

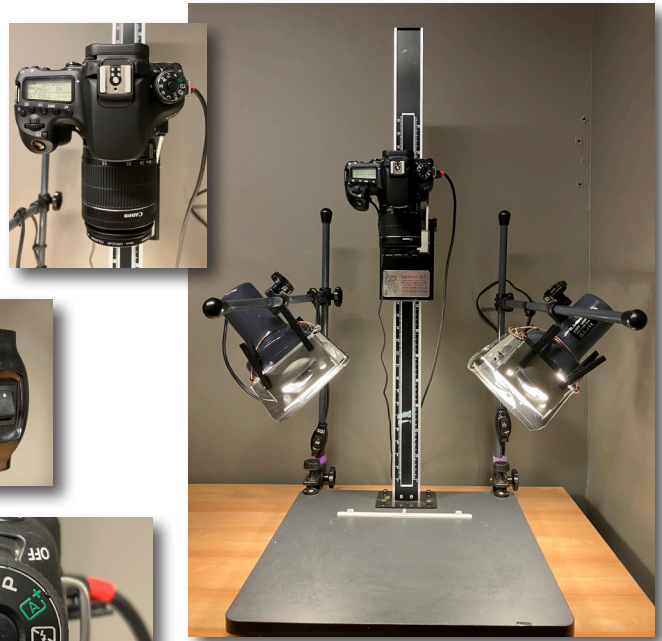
DARTMOUTH COLLEGE

FILM AND MEDIA STUDIES TECHNICAL SUPPORT

Using Dragonframe in VAC 220



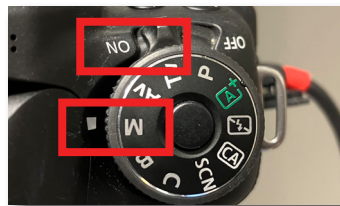
The camera (a Canon 70D) is already mounted to the animation stand and is powered by an AC power supply, so no battery needs to be charged or installed. The camera communicates with the computer via a USB cable.



There are two lights on either side of the stand, each with a power switch and a polarizing gel wrapped over it, secured by four C-47s (also known as clothespins).



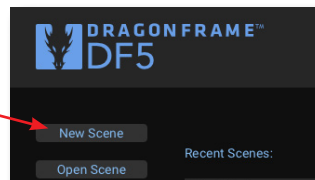
Turn the camera ON, and check that it has been set to M for Manual mode.



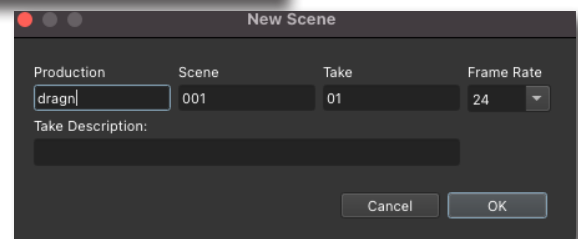
You are now ready to open Dragonframe, which can be found on the dock or in the Applications folder.



To begin a new project, click on *New Scene*



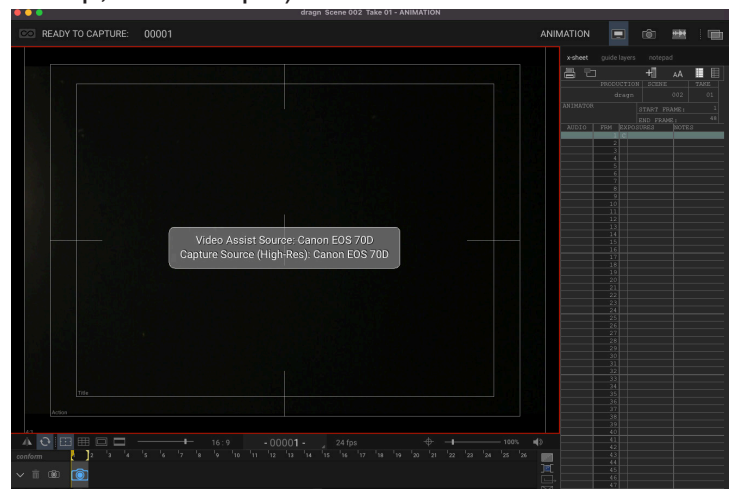
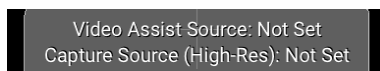
and in the new window enter a name for your project (no more than 5 characters). If you are working on a project with multiple Scenes or Takes, you can enter that information as well. Typically your frame rate will be 24 fps.



Click OK, and in the resulting window navigate to where you will save your project (a folder on the desktop, for example).

The Dragonframe workspace will open.

Note: if you see an alert window that indicates your Capture Source (camera) is “Not Set”, check again that the camera is on, and also that the USB cable is securely connected between the camera and the computer.



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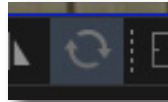
Currently we are using the “Animation” tab.



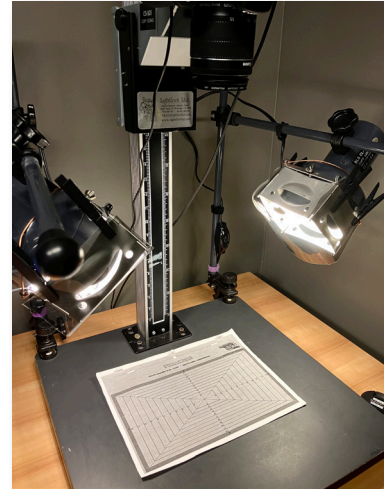
Place your first item of art you plan to photograph on the peg bar of the animation stand base.

Note that your art is ‘upside down’ as you face it on the animation stand base- but it is oriented correctly to the camera, and is ‘right-side up’ in the Live View window of Dragonframe.

If you want the image rotated, you can activate the *Rotate Frame* feature



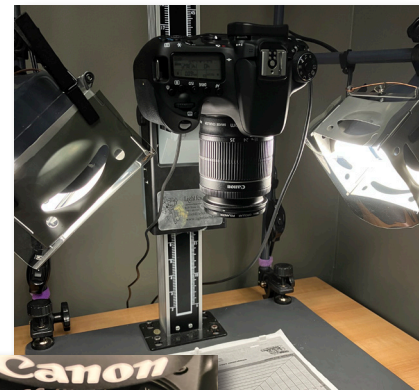
To frame your image, you can either use the zoom lens on the camera or adjust the Copy Stand mount itself.



Moving the camera physically closer gives an advantage by shortening (zooming out) the focal length of your zoom lens.

This will give you a wider depth of field (less chance of something being out of focus if, say, your art is not completely flat) and it will allow you a wider aperture setting, so that you can have a lower ISO setting (which we will adjust soon).

That being said, setting your lens to the shortest length (18mm, for example) might create some distortion in your image. If possible, set the lens to 35mm.



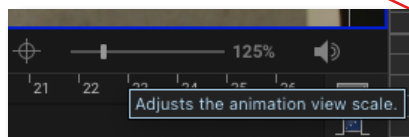
To adjust the camera height on the animation stand, squeeze the lock plate in, and gently slide the camera up or down.

Releasing the lock plate will secure the new position.

You can use the camera **zoom** for more minute adjustments, and **focus** for the sharpest image possible



In Dragonframe the Digital Slider at the bottom right of the Live View window can help provide a closer view while focusing.



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Next we will move to the Cinematography tab to adjust our camera settings.



If it isn't already, twirl open the **Image Info** and **Camera Settings** window from the options listed on the right of the workspace.

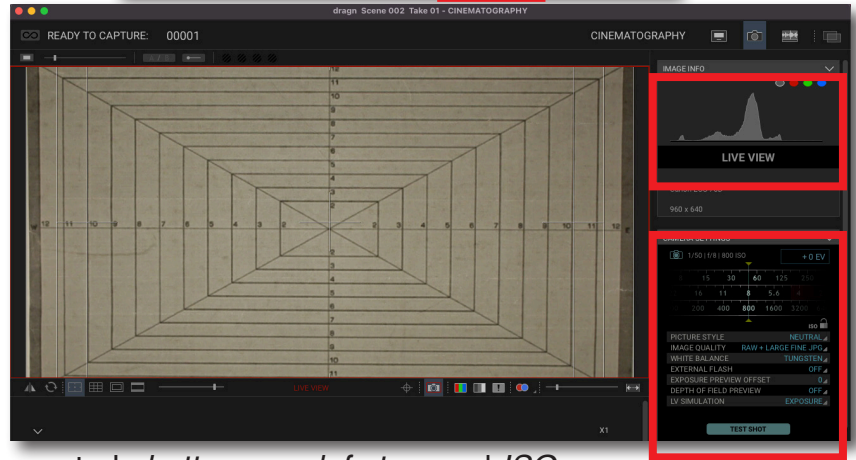


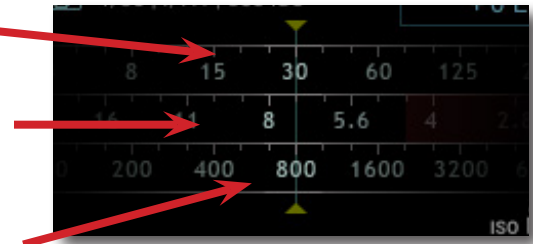
Image Info provides a visual representation of the brightness of your image. As a rule of thumb, it should remain 'in the middle' of this histogram- not too bright, not too dark.

In **Camera Settings**, the top three settings control *shutter speed*, *f-stop*, and *ISO*. The balancing act between these three options will give you the best exposure and resulting image.

The shutter speed involves how long the shutter is open, allowing light to record the image on the camera sensor. For our purposes, a shutter speed of 30 is ideal.

The f-stop controls the camera aperture. Typically the higher f-stop the better, as it will focus the light more and give you a wider depth of field. Somewhere around 5.6 or 8 is good.

The Canon 70D camera has an ISO rating of 1600, meaning beyond that your image will begin to degrade a bit. Aiming for an ISO of 800 (or lower) is good, but do not go above 1600.



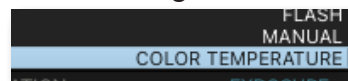
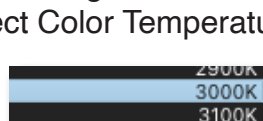
While adjusting these dials you will see the effective change in your Live View window. It is important to NOT go too bright. Over-exposing your digital image is very difficult to fix later on.

For the remaining settings:

Picture Style can be set to "Neutral". You can sample the looks of the other filters to see if it provides an appealing difference. Note that "Neutral" will provide the most flexibility to change your look later.

Image Quality can be set to "Large Fine JPG" if you only need JPG's to work with (you can select from the other options as well, for example you might need a RAW file for detailed work later).

White Balance depends on our light source. The flicker-free lights on the stand are rated at 3000K. Under *White Balance*, select Color Temperature and from the resulting list select 3000K



External Flash can be set to OFF, *Exposure Preview Offset* can be set to 0, *Depth of Field Preview* to ON, and *LV Simulation* to ON



We can now return to the Animation workspace.



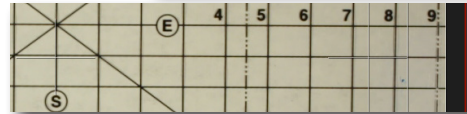
With camera settings entered, there is one final camera adjustment to check.

It is possible that you may see some reflection on your artwork, due to the lights shining on them.

Physically moving the lights slightly may resolve it, but you can also gently spin the Polarizer filter that is in front of the lens of the camera.

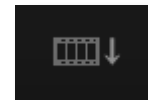


As you gently turn it, watch the Live View to see if this helps alleviate the glare.

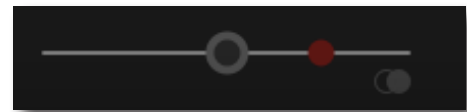


This may affect your exposure, so be sure to check your histogram graph after setting your polarizer

To view your work in a timeline along the bottom of the Live View window, click on the timeline icon to the bottom right of the workspace.



Two other useful features to activate are *Onion Screen* mode, which provides a 'ghost' image of the previous frame (pulling the slider further to the right or left increases/decreases the degree of the 'ghost' image)



...and the *Loop Playback* button, which will loop your captured frames in playback. Use the space bar to begin or stop playback.



When you are ready to begin capturing frames, using the computer keyboard you can press either the **return** or **enter** keys to capture a single frame.

You can also use the Dragonframe keypad window, or a physical Dragonframe keypad connected to your computer via USB cable.

If you are capturing frames on 2's or 3's, you can press the **Q** key to capture 2 frames at a time, or the **W** key to capture 3 frames at a time.

As you work, you should see your captured frames in the timeline below the Live View window. You can play your animation by



You can delete any frames you don't wish to keep by selecting them and pressing the **delete** key on your keyboard.

Continue until you have completed capturing your frames, and then you will be ready to export your animation. Please refer to "Exporting from Dragonframe" for details on that process.