## Camera Station Capture

**Station Specifications**
Sony A7R II mirrorless camera, Sony 90mm OSS Macro lens, Kaiser Prolite 5000 lightbox, custom holder support

**Ease of Use**

**DigitalIZA 35mm Film Scanning Mask**
- Nice construction, with great performance for a budget option. This holder is fast and reliable to load using the magnetic guide, even with curly negative strips. It works best with strips of film and the wider mask opening makes it easier to include borders. Standard film sizes only.

**Digital Transitions 35mm holder**
- Extremely solid construction. A more narrow mask can make it more difficult to align even borders, but the magnetic top layer holds film securely and loads well. It does not handle single frames of film or odd sizes either.

**Essential Film Holder Masks**
- Well constructed, but lighter materials. As with previous holders, this is a good option for standard strips of film and comes as a standalone unit for placing on lightboxes, though the masks can be removed and used alone. Curly film is harder to slide through the film guide and align properly as well. A more budget-friendly option than a similar Negative Supply kit that was not tested.

**Omega LPL 4"x5" Negative Carrier w/ ANR glass**
- Great construction and easy to use with the handle. This is the top choice tested for any single frames, odd or cut sizes, or creased film. It's also much better than any negative carrier tested at keeping the edges of negative strips flat and in focus. An additional spacer is usually needed to prevent circular Newton rings from the glass and extra time is required to inspect film at 100% since some types are more prone to these interference patterns than others. There is some light flare around edges without adding a custom mask.

**Quality**
This was compared across holders with a single negative, as well as an Image Science Associates 35mm film target for confirmation. All holders performed equally well at approximately 4930 pixels per inch (ppi), which exceeds one metric of the FADGI (Federal Agency Digital Guidelines Initiative) requirements for 4 star performance in 35mm film. Every holder except the Omega glass carrier had difficulty with focus at the beginning and end of a strip due to film curl.

### Speed
- **DigitalIZA 35mm Film Scanning Mask**
  - 01:09 to load
  - 02:41 to capture a strip of 5 images
- **Digital Transitions 35mm holder**
  - 00:47 to load
  - 02:40 to capture a strip of 5 images
- **Omega LPL 4"x5" Negative Carrier w/ ANR glass**
  - 00:51 to load
  - 03:50 to capture a strip of 5 images, including time checking for Newton rings
- **Essential Film Holder Masks**
  - 00:31 to load
  - 02:54 to capture a strip of 5 images

## Scanner Station Capture

**Station Specifications**
Epson Expression 10000XL, 2400 ppi optical resolution

**Ease of Use**

**DigitalIZA 35mm Film Scanning Mask**
- Worked seamlessly with the scanner from the beginning, without height adjustment. Top choice for replacing manufacturer provided holders and holds film securely.

**Digital Transitions 35mm holder**
- Needs custom risers for reliable use, but simple to align

**Essential Film Holder Masks**
- Needs custom risers for reliable use, but simple to align

**Omega LPL 4"x5" Negative Carrier w/ ANR glass**
- Did not work as well with this scanner, other options preferred
- There are ANR inserts for certain holders available if additional flattening from glass is needed instead of this option

**Negative Safety**
Performance matches camera capture station tests.

**Speed**
While loading time was comparable to the camera capture station testing, each frame takes 2-4 minutes to scan depending on quality. This puts the Essential Film Holder at a disadvantage since each frame needs to be repositioned in the mask between scans.

**Quality**
The Epson 10000XL provides 2400 ppi optical resolution, but results were largely comparable between holders and film edge curl was less noticeable at the lower resolution. The Digital Transitions and Essential Film holders needed focus calibration for best results which takes additional time and isn't available on all flatbed scanners. See note below.

***Many flatbed scanners have a fixed focal point for film, so it's best to choose holders that are the same height of the standard issue scanners for these, or look into creating custom spacers to place your holder at the correct height. Please also be mindful of damaging or scratching the surface with anything placed directly on the glass, and check the terms of your scanner warranty.***

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[DigitalIZA 35mm Film Scanning Mask]
[Digital Transitions 35mm holder]
[Essential Film Holder 35mm mask]
[Omega LPL 4x5 Negative Carrier]