Motion

Creating Animation with Behaviors

Part **6**

Cloning a Group

Cloning a Group

To create more animated gears, you will copy the *Gears* group. You could duplicate the group, but when you create clones, certain changes to the original will pass through to the clones that will come in handy a little later. First, however, you should scale and reposition the cogs to fit into the gold bar at the top of the curtains.

1 Close and select the *Gears* group. Then, in the Canvas, scale down the group to about 28% to fit in the gold bar, and move it to the left.
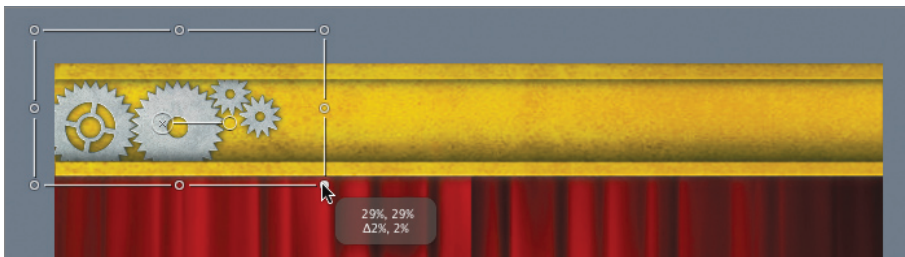

TIP ▶ Shift-drag a bounding box handle to scale the box proportionately. If the dynamic guides make it difficult to precisely scale and/or position the group, press N to turn off snapping.

Now, let's clone this group to place more gears along the top.

2 Choose Object > Make Clone Layer or press K.

NOTE ▶ Make sure the playhead is placed at the start of the project or is moving when you create the clone; otherwise, the clone layer will start at the playhead location.

3   In the Canvas, drag the clone layer to the right of the original, and line up the layers so that the teeth of the cogs appear to mesh with each other.
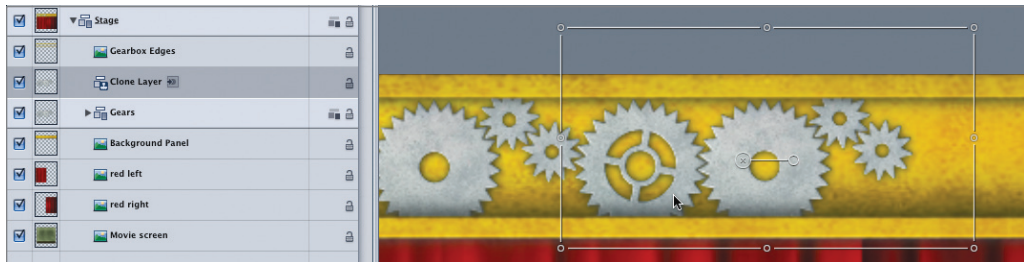
TIP ▶ It can be helpful to change the zoom level of the Canvas to get a closer look at the gears as you position the clone layer. Do so by pressing Command-Spacebar and dragging right on the location you want to see more closely. Press Shift-Z when you are finished, to fit the Canvas back into the window.

4   Press K to make a clone of *Clone Layer*, and position *Clone Layer 1* to the right of the other cogs.

TIP ▶ You may want to turn off the visibility of the layer's bounding box in the Canvas so that you can see the cog teeth more clearly. From the View and Overlay pop-up menu, choose Show Overlays, or press Command-/ (slash). Remember to turn on the overlays again when you are done.

5   Press K to clone *Clone Layer 1*, and position *Clone Layer 2* at the far right. It's OK if it goes off the screen. You now have a fully assembled gearbox.

6   Press the Spacebar to start playback. All the cogs rotate and mesh together nicely.

7   Open the *Gears* group. Open the *Cog1* layer and turn off the Rate behavior. All the gears stop.

If you had duplicated the *Gears* group rather than cloning it, each duplicate would have its own Rate behavior, and you'd need to turn off each of them to stop the animation. With clones, changes you make to the source of the clones pass through to all of them.

8   Turn on the Rate behavior and save your work.

In the final part of this lesson series, you'll learn to animate cameras with behaviors.