

Creating a 3D effect with image editing software (GIMP or Photoshop)

by [Andrew546](#) on January 27, 2007

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intro: Creating a 3D effect with image editing software (GIMP or Photoshop)

Here's how to make a neat effect to make it look like the subject of a photo is popping out of the background. This can be done with GIMP (GNU Image Manipulation Program) or Photoshop.

I use GIMP because it is a free open source program with just about all the features and capabilities of Photoshop, and is easy to use. Because I use GIMP, all the menu directions and screen shots will be GIMP specific. However, Photoshop is set up very close to the way GIMP is, so it shouldn't be too hard to find the right tools. If someone wants to post the Photoshop menu directions in the comments, I'll edit them in.

GIMP for Windows is available [here](#). (Unix and Mac versions are in the sidebar)



step 1: Get a good base photo

A good base photo will have a prominent subject with strong lines, strong perspective, and an uncluttered background. You should also use as high a resolution image as possible.

This image doesn't have super strong perspective, but if you look at my other images, you'll see that an image with strong perspective works best.

I will be demonstrating the technique with a picture of my RC truck, a Traxxas Rustler. For the unfamiliar, this truck isn't one of the cheap-o toys you get at Wally-World for \$50. Its a hobby-grade RC from a company called Traxxas. "Hobby-grade" means its built to be completely user serviceable and upgradeable. They are also available with either electric motors or nitro engines (think top fuel dragsters). The body you see on it is one that I painted myself. RC makes a great hobby, and I'd recommend it to anyone. You can get some budget-minded models for as little as \$130, or get a high-end model that might cost upwards of \$700. Regardless, its a very fun hobby.

But I'm getting sidetracked, on to the instructable!



Image Notes

1. Here is my base photo. Its good because it has a prominent subject with strong lines and an uncluttered background. The truck pictured is a hobby-grade RC from Traxxas called a Rustler.

step 2: Set up your layers

Open up a new, blank image with the same dimensions as your base photo. Make this layer whatever color you want your background to be. (I chose gray) Alternately, you could use a pattern or another image as your background.

Next, open the base photo as a layer. Doing it this way makes it easier to work with, since you can't move anything behind the background layer created when you open up an image. You'll see why its important to have the original photo in the second layer soon.

Finally, create a new transparent layer for the frame.

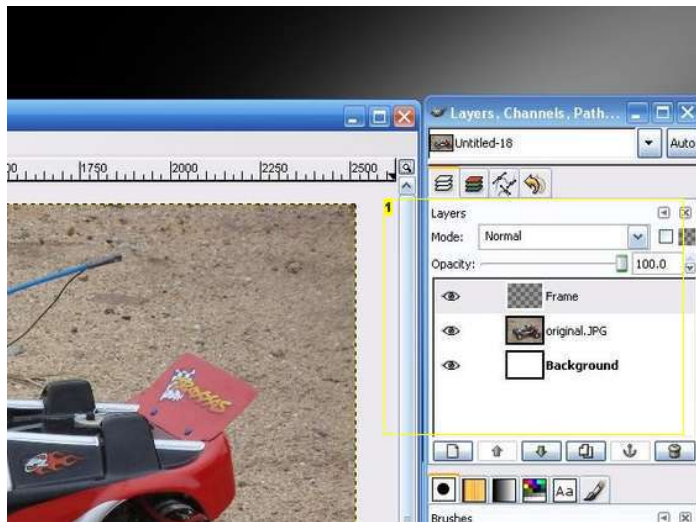


Image Notes

1. Set up your layers like this

step 3: Make the frame

Create a rectangular selection about the same size as your subject on the transparent top layer.

Fill it white with the bucket fill tool

Shrink the selection (Select>Shrink) by about 50 pixels, more or less depending on the size of you picture.

Cut out the center (Ctrl-x)

You now have a frame.

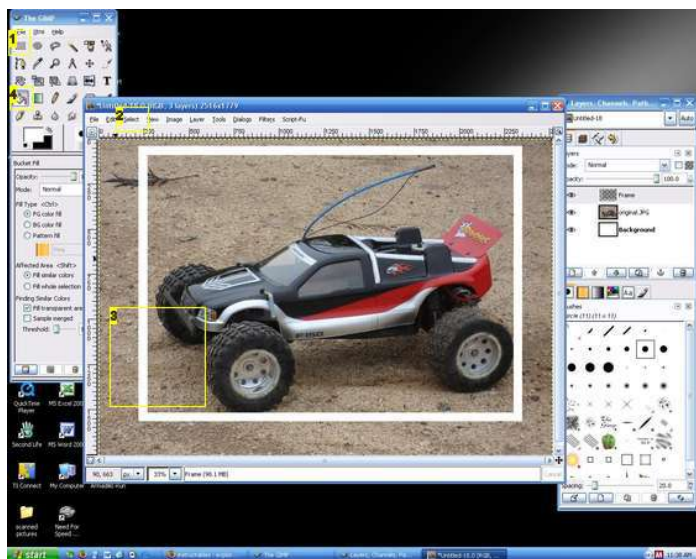


Image Notes

1. Rectangle tool
2. Select>Shrink Shrink by about 50 pixels, depending on the size of your image.
3. Frame about the same size as your subject.
4. Bucket fill

step 4: Distort the perspective of the frame

Now use the perspective tool (either from the toolbox or Tools>Transform Tools>Perspective) to distort the frame's perspective so it matches the subject.

When using the perspective tool, simply click and drag the corners to adjust the perspective.

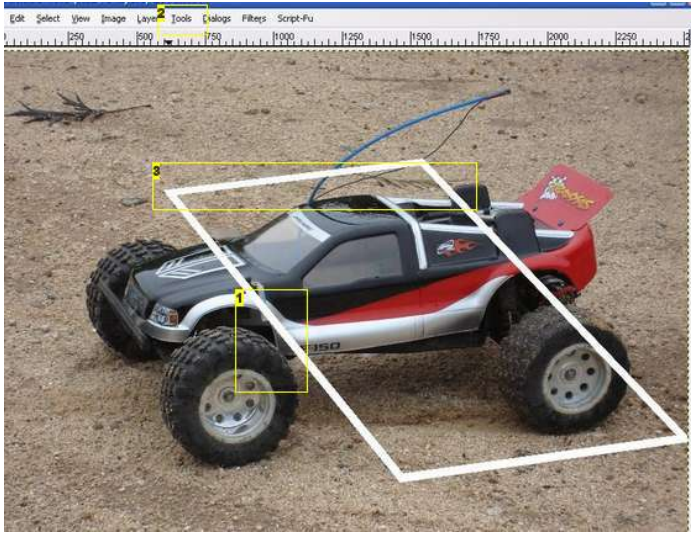


Image Notes

1. again, this time lined up with the front axle line.
2. Tools>Transform Tools>Perspective Then just click and drag.
3. Align the rectangle to the lines of the subject to get a good approximation of the correct perspective.

step 5: Create the layer mask

In this step, we will be using a layer mask, something a first timer (or even a regular user!) may not be familiar with. Layer masks allow you to easily cover the parts of the layer you don't want to show. There's only two rules that you really need to know about layer masks:

White makes the image visible
Black makes the image invisible.

Remember, layer masks don't alter the image until you apply them, so you can go back and forth, and experiment with covering or showing stuff until its just right.

Right click on the layer with the photo, and select "Add layer mask". In the dialog box that comes up, select "White (full opacity)".

Start by tracing around the frame and the part of the subject outside the frame with the pencil tool, with the color set to black (remember the rules! black makes the image invisible). With most tools, you can hold shift to create straight lines, which helps a lot when doing the rough cut and the frame.

Please note that my background is gray because I have already filled it in with gray color. When you create the layer mask, the background will show through wherever you make your main image invisible by painting black. So in my case, you see the gray background. If you haven't colored your background, you'll probably see white.

Now that the subject and frame are completely outlined, fill the background black (this makes that area of the main image invisible). Once you have a rough outline, zoom in real close and take the layer mask right up to the edge of the subject.

For this task, I used the paintbrush tool with a "fuzzy brush" (look in the brush selection box) to make a slightly blurry edge on the subject. Be sure to zoom in (<shift>-<scroll wheel> or the magnifying glass in the toolbox) super close to get all the details right.

Once you are happy with your layer mask, right click on it in the layers list, and select "Apply layer mask".

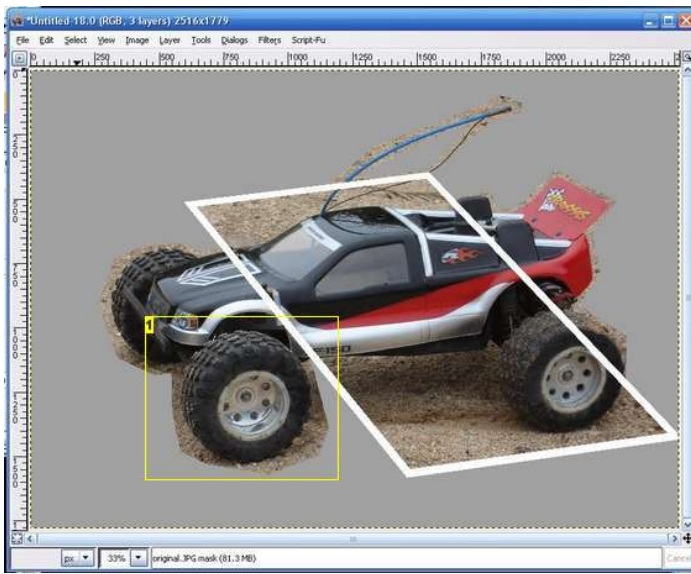


Image Notes

- 1. Rough layer mask

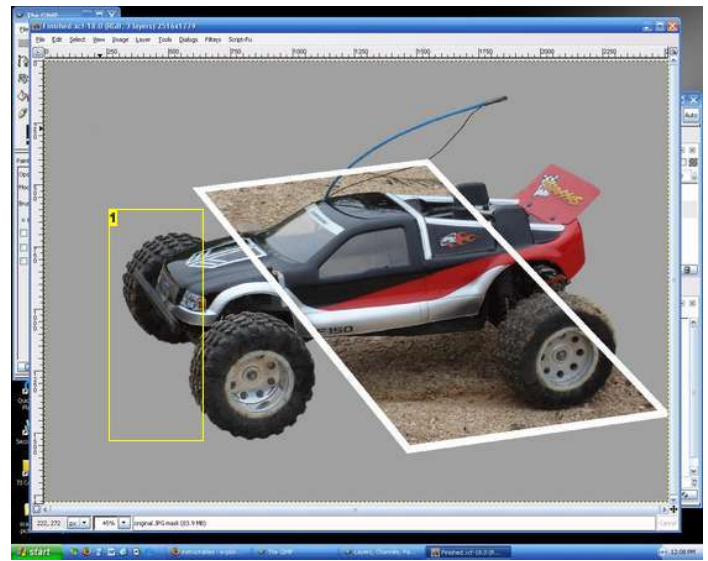


Image Notes

- 1. Cleaned up layer mask. Zoom in super close (800% or more) to get all the details just right.





Image Notes

1. Click here to set your brush to one of the "fuzzy" brushes.
2. Don't forget to zoom in
3. Paintbrush is for "fuzzy" edges.

step 6: Put the frame behind the subject

Now, turn the opacity of you frame layer down to about 50. This will allow you to see exactly where your subject goes underneath the frame.

Erase any part of the frame that hides the subject, and use the blur and smudge tools to smooth the edges where the frame meets the subject.

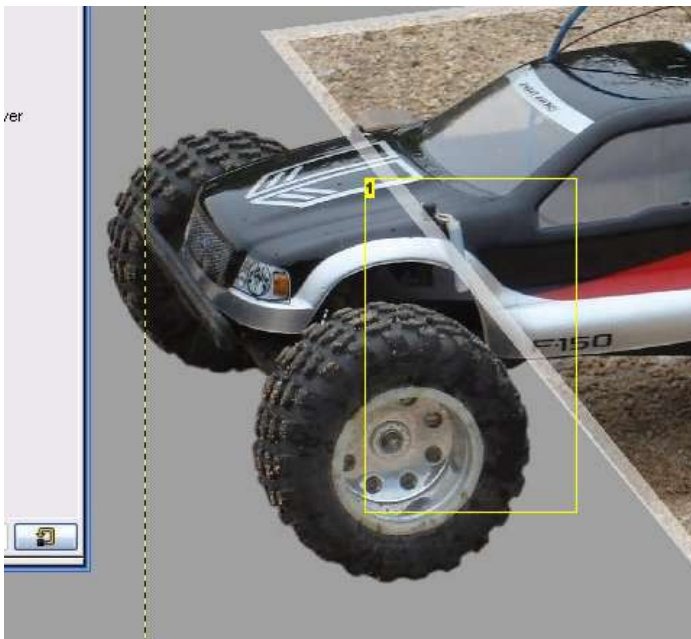


Image Notes

1. Set the opacity of the frame layer to 50



Image Notes

1. Erase the frame to the edge of the subject
2. Pay attention to the details!

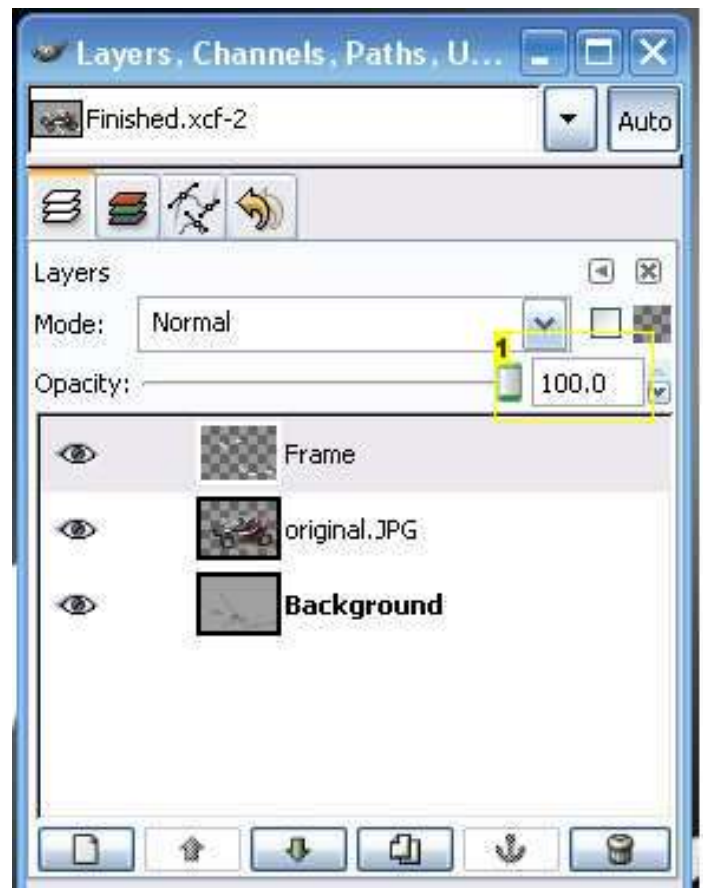
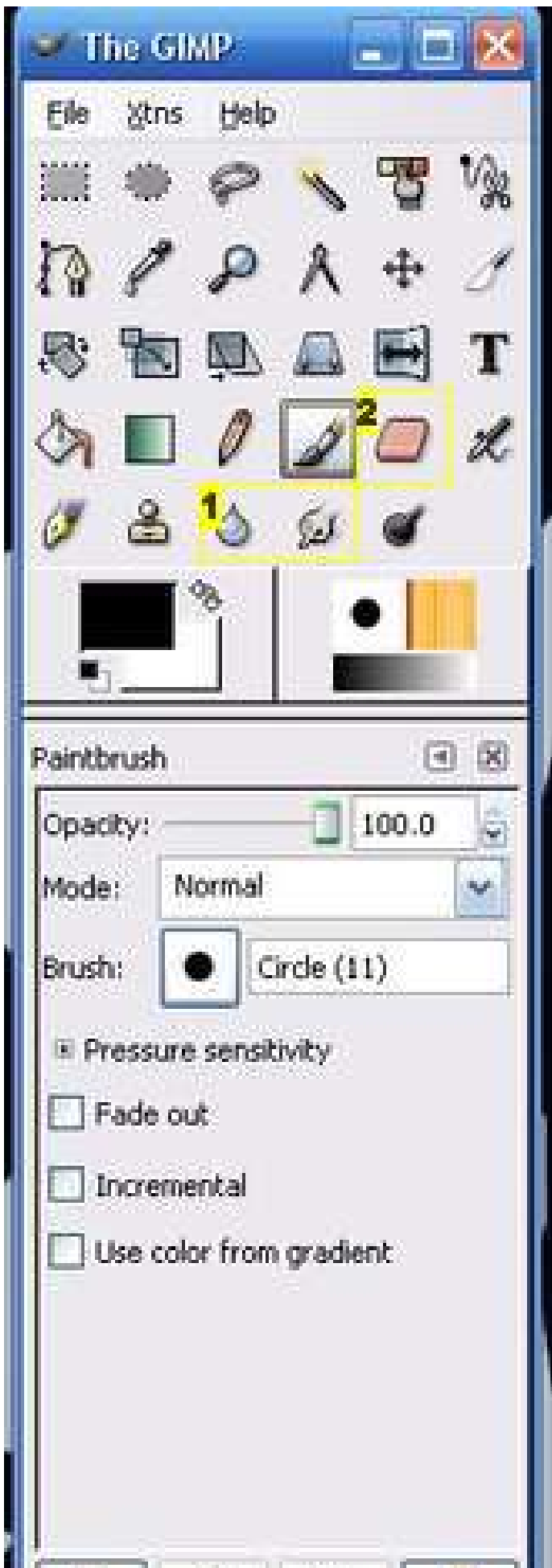


Image Notes
1. Set opacity here



Image Notes

1. Blur and smudge tools.
2. Eraser

step 7: Add shadows

Now its time to add shadows. The way I do it is with the airbrush tool set to about 60-70% opacity, working on the background layer so that the shadows will be behind everything. Just paint along two edges of the frame, trying to match as best you can the lighting from the original photo.

Next, add shadows to the subject outside the frame in the same way. When you doing this, it helps to have the original photo open so you can refer to it as you paint.

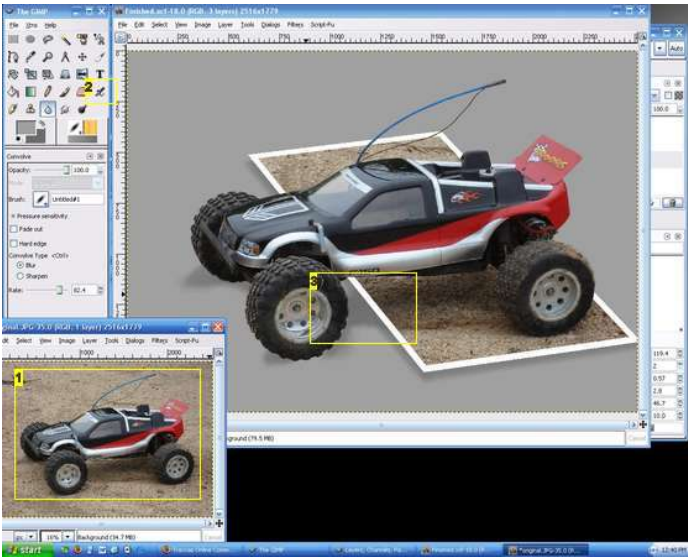


Image Notes

1. It helps to have the original open for reference.
2. Airbrush
3. Add shadows

step 8: Show it off!

There you go! You subject is now popping out of the picture! This technique can be applied to many subjects with excellent results. Try adding you own variations, such as multiple frames, patterns or photos in the background, etc. The possibilities are endless.



Image Notes

1. There you have it! It looks like your subject is sticking out of the the picture.



Image Notes

1. My Favorite!



Related Instructables



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Comments

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Fasteners says:
thanks... image ibles are always useful to me

Jan 19, 2009. 9:16 AM [REPLY](#)



wenpherd says:
those are good!

Jan 15, 2009. 7:02 AM [REPLY](#)



Parveen says:
NICE TUTORIAL! I

Dec 30, 2008. 4:03 AM [REPLY](#)



Parveen says:

hi! am very thankful to you giving tips to create such a wonderful effect.you are the inspiration for the begginer like me.
Just Have a Glance at my first ATTEMPT.....

Dec 30, 2008. 4:01 AM [REPLY](#)



need says:

Good tutorial,
thank you very much, i will try it soon.

Dec 15, 2008. 7:18 AM [REPLY](#)

good work. ;-)



need says:

Good tutorial,
thank you very much, i will try it soon.

Dec 22, 2008. 7:15 AM [REPLY](#)

good work. ;-)

this is my first time ;-)



darkride says:

This is my first attempt. I'm very happy!

Dec 21, 2008. 6:33 PM [REPLY](#)



Darren. says:

the first to pictures arnt really
"popping Out" There area just on top of a photo of wood or dirt.

Dec 15, 2008. 7:44 AM [REPLY](#)



weebi says:

you cant layer them that way

Mar 25, 2007. 12:00 AM [REPLY](#)



Andrew546 says:

Are you creating a blank image first, then opening the source image as a layer? If you just open the source image directly, it is placed on the bottom layer, and you can't move anything underneath it.

Mar 25, 2007. 12:35 AM [REPLY](#)

Also, on a side note, when your replying to a comment, click the "reply" link rather than the "add comment" one. This will keep the conversation together as one thread.



zfranetta says:
Thanks for nothing!!!

Nov 18, 2008. 11:48 AM [REPLY](#)



zfranetta says:
Sorry but i don now how you doing in Step 2!!!! Im just amateur with Adobe Photoshop CS3, can you send me or ride to me steb by stem of thet Step2 and also Steps, but please step by stem(button,click ,...)

Nov 17, 2008. 6:13 AM [REPLY](#)



Mr. Rig It says:
That is pretty cool! I will have to give it a try.

Aug 25, 2007. 10:26 PM [REPLY](#)



kamathIn says:
Awesome.! You should do this for a living. Do this to a school nearby.

Nov 7, 2008. 12:19 PM [REPLY](#)



X13 says:
all i got is fireworks, (pretty new version) is thier any way it will work with it?

Jan 31, 2008. 12:09 PM [REPLY](#)



X13 says:
oh yah plz pm me with answer.

Jan 31, 2008. 12:22 PM [REPLY](#)



derfman24 says:
gimp is free

Nov 5, 2008. 3:41 PM [REPLY](#)



X13 says:
yah i got photoshop now lol. or at least my school does

Nov 6, 2008. 1:34 PM [REPLY](#)



BigOlePimp says:
This is my first attempt. Not too bad huh?

Apr 1, 2007. 6:34 PM [REPLY](#)



derfman24 says:
you should tilt the frame to the upper left so the motorcycle appears to be coming out

Nov 5, 2008. 3:47 PM [REPLY](#)



BigOlePimp says:
(removed by community request)

Apr 1, 2007. 6:36 PM



DoNoTincinerate says:
check mine out

Jul 3, 2007. 11:24 AM [REPLY](#)





derfman24 says:
the back cutoff should be back farther

Nov 5, 2008. 3:44 PM [REPLY](#)



DoNoTincinerate says:
i couldnt find the shadows to draw

Jul 3, 2007. 11:25 AM [REPLY](#)



tadeutavares says:
I think you should leave more background (the street)

Oct 24, 2007. 11:25 AM [REPLY](#)



glycerinate says:
i guess you cant see it! sorry, try this!

Jul 12, 2007. 8:50 AM [REPLY](#)



rickick says:
not a very good idea to put a pic or yourself on the net bud. <http://www.netsmartz.org/>

Oct 6, 2007. 6:39 AM [REPLY](#)



derfman24 says:
omg somebody is gonna kill him

Nov 5, 2008. 3:42 PM [REPLY](#)



Skate6566 says:
OMG, someone's gonna totally kidnap him.
Get over it. It's the net.

May 27, 2008. 10:32 AM [REPLY](#)

Millions of people post up personal pics of themselves on MYspace, but the one who's gonna get abducted is the one on instructables who puts up a picture and nothing else.

Look at his page? No location info, age info, nothing. I think he's being pretty safe. By your thought process, a picture at the Grand Canyon will get thousands of people kidnapped because they were included in a picture.

Heck, I have put up more info of myself on the net than that kid. Are you going to preach at me, too?



Full Frontal Graphic says:
Try googling your own driver's license number sometime.

Jul 15, 2008. 1:46 PM [REPLY](#)

This is a nice technique. If you really like to do this kind of stuff, and you are in the LA area, you might drop in at some of the monthly meetings for Digital Media Artists Los Angeles.

We meet monthly in a digital theater in the Northeast corner of Hollywood. Google "dma/la" for info.

This technique is professional caliber in my opinion.



kgb224 says:
Do any one have tips on how to do this 3d with Corel photo paint 11 or Paint.net?

Apr 27, 2008. 8:03 AM [REPLY](#)



derfman24 says:
just download gimp(it is free)

Nov 5, 2008. 3:39 PM [REPLY](#)



meeze says:

Cool. I did it with a photo of the statue of liberty from my recent holiday to New York

Oct 22, 2008. 12:57 PM **REPLY**



sahilbol says:

My 2nd Attempt

Oct 8, 2008. 9:57 AM **REPLY**



veenendaaltje says:

Thanx for the tutorial
This is mine:

Aug 24, 2008. 4:46 AM **REPLY**



crazy_kid445 says:

here are a few of mine. I did the red 1971 buick centurion on photoshop elements v1.0.1, and the other 2 photos on GIMP2.

Aug 4, 2008. 11:07 PM **REPLY**





Oompa-Loompa says:

I did a shuttle picture too, but mine is on MS paint, so the shading isn't as good.

Aug 15, 2008. 5:37 PM [REPLY](#)



jimmydean says:

How did you do all that on MS paint? Does it have layers? <Please respond :) >

Aug 21, 2008. 6:41 PM [REPLY](#)



Oompa-Loompa says:

No layers, just being very careful...

Aug 21, 2008. 9:30 PM [REPLY](#)



Oompa-Loompa says:

I fixed up the shading...

Aug 16, 2008. 9:07 AM [REPLY](#)



Oompa-Loompa says:

Here it is with better shading...

Aug 16, 2008. 8:12 AM [REPLY](#)



Oompa-Loompa says:

And I just finished this one...

Aug 15, 2008. 8:16 PM [REPLY](#)



jimmydean says:
Sweet!

Aug 21, 2008. 6:43 PM [REPLY](#)



Robincj says:
My two first attempts. As D0ct0r said, the shadow is the hard part. Neither of these have it.
Great tutorial - thanks for sharing it!

Apr 5, 2008. 3:56 AM [REPLY](#)



jimmydean says:
The first one is cool. The spider is kinda creepy. But realistic.

Aug 21, 2008. 6:35 PM [REPLY](#)



jimmydean says:
My friend's dad works for Traxxas! He has a couple cars because his dad gets them for free. Good cars. They're cool.

Aug 21, 2008. 6:34 PM [REPLY](#)



Oblivitus says:
Sweet instructable. I will try it.

Aug 17, 2008. 3:25 PM [REPLY](#)



siconeti says:
siconet-spain gasteiz

Aug 17, 2008. 7:30 AM [REPLY](#)



mikyleu says:
(removed by community request)

Aug 15, 2008. 9:39 PM



gildo4reald0 says:

Here's my attempt with a pic of my bro's lotus. I kinda like the cartoony one.

Feb 3, 2007. 1:18 PM [REPLY](#)



[view all 276 comments](#)