This guide shows how to use your digital fabric image in a costume illustration. We will give tips for manipulating the flat textile image to make it follow the curves of the body, giving the impression of dimension and depth. This guide covers a lot of ground, transforming the flat image into a nuanced rendering.

We have divided this ambitious guide into four parts:

Part one: Preparing the garment selections. This identifies where the fabrics will be used.

Part two: Importing the fabric pattern (p.8).

Part three: Shaping the pattern (p.11).

Part four: Colors and Shades (p.16).

PART ONE: Preparing the illustrations selections.

We begin by preselecting the areas within the illustration where we will be applying the fabric. We do all of the selections in advance in order to facilitate the following steps. First, let’s look at the process of selecting areas.

In Photoshop, selecting a particular area in an image allows you to apply a certain task to that area (within the selected layer) without affecting its surrounding. For instance, we might select the skirt area in our design so that we can apply a fabric onto that specific area, without having the fabric intrude on other areas of the design.

Since images in Photoshop are built using multiple layers, we need to select the layer that we wish to work on as well as the specific area (i.e. the skirt) within that layer. Let’s look at some images to clarify how this works.
During the costume design process you will have to create two sets of selections: first for importing the patterns and second as garment selections. Although “importing patterns” will come first in the process, it will make your work easier and smoother if you prepare the selections for the cleaning part first.

What are the “garment selections”?

The “garment selections” are selections of the different sections of your costume design (for example: pants, shirt, skirt, jacket, veil, gloves...). The selections of these particular areas need to be as precise as possible.
Normally, cleaning your costume design would involve manually erasing everything that extended past the outline. This can be time consuming, especially since you will probably have to use the eraser tool several times throughout your process. Selecting your garments in advance and saving these selections will allow you to activate them at any point and, with one click, erase everything that is outside the selected area, thus erasing all unwanted details instantly.

This particular “trick” will allow you to save a lot of time on tedious erasing.

Always remember:

1- “Garment selections” have to be as precise as possible, which means their borders (indicated by a dotted line) have to be at the exact location as the real outline of the garment you’re selecting.
2- You need to save every new selection because you will use them many times during the designing process.

In Photoshop, an easy way to make precise selections is by using the Quick Mask feature.

What is the Quick Mask?

To mask out something means to cover it with a protective coating which excludes it from the rest of the image. Masks are used for different purposes, but in costume illustration you will create a mask that covers everything in your image except for the part you wish to select (ex: dress). Then you will convert the unmasked area (the dress) into a selection zone.

Visually the Quick Mask is represented by a half transparent pink color.

How to select with the Quick Mask:

1- First cover your entire image with a mask:

Step 1 - Go to the Toolbar: click on the Quick mask icon at the bottom.

→ You will notice that the foreground and background colors of the Color Picker icon at the bottom of the toolbar will automatically be set to white and black.
Step 2 - Go to the toolbar: Select the **Paint Bucket Tool**.

Step 3 - Click inside your file with the **Paint Bucket Tool**.

→ A half-transparent pink color will cover your entire file. *This pinkish area is the mask.*

![](Image without mask)  ![Image with mask]

2- Erase the areas of your mask that cover the specific part of your garment that you wish to select. For example if you wish to select the dress, erase the parts of the pink mask that covers it:

**How:**

Step 1 - Go to the toolbar: Select the **Brush Tool**.

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**Very Important:** When the **Quick Mask** icon is activated, the **Brush tool** can only be used for two functions: it can become a **mask eraser** or a **mask "creator"**.

When the color for the brush tool is set to white it will erase the mask, and when set to black it will create one.

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Step 2 - In the Options bar: Click on the **Preset Picker** then set the **Hardness** to 100%.

- In the Options bar: make sure the **Opacity** is set to 100%.

Step 3 - In the Toolbar, at the bottom: Set your brush function by choosing the correct color in the **Color Picker**.

→ The Foreground color of the **Color Picker** is the color that will define the functionality of your brush.

→ **Important:** To start erasing you have to have the white color on top. If the white square is underneath the black square, click on the curved arrow to transfer it to the top.
step 4 - Click and drag with your “white” brush to erase the part of the mask that covers the particular part that you wish to select (ex: dress).
→ See "How to adjust the brush size" below to erase more effectively.

If you erased a part of the mask that you wish to recover:

- In the Toolbar: Click on the black color to give back the “mask Painting” function to your brush, then click and drag over the part of the mask that you wish to recover (to exclude from your final selection).

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How to adjust the brush size:

- Go to Options bar > click on Preset Picker
- Change Master Diameter to adjust the size of your tool.
→ See image below to learn more about adjusting the Master Diameter of a tool.

By moving the cursor or changing the pixels you can change the size (the width) of your tool.

Very important: Most often you will need to work on small and specific areas so it’s essential to know how to zoom in and out on Photoshop. Zooming in on an area will allow a cleaner and more precise final result. Refer to Tips for Beginners guide if you wish to learn more about zooming in and out.

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Step 5 - When you finish erasing, go to the Toolbar: Click again on the Quick Mask icon at the bottom. You will see that:
a- The mask (pink area) is completely gone.
b- The part that wasn't masked out anymore (after your erasing) became a selection zone.
Very important:

Make sure your erasing is precise and accurate. You have to respect the exact borders of the part you wish to select or you will end up with a sloppy inaccurate selection which will eventually lead to inaccurate cleaning.

If you’re not completely satisfied with your selection and wish to make few changes, refer to "how to adjust your selection" below to learn how to do modify a selection.

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How to adjust your selection:

Step 1 - Go to the Toolbar: click again on the Quick mask icon at the bottom.
  This will allow you to go back to the previous quick mask mode where you can continue working until you are satisfied.

Step 2 - When you finish making the adjustments, click again on the Quick Mask icon to convert again to a selection (identified by the dotted line.)

IMPORTANT: You can do this as many times as you want at any point throughout your process, as long as you make sure that your selection is activated first. When you see the dotted line defining your selected zone, it means the selection is activated.

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SAVE SELECTION:

Every time you finish a selection you need to save and name it.

How to save a selection:

**Step 1** - Go to the menu bar: **Window > channels**.
  - If you see a check mark on the left of the word “channels” it means the **Channels** palette is already open on the right side of your screen.
  - The **Channels** window is the place to save all of your selections so that you can access them again at a later time.

What are the **Channels**?

Channels are used to save information about an image, presented in the form of grayscale image. There are three different types of channels depending on the type of information they contain. In the costume design process we will use one type of channel, the **Alpha Channel**, which is responsible for saving selections.

The channels look similar to layers, but instead of containing components of an image, they contain information about the image itself. When you open the **Channels** window, you will see the **Color Information Channels**. These are another type of channel that maintains information about the color composition of the image. For our present purposes, the color channels should remain untouched.

**Step 2** - In the Channels window, at the bottom: Click on the **Save Selection** icon.
  - A new channel will appear in which your selection will be saved.

**Step 3** - In the **Channels** window: click on the new channel than double-click on its name (usually named “Alpha” by default), and write a new name instead (ex: “Dress selection”).
  - As with layers, it is very important to name each new channel you create. This will help you find a specific selection you might need at any time later on in the process.

**N.B:** When you select the new channel you will see your image turn into a black and white image: the selected area will become completely white and all the rest of the image will turn black. Your image doesn’t actually turn black and white. It's only a visual used by channels to show you clearly what information they contain, in this case the selected area that is being saved.
Step 4 - In the Channels window: Click on the top channel in the window to go back to your original image.
   → The black and white will disappear.

Step 5 – On your Keyboard: Press simultaneously on Ctrl and d.
   → You will see the dotted line disappear, which means your selection has been "deselected". Only when you
deSelect your current selection you can start a new one.
   – Go back to the Layers Window.

Repeat the same selection process on all the main parts of your costume and always make sure
to save each new selection in the Channels window. After you finish all of them, move on to PART TWO
of the process. These selections will be ready to use later on in the process.

PART TWO: Importing the fabric pattern.

To import a fabric pattern into you costume design, you need to start by doing three things:

1- Decide where on your costume you wish to apply the pattern (the pants, shirt, skirt...).
2- Select that specific area of the costume.
3- Drop the pattern into the selected area.

For example, if you decide that you want to apply a fabric pattern on your dress, you need to select that
particular area of your costume to let the pattern know exactly where it needs to be “dropped into”. As
with actual fabric, the digital fabric needs to be slightly larger than the finished garment area in order to
allow for shaping. This means that we need a loosier selection area than we made in Part One, since those
sections are too precise and do not serve your purpose at this point.

Think of the selection this time as more of a “targeting selection” than a “precise selection”. You will use
the selection this time to just target a specific area of your image for your pattern. There are three main
differences between the “targeting selection” and the “precise selection”:
1- The targeting selection has to be bigger than the part you’re “aiming for”, so if you want to select ("target") the dress, the borders of your selection zone has to be at least 1cm (or half an inch) further than the actual outline of the dress.

→ **Why:** At a later time in the process you will import the pattern that you wish to use, but you will notice that it will look completely flat and unrealistic. Simply importing the pattern is the equivalent of holding a piece of fabric in front of your actor. As with real fabric, you will need to manipulate and work with your “digital fabric” after you import it, in order to create an actual costume. As with real fabric, you need to make sure that you have enough yardage to work with. The digital equivalent of insuring “enough yardage” is to initially import your fabric image into a bigger area.

2- This time the targeting selection doesn’t have to be precise; it’s basically a quickly outlined selection zone that follows the general shape of your costume element (most of the time you won’t even need to zoom in.)

→ **Why:** Since you will always import extra fabric to work with, the outline of this imported fabric will not matter, as long as it is larger than the garment outline. After reshaping and adjusting it, all the extra “fabric” (whatever remains outside the outline of your costume design) will be “cut off” (erased using the initial “precise selections” created in PART ONE.)

3- You won’t need to save any ”targeting selection”. These selections are only used to import the pattern and create a “digital fabric yardage” and will not be used again.

One of the easiest ways to make fast selection is with the **Polygonal Lasso Tool**.

**How to use the Polygonal lasso tool:**

**Step 1** - Go to the Toolbar: Click on the [Polygonal Lasso Tool](#).

→ The Polygonal Lasso Tool is grouped with the Lasso Tool [](#) in the Toolbar. If the Polygonal Lasso tool is not visible, click and hold the icon of the Lasso Tool, then choose the Polygonal Lasso Tool from the pop-up menu.

**Step 2** - Click around the area you wish to “target”. Every time you click you create a new point which will link with the previous one with a straight line. Keep clicking all around your specific costume part by following the general lines of that part until you finish your selection by returning to your starting point.

→ **Important:** When the dotted line appears, it means your selection is complete and activated.

→ **Remember:** No need to be precise. Do make sure to leave at least 1cm (or half an inch) between the actual border of your costume element and the edge of your selection zone.
How to import the pattern:

After you finish selecting your area you need to import the fabric pattern into the selected zone.

How:

Step 1 – In the Layers Window, at the bottom: click on the “create a new layer” icon to create a new specific layer for your fabric pattern.
⇒ ALWAYS make sure to create a new layer before you import a new fabric pattern.
⇒ Refer to the Tips for Beginners guide if you want to know more about working with layers.

Step 2 - Go to the Toolbar: Select the Paint Bucket Tool.

Step 3 - Go to the Options bar: Click on the Set Source for Fill area.
⇒ In the drop down menu that appears select Pattern
⇒ The Pattern Picker will appear next to the Set source for fill area

Step 4 - Click on the Pattern Picker in the small window that appears, choose the pattern you wish to import to your image.
⇒ The small Pattern Picker window stores all the patterns saved in Photoshop. This is where you can access the pattern that you created and saved previously (refer to the Preparing Fabric Images Guide). With time, you can create a library of fabrics in this section.

Step 5 – In your costume design file > Click inside the “targeting selection” zone that you created.
⇒ You will see that your pattern will fill the entire area.

Step 6 – On your Keyboard: Press simultaneously on the Ctrl and d to deselect your selection zone.
The "targeting selection" will be replaced by a patterned area. This area will become your piece of "digital fabric". In the next part you will learn how to manipulate and reshape your "digital fabric" to create your costume design.

PART THREE: Shaping the pattern.

When you first import the pattern you will notice that you’ve created a completed flat looking fabric that covers your garment (ex: dress). In this section we will look at molding this fabric piece to make it fit realistically on your actor’s shape. We will work on adding some perspective and roundness to your fabric, especially around the edges.

The main tool you will use to help give a realistic look to your fabric is the Warp Grid.

How to use the Warp Grid:

Step 1 – In the Layers window: Click to select the layer that contains the pattern that you imported.

Step 2 – In the Layers window, on top: Click on the Blending Mode rectangle ➔ A drop down menu will appear.

Step 3 – In the Blending Mode’s drop down menu: Select “Multiply” from the list. ➔ A transparency effect will be applied to your pattern; you’ll be able to see your actor and costume’s outline through your pattern. This will allow you to reshape your fabric more accurately based on the costume design’s outline.

Step 4 – In the Menu bar: Edit > Transform > Warp. ➔ A grid will appear around your pattern.

The rectangular Warp Grid that appears around the pattern is divided into nine sections, with four corner anchor points and four inner dividing lines (two horizontal and two vertical lines that meet at twelve connection points).

The Warp Grid lets you move your fabric around and “mold it” to make it correspond to your costume’s shape. This grid is generally simple to manipulate and it all happens by simply clicking and dragging. You can click and drag the corner anchor points, the end points of the tangent lines, intersection points or at any other point, as long as you’re inside the grid.
N.B: As you will see in the next images, in reality the grid is grey. In this image we deliberately colored it red and lowered the opacity of the image in order to show the grid more clearly.

It is up to you to choose your own process of work with the Warp Grid depending on your costume design and personal skills. It is generally helpful, especially for beginners, to begin your manipulation with the following steps:
**Step 1** – Start first by moving the 4 corner anchor points and position them around your costume design. This will help you give to your “piece of fabric” the general shape of the costume. You will notice that now the Tangent lines became clearly visible.

**Step 2** - After moving the anchor points, try moving the Tangent lines to shape your fabric as much as possible to correspond to the forms and curves of your costume. You can move the Tangent lines by clicking and dragging on their End Points. Each Tangent line is responsible for reshaping the side of the grid linked to it.
Step 3 - Click and drag inside your grid; the dividing lines can serve as guidelines. This will help you modify the shape and look of your costume to give it the final touches. Move any area or part of your fabric as you see fit depending on your own costume design. This is the digital equivalent of draping fabric on a dressmaker’s mannequin.

In this example, the horizontal stripes of the pattern help delineate the changes that were done using the Warp Grid.

N.B: you can repeat any step more than once, and in any order that you need until you’re satisfied with the final result.

Liquify filter:

In a lot of cases the Warp Grid will be enough to shape your “digital fabric” and create the design you wish to have. When it comes to complicated or detailed designs, the Liquify filter will prove itself very useful as well.

The Liquify filter serves the same general purpose as the Warp Grid but in a more specific way. Instead of using a grid, you will be able to use a Warp Tool, which will allow you to pull elements in and out directly. Before going any further, please refer to the “Changing Proportions guide” if you wish to learn more about the Liquify filter.

Very important:

Always start with the Warp Grid, and then use the Liquify filter only if necessary. Generally speaking, perspectives are best achieved with the Warp grid. The Liquify Filter is useful when it comes to details and shaping. The more you use the Liquify filter, the more you risk distorting your costume, especially if used for big changes. Make sure you remain as subtle as possible with this filter, since it is quite powerful.
DELETE THE EXCESS FABRIC:

As we mentioned previously, the precise selections you created in PART ONE will be used for clean up. You will use it at this point for the first time to “cut out” and get rid of all the excess fabric that remains outside the contour of your garment.

**Step 1** - Go to the menu bar: **Window > channels.**

➔ If you see a check mark on the left of the word “channels” it means the **Channels** palette is already open on the right side of your screen.

**Step 2:** - on your keyboard: Hold down the **Ctrl** Key.

**Step 3:** - In the **Channels** window: click, while maintaining the **Ctrl** key, on the channel that contains the particular garment selection which you need to cut off the excess fabric (for example, the dress selection for the previous example).

➔ You will see the dotted selection line appear on your image around the costume part (ex: dress).

**Step 4:** - In the menu bar: **Select > Inverse**

➔ This will invert the selection zone to everything but the costume part (ex: dress). You will see the dotted line shift to indicate that the new selection zone is everything outside of the original zone.

**Step 5:** - In the **Layers** window: make sure the layer containing the pattern that you wish to refine is selected.

**Step 6:** - On your keyboard: press on **Backspace.**

➔ This step will delete everything that is inside your new selection zone, but only within the selected layer. This is why it’s important to select the correct layer or you may end up deleting parts on the wrong component of your image.
Step 7: - On your Keyboard: Press simultaneously on Ctrl and d.

→ You will see the dotted line disappear, which means your selection has been “deselected”, leaving a clean crisp outline.

PART FOUR: Colors and Shades.

A fabric that has been applied can be varied endlessly in terms of color ways, just as actual fabrics can be dyed, bleached, or painted.

COLORS:

If you wish to adjust or change the color of your pattern:

Step 1: - In the Layers window: click on the layer containing the fabric pattern you wish to adjust.

Step 2: - Go to the menu bar: Image > Adjustments > Hue/Saturation.

→ The Hue/Saturation window will open in which you can adjust your pattern’s color.

→ In the Hue/Saturation window you’ll be able to adjust the Hue, Saturation and Lightness of your color.

Step 3: - In the Hue/Saturation window, at the bottom: make sure the “preview” is checked off.

→ The Preview allows you to see all the effects of your adjustments on the image right away. Make sure you look directly at your image while making your adjustments to see if you’re satisfied with the changes being made.

Step 4: - in the Hue/Saturation window: Adjust the three features (mainly the Hue) to start experimenting and trying out different color possibilities for your pattern.
- The **Hue** helps give you different color choices.
- The **Saturation** is responsible for the intensity of the colors.
- The **Lightness** defines the amount of white in the color.

**Tip 1:** Before you start experimenting with colors, always make sure to create a copy of your layer first (the one that contains your pattern), then work on that copy. This is useful for two reasons:

1. It allows you to maintain the original version of your pattern in case you wish to refer to it at any time later on. For example, if you changed your mind about the new color, you can always delete this new modified copy and go back to the original layer.

2. It renders your work more practical and professional by allowing you to keep all the color possibilities (each on a different layer) in one document. This allows you to compare the different color examples directly in your Layers window, which is useful for your own creative process and in case you wish to present or discuss your costume design with the director or design team.

**Tip 2:** It is always helpful to apply the **Hue/Saturation** more than once on your pattern. The **Hue/Saturation**’s effect on your pattern depends mainly on the pattern’s original color. So, for example, if you changed the color to yellow in your first attempt, try adjusting the **Hue/saturation** again afterwards to see what new shades the hue/saturation will present with the new yellow as a starting point.
SHADING:

After importing, adjusting and choosing the right color for your patterns, the final step is to give a more realistic look to your costume by adding shading.

At this point you will need to know how to use the Brush Tool to draw the shading and the Eraser Tool. Refer to the Applying Colors Guide to learn more about using the Brush and Eraser tools, as well as many other features and tools that will prove themselves to be extremely helpful to your costume designing and coloring process.

When it comes to adding shading, which is often the main coloring work you will have to do on your patterns, remember the tips below:

**Tip1:** Use the black (or other dark color) Brush Tool to add shadows, and white (or other light color) Brush Tool to add highlights.

**Tip2:** Adjust the Hardness and Opacity of your tool frequently to make sure your shading blends into the surrounding areas. These two features in particular are essential to create the effect of a realistically merged shadow.

**Tip3:** Adjust your Brush’s size to suit the areas and shadows that you’re working on.

**Tip4:** Use your Channels selections when it comes to deleting any excess colors as we did previously with deleting excess “fabric”. In other words use the “garment selections” to get rid of any colors that went outside the contours while working on shading.
This is an example of how the dress could look after shading with the brush tool.

In this image we took the dress out to help you see the shading separately.
Final Thoughts

The ability to test out different fabrics digitally allows a wonderful freedom to experiment with different fabrics, motifs, and color ways. Once the work has gone into digitally shaping and shading a particular fabric, changing the fabric to see multiple options is quick and easy. With the high cost of fabrics, this makes an economical way to “try out” different fabric choices without having to leave the design studio.