

## How to Digitize 8mm or Super 8 Reel-to-Reel Film

Use this guide to digitize 8mm or Super 8 film reels to MP4 files. Your original film will be scanned frame-by-frame to create the digital file, so allow ample time for the process. This process captures video only, not audio.

The MP4 files are 1080p (full HD quality) that play at 20fps (frames per second), which are sufficient quality for watching and sharing.



Figure 1: 8mm and Super 8 reels.

### Equipment You Will Use:

- Memory Lab computer
- Wolverine 8mm and Super 8 Film Reel Converter
- 32 GB SD Card (provided)

### Time Required:

- For 1 minute of film play time, allow 10 minutes of conversion time. Allow 3-5 minutes additionally to adjust settings and manage the digital files.
- **Allow 15 minutes at the end of your appointment to transfer the digital files to your external storage device or upload to the cloud.**

#### *Typical 8mm reel footage*

<i>Reel size</i>	<i>Feet of film</i>	<i>Play time</i>	<i>Estimated conversion time</i>
3"	50	2-3 min	<b>20-30 min</b>
5"	200	12-14 min	<b>120-140+ min</b>
7"	400	26-29 min	<b>260-290+ min</b>

## Step 1: Prepare the Computer

### Prepare the Memory Lab Computer and a Temporary Storage Folder

1. Ensure the Memory Lab computer is on. If not, press the circular power button on the tower (see Figure 2).



Figure 2: Power button.

2. Create a new folder on the desktop to store your files while you are working. *Saving to the computer while digitizing is faster than saving directly to external storage. At the end of your session, you will transfer your files to your own storage.*

#### Steps to create a new folder:

- On the desktop, right-click on an empty spot on the screen.
- In the menu that appears, move your mouse over **New**.
- Click **Folder**. A new folder appears on the desktop with its name highlighted.
- *Recommended:* Type a custom name to replace “**New Folder**,” and then press **Enter** to save it.

## Step 2: Prepare the Equipment and Film

### Prepare the Wolverine MovieMaker Pro

1. Locate the black Wolverine MovieMaker Pro.



Figure 3: The Wolverine MovieMaker Pro.

2. Plug the Wolverine power cord into an outlet.
3. Check the rear of the Wolverine to ensure the Memory Lab SD card is inserted (see Figure 4). The SD card is provided by the Memory Lab to save your files while digitizing.



Figure 4: SD card.

## Load the Film Reel

1. Mount your film reel on the left spindle so the film sprocket holes face inward, toward the machine. The film should unwind from the left side of the reel and hang down (see Figure 5). *For Super 8 reels, attach the large adapter to the spindle (see Figure 6) so the reel fits securely.*

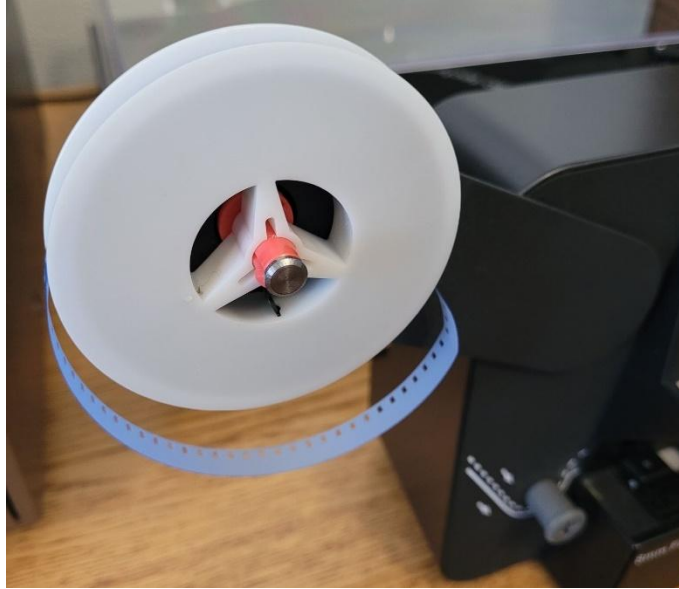


Figure 5: Film reel is correctly loaded (note the position of the sprocket holes in the film).

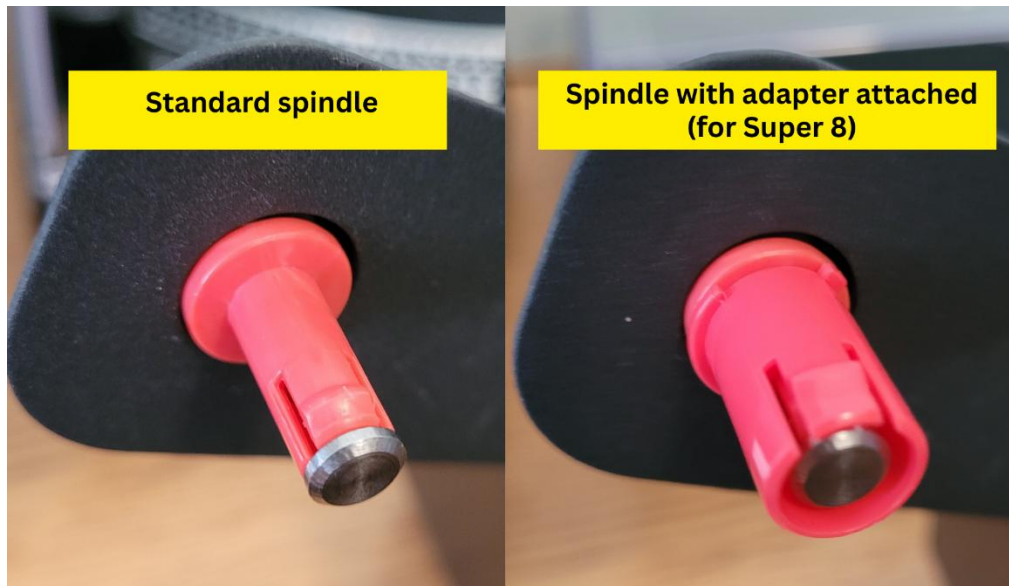


Figure 6: Super 8 reels need the wider adapter (right) to sit securely on the spindle.

2. Mount the provided **empty take-up reel** on the right spindle if not mounted already. The take-up reel is shown in Figure 11.
3. Thread the film following the **solid white line** diagram printed on the Wolverine. Additional tips are below:
  - a. Guide the film under the first grey peg on the left side of the machine, following the diagram (see Figure 7).

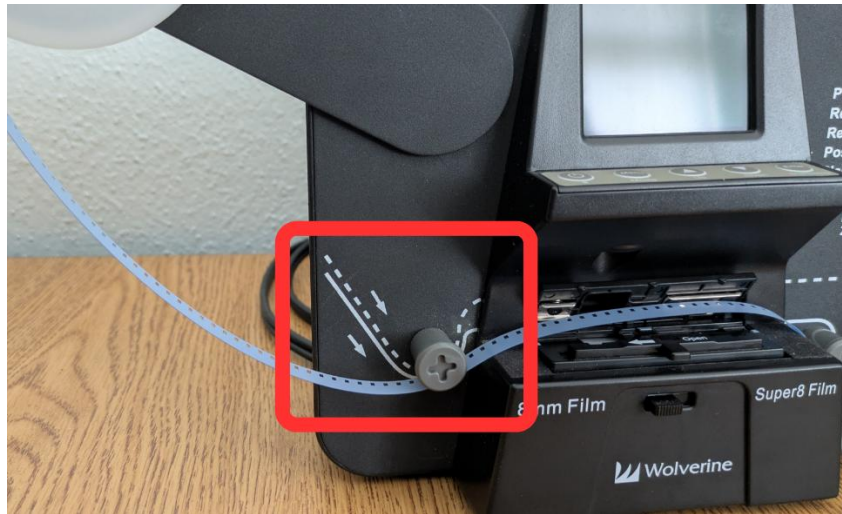


Figure 7: Guide the film under the first grey peg on the lower left.

- a. Open the flap door beneath the control panel (see Figure 8) by sliding the **Open** tab left. The tray is referred to as the “light table.”

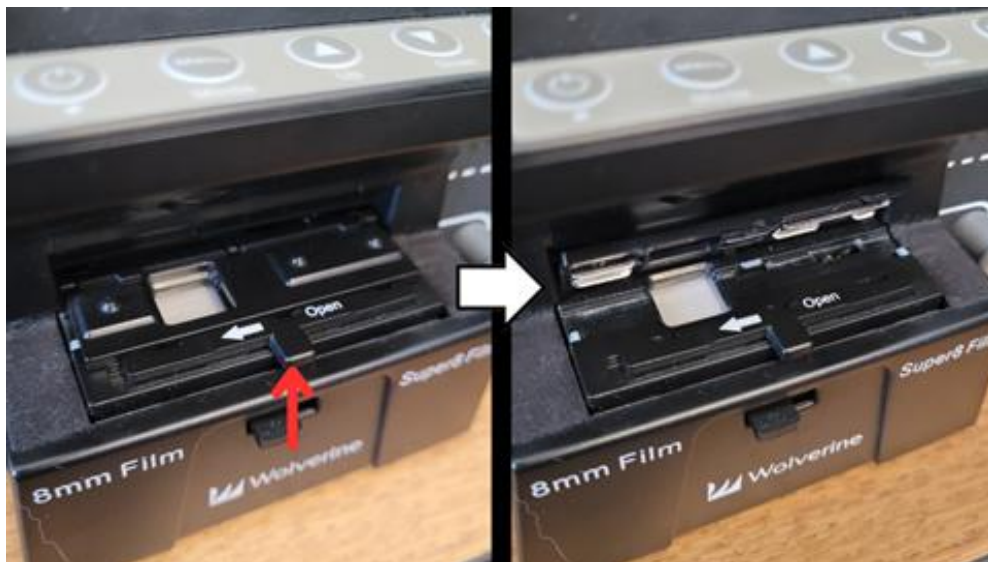


Figure 8: The light table's flap door shown closed (left) and open (right).

- b. Guide the film under the three small white tabs on the light table (see Figure 9). Twist the film slightly to clip it under each tab.

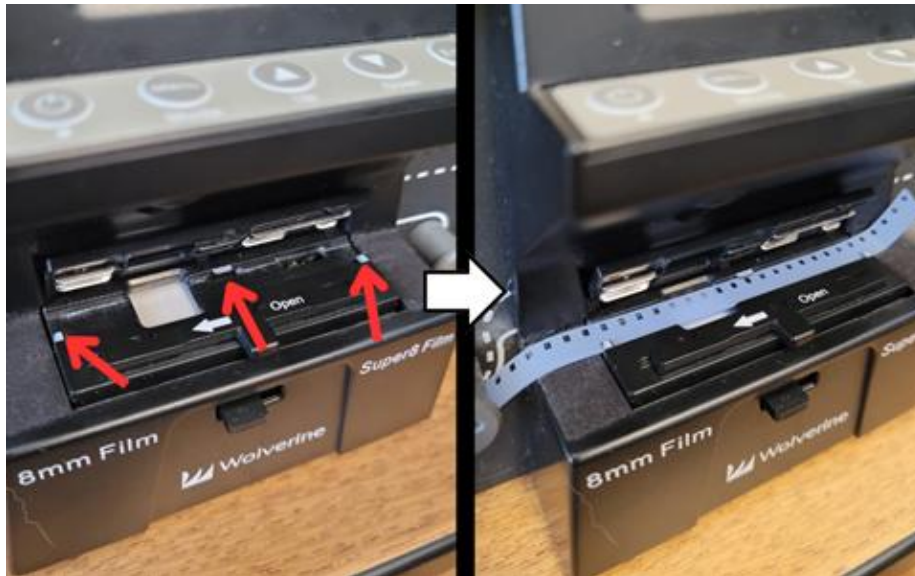


Figure 9: Clip the film under the three white tabs.

- c. Continue to thread film around the four grey pegs on the right side of the machine (see Figure 10). Keep the light table flap door open, as you may need to pull the film slack while threading.

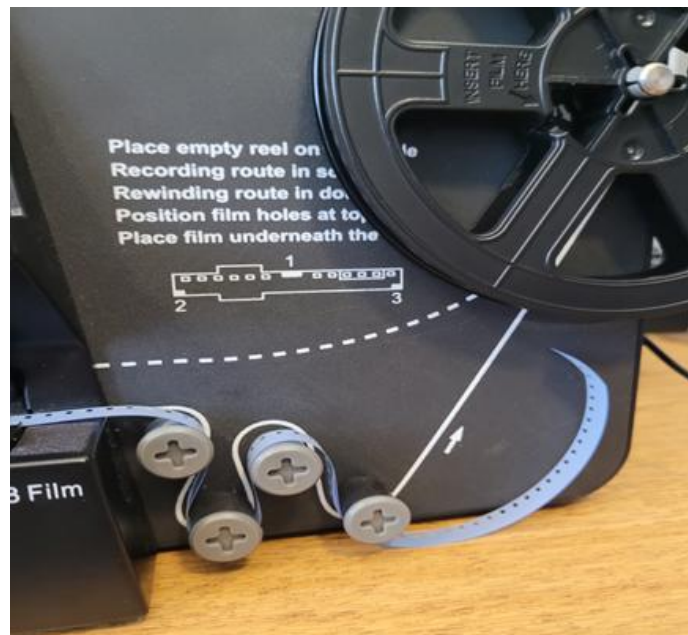


Figure 10: Guide the film around the pegs.

- d. Orient the empty take-up reel so the **Insert Film Here** imprint is on top. Locate the small arrow on the reel, which points to a slot for inserting the film. Wrap the film counterclockwise around the reel and feed it through the slot (see Figure 11).



Figure 11: Film inserted in slot on empty take-up reel.

- e. Manually turn the reel counterclockwise to sufficiently wind it (see Figure 12).



Figure 12: Film loaded on take-up reel.

- f. Close the flap door over the light table (see Figure 13). It will snap into place.



Figure 13: Flap door closed.

4. Press the **Power** button under the screen to turn on the unit (see Figure 14).



Figure 14: Wolverine power button.

## Step 3: Digitize the Film

### Digitize the Film

1. Press the **Enter** (Start/Stop) button on the Wolverine control panel (far right).
2. Confirm the film type using the lever below the light table (see Figure 15).



Figure 15: Lever to switch between 8mm and Super 8.

3. Press the **Enter** button a second time to begin recording. A red dot in the upper left of the screen indicates recording (see Figure 16) is in progress. The Wolverine captures each film frame individually.



Figure 16: A red dot indicates recording is in progress.

4. Look at the number in the lower-right of the screen. This number is the default file name. *In Figure 17, the file name is 00042.*

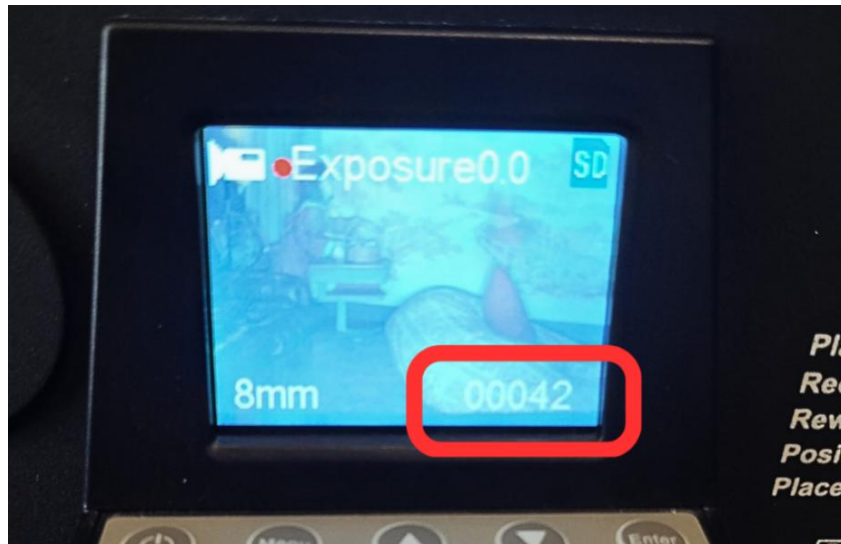


Figure 17: A red dot indicates recording is in progress.

5. Press **Enter** (Start/Stop) when you are done recording.

Optional: To play your recording directly on the Wolverine, press the **Menu** button, navigate with the **Up/Down** arrow buttons to select **Playback**. Then press **Enter** (see Figure 18).



Figure 18: Menu options on the Wolverine.

## **Transfer the Files**

1. Eject the SD card from the rear of the Wolverine by slightly pushing in the card to release it.
2. Follow **Guide 15: How to Transfer Files from a Flash Card** to copy your files from the SD card to your personal storage.
3. After your files have been copied from the SD card to your storage, delete your files from the SD card (*select the files and press **delete** on the keyboard*).
4. Return the SD card to the slot on the back of the Wolverine for the next patron. *Insert and push the card just until it clicks.*

## Rewind Your Film

1. Open the light table flap door and gently free the film from the three clips.
2. Swap the reels: move the film reel from the left to the right spindle.

**Note:** For Super 8 reels, remove the **red adapter** from the left spindle and attach the **gray adapter** to the right spindle.

- a. The film should unwind from the right side of the reel, with the sprocket holes facing away from the machine (see Figure 19).



Figure 19: Reel positioned to rewind  
(note position of the film sprocket holes).

- b. The reel has a center notch that must interlock with a notch on the right spindle (see Figure 20); when properly seated, the reel will sit flat against the machine.

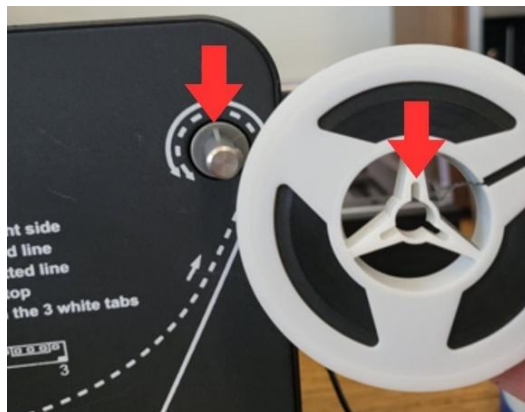


Figure 20: Interlocking notches.

3. Mount the black take-up reel on the left spindle.
4. Thread the film following the **dashed white line** diagram printed on the Wolverine (see Figure 21):
  - Do not wrap the film under the four gray pegs on the right side.
  - Leave the light table flap door open; the film does not need to be placed under the three clips.
  - **Ensure the film wraps under the gray peg on the left side.**



Figure 21: Follow the dashed white line diagram for rewinding.

5. Press **Menu**, use the arrows to select **Rewind**, then press **Enter** twice to start rewinding.
6. Once the film is fully rewound on the original reel, press **Enter** to stop the machine.
7. Remove your film reel.
8. Press **Power** to turn off the Wolverine, then unplug it.

Continue to the next page for instructions to transfer your files and complete your Memory Lab session.

## Step 4: Transfer Files and Complete Memory Lab Session

Transfer your new digitized files from the desktop folder to your own storage using one of the options below. **Large files or multiple files may take up to 15 minutes to transfer.**

### **OPTION A: Use an external storage device (e.g. a hard drive or thumb drive):**

1. Connect your external device to a USB port on the Memory Lab computer.
2. Double-click your folder on the desktop to open it.
3. Select all files by pressing **Ctrl + A** (or by clicking and dragging over them).
4. If **File Explorer** isn't already open, click the yellow folder on the taskbar.
5. Click **This PC**, then locate and select your external storage device.
6. Drag the files from the desktop folder to your external storage device. (A file transfer progress bar will show the status of the transfer; see Figure 22.)
7. Once complete, the files should appear in the external storage device.
8. After all files have transferred, right-click on your desktop folder and select **Delete**.

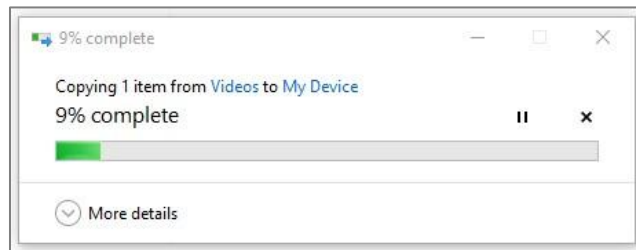


Figure 22: File transfer progress bar.

### **OPTION B: Upload to a cloud storage service (e.g. Dropbox or Google Drive)**

1. Use a browser on the Memory Lab computer to access the internet.
2. Log in to your web-based email or cloud storage service to upload your documents.
3. After all files have uploaded, right-click on your desktop folder and select **Delete**.

## Before You Leave:

- **Confirm your files are saved to your personal storage.**  
*Files are deleted daily from the Memory Lab computer!*
- **Collect your original media from the Memory Lab equipment.**