



# GIMP: Face Swap

DIFFICULTY



## They named a program GIMP?

Absolutely. It stands for Gnu Image Manipulation Program, and it's a free, open source photo retouching and image composition program (like Photoshop! But not \$600). You can download it at [GIMP.org](http://GIMP.org). We're going to use GIMP to do a face swap. Like this: .....



### Step 1: Open GIMP! (check your start menu.)

### Step 2: Find a photo online to use for a face swap (or use two photos to transfer the face from one to the other, that's what I'll be doing!).

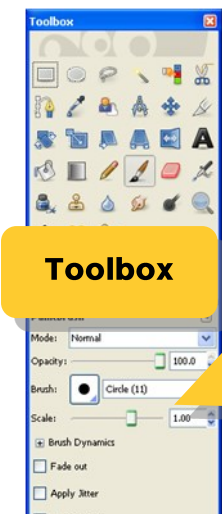
Keep in mind, the more similar the angle of the face, the easier it will be to do a face swap. While we can always scale a face (make it bigger or smaller), and skew it (stretch it in different directions), there's no secret button to change the angle of a face.

### Step 3: Swap their faces! Just kidding, open up the photo in GIMP!

## The GIMP interface (GIMPerface)

The GIMP shows up as a series of floating windows, instead of one big window. The two main windows you will need are the **Toolbox** and the **Image Window**. These can be moved around the screen by clicking-and-dragging the blue headers of the windows.

You will also need the **Layers** window often, which can be opened by clicking on **Windows**, then **Dockable Dialogs**, and finally on **Layers**.



**Toolbox**

You have Tool options that should appear below your Toolbox and will change depending on which tool you have selected.

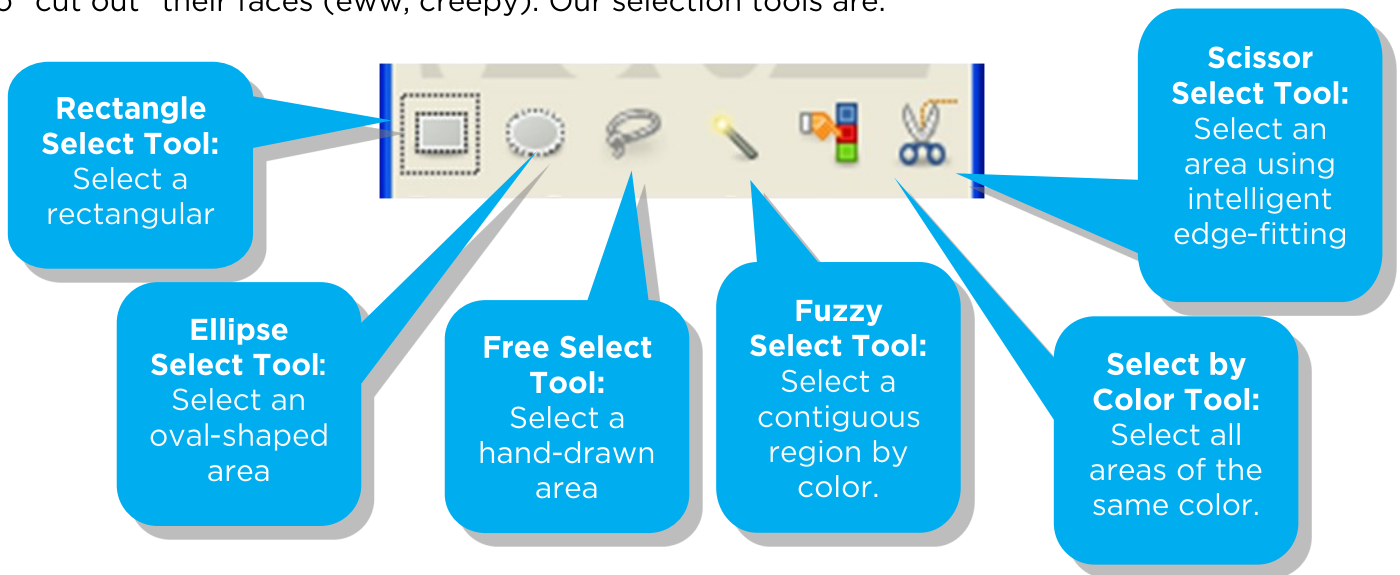


**Image Window**

If you accidentally close the toolbox window, you can click on **Windows** and then click **New Toolbox**.

## Actually doing the faceswap!

We need to switch the face on a hapless victim and to do that we need to use our selection tools to “cut out” their faces (eww, creepy). Our selection tools are:



### Step 1: Select the Free Select Tool (looks like a lasso).

The easiest way to select just someone’s face is to use the **free select tool** (which looks like a lasso). The other selection tools might come in handy for other stuff, but it can hard to select someone’s face with just rectangles.

### Step 2: Use your mouse to draw a selection around the victims face.

For my next trick, I’m going to cut out Gandhi’s face and paste it on Arnold Schwarzin... Scwerzen... Conan the Barbarian’s head.

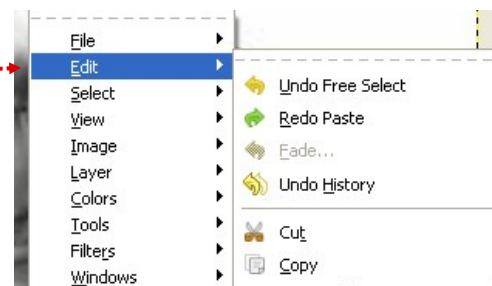
Using the **Free Select Tool** you can click around the face you want to cut out. You will see circles appear where you click. Click around the entire face and then finally click on the first point you made.



Your selection will be indicated by a trail of “**Crawling Ants**”.

### Step 3: Copy the face.

Once you’ve got the face that you’re going to use for the swap selected hit **CTRL+C** to copy it (or **right click**, hover over **edit**, and select **copy**).



**Step 4: Open up the image of that you want to paste the face on (only if you're using more than one picture).**

**Step 5: Paste the copied face.**

Hit either **CTRL+V** or **right click**, click **edit**, and then click **paste**, to insert the copied face.

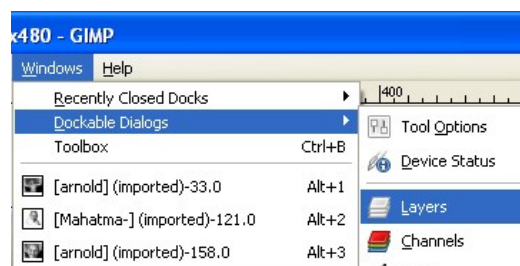


I'm just a head with some sweet arms, nothing to see here.

IT'S PERFECT! Well, not quite. Depending on the size of the initial face you selected, you will probably have to scale the face and adjust the position.

**Step 6: Open up the layers dockable Dialog box.**

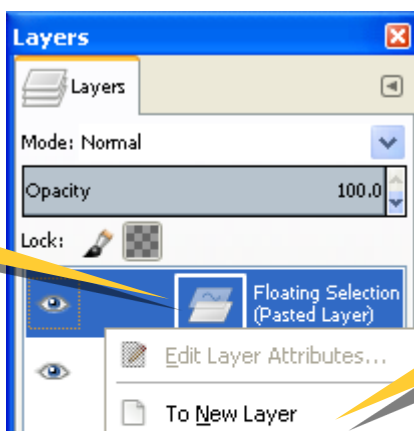
Hit either **CTRL+L**, or select **Windows, Dockable Dialogs, and Layers**.



**Step 7: Create a new layer for the pasted face.**

Now that you've opened up the Layers dialog box it's time to paste the face to a new layer.

Right click where it says **Floating Selection (Pasted Layer)**.



Click on **To New Layer**.

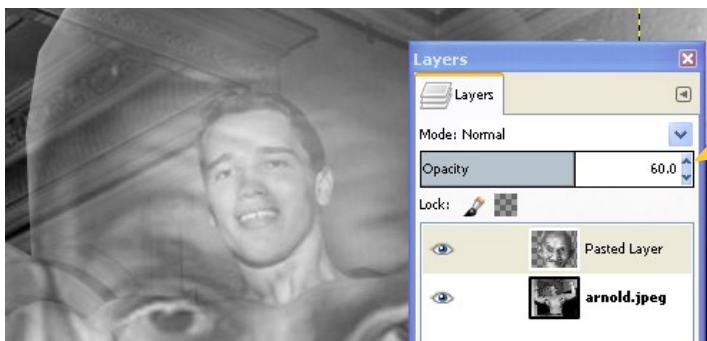
## A quick word on layers:

Layers are different elements of an image. In this case, one of our layers is the background, and the other is the face we just pasted. We can manipulate layers individually by selecting the appropriate layer in the layers dialog box. This means we can resize the face we just swapped in without affecting the background layer that we pasted it over. You just have to make sure you've selected the right layer and the right tool (from the toolbox) for the job.

## Step 8: Adjust the position and size of the pasted face

Start by adjusting the opacity of the pasted layer (so make sure you click on the correct layer in the layers dialog box). Adjusting the **Opacity slider** will make the image solid or transparent (play with it and see!).

Adjusting the Opacity will make the selected layer semitransparent.



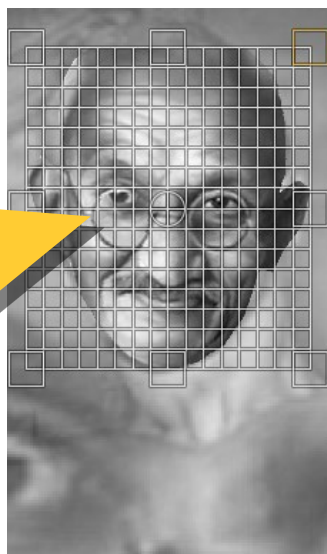
Use the **up and down arrows** to adjust the opacity. You should notice an immediate change.

Now adjust the size of the face by selecting the **scale tool**, which looks like:



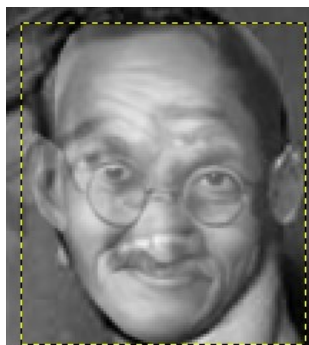
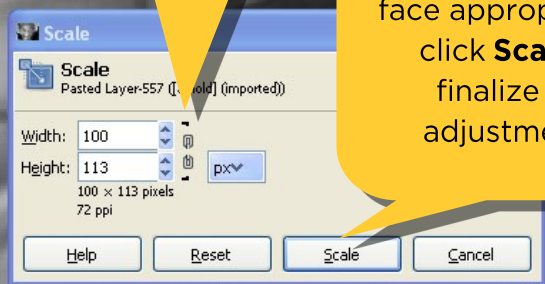
The **scale tool** will make things larger or smaller (and can also distort an image).

Click once on the layer to enable scaling and then use the square handles around the image to adjust the size.



Clicking on the **chain icon** will maintain aspect ratio and prevent distortion of the face when scaling.

When you've scaled and positioned the face appropriately, click **Scale** to finalize the adjustments.



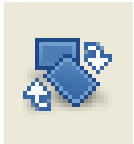
Use the **Move tool** to adjust the position of the pasted face.



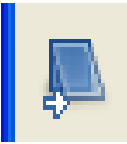
Hi! I move things!

Turn the Opacity back up to see what the face swap looks like now. It's getting close, but it's probably not quite there. We still have some fine tuning to do!

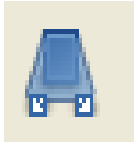
## Step 9: Fine tuning the positioning of the face.



**Rotate Tool:** Rotates the layer.



**Shear Tool:** Shifts part of an image one direction.



**Perspective Tool:** Changes perspective of the layer.



**Flip Tool:** Reverses the layer.

Use these tools to try and get the face just how you want it. Play around with the tools and see which one's are best for your specific face swap. If you make any changes that you're not particularly fond of you can always use **CTRL+Z** to undo, or select **Edit** and then **Undo**.

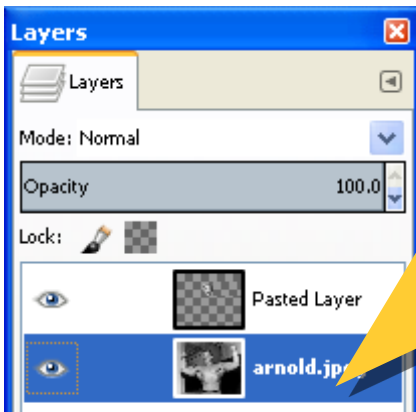
## Step 10: Blending the two layers more betterer.

Alright, so you've got your face almost perfect, but something is still a bit off.

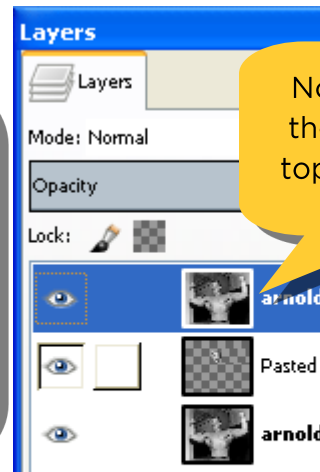


My hair looks dumb. Please, fix it for me!

Let's start by making a copy of background layer.



Select the background layer, hit **CTRL+C** and then **CTRL+V** to paste the layer in as a new layer.



Now **click** and **drag** the new layer to the top of the Layers list.

Whichever layer is on top of the layer dialog will be displayed first, so the face is still there, it's just underneath a duplicated background layer. Now, we're going to erase the top layer to reveal the face we pasted underneath. **Make sure you select the correct layer to erase!**



Select the **eraser tool** from the tool box.

Make sure you open up a **Tool Options** dialog if you don't see Tool Options below your **Tool Box** (click on Window, Dockable Dialogs, tool options).

The **Tool Options** dockable dialog gives us ... tool options, based on the tool we have selected in the toolbox. There are ton of different features for each tool, but we're just going to be messing with the eraser options today.

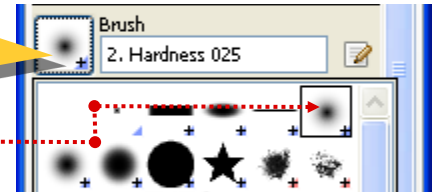
## Step 10 (Continued):

Use the tool options dialog box you just opened to adjust the “hardness” of the eraser. A lower hardness eraser will make it easier to blend your face in with the background layer. Once you’ve done that, get to erasing! And remember, **CTRL+Z** to undo! Play around and find the best eraser for the job.

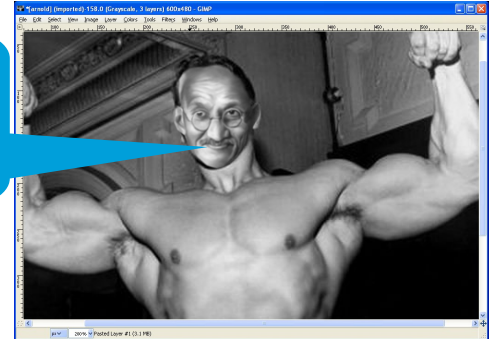
## Bam! Look at that beautiful face swap!

You did it! You’ve swapped a face, and it looks amazing. But now it’s time to share your work with the world.

Click on the **Brush** icon and select one of the fuzzy looking erasers.

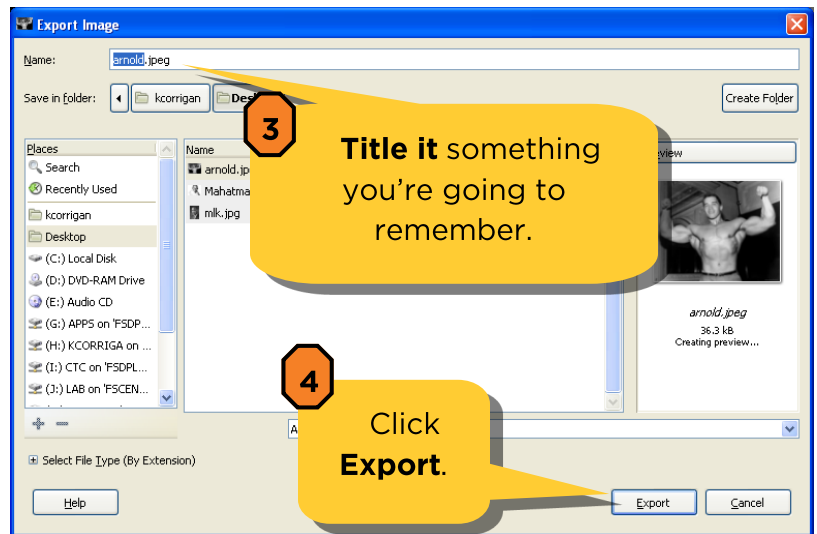
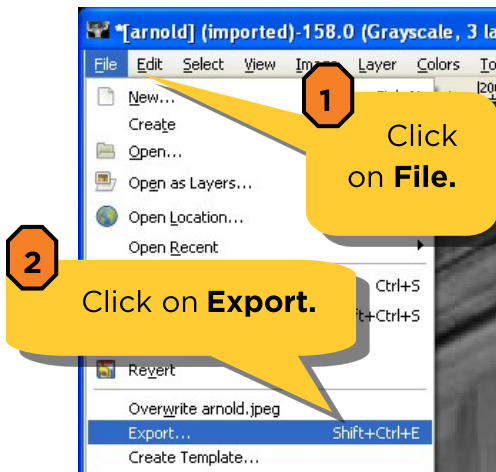


Spreading world peace with BIG GUNS!



## Exporting your masterpiece

To post this picture to Facebook (or Flickr, or Twitter, or whatever) we need to export it in a form that works with those websites.



## WHERE TO GET MORE HELP:

**GIMP.org:** There’s a ton of brilliant tutorials at GIMP.org you can use if you need help (plus, this is the place where you download GIMP anyway).

**Youtube.com:** Go to youtube.com and type in “GIMP tutorial”. You’d be amazed how many cool GIMP tutorial videos there are.

**Some guy on the internet:** Check out <http://tutorialgeek.blogspot.com/2010/12/how-to-put-your-face-on-someone-famous.html> for a great tutorial on doing a face swap.