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

by **R-I-H-A-M** on September 22, 2014

**Table of Contents**

# 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 :)
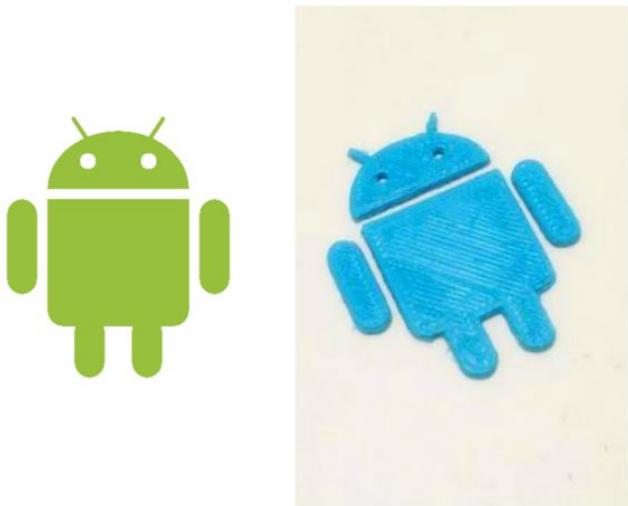


# Step 1: Download your tools

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
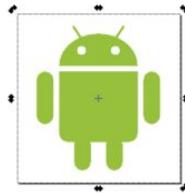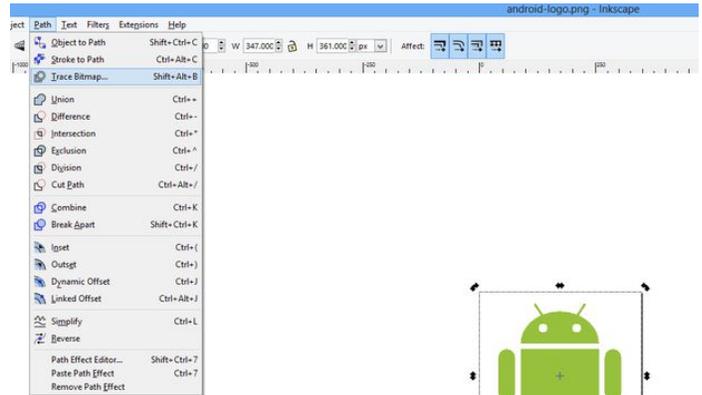


**Image Notes**
1. Download the paths2openscad-2.zip file from this page. After unzipping that archive, you should have two files: paths2openscad.py and paths2openscad.inx .
The paths2openscad.zip file is the original release of the extension. It has been superseded by paths2openscad-2.zip
Once you have 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
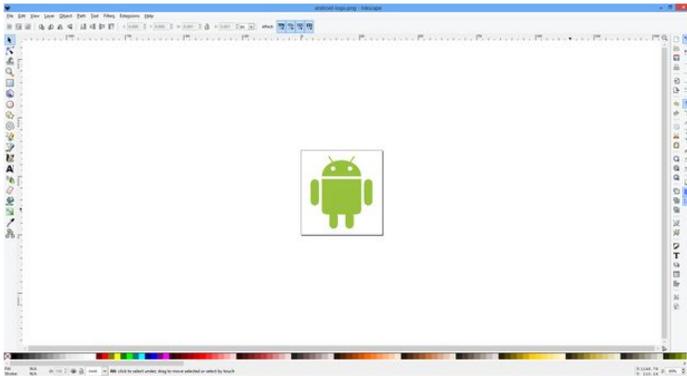
## Step 3: Delete image and use newly created path instead

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
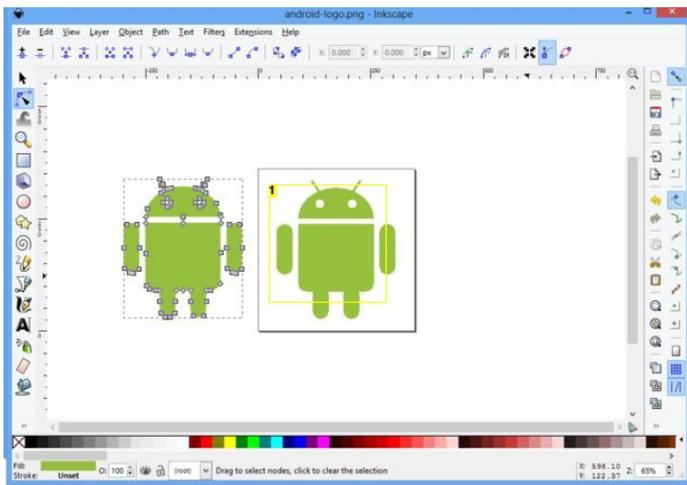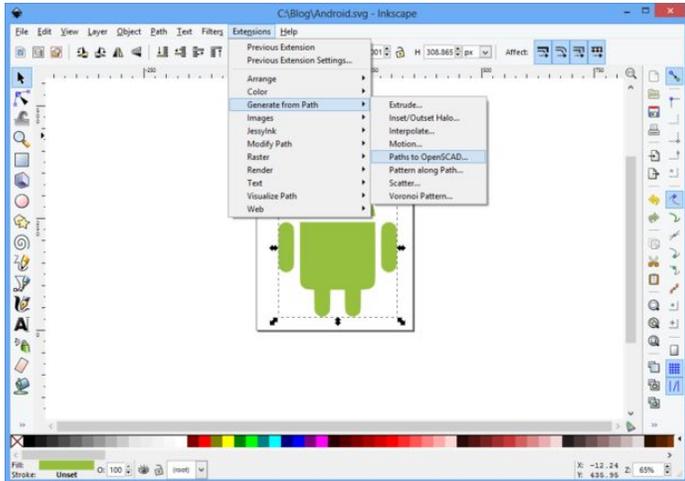
**Image Notes**

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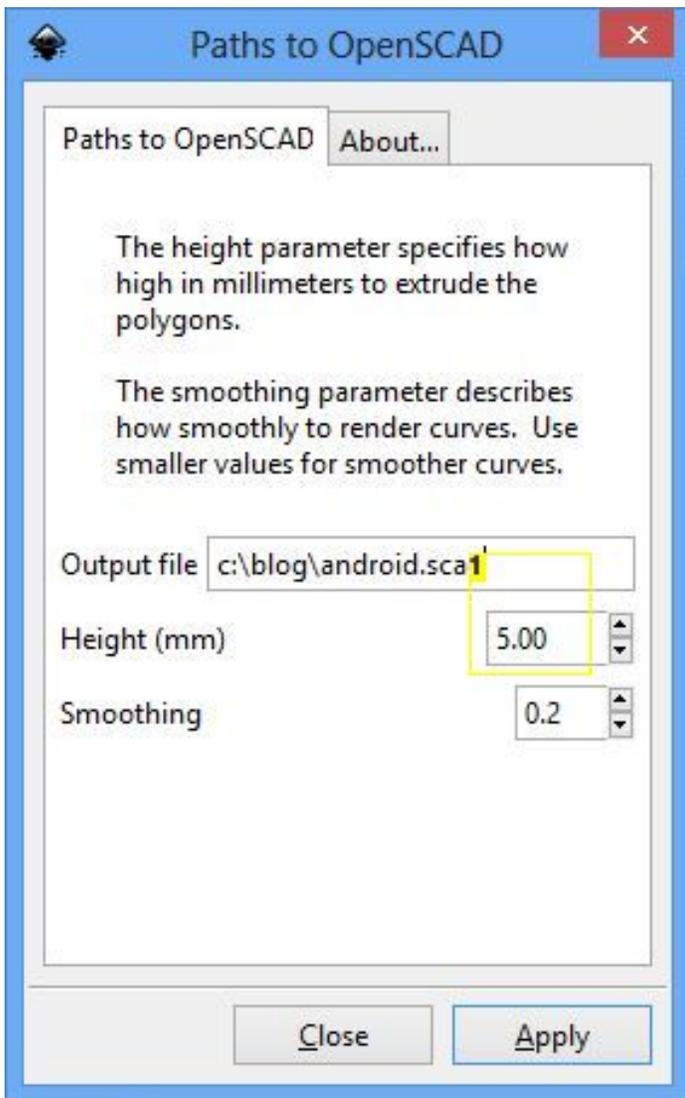You will be able to easily adjust the height later in OpenSCAD, so don't worry too much about it



**Image Notes**

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

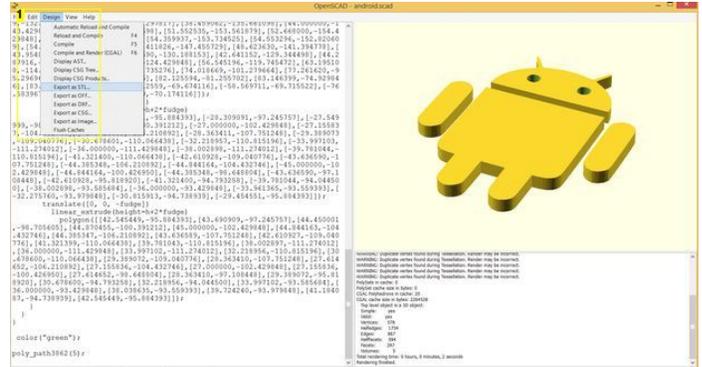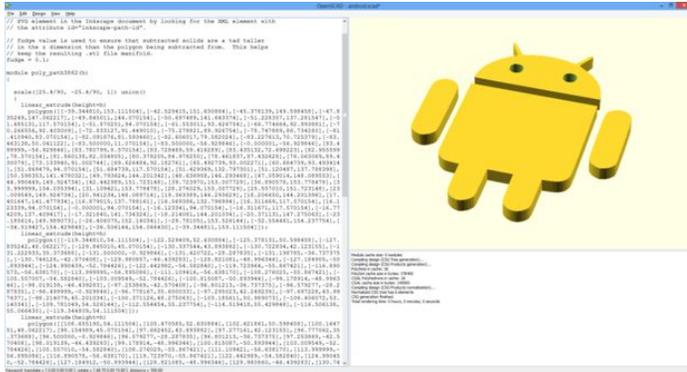- Go to Design -> Export, and choose your file format





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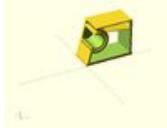
**Make a 3D print from a 2D drawing** by safay

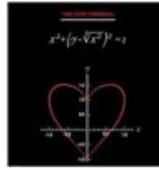**3D Printed Star Trek Enterprise** by talk2bruce

**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**

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**JM1999** says:                                          Sep 23, 2014. 9:29 PM  **REPLY**
Very nicely done!

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**tomatoskins** says:                                     Sep 23, 2014. 9:23 PM  **REPLY**
That's a great walkthrough! I love it. Sadly I haven't gotten into 3D printing but I keep thinging that I need to.

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