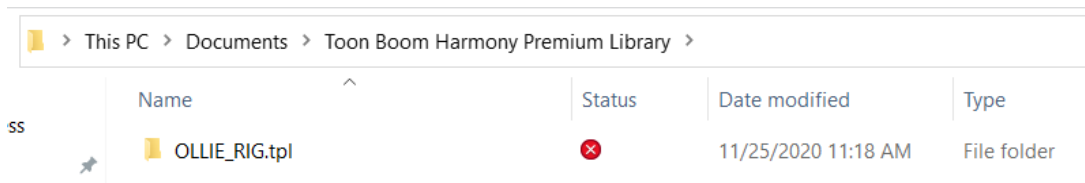


How to Animate aspects of Rigs in Toon Boom

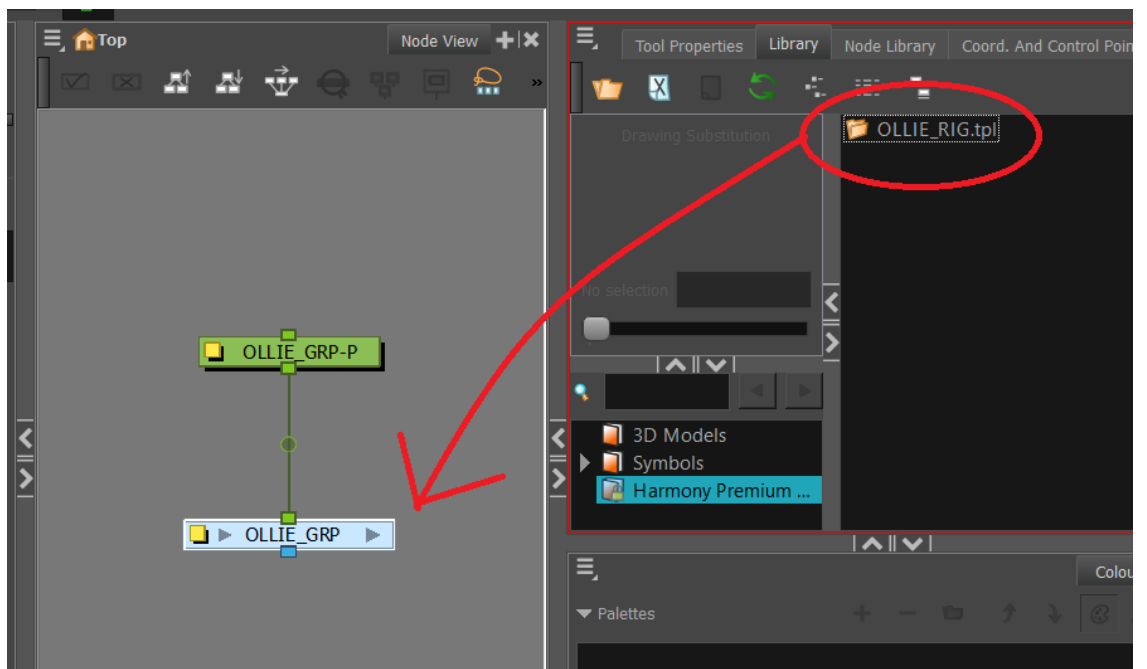
Hannah Jurgens

1. Importing in the rig and general setup.

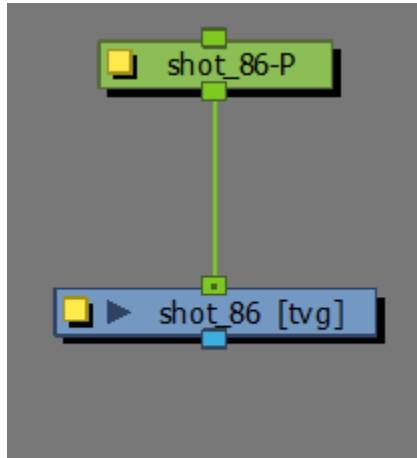
- a. To import a rig into Toon Boom Harmony, you must have the unzipped rig folder (supplied by the 2d tech lead) to drop into the **Toon Boom Harmony Premium Library** folder. The Library folder is commonly found in the *Documents section* on *This PC*. Once you've placed the rig folder into the Library folder, make sure you close any current Toon Boom files you may have open and reopen your file back up in order to see the rig stored in your library!



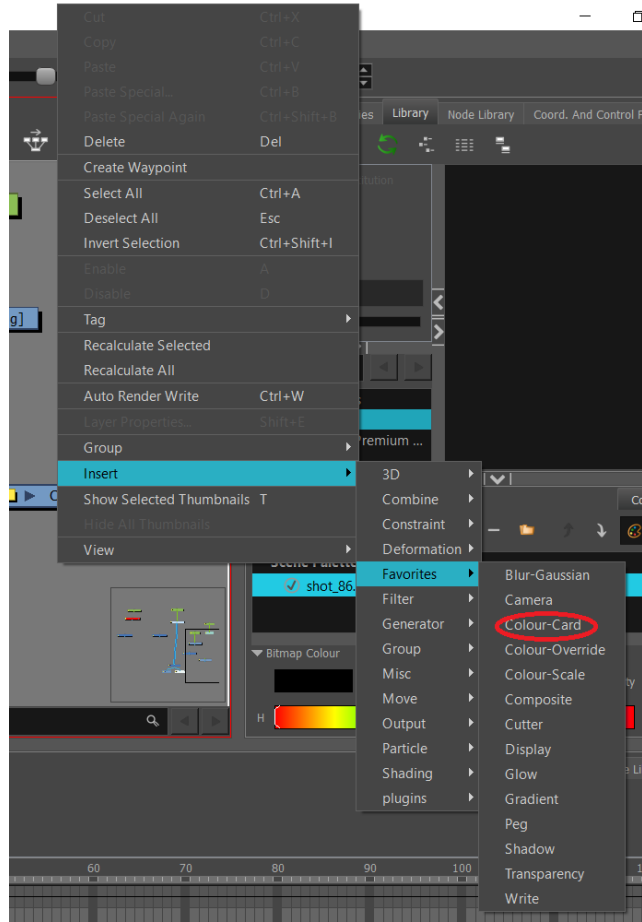
- b.
- c. Once you see the rig in the library, drag it into the Node View. Select the rig node and make sure it has a peg on it in order to move the rig around by pressing Ctrl-Shift-P. Another node that's lime green should appear over and connected to the rig node as a result.



- e. With the peg node, you are able to select the rig and position it non-destructively without doing damage to the original drawing.
- f. Next, import your reference footage that you'll be animating on top of to match. The footage will show up in the node view as its own node... make sure that it has a peg node attached to it as well!

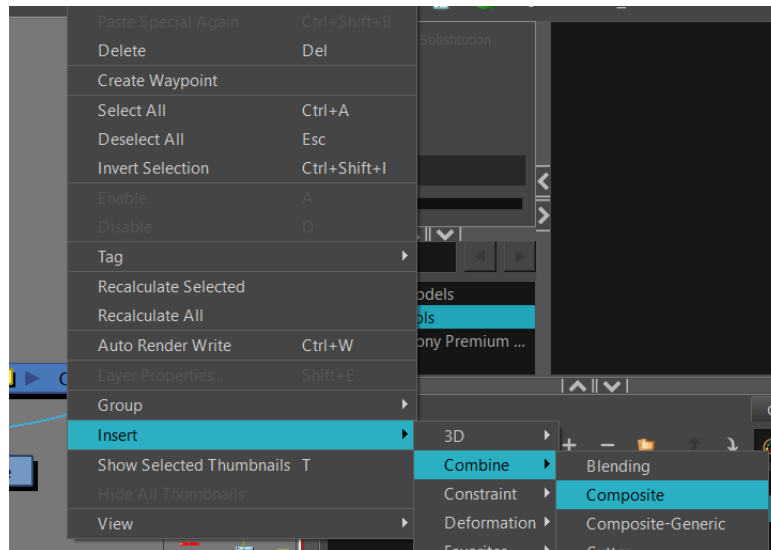


- g.
- h. Add a color card node in the scene so that it's easier to see what you're animating on top of. One way of doing this is right-clicking in the node view and scrolling down to **Insert > Favorites > Color-card**.

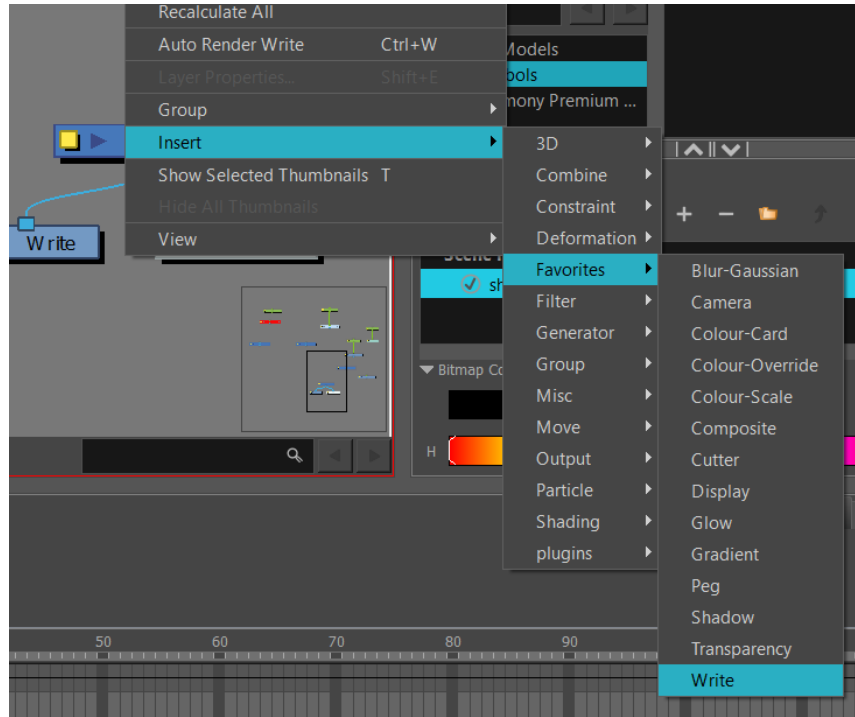


i.

- j. Add in Write and Composite nodes into the view with the same process as above.

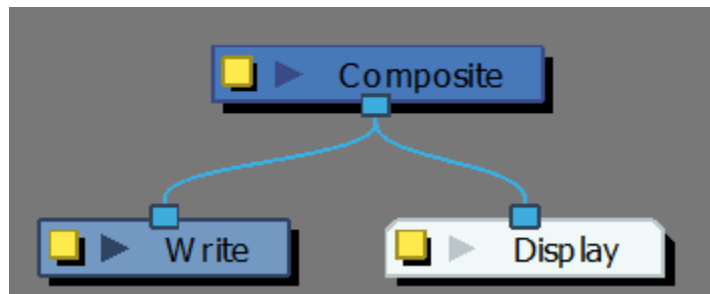


k.



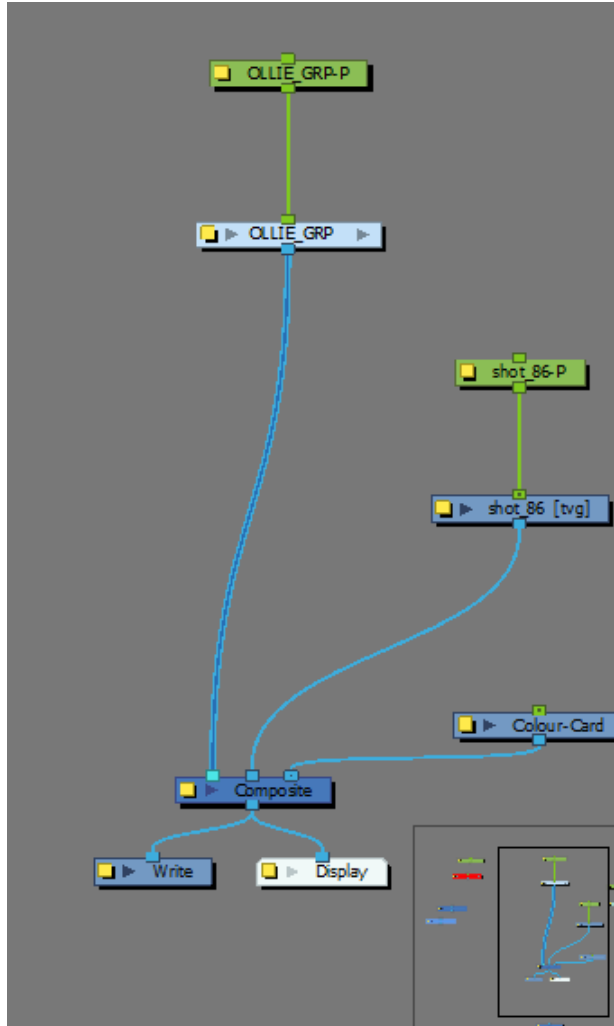
l.

m. Now the main task is connecting everything! It's important that your node view is as organized as possible for general workspace purposes, so generally it's good to space things out. I put my write node (what you eventually use to render with) on the bottom with my display node, having them both connected to the composite node (what composites all of the nodes together). It should look like this so far:



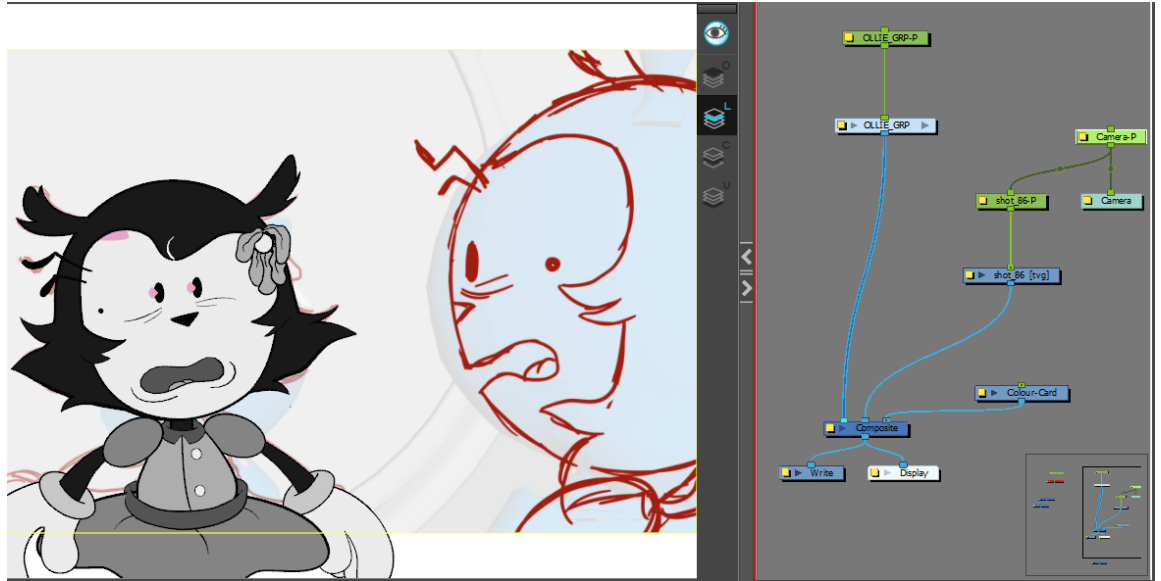
n.

o. Next, connect all of the other nodes you need to view on display to the composite node.

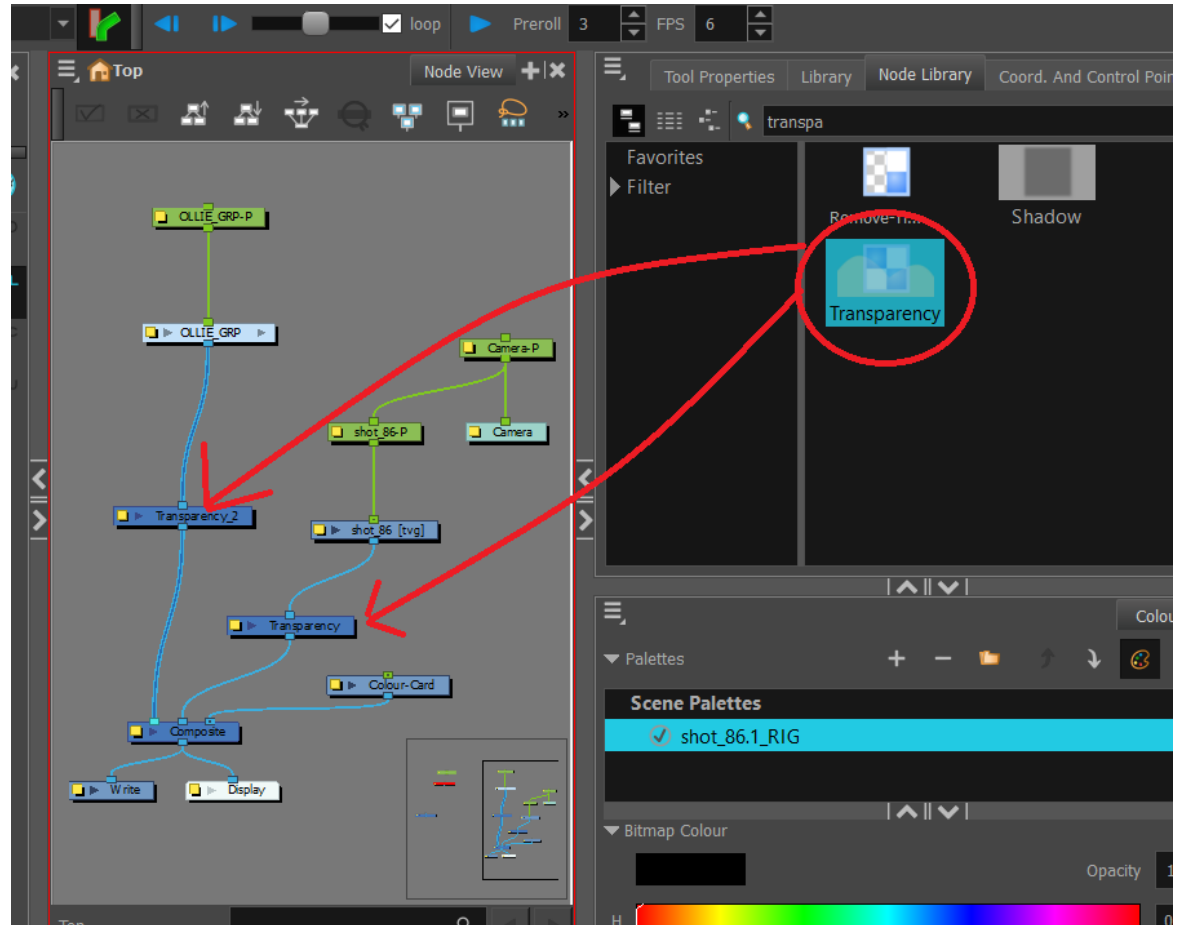


p.

- q. Add a camera node as well as a peg connected to it using the instructions above. Then, connect the camera peg node to reference footage peg node.



- r.
- s. You will be using the **Camera Peg node to scale the character rig with the selection tool**, and you will be using the Character Rig Peg node to position the character rig with the selection tool to get the character as large/where they need to be in the scene.
- t. Finally, to make things easier to see underneath the rig to get the most accurate drawings as possible, add in Transparency nodes. You do this by looking it up in the Node Library and dragging it in as a node. You should put the Transparency nodes between the shot and character rig nodes connected to the compositing node.



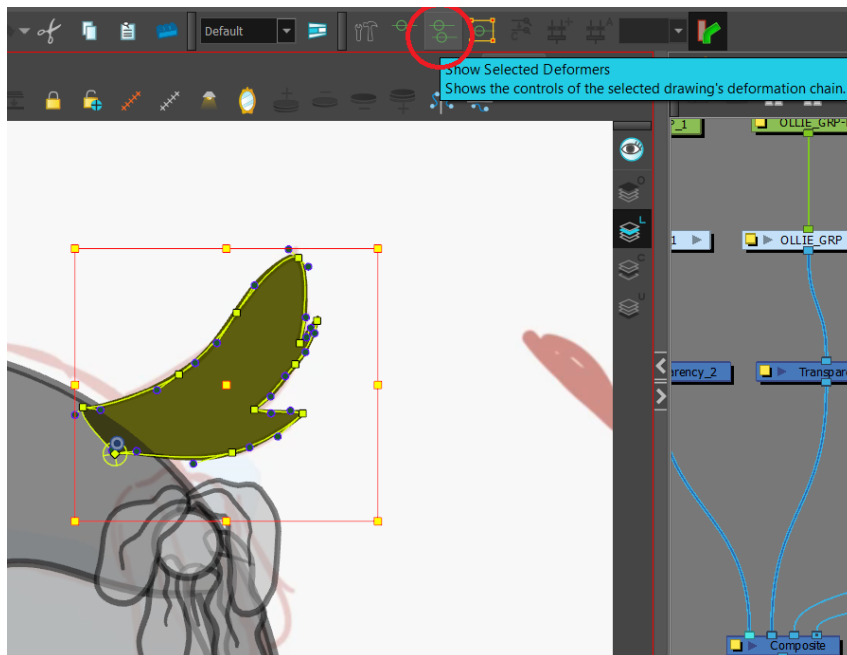
u.

2. Moving parts of a rig around to match a keyframe.

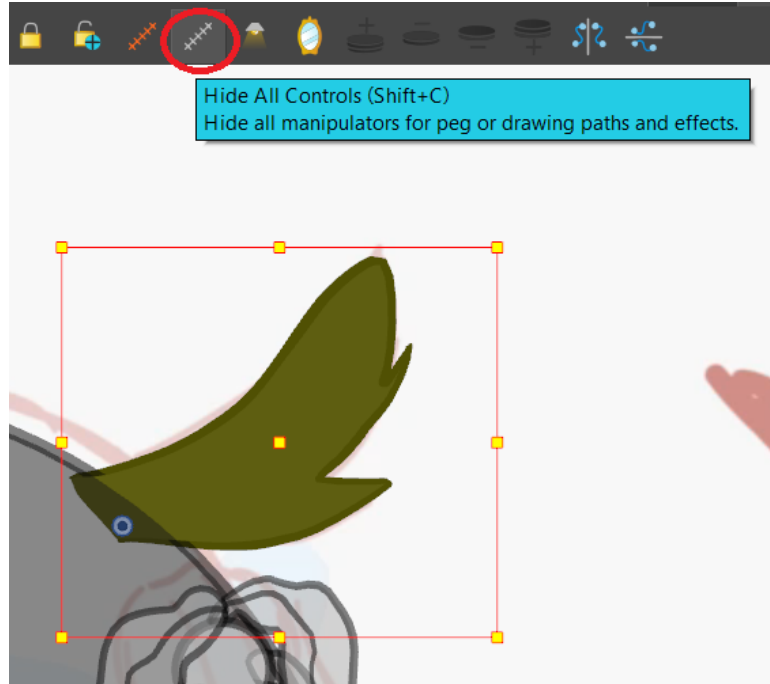
- a. First of all, make sure that the inbetween footage you're using to animate is as **on-model** as possible. It's important to make sure that your footage is correct proportionally and style-wise because you're deforming the rig to whatever the drawing looks like underneath.
- b. One of the most integral aspects of animating a rig is to make sure you are animating solely on pegs, and *NOT* the actual drawing! Pegs protect all aspects of the rig to make sure that you are not doing damage to the original drawings when deforming/moving. You know that you're on the peg when the selected part is **yellow**; you know that you're on the drawing when the selected part is **blue**.



- c.
- d. You select the peg of a certain part by **clicking on it and, most of the time, pressing B twice**. You go down the hierarchy of an object (for instance, clicking a finger then pressing B several times to get the whole arm) by continually pressing B.
- e. To access deformers on a part, click on the **Show Selected Deformers** button up top. You will then see points and curves you're able to adjust to match the shape of whatever drawing is in the inbetween.



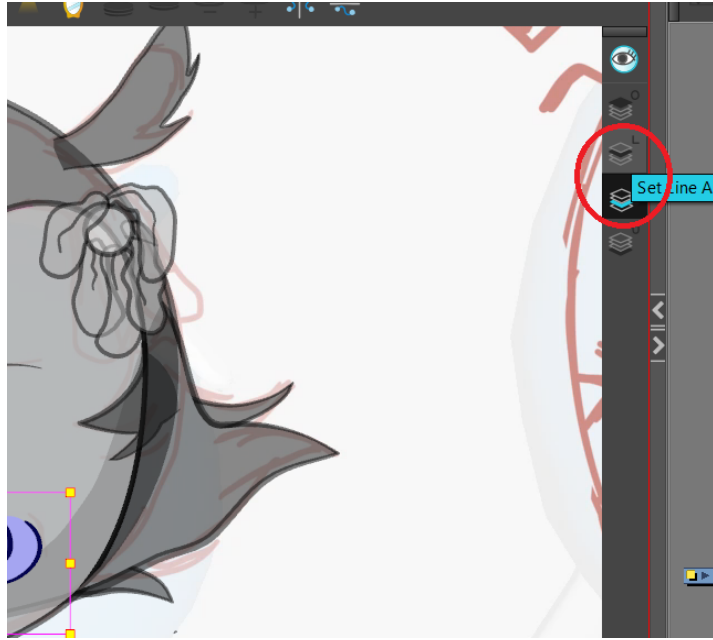
- f.
- g. To get rid of the points after you're done adjusting, simply click the Hide All Controls button.



h.

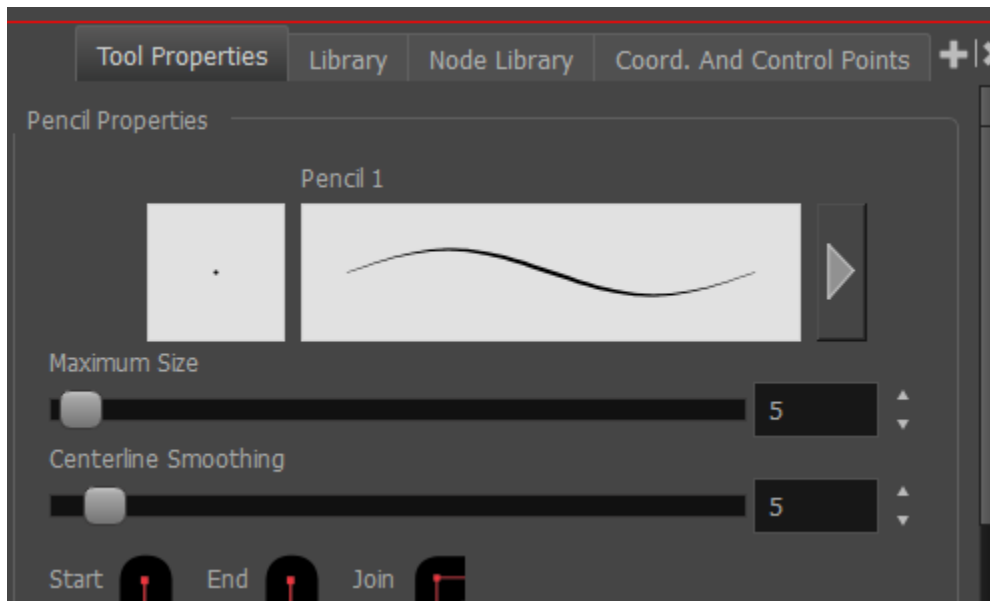
3. Replacing parts of a rig and drawing objects for the library.

- a. With the library likely not having every mouth/hand drawing you need, you will likely have to replace parts of it and add to the library. Luckily, the process of adding another drawing object to the library is super easy!
- b. Select the thing you need to replace and click Shift+Alt+D. This process duplicates a new object into your library.
- c. Next, unless you want to do some minor tweaking to the object you duplicated, erase it altogether, both on the Lineart and Color layers (if both apply). You can find both of those options on the side tool bar.



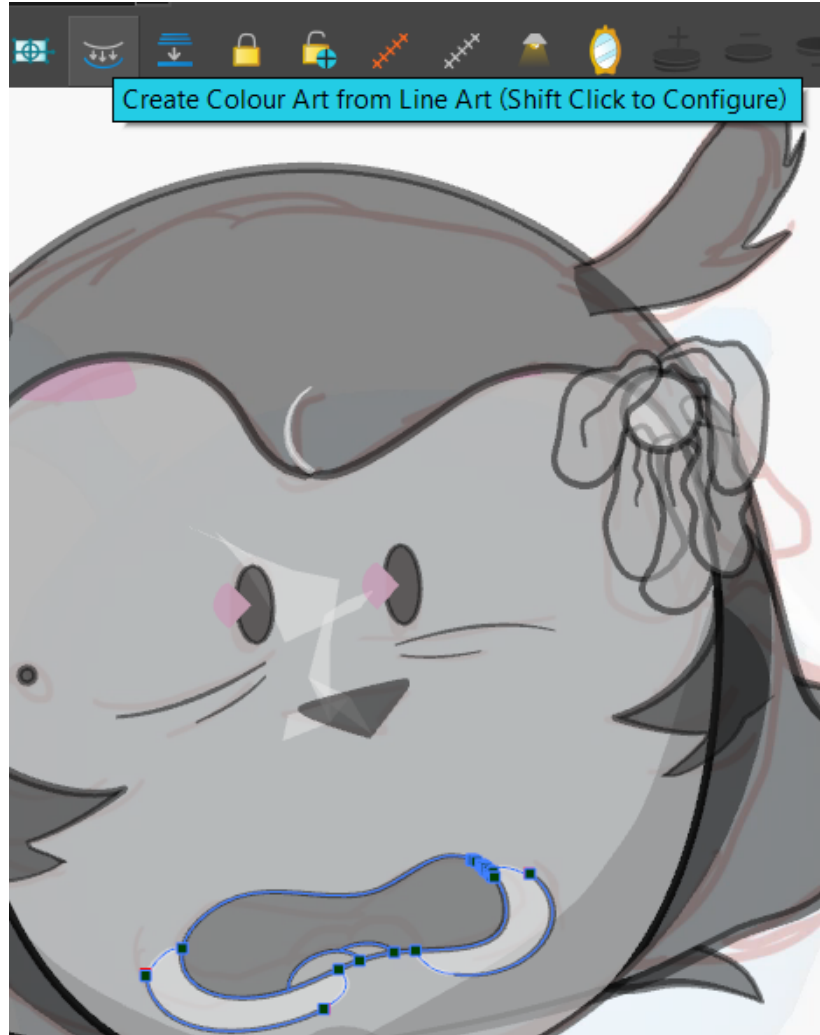
d.

- e. **Always use the pencil tool** to draw replacements, and match the same line art thickness/taper for consistency purposes! You can adjust attributes of the pencil in the Tool Properties Panel.



f.

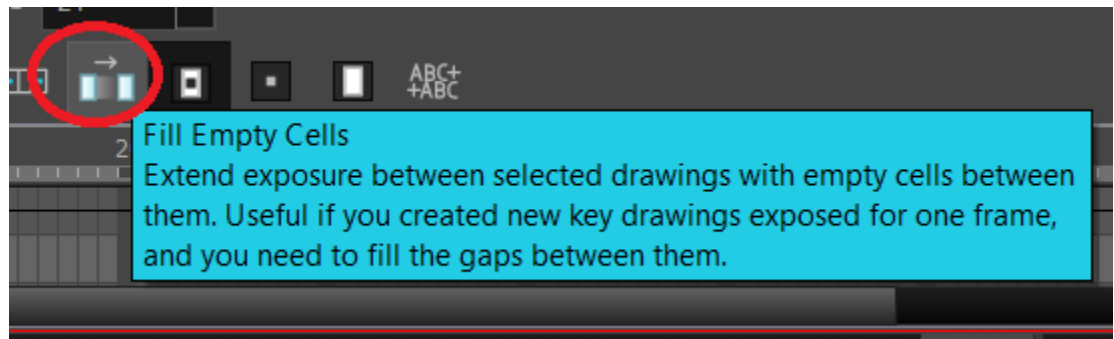
- g. Draw in your replacement. You can make something easier to color by clicking the Create Color Art from Line art button and using the bucket tool to color in whatever you need to.



h.

4. Tweening and adjusting.

- a. Once you have your key poses in your animation, you fill in all of your empty frames so the key poses all flow together. You do this by highlighting the keyframe and the frame you want to extend it to and click the Fill Empty Cells button in the timeline.



b.

- c. Next, you tween. Highlight all of your keyframes you want to tween in the timeline and click the Set Motion Keyframe button at the top (or press **Ctrl+K**).



- d.
- e. Tweening, by no means, looks good. The purpose of tweening is to make things easier on the animator by having a computer fill in what it thinks would make for good inbetweens; your job is to find whichever tweened frames look the best, copy them, and adjust whatever looks weird. It's essentially used for breakdown poses.
- f. The rest is up to the animator: whatever you can salvage from a tween, make sure to adjust to make the animation flow nicely, and add the rest of the inbetweens yourself by copying and adjusting poses!