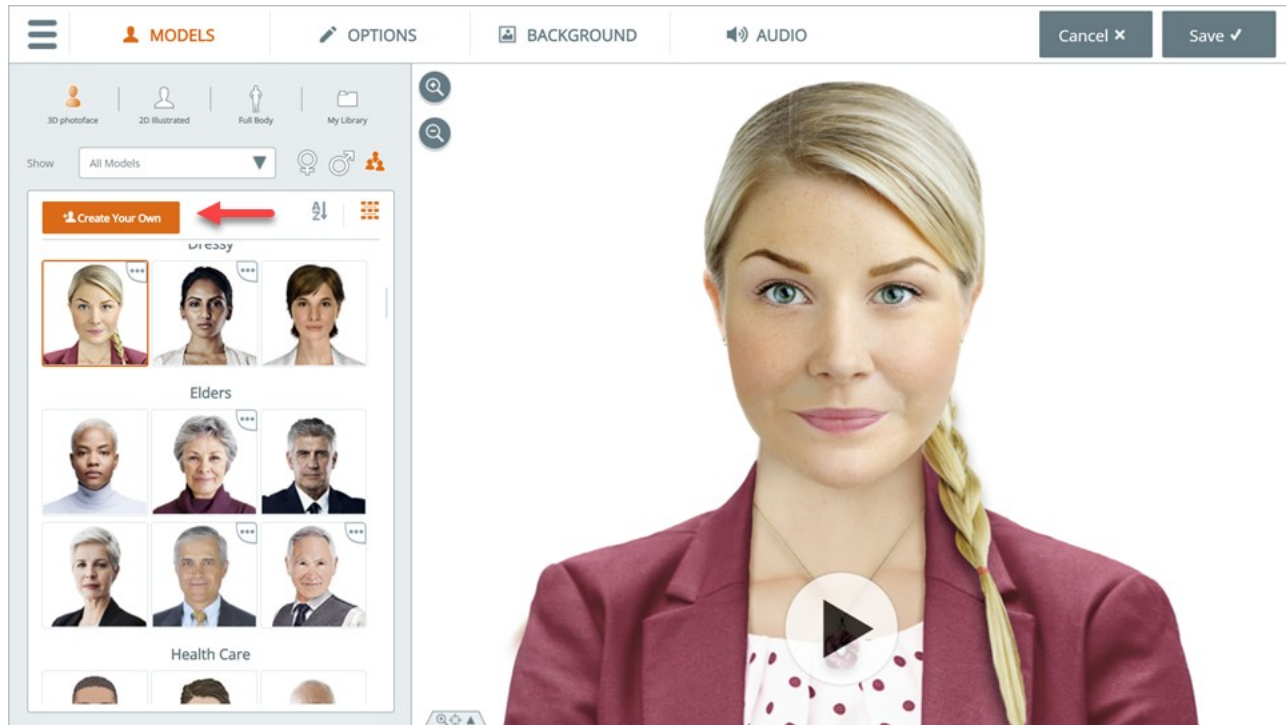


SitePal Technical Note

Using Photoface 3D To Create Your Avatar

Photoface™ 3D is a SitePal® feature that enables you to create your own 3D avatar from a photo. To access this feature, open the SitePal Editor, and in the ‘Models’ tab click on ‘Create Your Own’.



Photoface 3D is available with the Gold Plan & higher

In this technical note we share best practices and tips that should help you make the most of this unique feature. Getting good results with Photoface 3D is partly due to optimal photo selection, and partly to acquired skill with the creation process. We will discuss both.

I. Photo Selection Tips

The first rule - pick photos that meet our guidelines -

- Mouth closed (no teeth showing) – slight smile is ok
- Face looking forward, directly at the camera
- High quality, hi-resolution photo (more about this below)
- Evenly lit & in focus - no shadows on the face
- No eyeglasses, hair or other obstructions over the face. Short cropped facial hair should not be a problem.

High hair (a bun or Afro for example) can cause problems and should be avoided. Long flowing hair should not be a problem.

Bulky headware should be avoided, but a close fitting hat (or headphones, earpiece etc.) might work ok – you definitely can give it a shot.



For best results, follow these guidelines:

- Head and shoulders should be facing forward
- Face should be evenly lit with no strong shadows
- Eyes should be open and looking forward
- Mouth should be closed and neutral
- Face should be free of hair and glasses



Optimal Resolution

So what is the right resolution to use?

If your image resolution is too low - your character may appear pixelated (grainy) when displayed on your web page. If too high - you'd be adding weight (download size) to your character unnecessarily.

The rule of thumb is roughly 1000 x 1000 pixels for the area immediately surrounding the face (while the photo itself may be larger). There is not much value to be gained by using a higher resolution, because on most screens it is unlikely that that these extra pixels will come into play. But if your implementation has unique viewing characteristics, do the math & decide for yourself.

Create Your Own Photoface

Area surrounding the face **Position Your Photo**

Adjust your picture to resemble the sample picture above

For best results include all of the head and some of the upper body

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Image Composition

We suggest to use a photo that displays at least the upper part of the body, not just the head. For best results the body should be visible from below the chest & up. This will allow you to create an avatar with a large enough portion of the body, which will enable more flexibility when positioning on your web page.

Note: throughout our documentation, the terms 'avatar' and 'character' are used interchangeably. They mean the same thing.

Background – does it matter?

The Photoface 3D process does a pretty good job identifying a persons' outline & auto-removing the background. But having a complex, noisy or dark background can sometimes cause problems. While we do not require it, if you have the option we encourage the use of a uniform light background in your photo.

Pre-Editing the Image

Being fluent in Photoshop can be an advantage in certain cases. For example - a short neck (or no neck) photo can cause the shoulders to animate when the face moves. Sometimes that works well, and other times not so much. In those cases editing the photo by adding or extending the neck can help resolve.

Another example where image editing might come in useful, is the so called "high hair" scenario. If the face shape is long and narrow, or slightly inclined forward, the upper scalp might occupy a bit more of the vertical length of the head than it normally would. This, especially when coupled with thick or jutting hair, can result in visual problems when the avatar animates. Sometimes this issue can be addressed by adjusting the Camera Angle setting (see below). But it can also be improved by trimming the upper scalp or hair.



A long narrow face may result in "high-hair" distortion – slight trim of the upper scalp may help

Special Cases

Note that a photo may not work very well despite satisfying all requirements. Sometimes it is best to simply select a different photo. The opposite is also true - we sometimes see great results with faces that are off center, looking slightly sideways, or wearing eyeglasses.

Photoface 3D technology is optimized to the proportions of a “standard” human face. Faces with unusual proportions may not work very well. For example – an alien face with exceptionally large or protruding eyes.

On the flip side, even though Photoface 3D was designed to work with human faces, we sometimes see customers achieve surprisingly good results with images of inanimate objects. A customer recently shared with us a very lovely “carrot face”, created by anthropomorphing an image of a carrot. We encourage you to use your imagination – but bear in mind that the tool was designed for human facial proportions.



Example of an inanimate image that works nicely

II. The Photoface Editor – Step by Step Suggestions & Tips

When you click on “Create Your Own” and initiate the Photoface process, there are 4 steps to go through:

1. Image upload & positioning
2. Anchor points placement
3. Masking the image
4. Finalizing your character’s settings

Step 1 – Rotate & Scale


In the first step, your uploaded image is rotated, scaled and positioned automatically. Treat this initial positioning as a “first approximation”. It is up to you to fine-tune it.

Rotation: be sure to position the face with the eyes horizontally aligned. In some photos the mouth and the "eye line" are not parallel - your priority should be to align the eyes horizontally. The mouth can be fine-tuned later if needed.

Scale: As you position the photo in the frame, you may want to zoom out a bit, to allow more of the body into the frame. **This initial positioning determines your character's visible extent.** Whatever you leave out of the frame will not be part of your character. If the body is cut too short it may limit later positioning on your web page.

Create Your Own Photoface
Position Your Photo

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Adjust your picture to resemble the sample picture above

For best results include all of the head and some of the upper body

Make sure the eyes are horizontally aligned, adjust mouth later

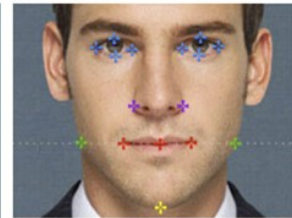
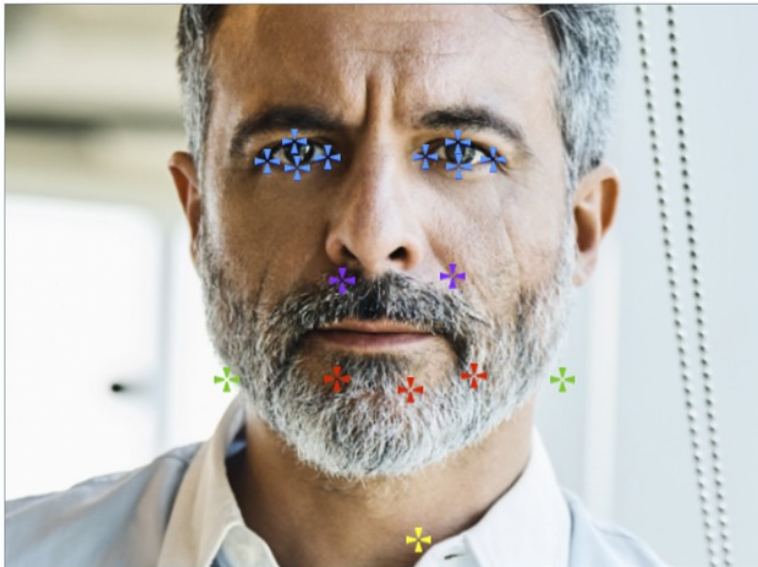
Step 2 – Anchor Point Placement

In the second step we auto-position the anchor points for you based on facial image analysis. This should also be considered an “initial approximation” for you to review and edit.

Follow the positioning in the sample picture & adjust the points carefully as needed. The auto-placement frequently requires manual fine-tuning.

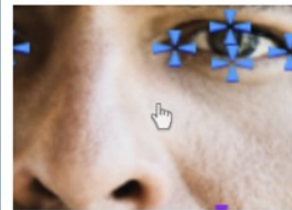
Create Your Own Photoface

Adjust Anchor Points



Drag the anchor points to resemble the placement in the simple above

Use the zoom area below to better align the anchor points



Sometimes initial point positioning is off – always check and adjust

Step 3 – Masking the Image

In graphic design, *masking* is the process of separating (or cutting out) an object from its visual surroundings. In this case of course we are separating the person from the background.

We recommend going with the default settings in this step, unless you have good reason not to. Photoface automasking works very well in most cases, and produces better results than you could achieve with the available manual tool or even in Photoshop (we've compared).

Step 4 – Final Settings

In the final step, specialized tools are provided to help you adjust and fine tune the position of the mouth and the tilt angle of the head (a.k.a the “camera angle”). We suggest to try them out repeatedly, until you get a good feel for how each setting affects the result.

For example, you may need to extend the mouth slit - not too wide, and not too narrow, to enable the mouth to open naturally. You may need to position the mouth slit off center & play around with its curvature and vertical location. Faces are not the same and never symmetrical.

Check out the slider for teeth whiteness. Avoid teeth that are too bright, they look unnatural. A good rule of thumb is to match the whites of the eyes in the photo.

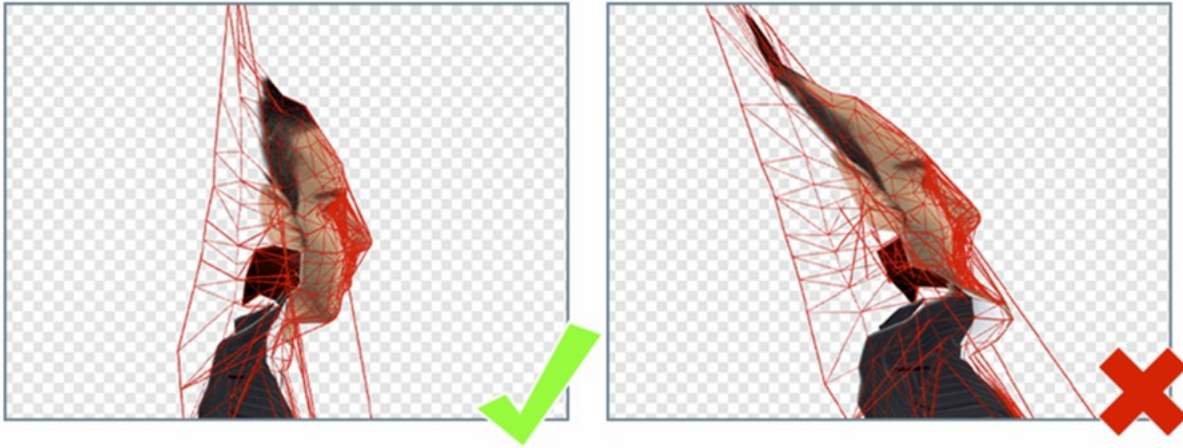
The "Camera Angle" setting can be very helpful. Always check and adjust it. Start by playing around with it to get a good feel for its effect.

Many times a face appears perfectly natural in the photo, and it is not immediately obvious that the photo was taken from slightly below the facial plain. This may cause the upper part of the head to

stretch unnaturally as the head moves & can be a particular problem with naturally elongated faces or 'high hair'. Adjusting the camera angle can compensate & resolve.

Camera Angle

If the camera was not level with the face when the image was taken, adjusting the angle can improve the results. Try making adjustments, then view the results by moving the cursor around. Watch the facial movement. Adjust the angle further until facial movement seems most natural.



*We hope you found this technote helpful.
Comments? Questions? Send us a note to: support@sitepal.com*