

Activity 2 - Oh Buster!

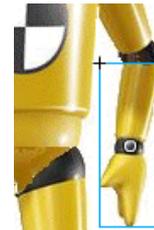
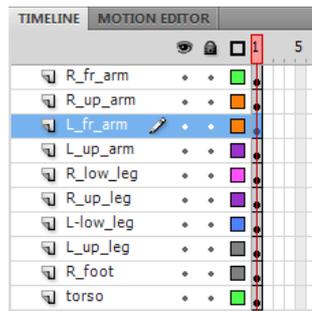
To get some idea of how the parts of the workspace are used we will explore a simple animation and then get parts of it to move using the *Bone* tool.

1. Open the file *buster_jnr fla*.

On the stage is a graphic of a crash test dummy called Buster jnr. This is made up of a torso (body) and individual parts of arms and legs.

We are going to *animate* the parts of this junior crash test dummy, i.e. get them to move.

2. Before we start animating we will investigate Buster jnr, and add a pair of feet to him.
 - a Each part of Buster jnr has its own layer on the timeline.



To see this click on one of the layers in the timeline, and the relevant part of Buster jnr will be outlined in a blue rectangle. This part can be moved separately from the rest of Buster.

- b So far there is only one frame in each layer of the timeline. Each of these is a *keyframe* (indicated by the black dot in the frame).

A keyframe marks the place in an animation where an event occurs. In this case the keyframes indicate where Buster first appears.

To get the arms and legs to move we will have to add more frames to the animation, and more keyframes with new positions for the arms and legs.

- c The *Properties panel* to the right of Buster jnr will show information about the body part clicked on, or information about the stage if that is clicked on.

- d Use the tab at the top of the properties panel to switch to the *Library panel*.

Each of Buster jnr's body parts is stored here.

To see this click on one of the body parts in the library panel, and drag it onto the stage. (Use Undo (*Ctrl+Z* or *Edit > Undo*) to remove this.)

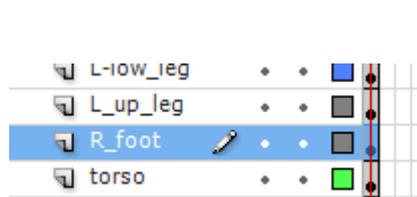
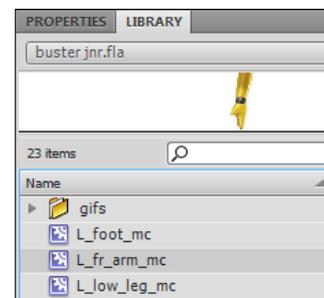
Each of these body parts is a *symbol*. We will find out more about symbols later, but in order to animate the parts they must be symbols.

- e Now to add the feet.

There is already a layer on the timeline for the right foot.

Click once on this layer to select it.

From the library panel drag the *R_foot_mc* symbol and position it at the end of the right leg (i.e. on the left of the graphic).



To position it exactly you can use the arrow keys on the keyboard.

- f We do not have a layer for the left foot yet, so we must add one.
Click on the *New Layer* button at lower left of the time line.



Double click in this new layer and rename it *L_foot*.

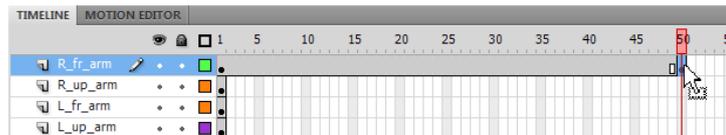
g While this layer is still selected (blue), drag the *L_foot_mc* symbol from the library into position.

h Buster jnr is now complete. Save the file to a suitable folder.

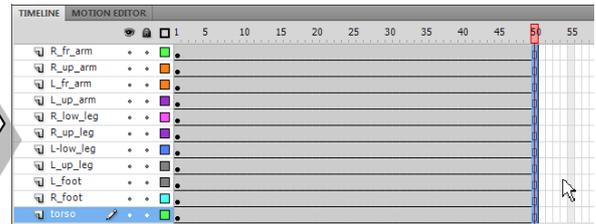
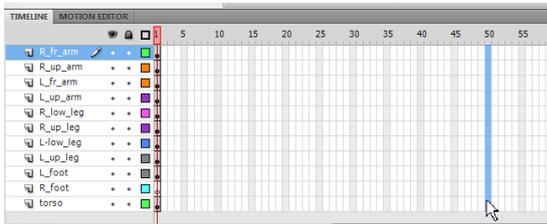
3. Now to get Buster to move. To do this we will use the *Bone* tool. This is new in Flash CS4.

a First of all we will need room to move. To do this we will add 50 empty frames to the animation.

To do this move to frame 50 on each layer and press the F5 function key. You can also select all of the frame 50s with your mouse before you press the F5 key to do this all at one go.



OR



At 12 frames a second this means our animation will now run for just over 4 seconds, with all parts of Buster jnr on screen for that time.

Note: at the moment only the frame 1s have a key frame in them.

b From the tool bar at right, click on the *Bone tool* once to select it.



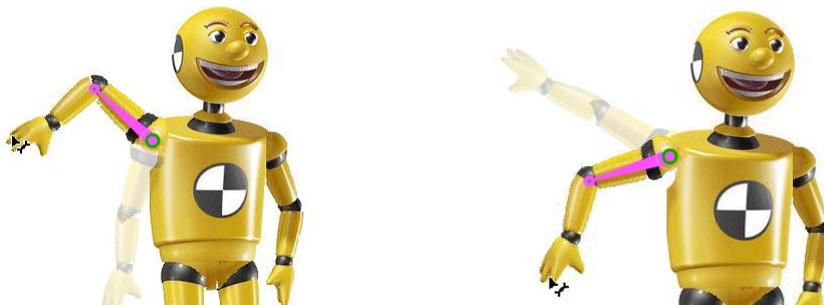
c Using the bone tool click and hold on Buster jnr's right shoulder.

Holding the mouse button down, drag it to his elbow, and let go. (The link must go onto the lower arm segment.)



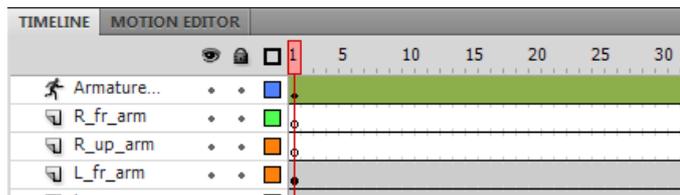
This has now made a link between the upper and lower arm that is hinged at top and bottom.

d Change to the *Selection tool* at the top of the toolbar, click on Buster jnr's right hand and drag it around.



The upper arm segment will hinge around the shoulder “joint”, while the lower arm segment will hinge around the elbow. You can move either the upper arm, the lower arm, or both at once depending on where you use the selection tool to “grip” the arm.

- e An *Armature layer* has been added to the timeline. This layer is used to store the particular pose the hinged graphics are to appear in. If you click away from the armature layer you will see the frames have been coloured green to show it can now control movement.



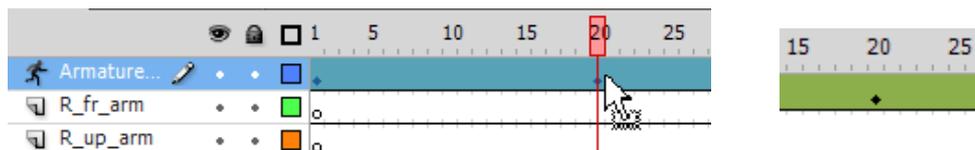
Both the upper and lower right arm layers are clear. This is because these parts are now controlled by the armature layer.

Note: if you ever need to remove an armature from a layer, right click in the green frames and choose *Remove Armature* from the context menu.

- f The next step is animate Buster jnr’s movement.

Follow these steps carefully:

- make sure the armature layer is selected (blue) and move the right arm to where you want it to start from; this position will be stored in the keyframe in frame 1
- click once in frame 20
- move the right arm to a new position; this will create a special keyframe called a *property keyframe* (where the property is the arm position); there will be a black diamond in frame 20 of the armature layer to show this



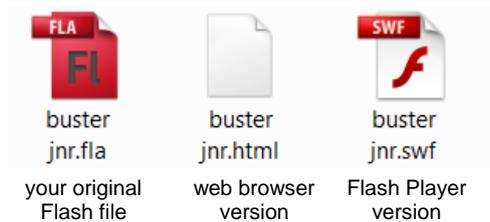
scrub (drag) the red playhead back and forth between frames 1 and 20 to see the arm move

- on the armature layer click once again in frame 35 and move the right arm to a new position
 - repeat for frame 50
 - test the movie so far (*Ctrl+Enter*)
 - save the animation.
4. Use the bone tool to make an armature connection between the upper and lower left arm and animate it. (Follow the dot points above.)
5. Since Buster jnr’s feet are separate from the upper and lower parts of his legs, you can make a double armature connection between each upper leg and foot. This means he can bend at both knee and ankle.



Do this and animate his legs.

6. When the animation is ready the final step is to make it available to others. To do this we must publish it.
- Check the animation is as you wish it to run (*Ctrl+Enter*).
 - From the menu choose *File > Publish*, or just press *Shift+F12*.
 - Look in the folder you saved the animation to. You will see two files have been added, one in HTML and the other in SWF format.



The *.html* file is the code for a web page and will display when the page is opened. Double click on this file to see it in action.

The *.swf* (swif) file is a stand-alone that will run in the Flash player. If you double click on it, it will start the Flash player and execute.

Note: Flash Player must be installed on your computer and enabled in the browser for these to work.

Challenge

- 7 a Open the file *obama fla*.
- b Get Obama to wave his arm and shake his finger.
8. Get the bird in either *seagull.jpg* or *eagle.jpg* to appear to fly by flapping their wings.

Do this you will firstly have to use a program such as Photoshop or Paint to save the body and wings of the bird as separate images. Use *File > Import > Import to Library* to bring the separate body and wings into the library. Combine the wings with the body and animate them using the bone tool.

Alternatively animate parts of a picture of your own.

Background information – Publishing settings

By default animations will be published in *.swf* (Flash Player) and *.html* (web browser) formats.

If you choose *File > Publish Settings* from the menu you will see there are other output format options.

By clicking on the folder icon next to each you can also change where completed files go to.

Of the different output formats the *Windows Projector (.exe)* or *Macintosh Projector* options can be used to create a stand-alone presentation. These will run without the Flash player or a browser.

If you make any changes to these settings Flash will remember them and in future you can go straight to Publish with *File > Publish* or *Shift+F12*.

