Flash waving people

- Open New Flash ActionScript 3.0
- Choose Classic as the Design type located in the upper right corner

- The Properties window is located on the right
- Set the size to 550 x 400 pixels
- Set the frame rate (FPS) to 12 by left clicking and dragging left on the underlined number

- In the Properties window, choose a Stage color other than white by clicking on the color box
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- Select the same two colors for the Stroke (looks like a pencil with color box below) and Fill (looks like a paint bucket with color box below) colors that are located at the bottom of the tool bar.

![Tool bar colors](image)

- Select the Oval tool on the tool bar (O).

![Oval tool](image)

- Place the mouse on the Stage near the left side and left click and drag out a circular shape for the head of the person.

![Circular shape](image)

- Use the Selection Tool (V) if you need to move the head to a better location.

![Selection Tool](image)

- The Timeline will now show a solid black dot on Layer 1. This is called a **KEYFRAME**.

![Timeline with Keyframe](image)

- In the Timeline, click on the frame 30 box and Insert > Keyframe (F6).

![Timeline with Keyframe inserted](image)

- You will not animate the head so inserting a keyframe at 30 sets the duration for the head to last 30 frames. (Could also insert a frame rather than a keyframe.)

![Timeline with Keyframe inserted](image)
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-Label the Layer the color of the head by double clicking on the word (Layer 1) in the timeline and typing in the name. Hit Return.

- **Lock the layer** by clicking on the dot below the lock symbol for that layer in the timeline

- In the Timeline, drag the red playhead back to the beginning

- Create a new layer by clicking on the New Layer button below the layers in the timeline.

- Click on frame 1 on Layer 2, the frame box will highlight

- Select the Oval Tool (O) and drag out a vertical oval for the body on the Stage.
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- Click on frame 1 of Layer 2 (body layer) so that the keyframe is highlighted

- Notice that a frame is created at frame 30 for Layer 2 (body layer). The frame is a vertical clear rectangle. The body length is set for us so we do not need to insert a keyframe 30.

*Flash adds a frame for the length of the previous layer for every new layer.*

- Use the Selection Tool (V) to move the oval body so that it is centered below the head and touching.

*The arrow keys on the keyboard help when aligning the items

- Label the layer as body, and lock the layer
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- In the Timeline, drag the red playhead back to the beginning.

- Create a new layer by clicking on the New Layer button below the layers in the timeline.

- Click on frame 1 of Layer 3 so that the frame is highlighted.

<table>
<thead>
<tr>
<th><img src="image1.png" alt="Timeline and layers" /></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image2.png" alt="Select Brush tool" /></td>
</tr>
</tbody>
</table>

- Select the Brush tool (B) on the toolbar.

- Select the brush size and shape from the bottom of the toolbar (shows after you have selected the brush tool).

| ![Brush Size](image3.png) |

- Draw the left and right legs/feet freehand with the brush. Make sure the size brush fits with the size of the person’s body.

- Notice that a frame is created at frame 30 for Layer 3 (feet layer). The frame is a vertical clear rectangle. The feet length is set for us so we do not need to insert a keyframe at 30.

- Label the layer as feet, and lock the layer.

| ![Layered timeline](image4.png) |

*If you wanted to animate the feet you would put each leg/foot on different layers.*
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- In the Timeline, drag the red playhead back to the beginning.
- Create a new layer by clicking on the New Layer button below the layers in the timeline.
- Click on frame 1 of Layer 4 so that the frame is highlighted.

![Timeline and Layer 4](image)

- Select the Brush tool (B) on the toolbar.
- Select a brush size.
- With the brush touching the body on the stage, draw a straight arm in the up position.

![Brush and Arm](image)

*To animate the arm you have to adjust the anchor point of rotation. The arm is a shape, but for this animation to occur correctly, the arm must be a converted to a symbol.*

- Click on frame 1 of Layer 4 so that the keyframe is highlighted.

![Timeline and Keyframe](image)

- With the keyframe highlighted, select the Free Transform Tool (Q) on the toolbar.

- On the Stage, a transform box will appear around the arm, the arm will have dots, and a tiny white circle will appear in the center of the transform box.

![Transform Box](image)
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- Place your mouse inside the transform box on the Stage and right click.
- Select Convert to Symbol (will have to scroll down to see it)
- Convert to Symbol box will pop up
- Give the symbol a name - r arm (right arm)
- Type should be Graphic
- Hit OK

- On the stage, the dots are gone from the arm
- The symbol is now in the Library
- Click on the Library tab in the upper right of Flash to see item in the Library
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- Click on frame 1 of Layer 4 so that the keyframe is highlighted
- The white circle in the middle of the transform box is the anchor point of rotation.
- Move the white circle (anchor point) to the shoulder area

![Image of a stick figure with a white circle at the shoulder]

- Click on frame 1 of Layer 4 in the Timeline so that the keyframe is highlighted
- Right click > Copy Frames

![Image of the Timeline with frame 1 highlighted]

- Click on frame 5 of Layer 4
- Make sure the underlined frame is 5 at the bottom of the Timeline

![Image of the Timeline with frame 5 highlighted]

- Right Click > Paste Frames

![Image of the Timeline with frame 5 pasted]
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- Click on frame 5 of Layer 4 in the Timeline so that the keyframe is highlighted

- Place the mouse just outside the upper right corner of the transform box and a curved arrow will appear.

- Left click and hold and rotate the arm to the down position.

*Now you have created an arm in the up position at frame 1 and an arm in the down position at frame 5. It is a simple copy and paste of keyframes now to get a continuous up/down movement from frame 1 to frame 30.

- Click on frame 1 of Layer 4 so that the keyframe is highlighted

- Right Click > Copy Frames

- Click on frames 10, 20, 30

- Right Click > Paste Frames

- This creates all the up keyframes for the arm
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- Click on frame 5 of Layer 4 in the Timeline so that the keyframe is highlighted
- Right Click > Copy Frames

- Click on frames 15, 25
- Right Click > Paste Frames
- This creates all the down arm keyframes

- Click on the first keyframe of the arm layer, hold Shift, click on the last keyframe of the arm layer.
- Right Click > Create Classic Tween.

- Label the layer as r arm, lock the layer
- Command + Enter to preview the animation

- Repeat the process you did for the right arm to create the left arm.
* Make sure you convert to symbol before you move the anchor point and before you copy and paste any keyframes!

- Repeat the entire process to create a total of 4 people with waving arms.
- Remember to keep all parts on separate layers and to label all layers.
- Label layers by person (head 2, body 2, etc).
- Make each person a different color and size.
- For extra credit you can animate the legs.