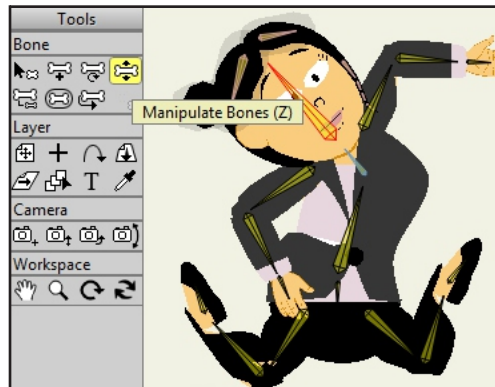


Polishing Things Up

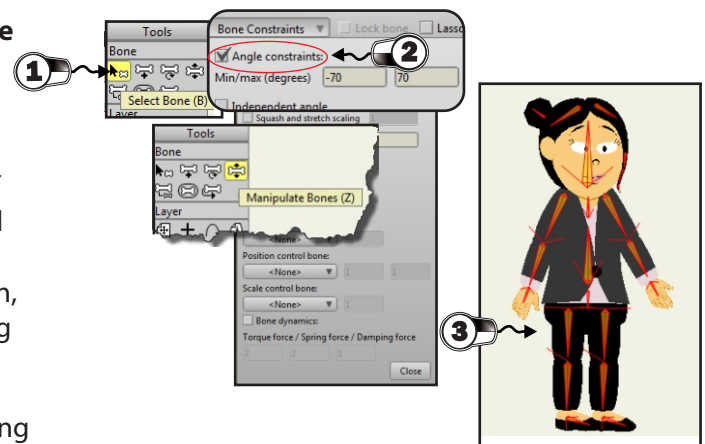
Lesson 10

Even with all the precautions we've taken up to this point, very rarely does a rigged character work right the first time. Try taking your Manipulate Bones tool and moving some limbs around your Character. One of the following things will probably occur: limbs will move unrealistically, layers will have visible lines or seams intersecting with limbs, or layers will move outside of the intended bounds. The first issue is, fortunately, easy to fix. The other two will require some trial and error on your part.

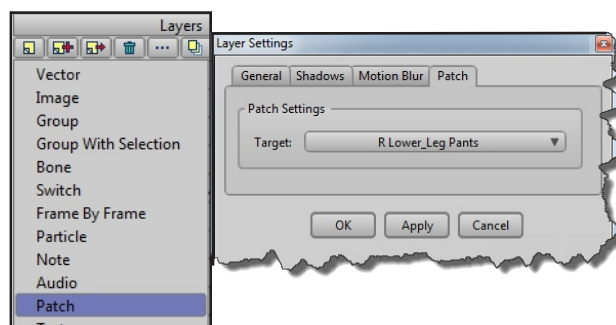


First, in order to control the movement of the limbs, we can place restrictions or constraints, using the following steps:

- 1 Select the offending bone with the **Select Bone** tool. On your top bar, you will have a button labeled **Bone Constraints**.
- 2 Click on that and enable **Angle Constraints**. Now, from here, you can adjust the numbers of how far your bones can bend. You have a visual representation of this showing two red lines at the end of the bone on the canvas. And you can, of course, always test these constraints by using the **Manipulate Bones** tool while on frame 0.
- 3 Apply constraints to any bone that may be giving you undesired movements. These usually involve the limbs, including hands and feet.



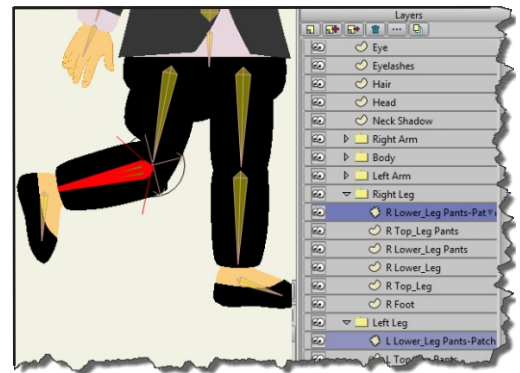
For the seams, that's where the **Patch layer** comes in. You can also go in and manually hide the seam from view if you are working with an earlier version of Anime Studio. What you will need to do is create a new **Patch layer**, link it to the offending layer, and place it over the seam. You can also bind the patch to the closest bone so the seam stays hidden no matter what you're doing animation wise, as shown in the following screenshot:-



The last problem, layers poking out and breaking, will require some tweaking with the bones and vectors. You may need to reposition your bones slightly, adjust the size, or alter the shape or size of your vectors. This process will take the maximum amount of time and it requires a lot of patience. Sometimes, even seemingly minor things can cause an ugly-looking body movement, so be sure to consider all options when working. Smart Bones can also be used to help correct these issues.

Feel free to add shading, shadows, and other effects to enhance the character's visual properties.

If you'd like to compare your character, remember to ask the Instructor / Teacher about a file `BusinesswomenComplete.anime`. This should also allow you to troubleshoot any problem you may be facing.



Summary

Rigging a character for bone animation is the heart and soul of Anime Studio. While there are many elements to consider, mastering bone placement, learning the three binding types, and experimenting with Smart Bone actions will take you a long way when animating characters. Finally, keep practicing your design skills. As you get better acquainted with the drawing tools, your characters and assets will start finding a life of their own.

In the next chapter, we will focus on designing the scenery for our cartoon. We will look into creating props and other elements as well.