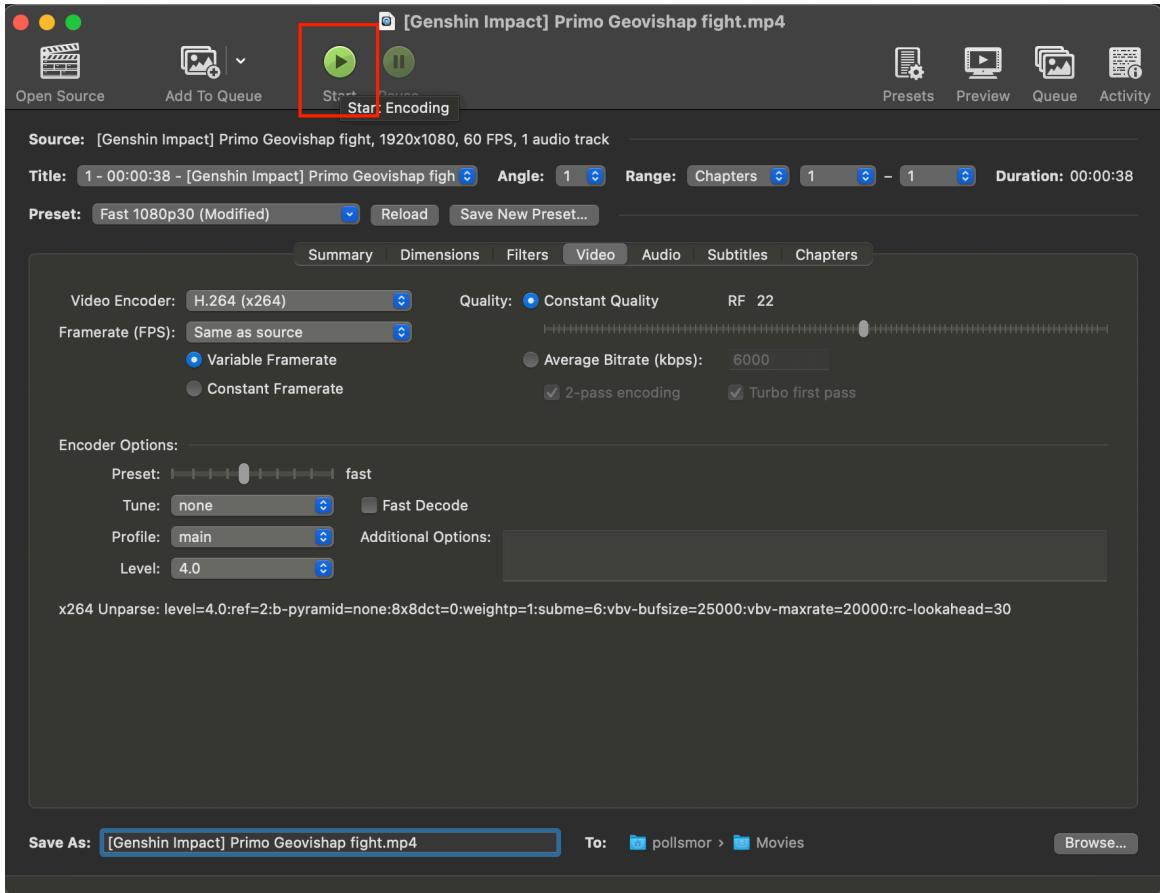
“Scaled Size” should now change to the desired resolution of 1440p.

Optionally (but still recommended), you want to head to the **Video** tab and set “Framerate (FPS)” to “Same as source”. By default it is set to 30, and if your input video was recorded above 30 frames per second, a lot of fluidity will be lost with the default setting.

Save As: [Genshin Impact] Primo Geovishap fight.mp4 To: pollsmor > Movies Browse...

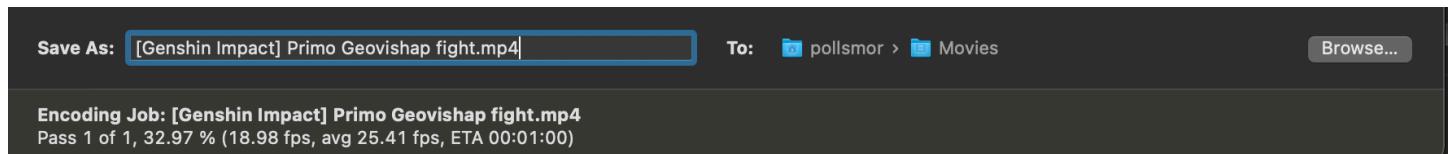
```
x264 Unparse: level=4.0:ref=2:b_pyramid=none:8x8dct=0:weightp=1:subme=6:vbv_bufsize=25000:vbv_maxrate=20000:rc_lookahead=30
```

3. Upscaling, then uploading the video



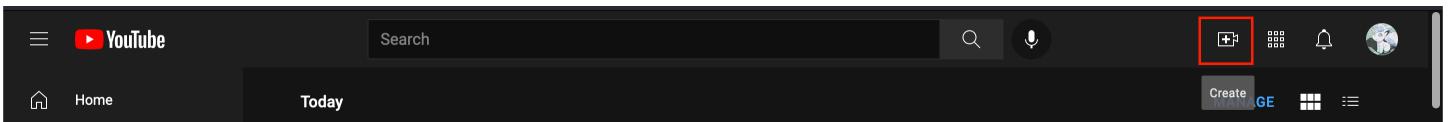
Click **Start** to start the process! Note the “**Save As**” option at the bottom that allows you to pick the location the final product will be output to. On macOS, the default location is your user account’s **Movies** folder.

The actual process to upscale the video requires scant input from the user aside from patience. It must be noted however that **rendering videos** in general (which includes upscaling) is one of the hardest tasks a computer can perform. Thus, **a warning must be given to laptop users to plug in the charger to ensure battery power does not run out, and to prevent overheating by resting the laptop on a flat and hard surface (such as a desk, not your lap)**.

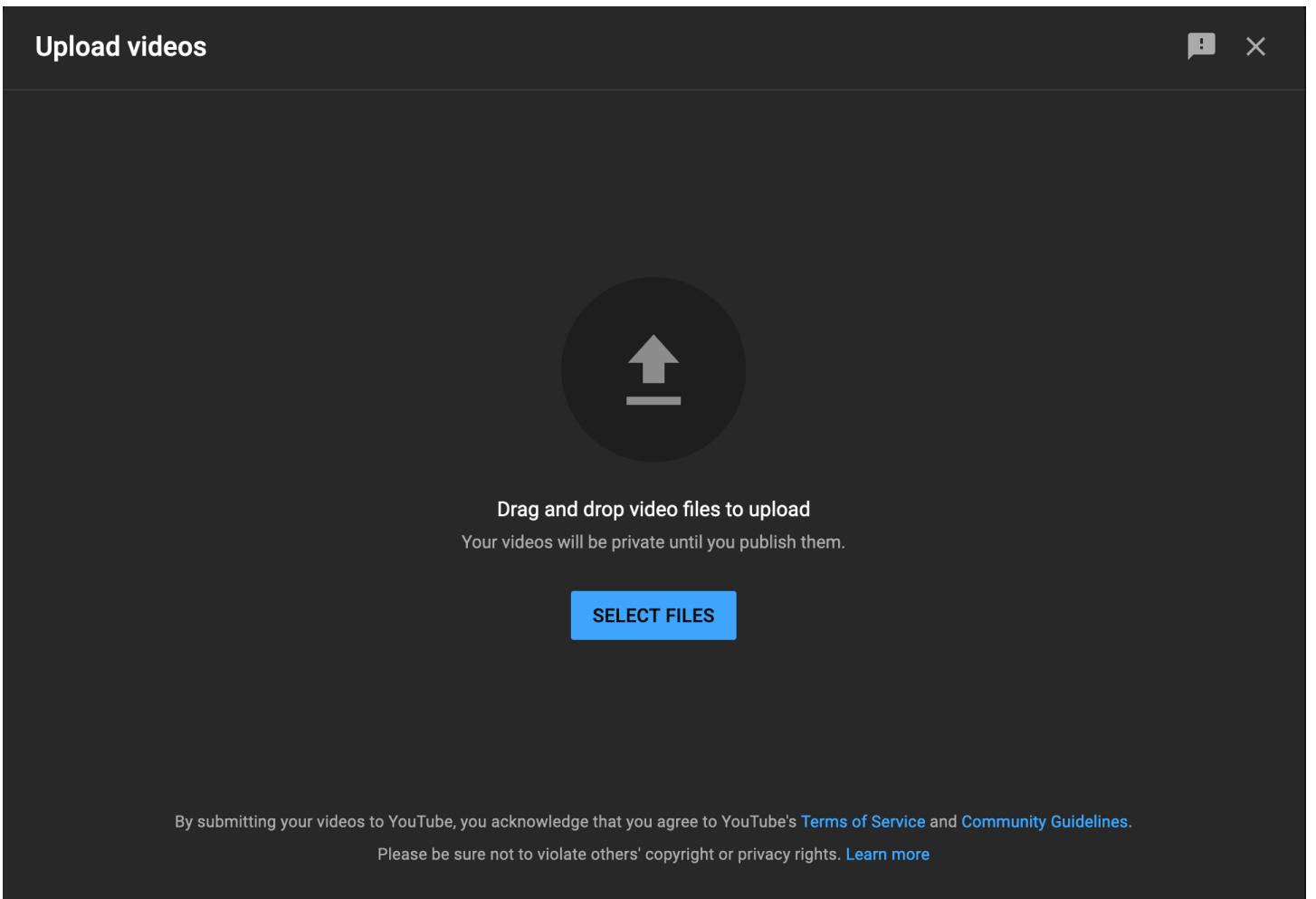


You are given an ETA at the bottom. The faster your computer is, the faster the process will be. In the case of my 2020 13-inch MacBook Pro, it takes roughly **one minute** to upscale a 38-second 1080p video to 1440p.

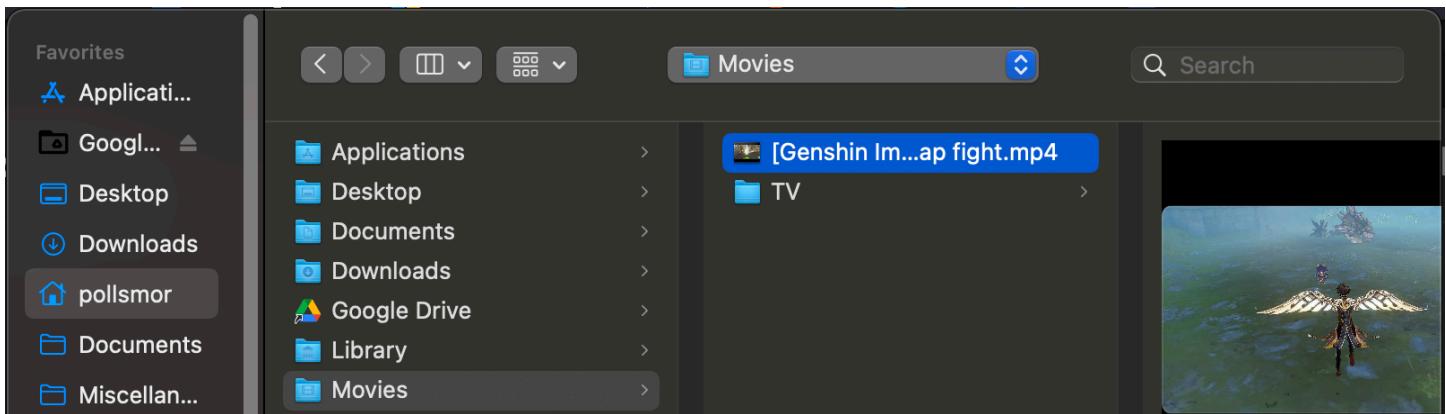
With video in hand, your next step is to upload it to YouTube. This part of the process remains the same whether you followed this guide or not.



Click the **Create** button, then “Upload video” in the sub-menu.



Click **Select Files**.



As noted above, the default location of the rendered video on macOS is **Movies**. Double click it to start the upload process.

Upscale to 1440p for VP9 test

Saved as private More X

Details Video elements Checks Visibility

Details REUSE DETAILS

Title (required) ?
Upscale to 1440p for VP9 test

Description ?
Tell viewers about your video

Processing video...

Video link
https://youtu.be/_dF6hJ3HB6c Copy

Filename
[Genshin Impact] Primo Geovishap fight...

Thumbnail

Select or upload a picture that shows what's in your video. A good thumbnail stands out and draws viewers' attention. [Learn more](#)

Upload SD ✓ Upload complete ... Processing will begin shortly

NEXT

Pick an appropriate title for the video, then click on “Visibility” in the top bar.

Upscale to 1440p for VP9 test

Saved as private  

Details Video elements Checks Visibility

Visibility

Choose when to publish and who can see your video

Save or publish
Make your video **public, unlisted, or private**

Private
Only you and people you choose can watch your video

Unlisted
Anyone with the video link can watch your video

Public
Everyone can watch your video

Set as instant Premiere 

Schedule
Select a date to make your video **public**

Processing video...

Upscale to 1440p for VP9 test

Video link
https://youtu.be/_dF6hJ3HB6c 

   Upload complete ... Processing will begin shortly

BACK **SAVE**



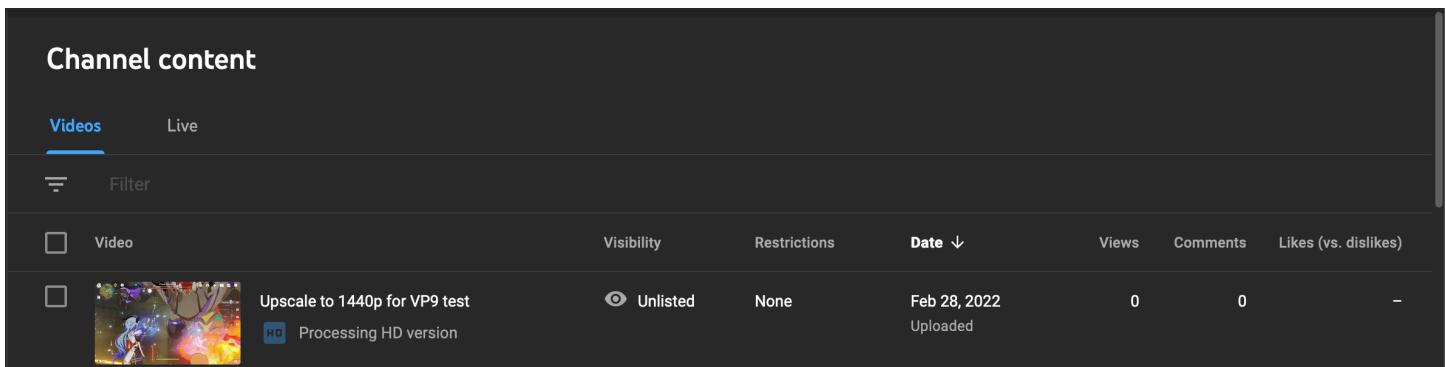
Click “Save” to finalize the upload. Optionally, set the visibility to whatever you wish.

Channel content

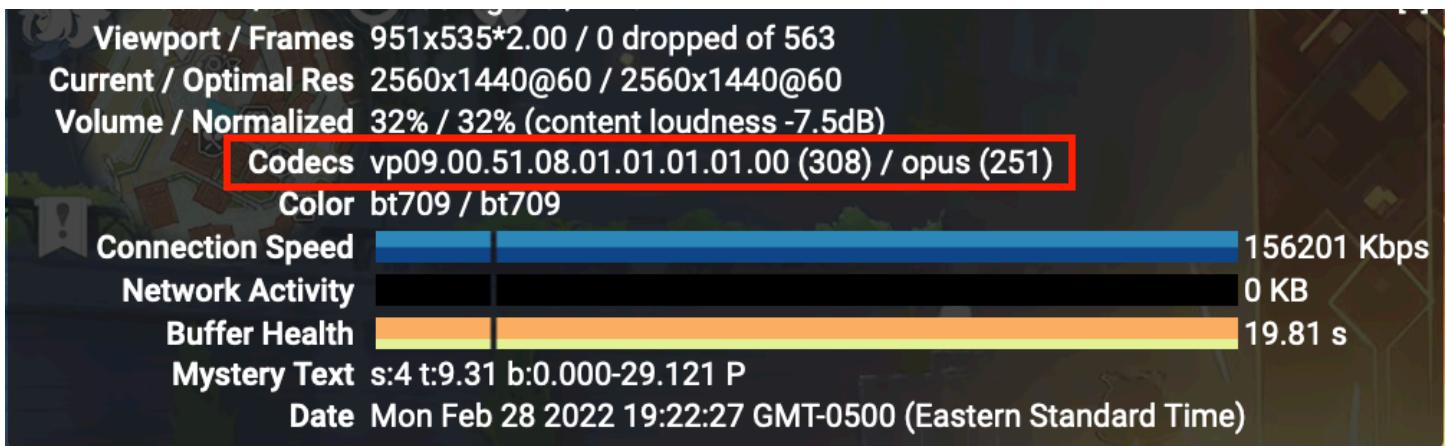
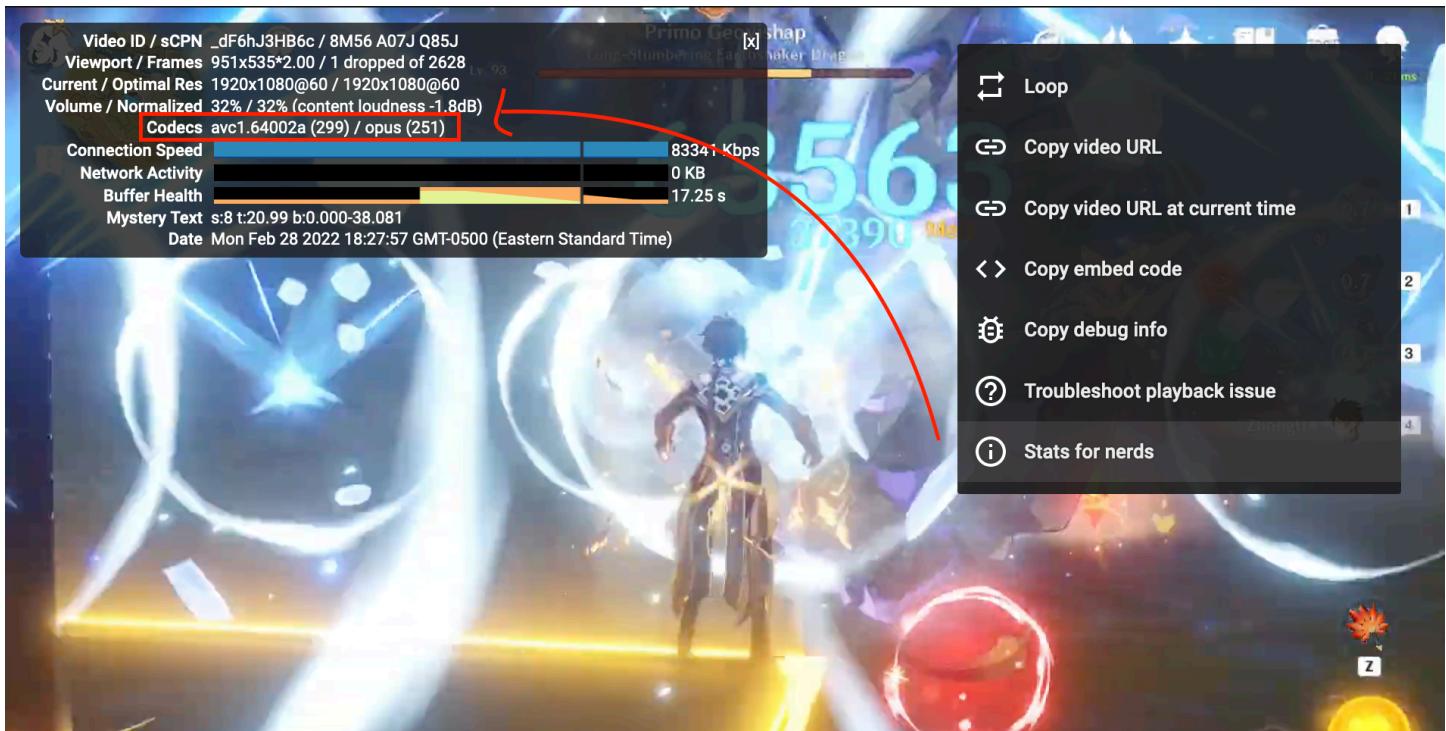
Videos Live

Filter

Video	Visibility	Restrictions	Date	Views	Comments	Likes (vs. dislikes)
 Upscale to 1440p for VP9 test  Processing HD version	<input checked="" type="radio"/> Unlisted	None	Feb 28, 2022 Uploaded	0	0	-



Now it's a matter of waiting for YouTube to process your video. You can view videos before they have been fully processed, but the full quality of the video is not unlocked until then. This process, in my experience, usually takes a couple minutes for short clips, and longer for longer videos. It may also vary depending on how popular your channel is.



If **Codecs** under “Stats for nerds” reads “vp09” instead of “avc1”, you know you’ve succeeded. Enjoy your high quality YouTube video! **Do note** that YouTube can raise the requirements at any time depending on time of the day so that 1440p alone is not enough. This guide still applies, but upscale to **2160p** instead of 1440p.

Conclusion

You have now learned how to game the system such that YouTube preserves the original quality of your video! It’s a clever balancing trick YouTube uses to minimize load on their servers, while the majority of smaller channels don’t even realize they are second-class citizens. For most of them however, that is fine - YouTube is first and foremost a platform to share videos with one another. The quality of these videos is only a secondary concern, one that enthusiasts such as you are willing to take the time to care about.