

Photograph Your Own Art

This document is for artists who want to produce digital files of their art to create marketable prints. For those wishing to capture photos for their own records or other non-commercial purposes, these steps are probably overkill.

Many product photos in this PDF are hyperlinked to a site where you can buy the device. I do not get commissions from these the purchase of these products. The links are provided solely as a convenience for the reader.

For small works, high resolution flatbed scanners can be used with some caveats. Typical home/office document scanners capture images at 300 to 600 dpi (dots per inch,) much too low for fine art reproduction. A good quality scanner for art reproduction should capture, at minimum, 2400 dpi. A limitation of scanners is the fluorescent lighting used to light the object.

These can create color anomalies and, in some cases, interact with the paint/medium to produce odd colors. These lights are also mounted to one side of the scanning mechanism so art with heavy texture will have shadows. Scanners also require art to be laid face down on the glass, potentially damaging the surface. Finally, small scanners are... small! The maximum size for these scanners is generally 11"x17". Fine art capable scanners cost between \$300 to \$3000.



At the other end of the price spectrum, Rencay scanning digital backs and cameras are used to produce museum quality reproductions. When Rencay was introduced at Photokina 2014, MSRP for just the scanback device (without camera or lens) was ~\$11,400 plus another \$3000 to \$5000 worth of required accessories,

not to mention, a trained operator. As you can imagine, this isn't a system found in every city or even every state.

The most cost effective method for capturing 2-D art is a digital camera with, at minimum, 20 MP (megapixel) resolution. Today, most mid-range digital ILCs (interchangeable lens cameras) fall into this category. ILCs include both dSLRs and mirrorless cameras. Coupled with a good lens and tripod, this type of system can be relatively affordable, costing between \$3000 to \$8000.



Camera Specifications & Settings

The camera must be capable of **manual control including Exposure and Focus**. It must also be able to produce **RAW** output files, not just JPEG. It should be capable of capturing, at **minimum, 20MP** (megapixel) resolution.

A prime (non-zoom) lens in the **50mm to 100mm** focal length is best but a good short (<135mm) zoom with low distortion can also be used. DxOMark.com is a good site for evaluating lens performance. Set your lens for the least **barrel and pincushion** distortion (usually near the middle.)

You will also need a sturdy tripod. B&H Photo on the internet has a wide range of choices. Ensure the tripod is rated to hold your camera's weight. A head is needed to attach the camera to the tripod. Ballheads are preferred but make sure it can support your camera without drooping. Be prepared to pay \$75-\$100 for a tripod with a ballhead.



Set your camera to Manual Mode and ISO to 100. If your camera doesn't go down to 100, set it to the lowest available, usually 200. **For Aperture, select either f/5.6 or f/8** to start. Now, **set the Shutter Speed** to whatever setting the camera needs to get the Exposure Level Indicator (ELI) to 0 (zero.) The ELI below is from a Canon so yours may look different. Remember to set the shutter release to either 2 second or 20 second timer, if available. Lacking either, you'll want to spring for an inexpensive remote shutter release to avoid shaking the camera. Be sure



it works with your camera model.



Set WB (white balance) to Cloudy or Shade if you're shooting outdoors in natural light. If you're indoor using artificial lights, set it to Automatic WB (AWB) like the image to the left. On some cameras you can set it to an exact degrees Kelvin (color temp.)

Lighting the Art

Lighting is the key to all photography, not just art. However, it's even more critical for art because the photograph has to capture the essence of the original without adding anything. Reflections, glare and shadows can change the artist's intent.

A pair of LED work lights from Home Depot can be used for lighting art. For bigger pieces, use 4 lights. DO NOT use incandescent or HID lights because they get too hot. Inexpensive [light stands](#) from B&H Photo will keep the lights stable.



Place the lamps about 18-36 inches away from the sides depending on the size of the art and output of the lamps. Angle the lights no more than 45 degrees from the center of the art. More than 45 degrees may cast reflections. Ensure the art is evenly lighted by using the camera's exposure meter to measure each corner and the center.

Attach [polarizing film](#) over the LED lights and a polarizing filter on the lens to cut glare both horizontally and vertically. When properly aligned, the viewfinder will be at its darkest and glare will be eliminated. Blue painters' tape is a simple way to attach the polarizing film. A fancier method that prevents damaging the film is supergluing large paper clips to the lights and holding the film with neodymium magnets.

Fill the Frame

Your camera has a finite number of pixels so don't waste any. Use every available pixel for the image – Fill the Frame.

Place your art against a blank wall on a vertical easel, otherwise, hang it on the wall. A black or gray wall is best but white is OK, just minimize glare. Avoid colors. You can also place it on a table covered with a black, gray or white drop cloth. A garage works well if you can block light from windows. If all else fails and the art is small enough, place it on a patio or other covered area and position the tripod over it, shooting straight down.

“Eyeball” the distance to fill the frame. In other words, at the chosen focal length, make sure your art completely fills the viewfinder. Most likely, your art will not be an exact 3:2 aspect ratio matching the viewfinder, just make sure the long side fills the long side of the viewfinder. If your art is longer vertically, you can either hang it horizontally or use your tripod ballhead to flip the camera vertically.

Set up the tripod at the “eyeball” position and attach the camera. Check again that the art fills the frame. Now, fine tune the position by moving the tripod forward or backward.

The final step is to ensure the camera is both level and perpendicular. Again, the ballhead will be handy for this step. Another handy device is a hot shoe mounted bubble level.



After the camera is perfectly square with the art, double check your exposure settings and release the shutter. If all went well, your art should be captured as a digital file. Just to be safe, take two or three more photos varying the shutter speed to get lighter and darker images. Be sure to take one or more photos with an X-Rite Color Checker in the frame. You'll need this for color correction.

The next step is Color Correction and Matching during which you match the colors captured by the camera's sensor to your computer display.