

Convert any 2D image to a 3D object using OpenSCAD

by [R-I-H-A-M](#) on September 22, 2014

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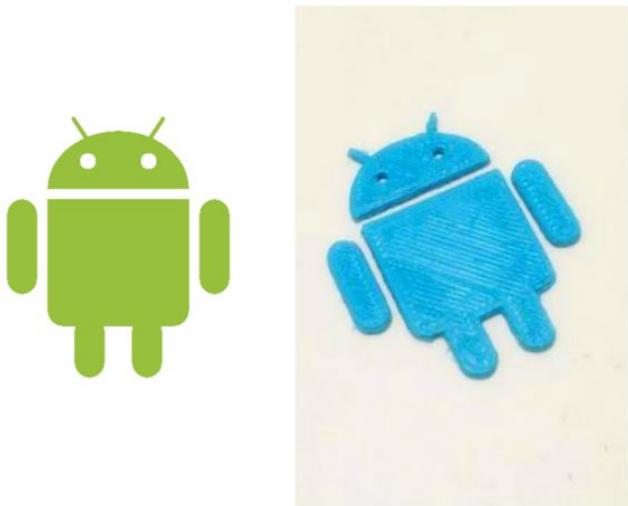
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Intro: Convert any 2D image to a 3D object using OpenSCAD

I have recently become quite obsessed with 3D design and printing, since I have very little design experience I have been relying extensively on OpenSCAD, it makes designing 3D objects just too easy not to try, if you want to make 3D models from an image or SVG file, you can do it very easily - there are other ways to convert to other 3D formats, so this is only if you want to use SCAD.

If you need to remove the background image check my tutorial for removing background here: <http://www.instructables.com/id/Remove-image-backg...>

Please vote for me if you find this handy :) If I win a Form1Labs printer, I am hoping I will be able to open the first hackerspace \ makerspace in our area :)



Step 1: Download your tools

1- Download Inkscape from <http://inkscape.org/download/>

2- Download OpenScad from <http://www.openscad.org/>

3- Download the InkScape to OpenSCAD converter from <http://www.thingiverse.com/thing:24808> - Follow the instructions to install the extension to InkScape

A screenshot of a file listing table from a website. The table has columns for file name, file size, last updated date, and number of downloads. The file 'paths2openscad-2.zip' is highlighted with a yellow border. To the left of the table is a sidebar with a search bar and some text. At the bottom right of the table is a 'Cancel' button and a Creative Commons license logo.

File Name	File Size	Last Updated	Downloads
sample1.svg SVG file	51 kb	12-06-15	531
sample1.scad SCAD file	34 kb	12-06-15	555
sample2.stl STL file	212 kb	12-06-15	521
sample2.svg SVG file	8 kb	12-06-15	538
sample2.scad SCAD file	8 kb	12-06-15	530
paths2openscad-2.zip ZIP file	9 kb	12-06-21	1255
paths2openscad-3.zip ZIP file	9 kb	13-05-09	140
paths2openscad-5.zip ZIP file	10 kb	13-05-30	52

Image Notes

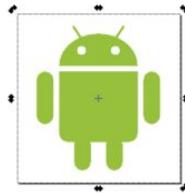
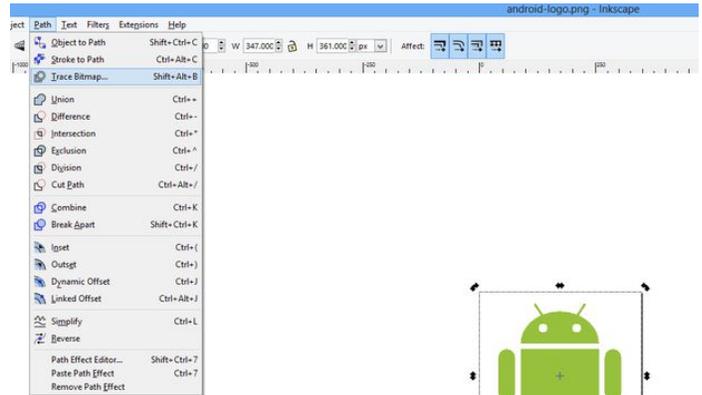
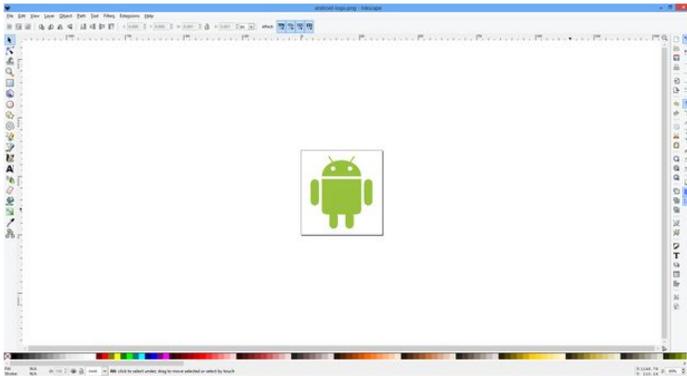
1. Download the paths2openscad-2.zip file from this page. After unzipping that archive, you should have two files: paths2openscad.py and paths2openscad.inx . The paths2openscad.zip file is the original release of the extension. It has been superseded by paths2openscad-2.zip
Once you have downloaded paths2openscad.zip, open the zip file and place its contents in your local Inkscape extension folder, `~/config/inkscape/extensions/`

Step 2: Convert image to SVG

1- Pick an image and open the image with Inkscape

2- Convert the image to path by selecting Trace Bitmap from the Path menu

3- Play around with the settings until you get the result you want, if you choose Edge Detection you can actually get a hollow 3D object, in this case I am looking for a solid object, so I chose to cut off based on color



Step 3: Delete image and use newly created path instead

Now you can delete the image and keep the path you just created, select the original image and press delete. Move the path to the center of the window

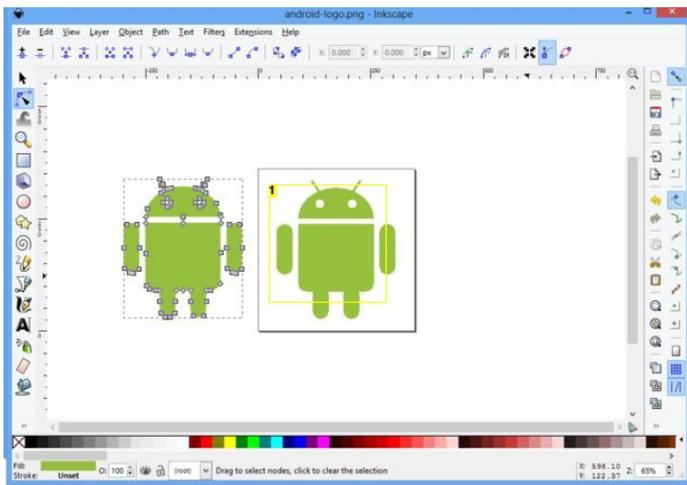


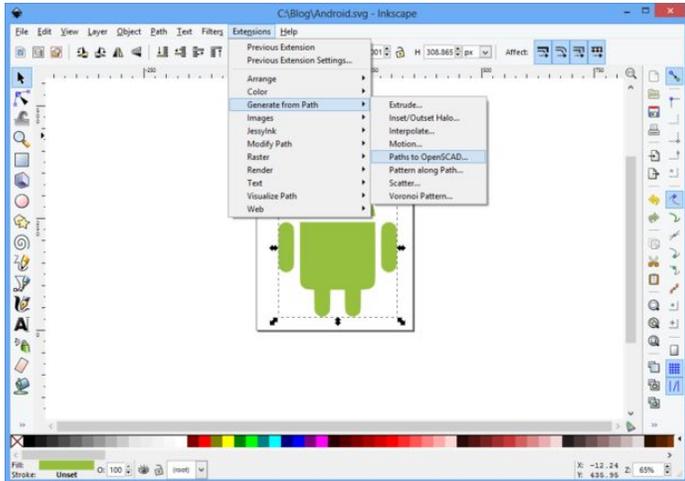
Image Notes

1. Delete this, you won't be needing it anymore

Step 4: Convert Paths to OpenSCAD

Go to the menu, choose "Generate From Paths"->"Paths to OpenSCAD"

If you do not see this option, make sure you closed and reopened InkSpace after pasting the extension



Step 5: Choose the height and smoothing

You will be able to easily adjust the height later in OpenSCAD, so don't worry too much about it

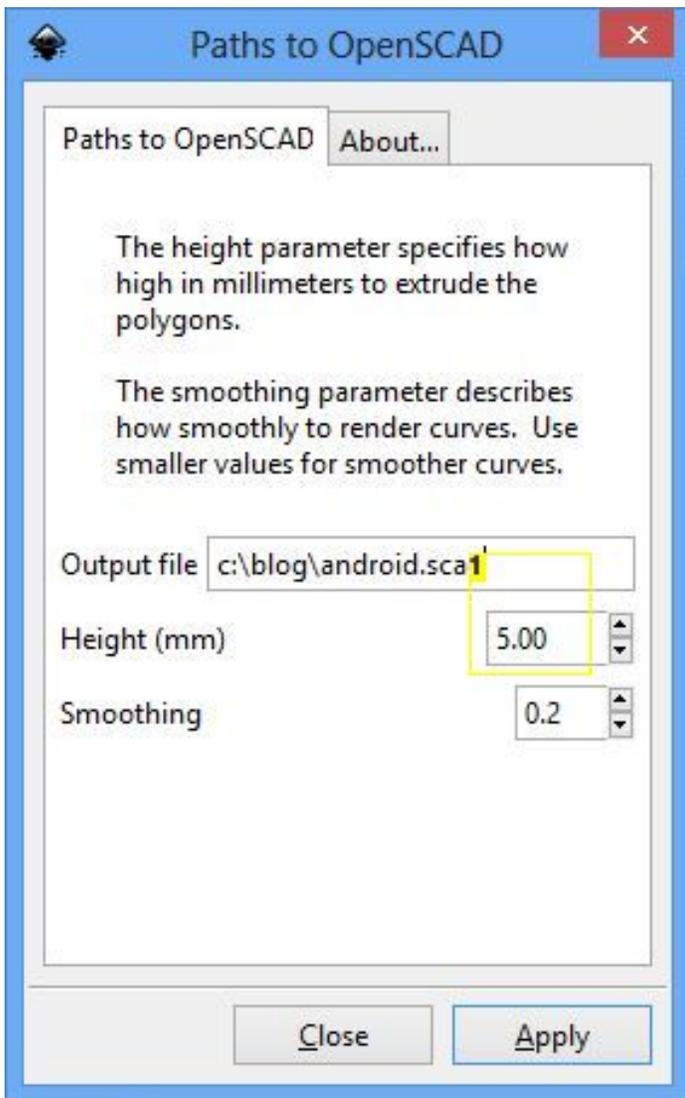


Image Notes

<http://www.instructables.com/id/Convert-any-2D-image-to-a-3D-object-using-OpenSCAD/>

1. This is easy to change in the generated OpenSCAD file later.

Step 6: Edit & export your file with OpenSCAD

Open the file in OpenSCAD, you can see that the objects are described in terms of Polygons and other basic objects, you can edit the object without much 3D design experience

- Edit your object as needed
- Press F6 to compile it
- Go to Design -> Export, and choose your file format

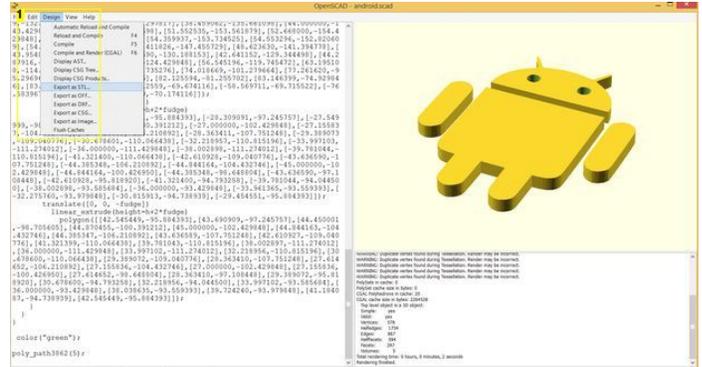
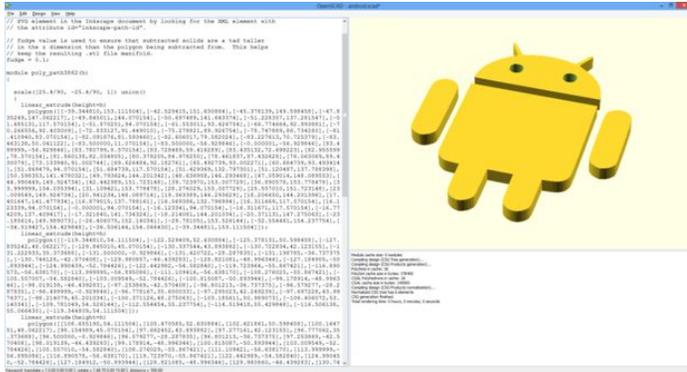


Image Notes

1. You can export to any file format you like

Step 7: You are done! Print your object and enjoy :)

Print your object if you have a printer, or send it to Ponoko, Shapeways or any other printing service!



Related Instructables



Make a 3D print from a 2D drawing by safay



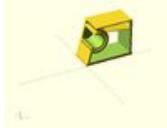
3D Printed Star Trek Enterprise by talk2bruce



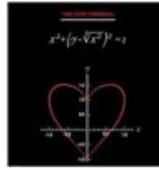
Customizable 3D Printable Jack-O-Lantern by TheNewHobbyist



Love lock made with an 3D printer by lighttamer



3D Design For 3D Printing by tinygeek



Math. Formula to 3D printable object by pictux

Comments

2 comments [Add Comment](#)



JM1999 says:
Very nicely done!

Sep 23, 2014. 9:29 PM [REPLY](#)



tomatoskins says:
That's a great walkthrough! I love it. Sadly I haven't gotten into 3D printing but I keep thinging that I need to.

Sep 23, 2014. 9:23 PM [REPLY](#)