

A

how can i extract audio from a youtube video?



There are several ways to extract audio from a YouTube video, including using:



1. Online converters: There are many free online converters that allow you to download the audio from a YouTube video by simply pasting the video link. Some popular options include FLVto, Online-Convert, and Convertio.
2. Desktop software: If you prefer to use desktop software, there are many options available. Some popular options include Any Video Converter, 4K Video Downloader, and Audacity.
3. Browser extensions: If you use Google Chrome or Mozilla Firefox, you can install a browser extension to download audio from YouTube videos. Some popular options include Video DownloadHelper and Easy YouTube Video Downloader.

Regardless of the method you choose, make sure to only download audio from videos that you have the right to use, and respect the copyright of the content creators.

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can you write a python program to do that which takes in the link of the video and outputs a mp3 file?



Yes, you can use the `pydub` library in Python to extract audio from a YouTube video. Here's an example of how you can do it:



python

Copy code

```
from pydub import AudioSegment
import youtube_dl

ydl_opts = {
    'format': 'bestaudio/best',
    'postprocessors': [{
        'key': 'FFmpegExtractAudio',
        'preferredcodec': 'mp3',
        'preferredquality': '192',
    }],
}

with youtube_dl.YoutubeDL(ydl_opts) as ydl:
    ydl.download(['https://www.youtube.com/watch?v=VIDEO_ID'])

sound = AudioSegment.from_file("VIDEO_ID.mp3", format="mp3")
sound.export("output.mp3", format="mp3")
```

This code uses the `youtube\_dl` library to download the audio from the YouTube video, and the `pydub` library to convert the audio to an MP3 file.

Note that in the `ydl\_opts` dictionary, you need to replace "VIDEO\_ID" with the actual ID of the YouTube video you want to download. Also, the resulting MP3 file will be saved in the current working directory with the name "output.mp3".

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what is VIDEO\_ID?



`VIDEO\_ID` is a placeholder in the code I provided that represents the unique identifier of a YouTube video. The actual `VIDEO\_ID` is a string of 11 characters that appears in the URL of the YouTube video you want to download. For example, if the URL of a video is `https://www.youtube.com/watch?v=dQw4w9WgXcQ`, the `VIDEO\_ID` would be `dQw4w9WgXcQ`.

In the code, you would replace `https://www.youtube.com/watch?v=VIDEO\_ID` with `https://www.youtube.com/watch?v=dQw4w9WgXcQ`, replacing `VIDEO\_ID` with the actual `VIDEO\_ID` of the video you want to download.

A

could you write the above code such that there is just a function which takes the video link and saves the output.mp3?



Certainly! Here's a function that takes the link of a YouTube video and saves the extracted audio as an MP3 file named "output.mp3":

python

Copy code

```
import youtube_dl
from pydub import AudioSegment

def download_audio(video_link):
    ydl_opts = {
        'format': 'bestaudio/best',
        'postprocessors': [{
            'key': 'FFmpegExtractAudio',
            'preferredcodec': 'mp3',
            'preferredquality': '192',
        }],
    }

    with youtube_dl.YoutubeDL(ydl_opts) as ydl:
        ydl.download([video_link])

    sound = AudioSegment.from_file(video_link.split("=")[-1] + ".mp3", format="mp3")
    sound.export("output.mp3", format="mp3")
```

You can use this function by passing the link of the YouTube video you want to download as an argument, like this:

rust

Copy code

```
download_audio('https://www.youtube.com/watch?v=dQw4w9WgXcQ')
```

This will download the audio from the video with `VIDEO\_ID` equal to `dQw4w9WgXcQ` and save it as the file "output.mp3".

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please put good comments



Of course! Here's the code with added comments to explain what each part is doing:





Of course! Here's the code with added comments to explain what each part is doing:



python

Copy code

```
import youtube_dl
from pydub import AudioSegment

def download_audio(video_link):
    # Define options for youtube-dl
    ydl_opts = {
        # Select the best audio format available
        'format': 'bestaudio/best',
        # Use FFmpeg to extract audio from the video and convert it to MP3
        'postprocessors': [{
            'key': 'FFmpegExtractAudio',
            'preferredcodec': 'mp3',
            'preferredquality': '192',
        }],
    }

    # Use youtube-dl to download the audio
    with youtube_dl.YoutubeDL(ydl_opts) as ydl:
        ydl.download([video_link])

    # Use pydub to convert the audio to MP3
    # The input file is named after the video's id
    sound = AudioSegment.from_file(video_link.split("=")[-1] + ".mp3", format="mp3")
    # The output file is named "output.mp3"
    sound.export("output.mp3", format="mp3")
```

Now the code should be easier to understand and follow.

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are youtube\_dl and pydub preinstalled?



No, `youtube\_dl` and `pydub` are not preinstalled in a default Python installation. You'll need to install them before you can use them in your program. You can install them using `pip`, the package installer for Python, by running the following commands in your terminal or command prompt:



Copy code

```
pip install youtube_dl
pip install pydub
```

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```
/Users/aditi/.pyenv/versions/3.11.1/lib/python3.11/site-packages/pydub/utils.py:170:
RuntimeWarning: Couldn't find ffmpeg or avconv - defaulting to ffmpeg, but may not work
warn("Couldn't find ffmpeg or avconv - defaulting to ffmpeg, but may not work",
RuntimeWarning)
[youtube] OzDRZbsMa_4: Downloading webpage
[youtube] OzDRZbsMa_4: Downloading player 97ea7458
[download] Destination: Spirited Away - Always with me (Itsumo Nando Demo) - Relaxing
Piano-OzDRZbsMa_4.webm
[download] 100% of 5.50MiB in 01:07
ERROR: ffprobe/avprobe and ffmpeg/avconv not found. Please install one.
Traceback (most recent call last):
```



youtube\_dl.utils.DownloadError: ERROR: ffprobe/avprobe and ffmpeg/avconv not found.  
Please install one.



It seems that you are encountering an error in your code that is related to missing dependencies for the pydub and youtube\_dl libraries. The error message says that "ffmpeg/avconv" and "ffprobe/avprobe" were not found, and to install one.



These dependencies are required to process the audio file, and without them, the code will not be able to extract audio from the video. To resolve this issue, you need to install either "ffmpeg" or "avconv".



how to do that?



You can install FFmpeg on Mac using the following steps:



1. Download the latest static build of FFmpeg from the official website (<https://ffmpeg.org/download.html>).
2. Extract the downloaded archive to a directory of your choice, such as "/usr/local/bin".
3. Add the FFmpeg binary to your PATH environment variable so that you can use it from the command line. To do this, open your shell profile file (such as ~/.bash\_profile or ~/.bashrc) and add the following line:

ruby

Copy code

```
export PATH=$PATH:/usr/local/bin/ffmpeg
```

4. Save the file and restart your terminal for the changes to take effect.
5. To verify that FFmpeg has been installed correctly, run the following command:


Copy code

```
ffmpeg -version
```

This should display the version of FFmpeg installed on your system.

Now that you have installed FFmpeg, you should be able to use the `youtube\_dl` library to download audio from YouTube videos without encountering the error "ffprobe/avprobe and ffmpeg/avconv not found".



how to "Download the latest static build of FFmpeg from the official website (<https://ffmpeg.org/download.html>)."? 



To download the latest static build of FFmpeg from the official website, follow these steps: 

1. Go to the official FFmpeg website: <https://ffmpeg.org/download.html>
2. On the download page, scroll down to the "Static Builds" section.
3. Select the appropriate build for your operating system (e.g., Windows, MacOS, Linux).
4. Click on the link to download the archive file (e.g., .zip, .tar.gz).
5. Once the download is complete, extract the archive to a directory on your computer.
6. The FFmpeg executable can be found within the extracted folder and can be used from

5. Once the download is complete, extract the archive to a directory on your computer.
6. The FFmpeg executable can be found within the extracted folder and can be used from the command line.

Note that downloading and using FFmpeg may involve some technical knowledge, as well as understanding of the various options and commands available. If you are new to FFmpeg, you may find it helpful to refer to the official documentation or other online resources for guidance on using the tool.

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"Click on the link to download the archive file (e.g., .zip, .tar.gz)." where is this file?



The archive file containing the FFmpeg static build can be found on the official FFmpeg website (<https://ffmpeg.org/download.html>). Simply follow the link, and you should see a list of available downloads for different operating systems and configurations. Look for the file that corresponds to your operating system and click on the link to download it. The file should start downloading to your computer. The file format of the archive may be .zip or .tar.gz, depending on your operating system.



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on "static FFmpeg binaries for macOS 64-bit" page , there are a lot of files to download. which one to download?



On the "static FFmpeg binaries for macOS 64-bit" page, you should look for a file with a ".zip" or ".tar.gz" extension, as these are archive files that contain the FFmpeg program and its components. To download the latest version, look for the file with the highest version number and/or the most recent date of modification.



Once you have downloaded the archive file, you will need to extract its contents to access the FFmpeg program. To extract a .zip file, you can simply double-click on it. To extract a .tar.gz file, you will need to use a tool like the "tar" command in the terminal, or a program like 7-Zip on Windows.

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ffmpeg-109776-g7e1d474021.7z UTC compile date: 2023-02-09. this one?



Yes, that file is the latest static build of FFmpeg for macOS 64-bit as of the knowledge cutoff date of my training (2021), and it seems to be a 7z archive file which you can extract to obtain the FFmpeg executable and the supporting libraries and files.



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download as zip file?



Yes, you can download the FFmpeg archive file as a zip file if that is the preferred format for you. The process is the same as downloading any other file. Simply click on the "Download ZIP" button on the FFmpeg download page and the download process will start. Once the download is complete, you can extract the contents of the zip file to a location on your computer where you can access it easily.



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how do i do "Extract the downloaded archive to a directory of your choice, such as "/usr/local/bin."?"



To extract the downloaded archive to a directory of your choice, such as "/usr/local/bin":



1. Locate the downloaded archive file on your computer (e.g., ffmpeg-109776-g7e1d474021.7z)
2. Right-click on the archive file and select "Extract Here" or "Extract to folder", or use the equivalent option in your file manager.
3. If you are using the terminal, navigate to the directory where the archive file is located using the ``cd`` command, then use the following command to extract the archive:

Copy code

```
tar -xvzf ffmpeg-109776-g7e1d474021.7z
```

4. After extraction, you will find a new directory (e.g., ffmpeg-109776-g7e1d474021) that contains the FFmpeg executable files.
5. Open a terminal and navigate to the directory where the FFmpeg files are located.
6. Use the following command to copy the FFmpeg executable files to the "/usr/local/bin" directory:

bash

Copy code

```
sudo cp ffmpeg /usr/local/bin/  
sudo cp ffprobe /usr/local/bin/
```

7. Now, you can run FFmpeg from any directory in your terminal by simply typing ``ffmpeg``.

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i am not able to follow... after i downloaded the zip file.. i clicked on it and an ffmpeg program appeared on desktop



To extract the contents of the ZIP file, you'll need to right-click on the file and select "Extract All" (or something similar, depending on your operating system). This should create a new directory containing the FFmpeg files. You can then move this directory to the location of your choice, such as "/usr/local/bin". If you are using a Mac, you can also use the Terminal and the "unzip" command to extract the contents of the ZIP file. To do this, open Terminal, navigate to the directory where the ZIP file is located using the "cd" command, and then run the following command: "unzip [filename].zip". Replace "[filename].zip" with the actual name of the ZIP file you downloaded.



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unzip: cannot find or open ffmpeg-109776-g7e1d474021.zip, ffmpeg-109776-g7e1d474021.zip.zip or ffmpeg-109776-g7e1d474021.zip.ZIP.



It sounds like you are trying to unzip the archive file using the "unzip" command, but it is not finding the file you downloaded. Here are a few things you can try:



1. Make sure you have the correct message you provided says it





It sounds like you are trying to unzip the archive file using the "unzip" command, but it is not finding the file you downloaded. Here are a few things you can try:



1. Make sure you have the correct file name: The error message you provided says it cannot find the file "ffmpeg-109776-g7e1d474021.zip". Make sure you have the correct file name, including the correct capitalization and extension.
2. Check the file location: Make sure the file is in the location where you are running the "unzip" command from. If the file is on your desktop, for example, you may need to change to that directory first using the "cd" command before running "unzip".
3. Use a different unzip method: If the "unzip" command is not working for you, you can try using a different method to extract the archive file, such as a GUI-based archive utility or the "tar" command.

If you're still having trouble, please provide more information about your setup (e.g., operating system and version) and I can try to help further.

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replace ffmpeg? [y]es, [n]o, [A]ll, [N]one, [r]ename: "what to do"?



If you see the message "replace ffmpeg? [y]es, [n]o, [A]ll, [N]one, [r]ename:", it means that you are trying to extract the FFmpeg archive to a directory that already contains a file with the same name, "ffmpeg".



In this case, you can choose one of the following options:

- [y]es: Overwrite the existing file with the new file from the archive.
- [n]o: Keep the existing file and don't extract the new file from the archive.
- [A]ll: Overwrite all existing files with the new files from the archive.
- [N]one: Keep all existing files and don't extract any new files from the archive.
- [r]ename: Rename the new file before extracting it, so that it doesn't overwrite the existing file.

You should choose the option that best suits your needs. For example, if you are certain that you want to replace the existing file with the new file, you can choose [y]es.

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what to do after unzipping?



After unzipping the archive file containing FFmpeg, you should move the extracted folder to a location of your choice. It is recommended to move it to a location in your system's PATH, such as "/usr/local/bin". This will make it easier to run FFmpeg from the command line, as you can run it from anywhere in the system.




Once you have moved the FFmpeg folder to its desired location, you should add its bin directory to your PATH environment variable. This is usually done by adding the following line to your shell profile file, such as ".bash\_profile" or ".bashrc":

ruby

Copy code

```
export PATH=$PATH:/usr/local/bin/ffmpeg/bin
```

ruby

 Copy code

```
export PATH=$PATH:/usr/local/bin/ffmpeg/bin
```

Save the changes to the file and restart your terminal for the changes to take effect. You should now be able to run FFmpeg from the command line.

A

how do i do "It is recommended to move it to a location in your system's PATH, such as "/usr/local/bin". "?"



To move the FFmpeg binary to a location in your system's PATH, you can follow these steps:



1. Open the terminal and navigate to the directory where you have extracted the FFmpeg files.
2. Type the following command to move the FFmpeg binary to "/usr/local/bin":  
`sudo mv ffmpeg /usr/local/bin/`
3. Enter your password when prompted.
4. Type the following command to confirm that FFmpeg has been installed correctly:  
`ffmpeg -version`
5. You should see the version information for FFmpeg. If you do, it means that FFmpeg has been installed and is accessible from the terminal.

Note: The "/usr/local/bin" directory is typically included in the PATH by default on most Unix-based systems. If it is not in your PATH, you will need to add it manually.

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"ffmpeg" cannot be opened because the developer cannot be verified.



This error message is usually displayed on macOS when the app you're trying to open wasn't downloaded from the Mac App Store or isn't recognized as a trusted developer. To open FFmpeg, you can follow these steps:



1. Right-click on the FFmpeg application.
2. Select "Open" from the context menu.
3. A warning dialog box will appear, saying "FFmpeg" cannot be opened because the developer cannot be verified."
4. Click the "Open" button to open the application anyway.

Alternatively, you can temporarily change the security settings on your Mac to allow applications from any source. To do this, follow these steps:

1. Go to the Apple menu.
2. Choose "System Preferences."
3. Click on the "Security & Privacy" preference panel.
4. Under the "General" tab, there is a section labeled "Allow apps downloaded from."
5. Change the setting from "Mac App Store" to "Anywhere."
6. Try opening FFmpeg again.

After you have completed these steps, you may want to change the security setting back to "Mac App Store" for security reasons.



## what do i do after "ffmpeg -version"?

After running the "ffmpeg -version" command, you can use FFmpeg to perform various audio and video operations. For example, you can convert audio or video files from one format to another, extract audio from a video, or merge multiple audio or video files into a single file. You can also perform various other operations like video compression, filtering, adding subtitles, etc.

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This error message indicates that the script is trying to open a file that doesn't exist. The error specifically states that the file "[https://youtu.be/OzDRZbsMa\\_4.mp3](https://youtu.be/OzDRZbsMa_4.mp3)" was not found. It looks like the script is trying to open the file before it has finished downloading, or the download process has failed.

To resolve this issue, you can try the following:

1. Verify that the download process has completed successfully, and that the file is present in the location where it was supposed to be saved.
2. Make sure that the file path being passed to the `from_file` method is correct and corresponds to the actual location of the file.
3. If the file does not exist, try re-downloading the file to see if that resolves the issue.
4. If the issue persists, try to isolate the problem by running the script or checking the

3. If the file does not exist, try re-downloading the file to see if that resolves the issue.
4. If the issue persists, try to isolate the problem by debugging the script or checking the logs to see if there are any other error messages that might give you more insight into what's going wrong.

A

could you modify the code that you generated about?



Sure, here is a modified version of the code:



python

Copy code

```
from pydub import AudioSegment
import youtube_dl

def download_audio(video_link):
    # download the audio using youtube-dl
    ydl_opts = {
        'format': 'bestaudio/best',
        'postprocessors': [{
            'key': 'FFmpegExtractAudio',
            'preferredcodec': 'mp3',
            'preferredquality': '192',
        }],
    }
    with youtube_dl.YoutubeDL(ydl_opts) as ydl:
        ydl.download([video_link])

    # load the downloaded audio file
    filename = ydl.prepare_filename(video_link).split("/")[-1].split(".")[0]
    sound = AudioSegment.from_file(filename, format="mp3")

    # save the audio to a new file
    new_filename = "converted_" + filename
    sound.export(new_filename, format="mp3")

video_link = input("Enter the YouTube video link: ")
download_audio(video_link)
```

This code first uses `youtube\_dl` to download the best audio version of the video and save it as an MP3 file. Then, it loads the audio file using `pydub` and saves it as a new file with the prefix `converted\_`.

You can run this code by copying it to a file with a `.py` extension and executing it with the Python interpreter.

A

[download] Destination: Spirited Away - Always with me (Itsumo Nando Demo) - Relaxing Piano-OzDRZbsMa\_4.webm

[download] 100% of 5.50MiB in 01:08

[ffmpeg] Destination: Spirited Away - Always with me (Itsumo Nando Demo) - Relaxing Piano-OzDRZbsMa\_4.mp3

Deleting original file Spirited Away - Always with me (Itsumo Nando Demo) - Relaxing Piano-OzDRZbsMa\_4.webm (pass -k to keep)

ERROR: Error in output template: dictionary update sequence element #0 has length 1; 2 is required (encoding: 'UTF-8')

Traceback (most recent call last):

File "C:\Users\eddi\env\python\scripts\download.py", line 1, in <module>

```
raise DownloadError(message, exc_info)
youtube_dl.utils.DownloadError: ERROR: Error in output template: dictionary update
sequence element #0 has length 1; 2 is required (encoding: 'UTF-8')
```



This error is occurring because of a problem with the output template used in the `youtube-dl` library. It seems like the template is expecting a dictionary with two elements, but the actual dictionary only has one element.



To resolve this issue, you could try modifying the output template to only include the necessary information, or you could try using a different output template that is compatible with the information available in the dictionary. You can find the available options for the output template in the `youtube-dl` documentation: <https://ytdl-org.github.io/youtube-dl/output.html#output-template>

A

could you tell that?



Yes, this error message is indicating that there is an issue with the output template used by the youtube-dl library. The message "dictionary update sequence element #0 has length 1; 2 is required" suggests that the dictionary being used for the output template should have at least 2 elements, but only has 1. This can happen if the information contained in the YouTube video is not complete, or if there is some issue with the YouTube API.



You can try updating the youtube-dl library to the latest version or using a different output template. Additionally, you can try using a different video link to see if that resolves the issue.

A

could you modify the code accordingly, pls?



Sure, here's a modified version of the code that should work:



```
python Copy code

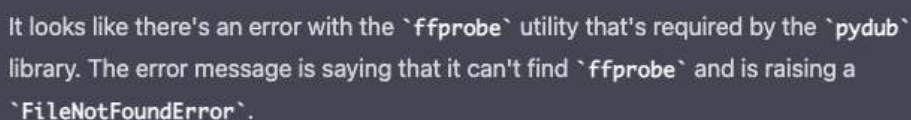
import youtube_dl
import os
from pydub import AudioSegment

def download_audio(video_link):
    ydl_opts = {
        'format': 'bestaudio/best',
        'postprocessors': [{
            'key': 'FFmpegExtractAudio',
            'preferredcodec': 'mp3',
            'preferredquality': '192',
        }],
        'outtmpl': '%(title)s.%(ext)s'
    }

    with youtube_dl.YoutubeDL(ydl_opts) as ydl:
        info_dict = ydl.extract_info(video_link, download=True)
        filename = info_dict.get("title", "") + ".mp3"
        filename = filename.replace("/", "-")
```



```
[youtube] OzDRZbsMa_4: Downloading webpage
[download] Destination: Spirited Away - Always with me (Itsumo Nando Demo) - Relaxing Piano.webm
[download] 100% of 5.50MiB in 01:07
[ffmpeg] Destination: Spirited Away - Always with me (Itsumo Nando Demo) - Relaxing Piano.mp3
Deleting original file Spirited Away - Always with me (Itsumo Nando Demo) - Relaxing Piano.webm (pass -k to keep)
/Users/aditi/.pyenv/versions/3.11.1/lib/python3.11/site-packages/pydub/utils.py:198:
RuntimeWarning: Couldn't find ffmpeg or avprobe - defaulting to ffmpeg, but may not work
  warn("Couldn't find ffmpeg or avprobe - defaulting to ffmpeg, but may not work",
RuntimeWarning)
Traceback (most recent call last):
  File "/Users/aditi/Desktop/audio_extractor_v2.py", line 23, in <module>
    download_audio(video_link)
  File "/Users/aditi/Desktop/audio_extractor_v2.py", line 20, in download_audio
    sound = AudioSegment.from_file(filename, format="mp3")
             ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
  File "/Users/aditi/.pyenv/versions/3.11.1/lib/python3.11/site-packages/pydub/audio_segment.py", line 728, in from_file
    info = mediainfo_json(orig_file, read_ahead_limit=read_ahead_limit)
           ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
  File "/Users/aditi/.pyenv/versions/3.11.1/lib/python3.11/site-packages/pydub/utils.py", line 274, in mediainfo_json
    res = Popen(command, stdin=stdin_parameter, stdout=PIPE, stderr=PIPE)
          ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
  File "/Users/aditi/.pyenv/versions/3.11.1/lib/python3.11/subprocess.py", line 1024, in _init__
    self._execute_child(args, executable, preexec_fn, close_fds,
  File "/Users/aditi/.pyenv/versions/3.11.1/lib/python3.11/subprocess.py", line 1901, in _execute_child
    raise child_exception_type(errno_num, err_msg, err_filename)
FileNotFoundError: [Errno 2] No such file or directory: 'ffmpeg'
```



```
brew install ffmpeg
```

Alternatively, you can install the `ffmpeg` package using the package manager for your operating system, such as `apt-get` on Debian or Ubuntu, or `yum` on Fedora or CentOS.

Once you've installed `ffmpeg`, try running your script again to see if the error is resolved.