

DIGITAL CONVERTING: 8MM TO MP4



Wolverine F2D MovieMaker

The **Wolverine Film2Digital MovieMaker** will convert your **8mm** and **Super 8** film reels to **MP4** files. The Wolverine F2D MovieMaker will digitize the film reels onto an SD card without the need of a computer. Once converted to MP4, it can be viewed on your computer or burned to a DVD. It scans the film frame-by-frame. **Most reels have about 3-5 minutes of video, but will take up to 30 minutes to scan.**

It is best to store 8mm and Super 8 film in climate-controlled rooms sealed in canisters. Even in the best conditions, film will start to degrade after 70 years.

8mm vs Super 8

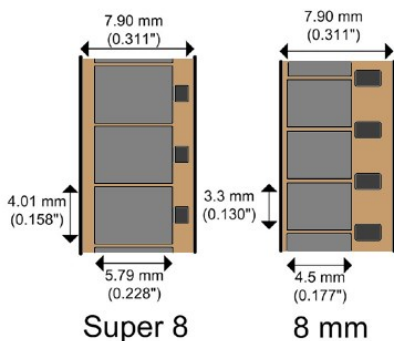
The Wolverine F2D MovieMaker works with 8mm and Super 8 film reels. **It does not work with 16mm film reels, 8mm video tapes, or Hi8 video tapes.** 8mm film was created in the 1930s by Kodak and was a cheaper option compared to 16mm film, allowing people to capture home movies for the first time. 8mm film used a silent system with no recorded audio.

Super 8 was created in 1965, and has a larger frame size for a sharper picture. Super 8 started as silent films that didn't include audio, but in 1973, an audio recording system was created for Super 8 films.

While both filmstrips are 8mm wide, the frame sizes and sprocket holes are different. Also, the Super 8 film reels require a white adapter to fit on the Wolverine F2D MovieMaker.

8mm Film Reels vs 8mm Video Tapes

- ◆ **8mm and Super 8** are film reels that are stored often on round cartridges. All 8mm and most Super 8 films do not have sound. These film reels were used from the 1930s-1970s.
- ◆ **8mm or Hi8 video cassettes** (or video tapes) are cassette tapes from a camcorder. Unlike 8mm and most Super 8 films, the 8mm and Hi8 cassettes recorded sound. These camcorders were used from the 1980s-2000s. A working camcorder is needed to convert 8mm or Hi8 video cassettes to MP4.

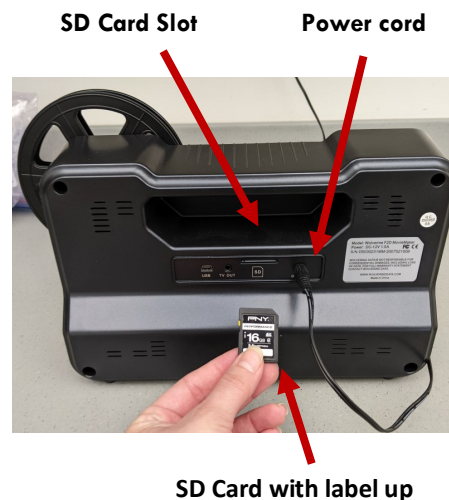


If reel is loose, it is probably Super 8 and needs this white adapter.

Insert SD Card and Power On

An **SD card** is required to use the Wolverine F2D MovieMaker. Since most film reels don't include sound and are usually 3-5 minutes long, a single reel often is less than 0.5 GB.

1. Turn the F2D MovieMaker around so you are looking at the back.
2. With the MovieMaker **OFF**, push the SD card into the slot until it clicks.
3. Make sure one end of the power cord is plugged into the back of the F2D MovieMaker and the other is plugged into an outlet.
4. Press the **On** button. The screen in the front should turn on.
Note: If no SD card is inserted, it will give an error and turn off.



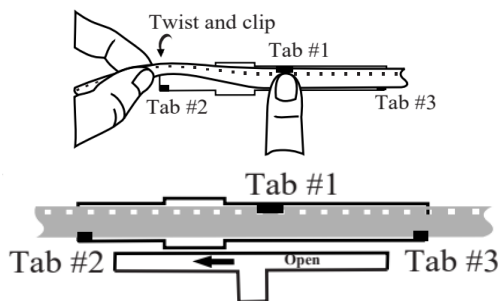
Load the Reel

1. Put the reel of film on the left holder.
Note: Super 8 reels will need the white adapter.
2. Put an empty reel on the right holder.
3. Use the **Open** latch to open the door that covers the lens table.
4. Pull your film and "thread" it following the solid white path.
Note: The dotted white line is the rewind path.
5. Push the lever below the lens table so it is set to 8mm or Super 8, depending on your reel.
6. When you get to the lens viewer, you will need to tuck the film under the **3 White Tabs**.



Start by putting the sprocket edge of the film under **Tab #1**.

Then, slide the film under **Tab #2 and Tab #3**.



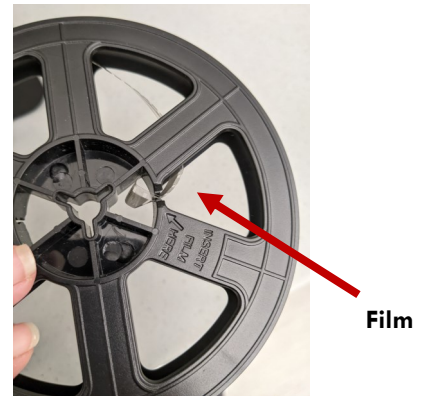
7. Continue following the solid white line so the film loops around the grey knobs.

8. Load the tail of your film into the empty reel on the right.

There is an opening near the center of the reel. Slide your film into that opening. It sometimes helps to bend the film so it “hooks” to the reel. Wind the reel a couple of times so the film is secure to the reel.

8. Wind one of the reels so the film is tightened.

9. Close the door to the lens table so the film is held into place.



Adjust the Frame

When you first turn on the F2D MovieMaker, a still photo of the frame should show on the screen. You might notice that the frame is off center, zoomed out too far, or that it shows the sprockets. This happens often if you are switching from 8mm to Super 8.

1. If you are seeing the black border at the top or bottom of the screen, gently wind your film to re-center it.
2. If you are seeing black borders on the left or white of your screen, or if it looks like the frame needs to be zoomed in or out, go to the **Frame Adjustment** menu.
3. Press the **Menu/Mode** button.
4. Use the **Down** arrow to scroll through the menu until **Frame ADJ** is highlighted blue and red.
5. Press the **Enter/Start/Stop** button.
6. There are 3 adjustments:
 - **X** moves it left to right
 - **Y** moves it top to bottom
 - **W** zooms in or out
7. The second line that is below “**Film Type**” controls whether you are adjusting X, Y, or W. It defaults to the **X adjust**. Pressing **Enter** once will switch it to **Y adjust**. Pressing **Enter** again will change it to **W adjust**.
8. Use the arrows as needed to move your frame.



Example of frame needing adjustment. Notice that it is zoomed out too much. We should not see the white borders on the sides or the other frames at the top and bottom.

The second line on the screen says “**W adjust, Enter.**” This means it will zoom in and out using the arrow buttons.



Record

In addition to the **Frame Adjustment**, the F2D MovieMaker has modes to adjust **Exposure** and **Sharpness**. Use these features as needed for your film.

1. Press the **Menu/Mode** button.
2. Use the arrows so **Record** is highlighted blue and red.
3. Press the **Enter/Start/Stop** button.
Note: The number in the bottom right of the screen will be the file name.
4. A screen will appear to confirm the **Film Type** you are using. If it doesn't have the right film type listed, use the lever below the film door to change it. Note: You might need to readjust the frame again after changing Film Type.
5. Press the **Enter/Start/Stop** button to begin the recording.
The machine will begin to feed the film through the lens table. A preview of your film will appear on the screen. You should see a **blinking red dot** that confirms it is recording. Note: This records frame-by-frame (each frame being a nanosecond), so it can take 30+ minutes to record one reel.



Stop Recording

1. When the reel has finished, press the **Enter/Start/Stop** button to stop the recording.
Note: You can use this button to stop the recording at any time.
2. Once the **Enter/Start/Stop** button is pressed to stop the recording, the MP4 file will be automatically saved to the SD card.

Rewind

1. To rewind, take the reels off the F2D MovieMaker and switch them. Your original reel (which is currently empty) should be on the right. The other reel (which has your film on it) should be on the left.
2. "Thread" the film using the dotted white line. Note: The door for the lens table should be open and the film should not be under Tabs #1, #2, or #3. This will let the machine rewind faster without wearing or tearing your film.
3. Press the **Menu/Mode** button.
4. Use the arrows so **Rewind** is highlighted blue and red. Press **Enter/Start/Stop**.
5. Press **Enter/Start/Stop** again to begin the rewinding. This will take about 5 minutes.



Troubleshooting

The device shuts down after powering on // Device says no SD card is inserted.

- Make sure the SD card is fully inserted. You should push in the SD card until it clicks into place.
- Check the storage size of the SD Card. The maximum size that works in the Wolverine is a 32GB SD card.
- MicroSD cards in adapters will not work in the machine.

The film reel is too big for the mounting spoke.

- Most likely, you have a Super 8 film reel. These require the white adapter to fit the reel on the machine. White adapters can be found in Drawer #5. (See staff.)

The film reel is too small for the mounting spoke.

- Check to make sure there isn't a white adapter attached to the Wolverine. The white adapters are for the Super 8 film reels.

The film reel diameter is too wide.

- The Wolverine Reel2Digital in the Sound Studio can fit 3" and 5".
- The Wolverine Reel2Digital in the Library of Things collection fits up to 9" reels. Please see the Adult Services Desk to request the item.

The film isn't feeding through the scanner properly.

- Double-check that the film is under Tabs #1, #2, and #3. The Tabs are marked with white squares. Make sure the film is under the white squares.

The film is not centered // cut off // zoomed in or out.

- The frame needs to be adjusted .
- Tap the **Menu** button. Use the arrows to find **Frame ADJ.** Use the **Enter** button to switch from **X, Y,** and **W** to adjust the frame.

The machine takes a long time to scan my film.

- This is normal. The machine scans frame-by-frame so it's going to take much longer than the "playback" time. For instance, a 3" reel holds about 4-5 minutes of video, but it takes about 20-25 minutes to scan.

Have questions or need one-on-one help? Contact Sarah van der Heyden, Creative Services Coordinator, to request a one-on-one appointment.

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Phone: 630.458.3354