

Using the Bone Tool

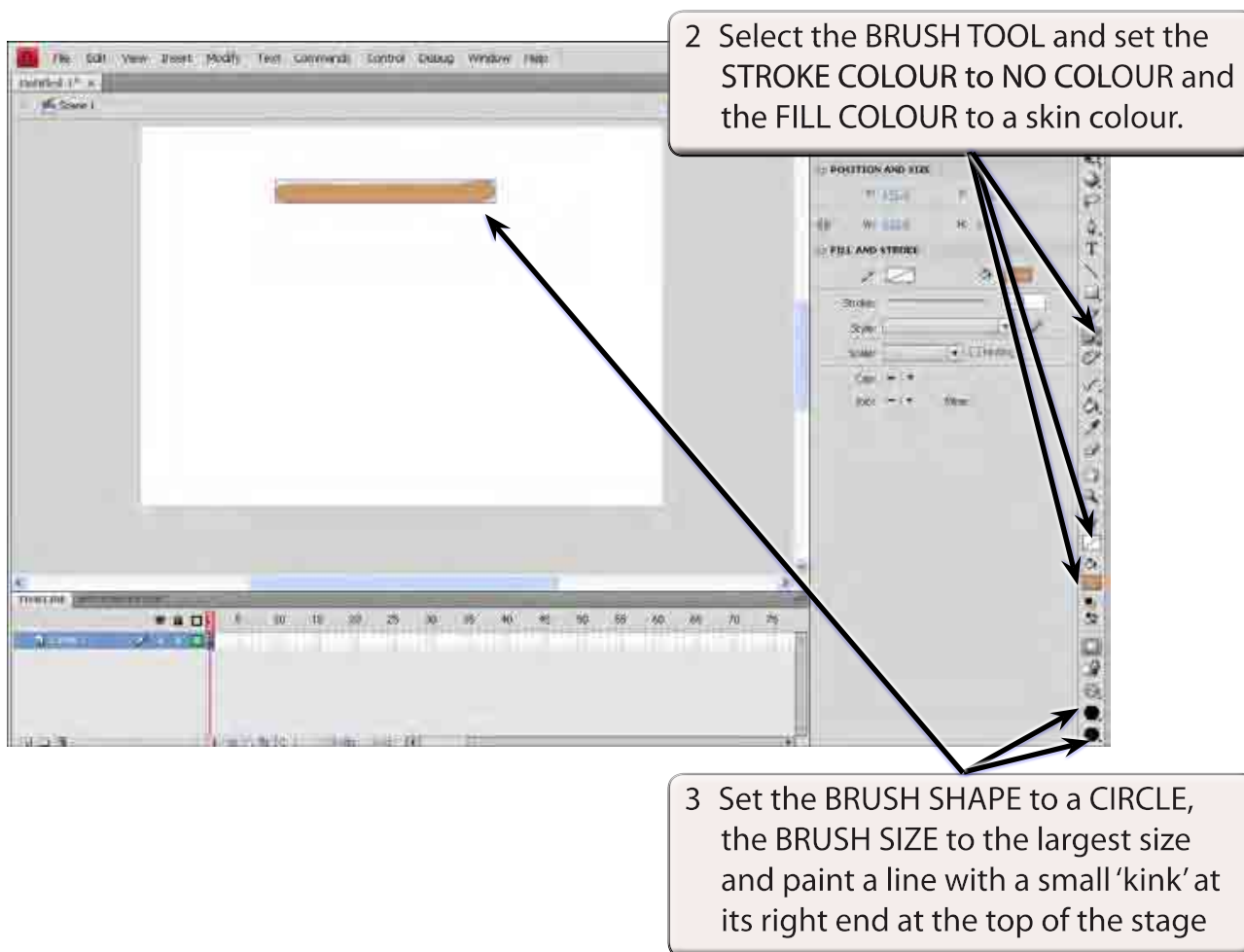
The BONE TOOL allows you to set hinges either within an object or between a group of objects. It can be applied to create human movements in arms and legs, robotic arm movements, crane operations, etc.

The Bones Tool Basics

To illustrate the basics of the BONE TOOL, a simple shape will be converted into an arm.

A Drawing the Shape

- 1 Load Flash or close the current files, then create a NEW FLASH FILE.

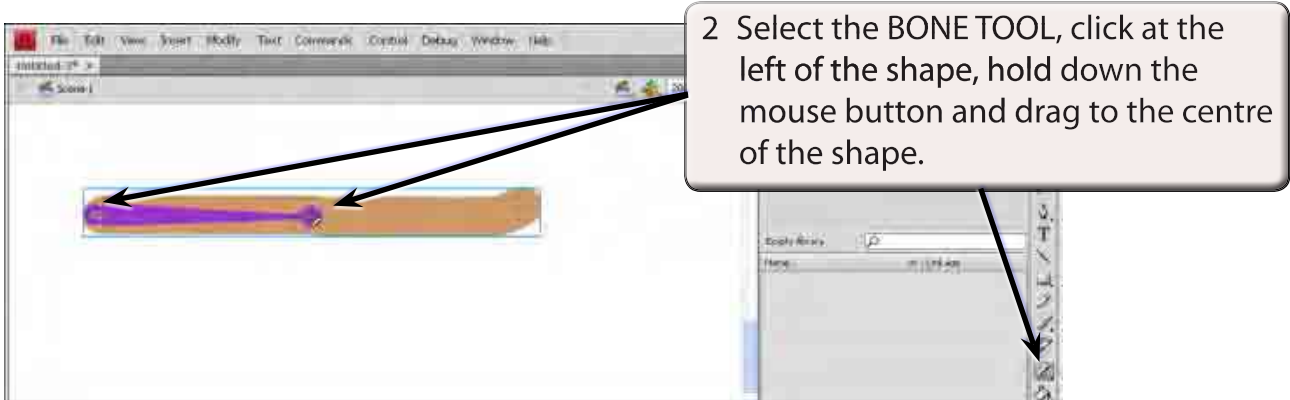


2 Select the BRUSH TOOL and set the STROKE COLOUR to NO COLOUR and the FILL COLOUR to a skin colour.

3 Set the BRUSH SHAPE to a CIRCLE, the BRUSH SIZE to the largest size and paint a line with a small 'kink' at its right end at the top of the stage

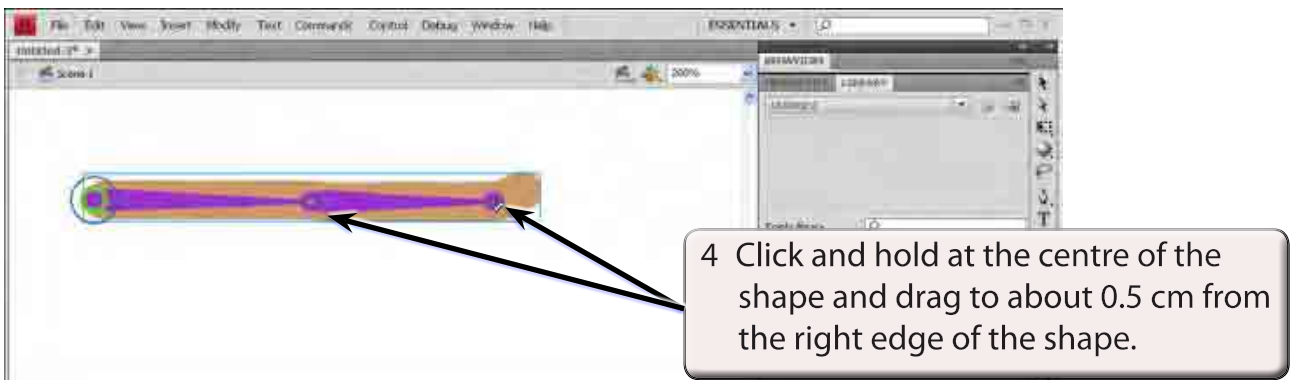
B Applying the Bone Tool

- 1 Press CTRL+ or COMMAND+ to zoom the view to 200%.



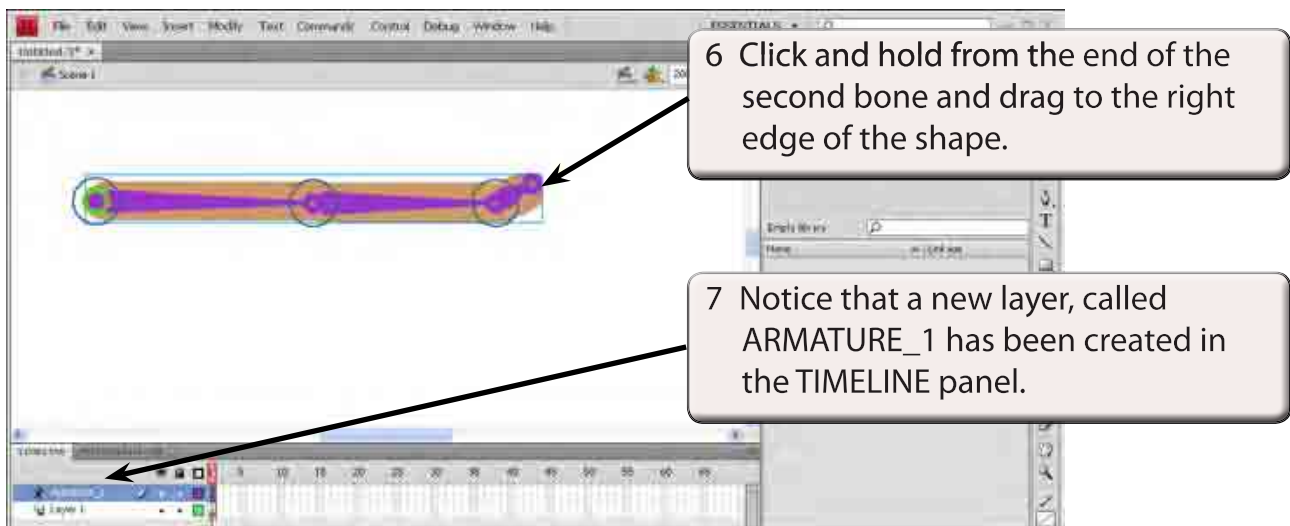
- 3 When you release the mouse button the first bone is created.

NOTE: This first section will represent a bone from the shoulder to the elbow.



- 5 Release the mouse button to create the second bone.

NOTE: This second section will represent a bone from the elbow to the wrist.

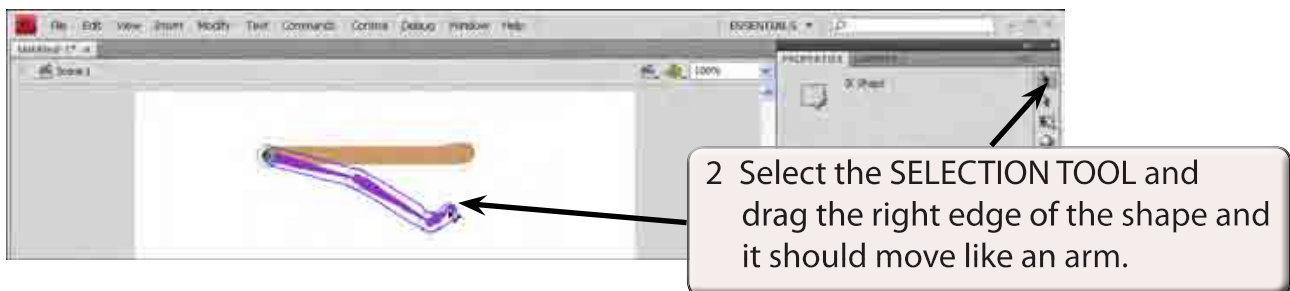


NOTE: All the bone sections are moved in the ARMATURE layer.

C Using the Bone Links

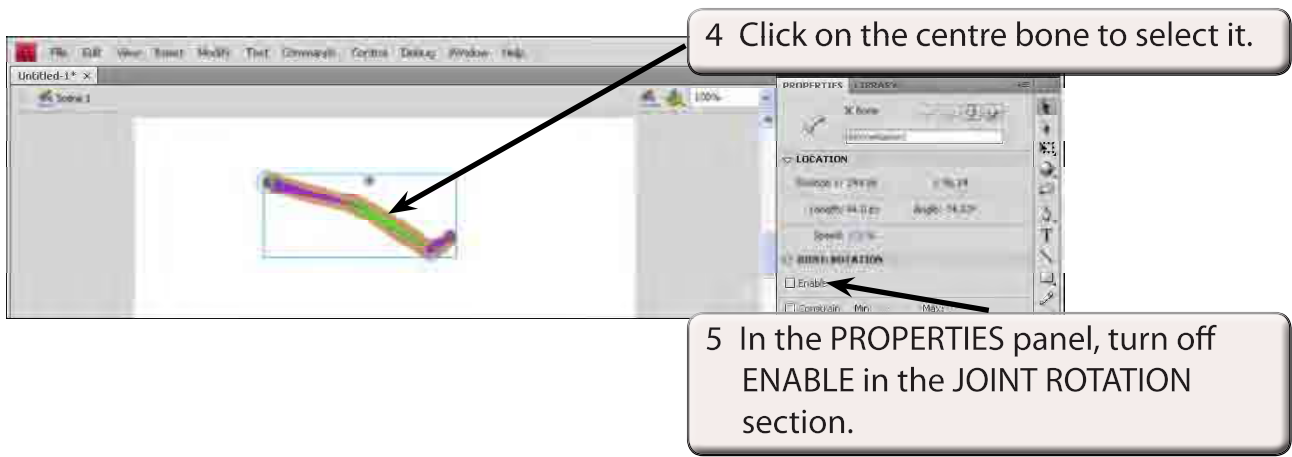
The bone sections have set a rotation point at the left of the shape and hinges at the centre and near the right of the shape.

- 1 Press CTRL- or COMMAND- to return the view to 100%.

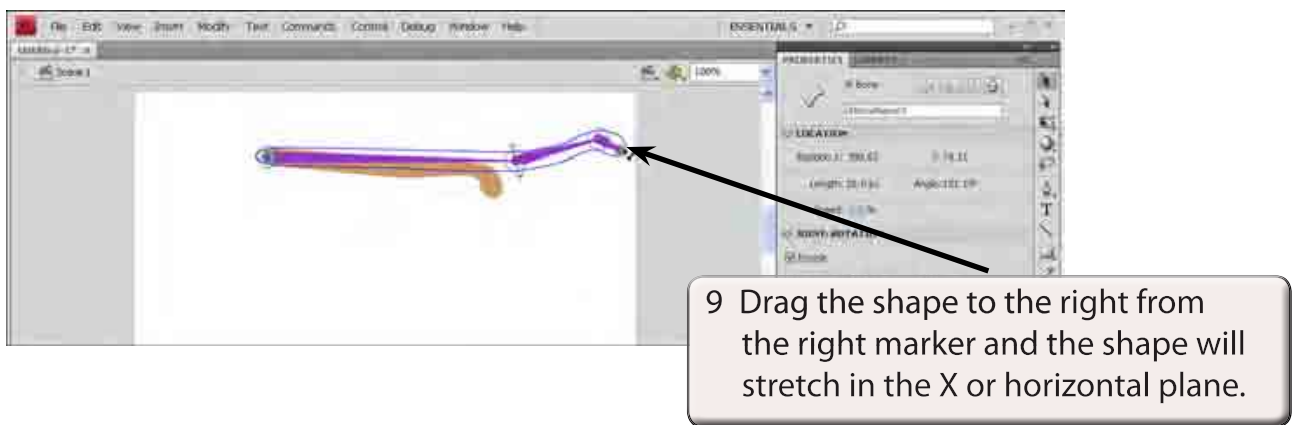
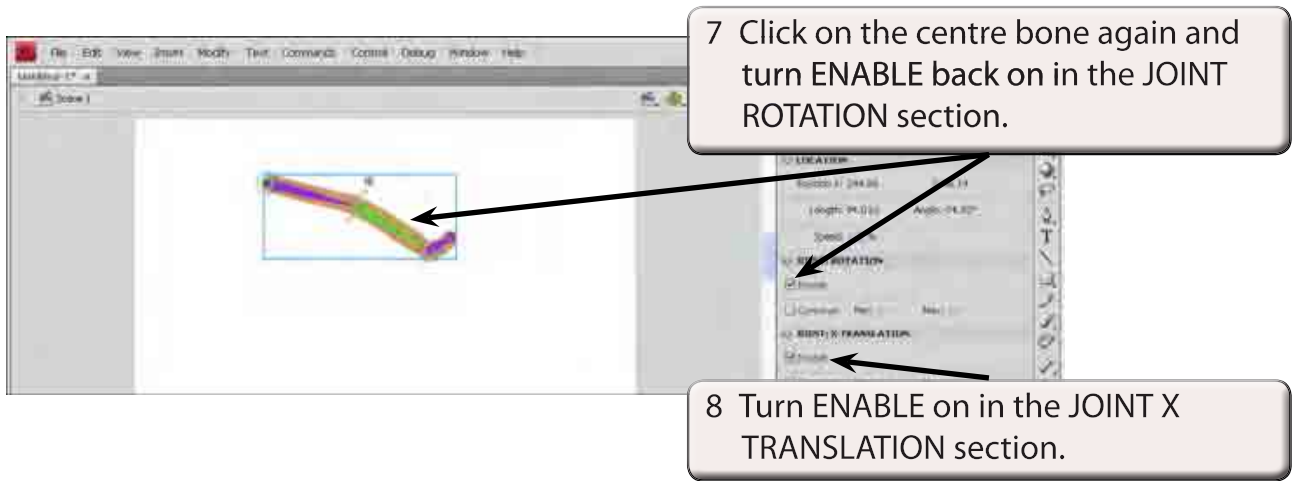


NOTE: There is a circular marker at the right of the shape which the mouse pointer needs to be over for the shape to be moved.

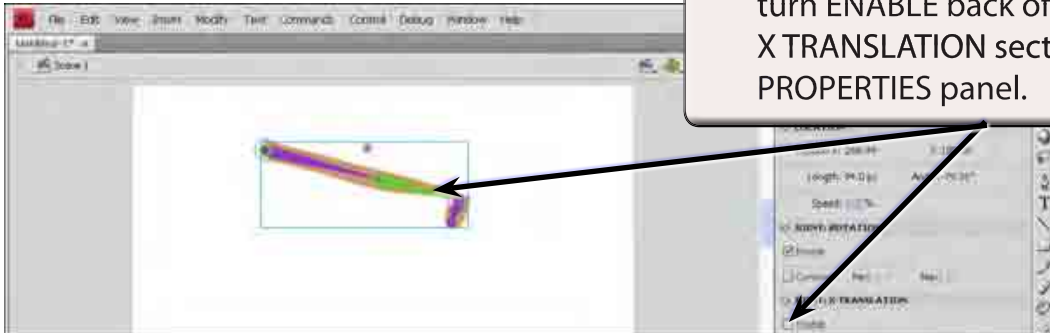
3 The PROPERTIES panel allows you to control the movement of the bones.



6 Try rotating the shape and you should not be able to do so. Only the right section should rotate



10 Press CTRL+Z or COMMAND+Z to undo the stretches.

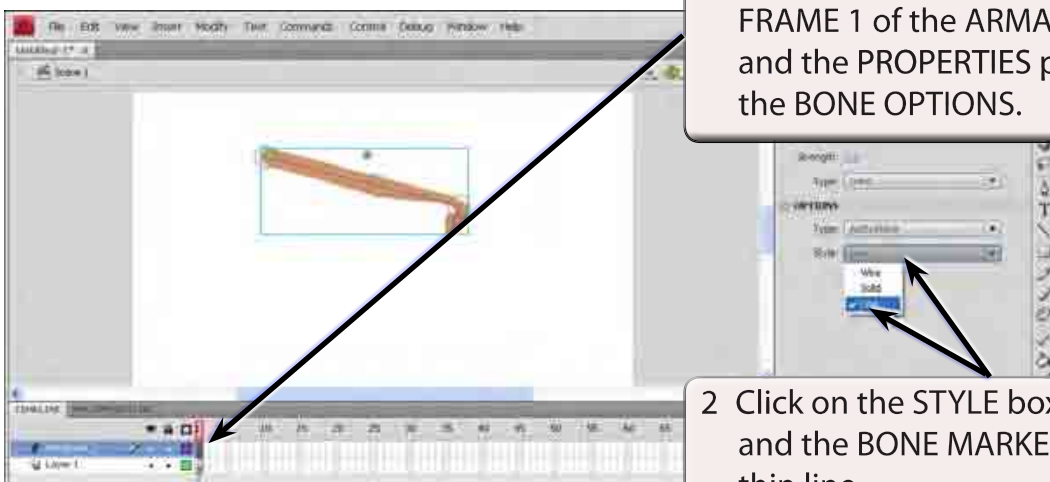


11 Select the middle bone again and turn ENABLE back off in the JOINT X TRANSLATION section of the PROPERTIES panel.

- NOTE:**
- i If you wanted the shape to stretch in the vertical place, you would turn on ENABLE in the JOINT Y TRANSLATION section of the PROPERTIES panel.
 - ii You might like to try joint options on the other bones.

D Bone Styles

You can change the appearance of the bone markers. At the moment they are solid arrows, but they can be changed to LINES or WIRE.



1 Click on the KEYFRAME MARKER at FRAME 1 of the ARMATURE_1 layer and the PROPERTIES panel displays the BONE OPTIONS.

2 Click on the STYLE box, select LINE and the BONE MARKERS will just be a thin line