How to create a character

A successful animation project begins with a compelling character. Character Animator includes a selection of expressive templates to help you get started with creating your character puppet. Or, you can download other incredible puppets here. Use these templates to better understand how a puppet can be built from multi-layered Adobe Photoshop (**Figure 1**) and Adobe Illustrator files.
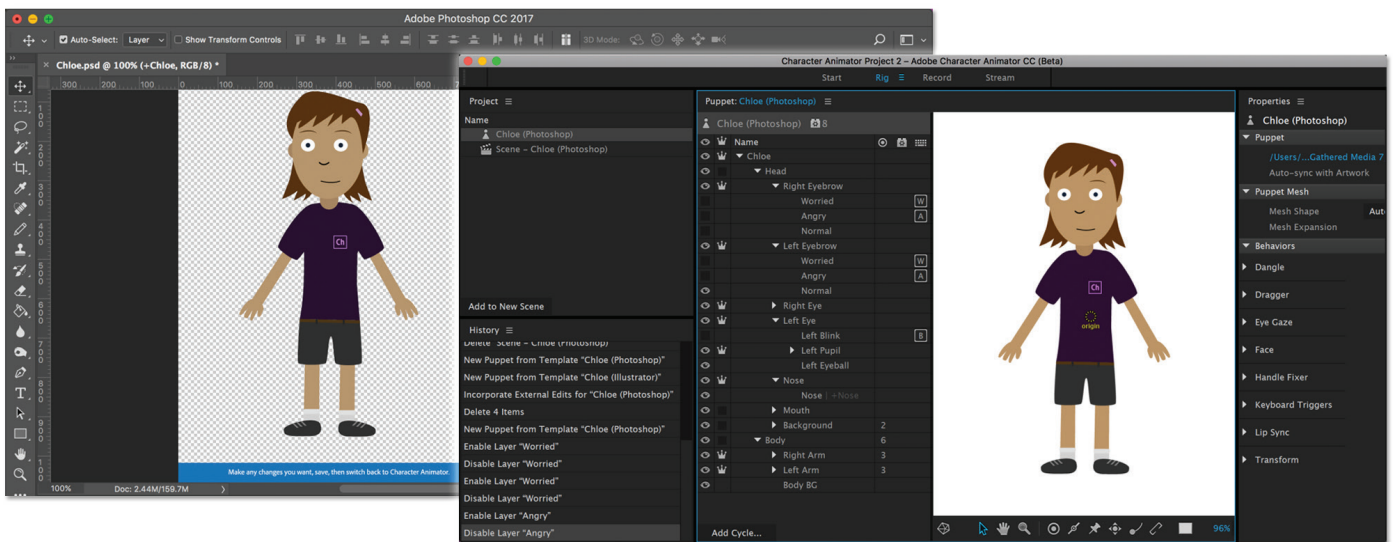

Figure 1 Character open in Photoshop (left) and Character Animator (right)

Create your Character Animator project

To start working in Character Animator, you first need to create a project. Character Animator can do this for you automatically, or you can specify a custom filename and location for your project.

To create a project:

1. Launch Character Animator from Creative Cloud for Desktop (**Figure 2**), its icon in the **Applications** folder (on Mac) or **Start** menu (on Windows). If you are an After Effects user, open the application and choose **File** > **Open Adobe Character Animator**.

    A default project is automatically created for you, but if you want to manually organize your work, you can create separate projects as described in the next step.
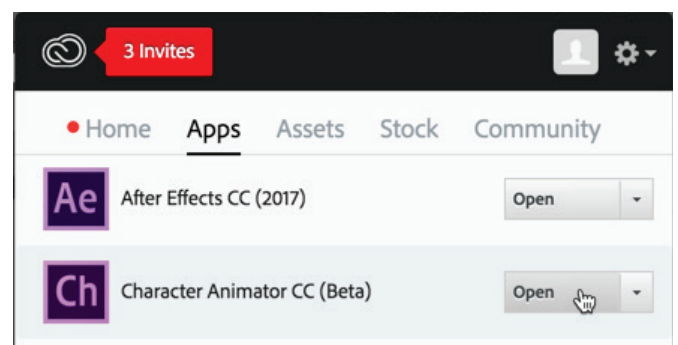

Figure 2 Launch Character Animator from Creative Cloud

2. In Character Animator, choose **File** > **New Project**.

   The **New Project** dialog box opens (**Figure 3**).

3. Give your project a name (or accept the default name), and click **Save**.

4. Each change to your project is saved automatically, so you never lose your work. If you want to save the current state of the project under a different name, choose **File** > **Save Project As**.
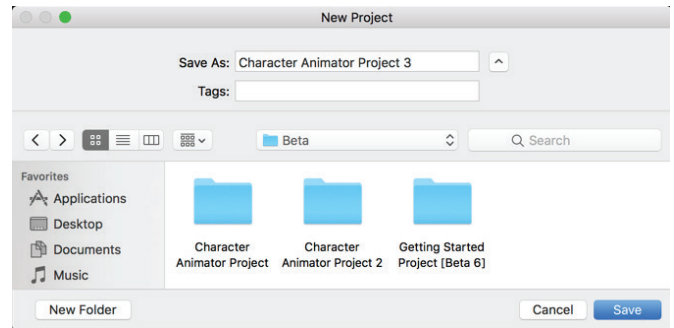

Figure 3 New Project dialog box

Create your first character

Before creating your first character, you need to name and structure the layers in a Photoshop or Illustrator file in a specific way.

When a puppet is created a layered artwork in Photoshop (**Figure 4**), Character Animator auto-assigns tags to the layers for the features they represent such as head, eyes, mouth, body, arms, legs, and so on. This way, behavior is automatically rigged between the source artwork and its puppet. Changes are also easy; edits made to the source artwork are automatically updated in Character Animator.

Only after rigging can you link up external input controls like face tracking, audio analysis, mouse clicks and others to give added expression to two-dimensional artwork.

Create a character from a template

Character Animator offers a full set of puppet templates in the Start workspace (**Figure 5**) with layer name and structure in place and ready to go. Use these templates as is, or as a starting point to build your own unique character.
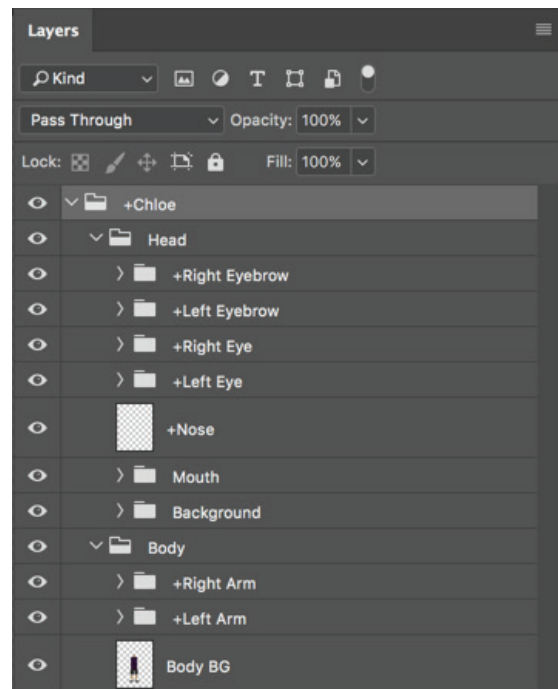

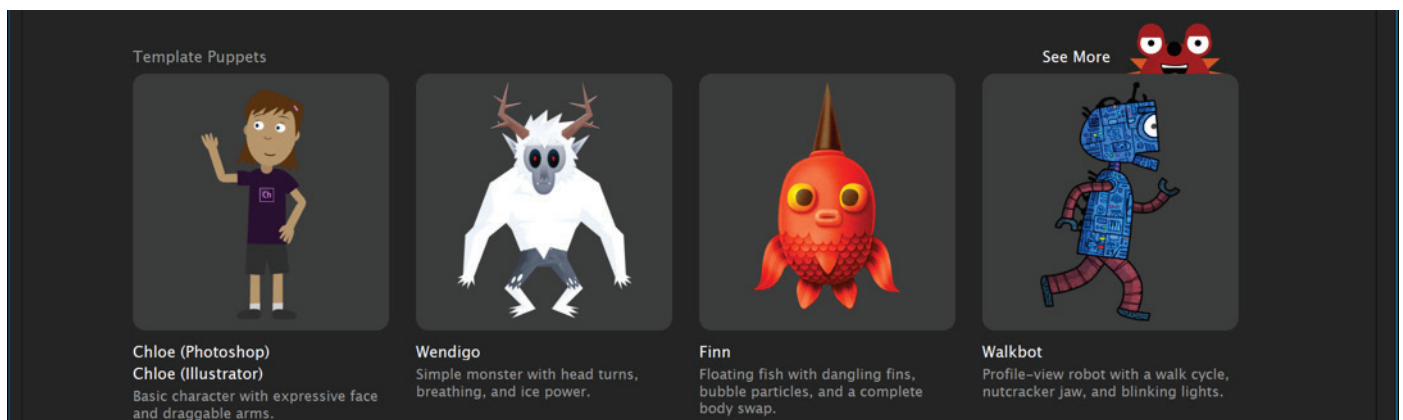*Figure 4 Puppet layers in Photoshop*

Figure 5 Template Puppets from the Start workspace

To open a puppet template:

1. From the Character Animator **Start** workspace, click the **Chloe (Photoshop)** link (**Figure 5**).

   A few things happen:

   - The original artwork opens in Photoshop (**Figure 6**). You can make any edits to the puppet in Photoshop, save it, then switch to Character Animator to see the changes.
   - A Character Animator project is automatically created, and a template puppet file is imported into Character Animator (**Figure 7**). In the **Rig** workspace, the **Project** panel shows its structure, and the puppet is added to a new scene in the **Record** and **Stream** workspaces.
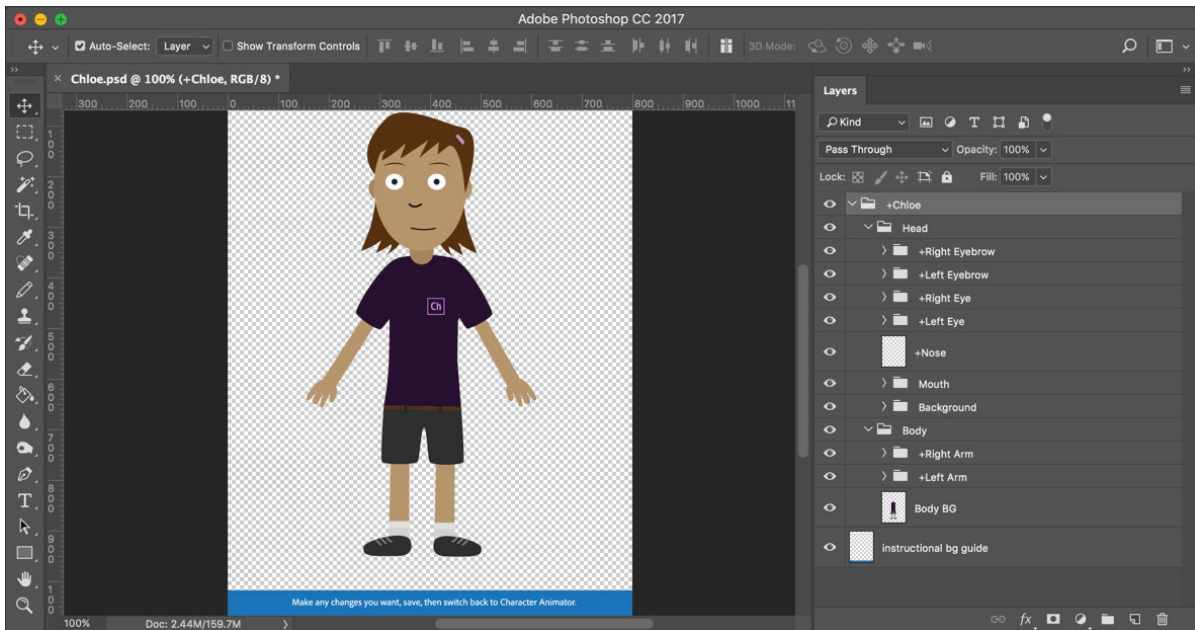

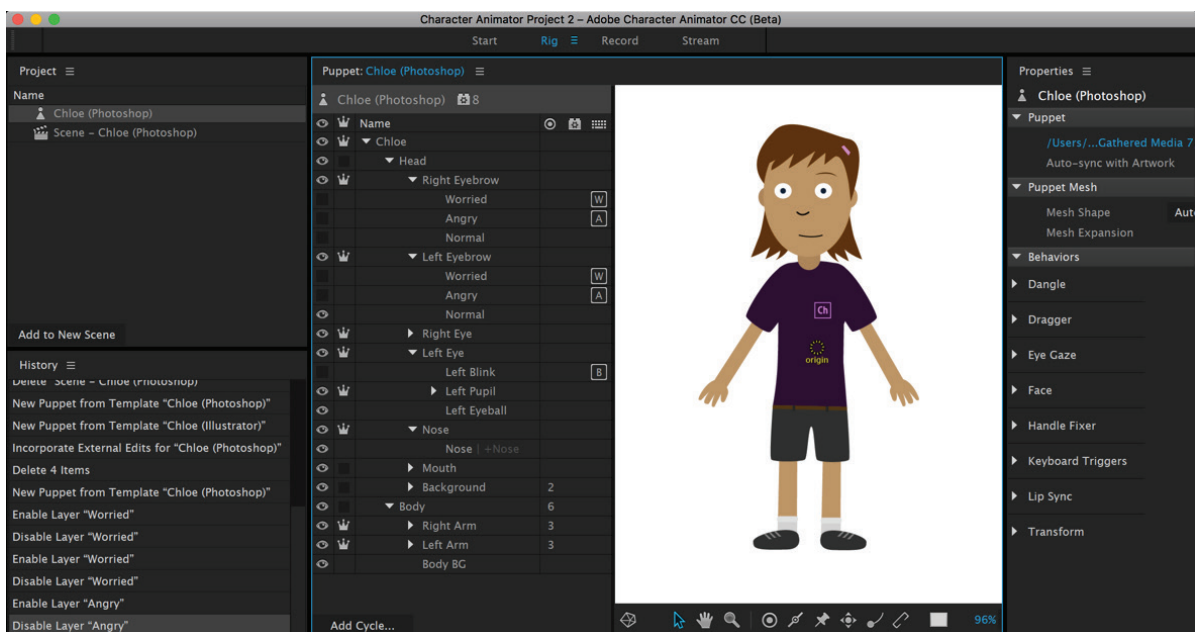*Figure 6 Chloe puppet in Photosop with Layers panel*

Figure 7 Chloe puppet in Character Animator Rig workspace

2. In Photoshop, choose **Windows** > **Layers**.

3. In the **Layers** panel, observe the arrangement of puppet groups, subgroups and layers (**Figure 8**). Use the disclosure triangles to open and review the structure for the puppet. You can toggle layers on and off to change and preview the puppet's expression (**Figure 9**).

    Plus symbols (**+**) in front of the group or layer means those components will move, or warp, independently in Character Animator.
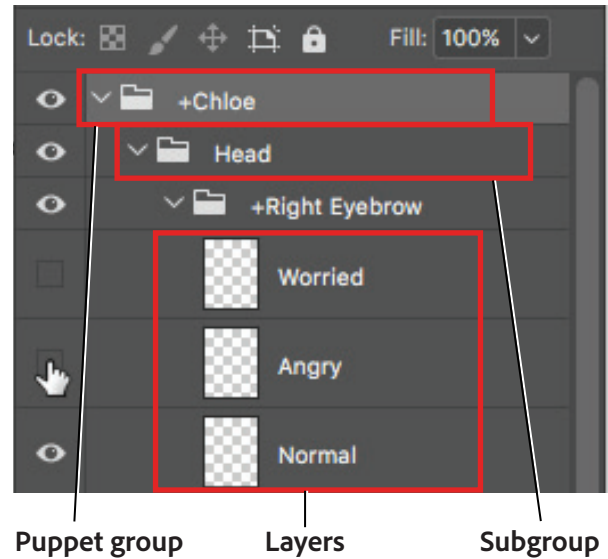

Puppet group   **Layers**   **Subgroup**

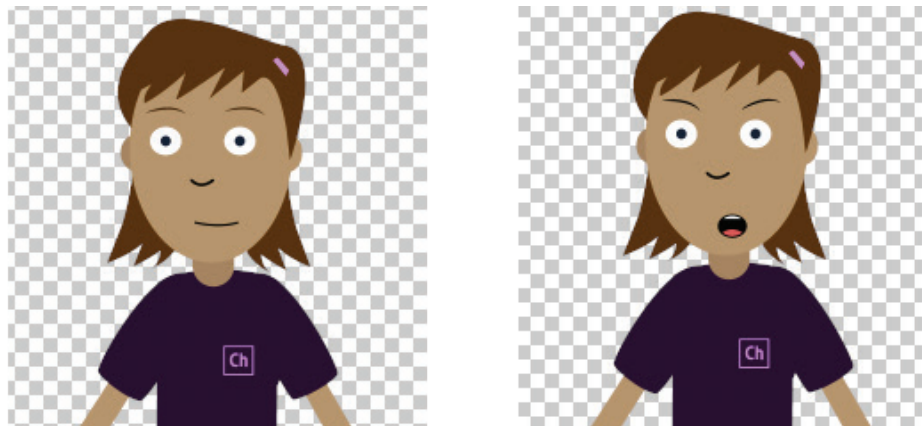*Figure 8* Puppet groups, subgroups and layers

Figure 9 Use layer visibility to change a puppet's expression

4. In Character Animator, click the **Rig** workspace in the top navigation bar.

5. In the **Puppet** panel, compare puppet groups, sub-groups and layers and note its mapping arrangement compared to the original artwork (**Figure 10**).

6. Return to Photoshop, and choose a puppet element to modify. For example, you might expand the layers to find the **Face Background**.

7. Select the face layer and delete it.

8. Use the shape tools and color picker to create a new shape layer for the face. When finished, be sure to rename the layer **Face Background** and save the file.
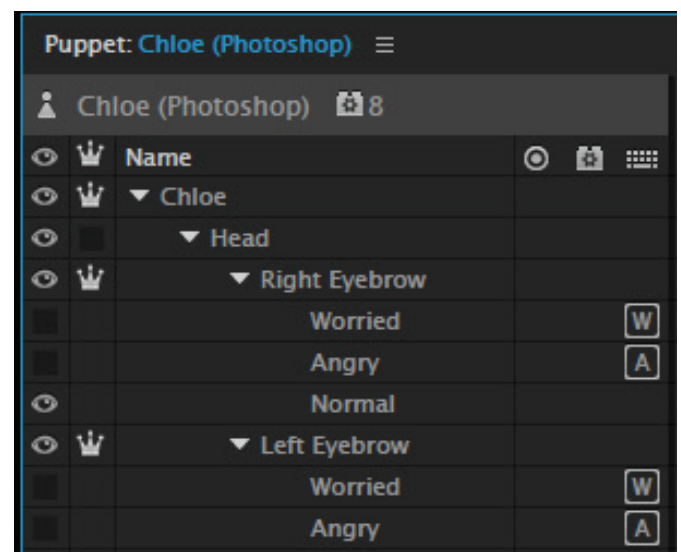

Figure 10 Puppet layers in Character Animator

9. Return to Character Animator **Rig** workspace and note that changes you made to your character are automatically updated (**Figure 11**).

10. Continue making any changes to your puppet in Photoshop to customize it and make it your own.
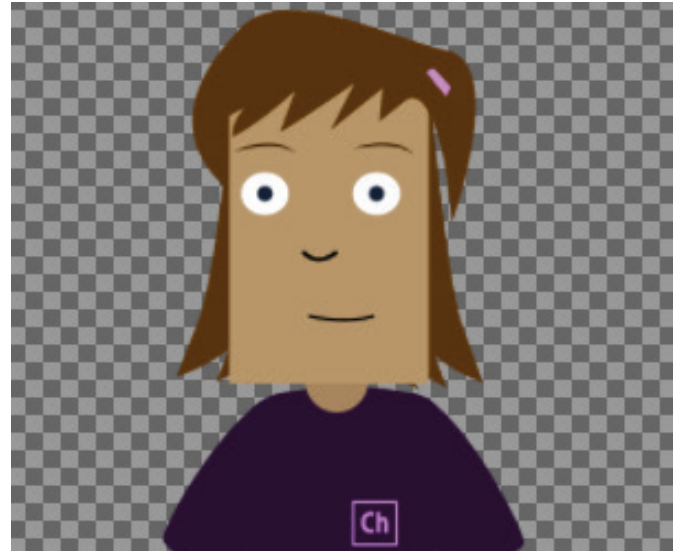

Figure 11 Updated puppet in Character Animator

Create a character from a scratch

You can also easily create a puppet from scratch, as long as you stick to layer name and structure conventions. Download a blank template for Photoshop and Illustrator to help you get started making your own puppets — just fill in the layers!

To create a puppet from scratch:

1. Visit the Okay Samurai Puppets page here to see a terrific list of example puppets for use with Character Animator.

2. Scroll down to the bottom of the page and download the **Blank Template** files (**Figure 12**). You can also download the **Mouth Template** files to give you a quick set of pre-built options, layers, and artwork.

Figure 12 Blank Template and Mouth Template files from Okay Samurai puppet example page

3. Launch Photoshop, choose **File** > **Open**, navigate to the downloaded folder, and open the **TemplateBlank.psd** file.

4. If the **Layers** panel is not open, choose **Windows** > **Layers**.

5. Click the disclosure triangles to open up and view the structure for a simple character.

6. Select a puppet component layer and draw your artwork inside the layer. Continue working layer by layer.

7. Designing mouths can be tricky. To make this easier, open the **TemplateMouth.psd** file in Photoshop.

8. In the **Layers** panel, select the **Mouth** group folder and drag it onto the tab for **TemplateBlank.psd**, then drop it roughly where the mouth shape should be (**Figure 13**).
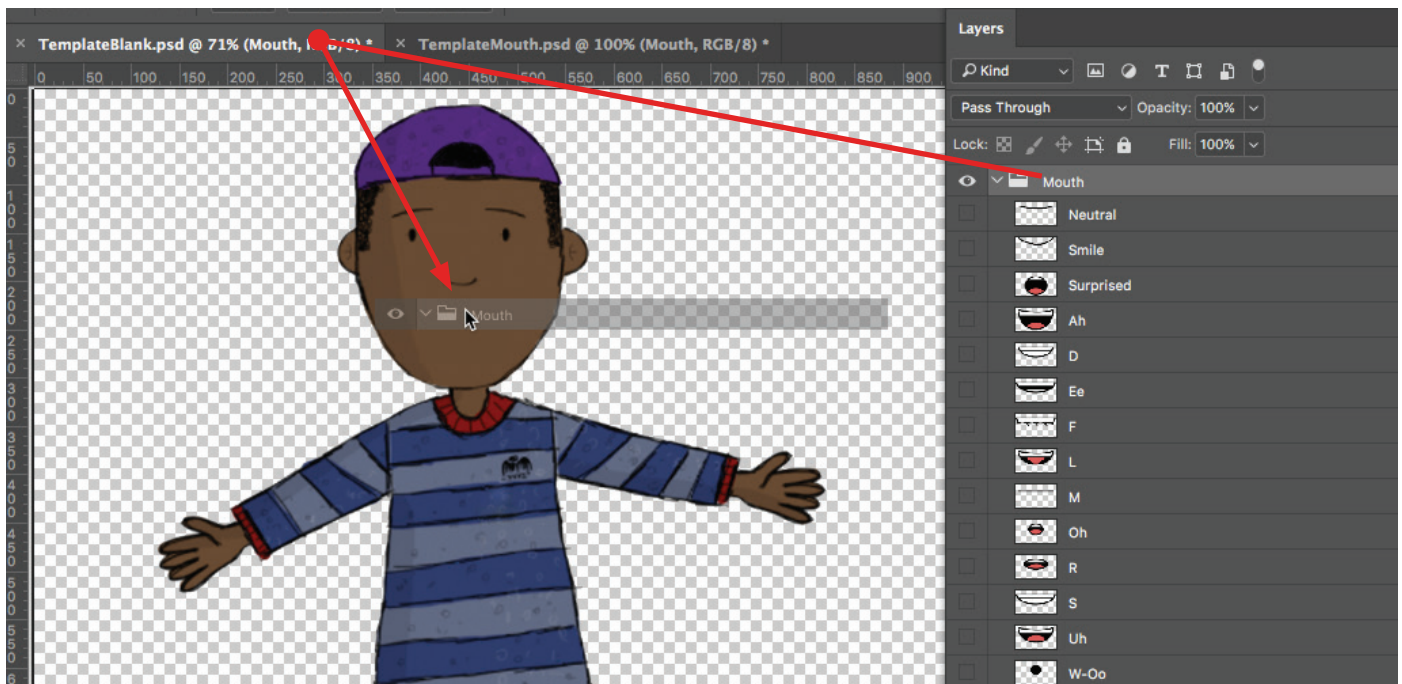

Figure 13 Drag the Mouth group from one PSD file to another

9. Drag the **Mouth** group into the **Head** group, and delete the older, empty **Mouth** group folder.

10. Scale the mouths as needed to fit your character's head.

    Continue designing components and layers until you are satisfied with your puppet design (**Figure 14**).
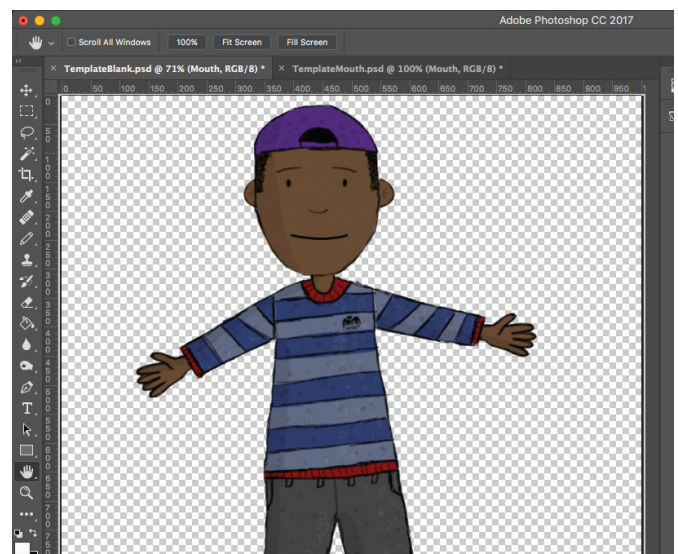
11. Save your file in Photoshop.

Figure 14 Final puppet design in Photoshop

12. Switch to Character Animator and choose **File** > **Import**, locate the saved **TemplateBlank.psd** and open the file. Your puppet opens in the **Rig** workspace (**Figure 15**).

Figure 15 *Imported puppet in Character Animator*

13. You might want to refine how body parts move and warp independantly of a group to which it is attached — you can specify that in either the artwork file or in the **Properties** panel. To make a group and its contents warp independently from its group and subgroup, do either of the following:

   • In the Photoshop artwork file, add a "**+**" prefix to the group's or layer's name. Layers with this prefix become groups automatically.

   • In Character Animator, open the puppet in the **Puppet** panel, select the group, then click the crown icon for the group and subpuppet layers. You can identify subpuppet layers that are set to Warp Independently with a crown icon (**Figure 16**).
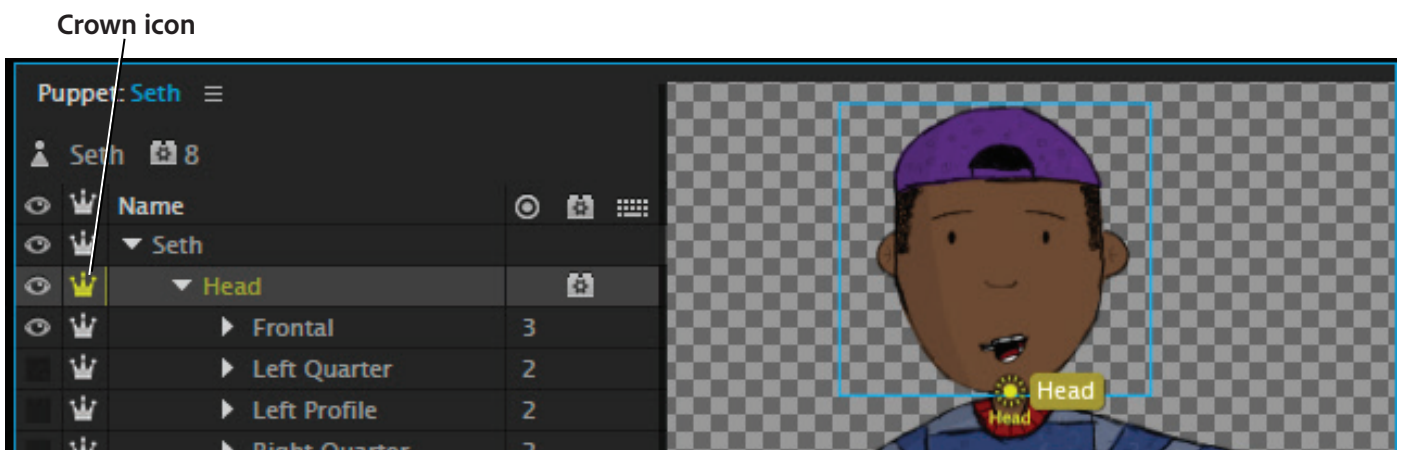
Crown icon

Figure 16 *Character Animator Puppet panel*

Export and share your character with others

If you want to send a puppet to other Character Animator users or save the structure of a puppet for reuse in other projects, create a shareable puppet, a self-contained file with all required artwork included.

To share a character:

1. Select the puppet in the **Project** panel.

2. Choose **File** > **Export** > **Puppet**, then name the .puppet file (**Figure 17**).

3. Send the **.puppet** file to the other user via shared link or other method.

4. To open a shared puppet, import the **.puppet** file via **File** > **Import** or by dragging it into the **Project** panel.

Figure 17 *Exported .puppet file*

Note: Shareable puppets are self-contained, including the artwork associated with them. If needed, you can relink the puppet to a shared instance of the artwork.

Character Animator tutorial videos

Adobe offers a rich libary of beginner to advanced video tutorials to help you learn to use Character Animator:

- Building Your Own Animated Face A beginner Photoshop tutorial for building a custom animated face from scratch. No drawing skills necessary - you'll just be using simple shapes.

- Making Your First Character An in-depth tutorial showing a complete end-to-end workflow, from drawing the character, rigging, recording, editing, streaming, all the way to a final export.

- Teach Your Illustrated Character How to Walk Go beyond facial movements for your puppets by creating walk cycles, looped frames that allow your character to walk without requiring you to animate each step.

- Keyboard Triggers & Cycle Layers Learn how to add dynamic range of actions, expressions, and emotions to your puppets through keyboard triggers, which show / hide / swap artwork via alphanumeric key presses, and cycle layers, which play through frame-by-frame animations.

- Character Animator Episodes Regular episodes featuring tips and tricks, walkthroughs, examples, user creations, and upcoming features in Adobe Character Animator.

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