

# SKETCHUP-UR-SPACE

Issue - February, 2014

[www.sketchup-ur-space.com](http://www.sketchup-ur-space.com)

## TIPS & TUTORIALS

How to Create a Simple Bridge  
in Google SketchUp  
- Patrick Williams

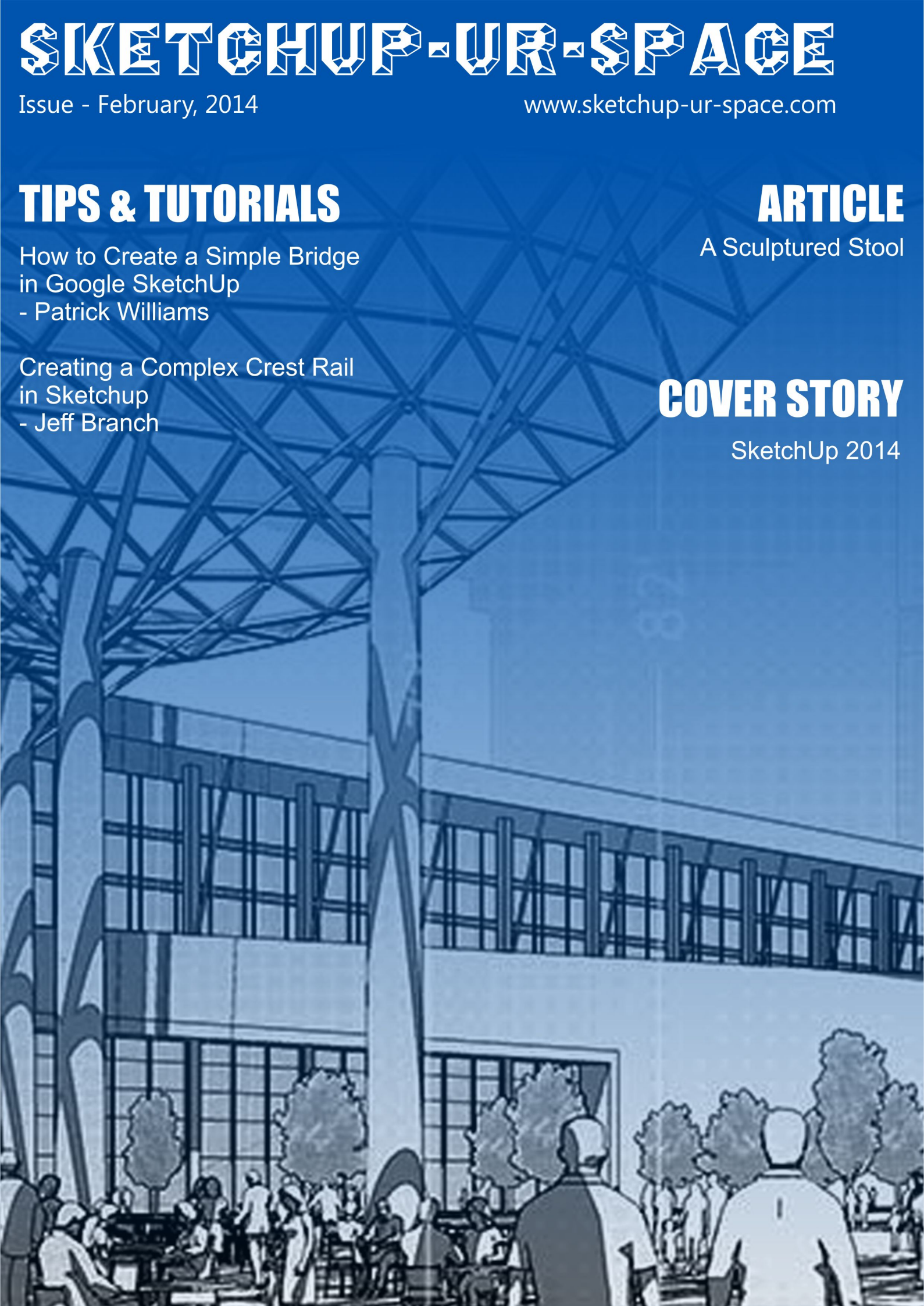
Creating a Complex Crest Rail  
in Sketchup  
- Jeff Branch

## ARTICLE

A Sculptured Stool

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SketchUp 2014



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## A letter direct from the editor desk highlighting on February edition

The Team Of Sketchup Ur Space has just published another fabulous edition of its exclusive sketchup magazine. In this issue, our team presented an full fledged cover story focusing on the most important aspects of sketchup 2014, the most updated version of sketchup. The readers can get familiar with some advanced features and newly added tools of Sketchup 2014.

In interview section we have interviewed Javier Wainsten, the most promising 3D artist and Industrial Designer from South America. In this exclusive interview, Javier briefly explains how he utilizes sketchup for various exterior and interior rendering projects.

In tutorial section, Patrick William, the renowned Civil Engineer, has presented a handy tutorial through which he briefly shows how one can utilize various sketchup tools to model a 3D bridge.

In another tutorial, Jeff Branch, the most experienced wood worker, has provided step-by-step processes for designing a window seat bookcase with sketchup.

In article section, Tim Killen, having over 36 years experience in Engineering, IT management and woodworking sector, has presented an exclusive article in which he shows how he applies sketchup for making a sculptured stool.

In blog section the readers can gather information on the latest book alias "Modeling with sketchup for 3d printing" launched by Bonnie Roskes, the founder of 3DVinci. In this book Bonnie explains how one can design & print various different models created in a 3D printer.

In news section the readers will get updated with the latest news in 3d modeling & CG world

**Hope our readers will enjoy and cherish with reading this issue.**

**If you have any queries concerning publication, subscription, troubles navigating the site, please mail us at [rajib@sketchup-ur-space.com](mailto:rajib@sketchup-ur-space.com)**



Best wishes  
**Rajib Dey**  
Editor



## Rendezvous with Javier Wainstein, 3D Artist and master builder from Argentina

**Hello! Welcome to the space of sketchup ur space. Tell something about your profession & background.**

Hello, first of all I want to thank the people who make this site and this interview possible. It is a pleasure and an honor to participate.

I am Master Builder, and study Industrial Design. I am dedicated to architectural and I specialize in interiors. I work with studios, architects and designers.

**How did you first get acquainted with sketchup?**

In high school I met SketchUp. I started to use it to pass the time, but then I was discovering his potential. And then I met different tools and plugins, and so I was improving my work and letting me know.

**You have expertise in accomplishing several rendering project. How sketchup is useful for interior and exterior rendering?**

SketchUp is useful for great reason: It's simple.

Simple does not mean bad. Simple can mean good, better, efficient, pleasant, friendly.

I think SketchUp is very useful for quick presentations from external volumetrics, and masterplans, to high-quality renderings of interior spaces. Is very wide and can achieve good results with many of their tools.





**Sketchup has several rendering plugins and according to you, which is the best for rendering work?**

I have tried many, but I think that Vray is the best, at least for my needs. It is powerful, and once it fails to understand, is simple

**What are the difficult parts of sketchup?**

Modeling.

Although more and you can see more plugins to model, in this aspect SketchUp is left behind. Logically it takes practice, but it is an aspect of the program should be improved.

Another problem, more technical, is stability. In SketchUp is common the collapse and closure by a bug. It's a real pain that they can not even fix this point, and the x64 version of the program.

**Sketchup 2014 is just released. What are the new and most thrilling features in this latest release?**

I have not thoroughly tested, but has been enhanced rendering shadows.

That aspect I think is progress.

The new Warehouse, personally, I do not like. I liked the previous one.

I really should try more thorough version 2014 to see what's new, that's all I know.





**You have completed several projects with sketchup. Which project gave you complete satisfaction and which was most challenging?**

Satisfaction give me all projects able to sum up with a satisfied customer. At the beginning or sometimes no doubt many laps, but once the work is completed, I'm glad I made the effort.

As for the challenges, constantly faced. A few days ago I had to work with an outdoor scene with lots of greenery, this was a challenge as I do not have a very powerful PC. I could finish the job, and I felt comfortable with the result.

**Besides sketchup, what other rendering software do you apply in your projects?**

Just use three programs, SketchUp, Vray and Photoshop.

**Who inspired you to become a successful 3D artist?**

Who inspired me?

The magnificent artists that are out there, from architects and designers, to photographers and colleagues.

**What is the most crucial characteristic of 3d graphics?**

I think the most important characteristic is the detail. The detail is crucial.

From modeling a character for animation, to rendering an architectural space. The detail is the difference.





**What do you think is the future of Sketchup?**

I think the future of SketchUp will be very exciting. In a few years it has been positioned as a great 3D modeling program, has challenged and achieved their tasks.

I do not know what specific changes will you have the program, but I'm sure it will be for good and will take you on a good path.

**What's your advice for becoming a successful 3D artist?**

Practicing a lot, and observe a lot.

It never fails.

**What suggestions do you want to provide for our magazine?**

Since I'm Hispanic, a Spanish version of the page would seem to me useful to readers of other languages.





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**Facebook Link:** [www.facebook.com/JavierWRenders](https://www.facebook.com/JavierWRenders)

## The New SketchUp 2014 - Its Tools and Features

The latest version of SketchUp, SketchUp 2014 includes various updated tools and features. The launch includes updates to SketchUp, LayOut, the 3D Warehouse and many more upgrades that affect Extensions, plugins/ruby scripts.

With SketchUp 2014, it is much easier to find and use the various types of models. The 3D Warehouse is much more improved and includes a completely interactive model previews, an entirely new UI, etc. The new 3D Warehouse is user friendly and is very organized. Users can avail model of anything they require, create their own collections for organizing content and can effortlessly share their work with the world.

On this new 3D Warehouse, each model works with the integrated WebGL viewer which enables viewers to preview models in full 3D before downloading them into their project. They can also embed 3D models on other web pages to allow visitors to explore projects using SketchUp's standard navigation tools or the users own pre-set scenes.

Users can also upload 3D models directly from their web browser. They do not need to open the models in SketchUp first. Besides, SketchUp 2014 also has an increased uploaded model size limit. The maximum size of models that users can upload and store on the 3D Warehouse has been increased by a factor of five, from 10 to 50 megabytes. Apart from these enhancements the 3D Warehouse has new product catalogs that help in finding items that are specifically required. Users do not need to approximate fixtures any more as they can now model with exact components that will be used.

SketchUp Pro 2014 simplifies the addition of BIM elements to any model. Features for classifying objects and exporting files according to some of the industry's regular BIM standards have been added. With classifier models can be enriched with significant metadata and its compatibility with other BIM tools can be enhanced.



The latest Classifier tool tags geometry with industry-standard object types like walls, roofs, slabs, etc. Users can work with the existing classification systems, or can also open a fresh TXT and create their own.

After the classification of the objects in their models, users can export an Industry Foundation Classes (IFC) file, completing their project to be used in another BIM application. Apart from model geometry, users can also access to all the important metadata added by them in SketchUp Pro.

Ruby 2.0 is another addition to the SketchUp Pro 2014. The Ruby programming language is the syntax that enables various SketchUp extensions. With this new version the API has been brought up to Ruby 2.0 standards that offers developers a great platform to create new SketchUp tools. The API now provides enhanced support for non-English characters, text and dimensions tools, section plane plugins, etc.

SketchUp Pro 2014 comes with time saving tools for documentation as while designing things that users do not build themselves, documentation become necessary. The LayOut in SketchUp Pro 2014 helps in organizing and managing dates, page numbers, and repetitive texts which help users to focus on developing better drawings. Users can employ Auto-Text tags in their documents that enhance accuracy and saves time by preventing repetitious work. The LayOut can insert text using rules like "Project Title", "Today's Date" and "Page Number" automatically. Users can also opt from a wide list of preset tags, and customize these tags for their own purposes, or can create their own from beginning.



The smart labels in SketchUp 2014 that are added in LayOut are automatically pre-populated with relevant text. When a group or a component is labeled, its name appears and when a face is labeled, its area is displayed. Similarly, labeling a point shows its coordinates and labeling an edge provides its length.

Ho hum is another enhanced version of LayOut. It is another 15x improvement in speed for the vector-rendered model views. As per requirement of the drawing, vector rendering gives accurate linework and improved performance when the user is working with big viewports. LayOut in SketchUp Pro 2014 helps in quicker performance unlike the older version. Long-document functionality is much improved now.

In SketchUp 2014 shadows in big models are supercharged and the vector rendering in LayOut is more than ten times quicker. It is easier and much faster to cast shadows in complex and big models. The new Arc tools helps in drawing arcs by using any of following three methods:

- *The default 2-Point Arc tool allows the user to pick two end points and then a third that defines the "bulge".*
- *User can pick the center point of their arc and then pick two points on the edge, defining their arc by its angle.*
- *Though the Pie Arc tool works the same way yet it produces a wedge-shaped face.*





## A Sculptured Stool

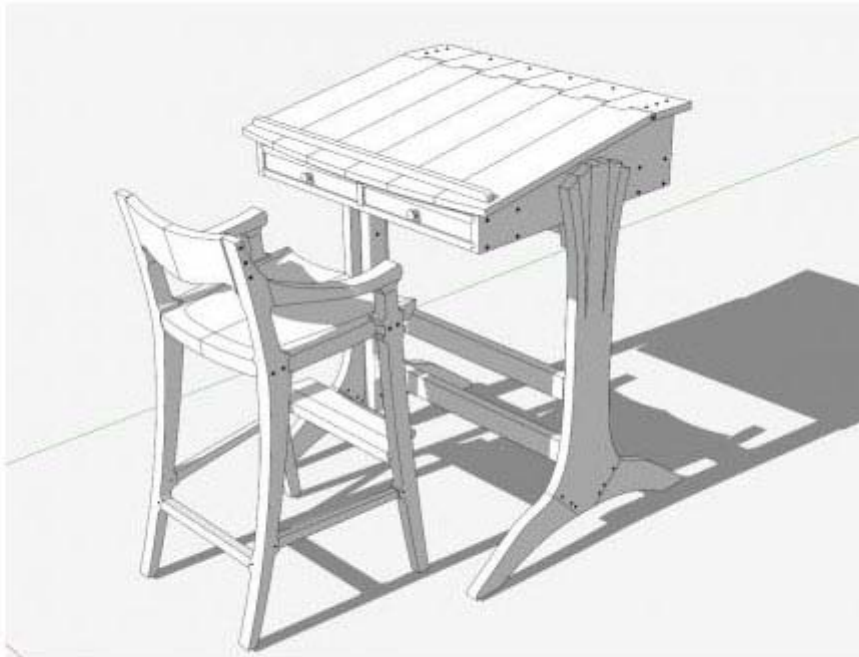
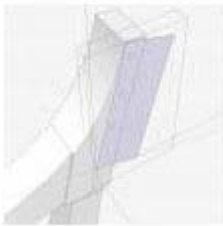
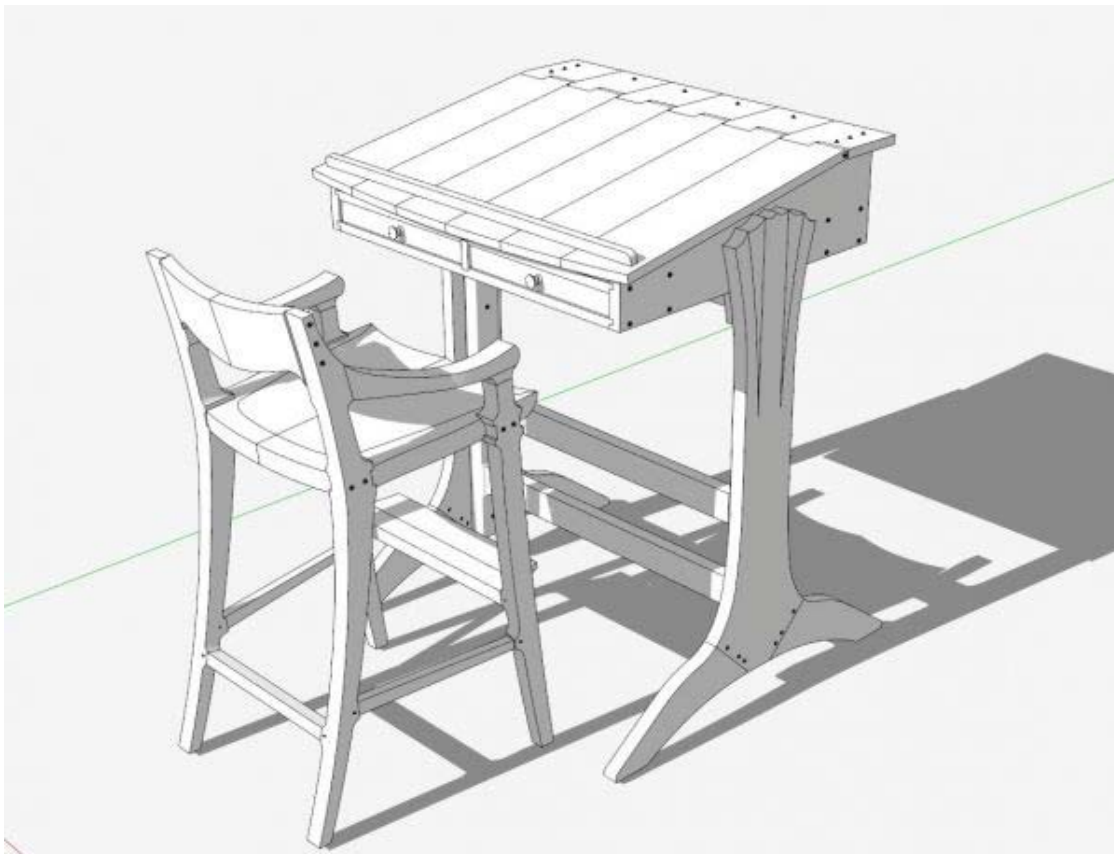
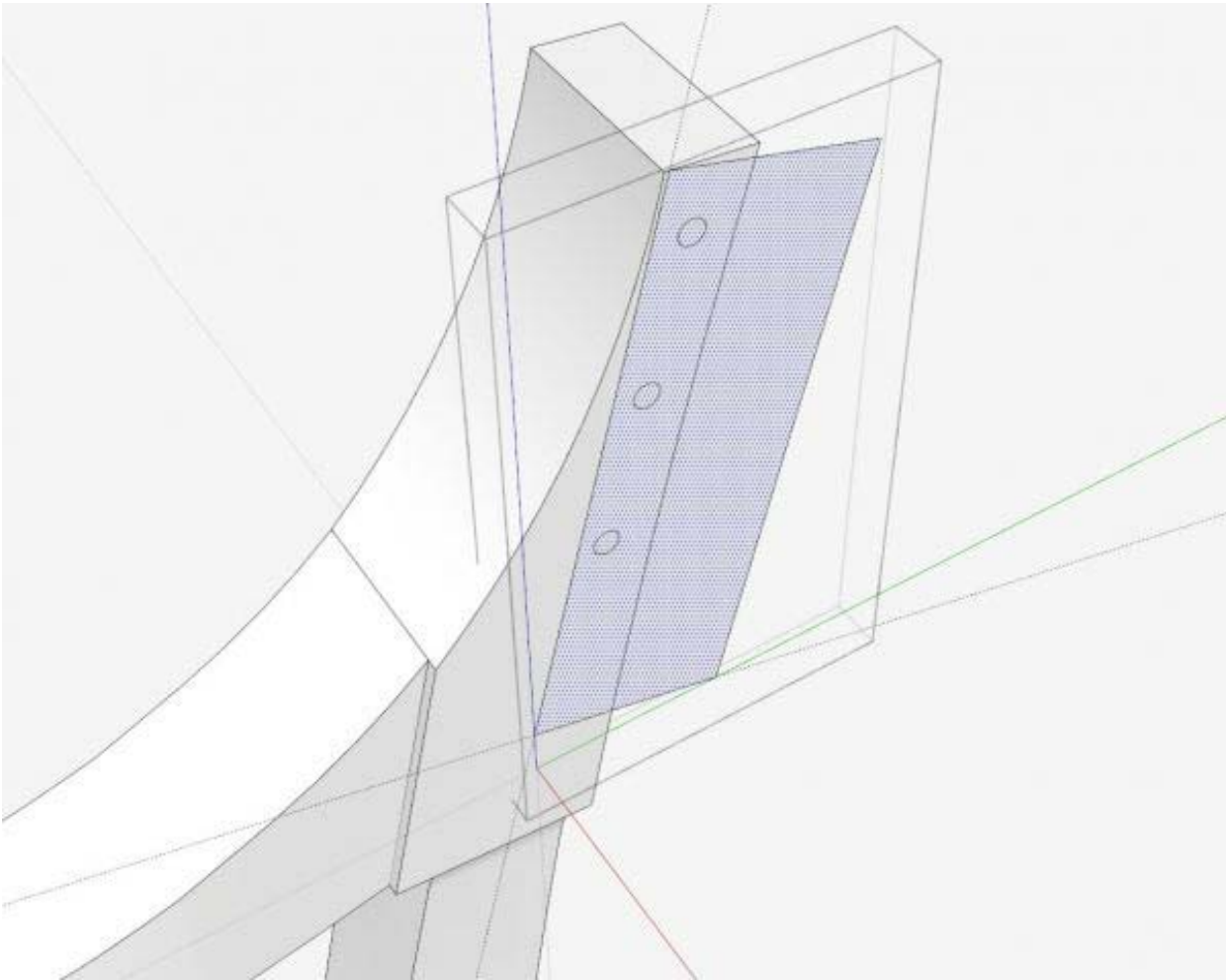


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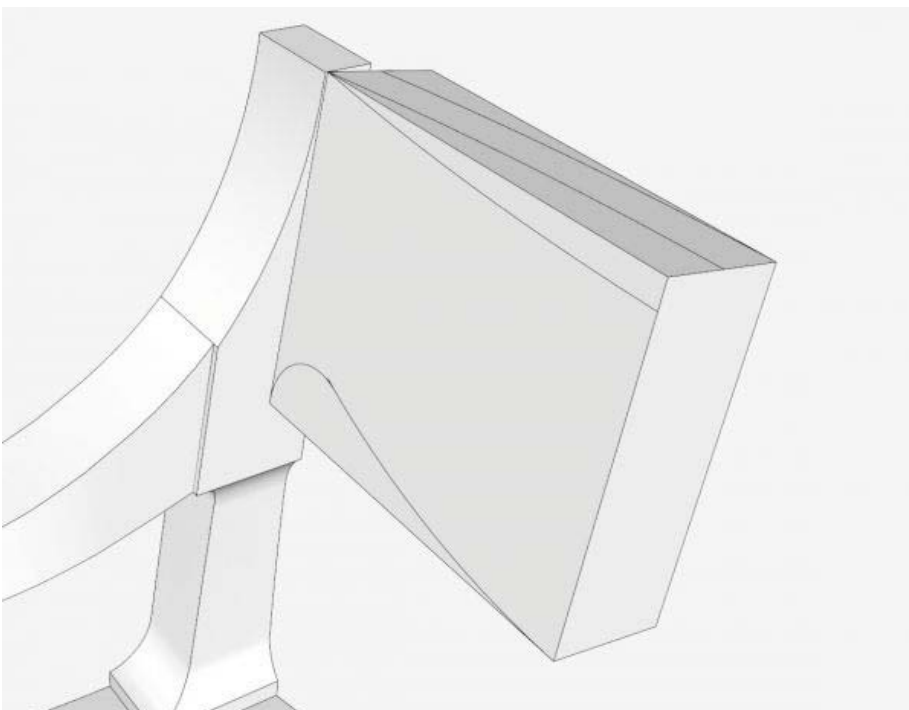
I've finished construction of the standup desk, and now need a matching stool. In the following video I'll show how I created the shaped back piece in the stool. This will involve standard SketchUp tools including the Line, Arc, Protractor, Tape Measure and PushPull Tools. Also the Intersect function is required since the Back involves compound shapes.



Here is the Stool in its basic unsculptured assembly, albeit without the Back. On the upper section of the Back Leg I create a rectangular face that represents the 8/4 stock I will use to shape the back.

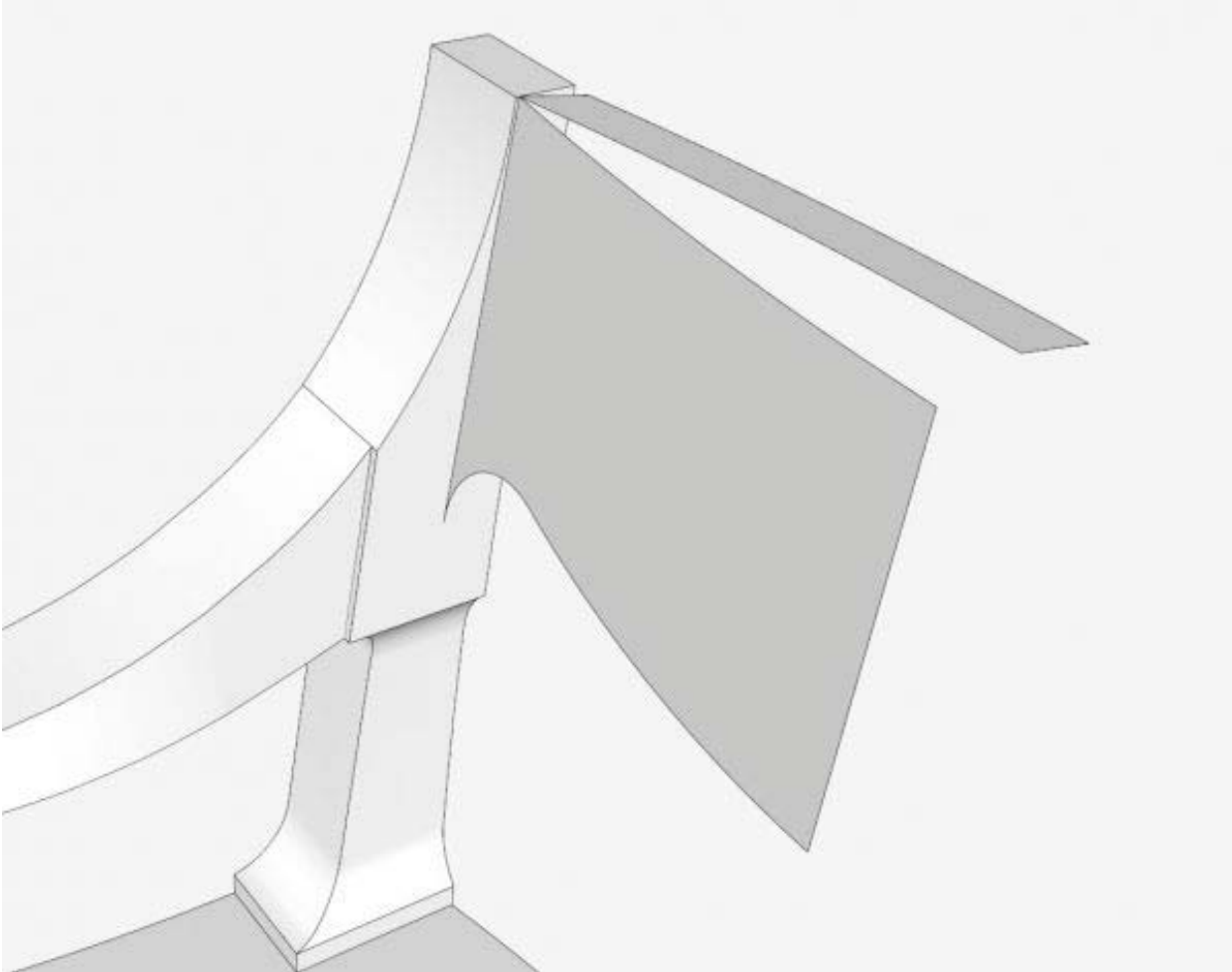


After pulling this out to half length, I create a curved shape looking down from the top of the back, and the curved shapes looking at the chair from the front.

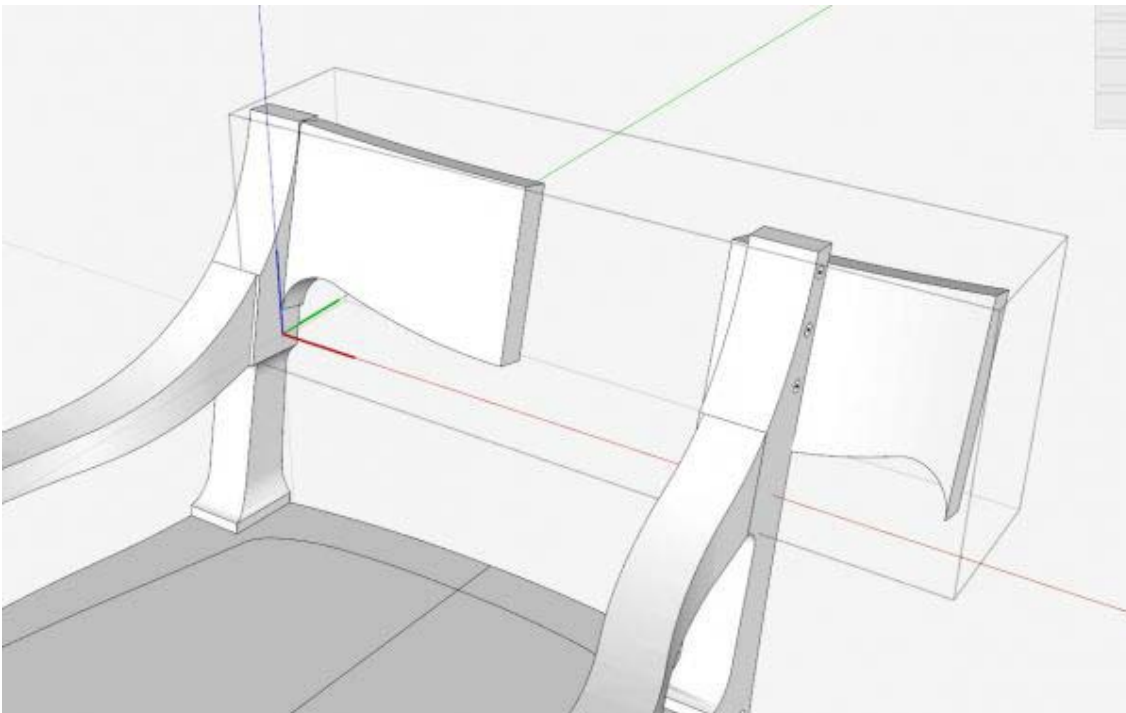




Here are the resulting two shaped faces that are now useful in making the overall shaped back.



After pulling these out to length for total overlap, the Intersect function is used. Here is the shape after deleting the waste and then copying the symmetrical half.



Here is the final result. But in the shop, the real sculpturing will be an arduous task with files, spokeshaves, block planes, scraper blades, and sandpaper.



**The video:**

[https://www.youtube.com/watch?feature=player\\_embedded&v=A4rsf0g97xc](https://www.youtube.com/watch?feature=player_embedded&v=A4rsf0g97xc)



Tim Killen

<http://killenwood.com>



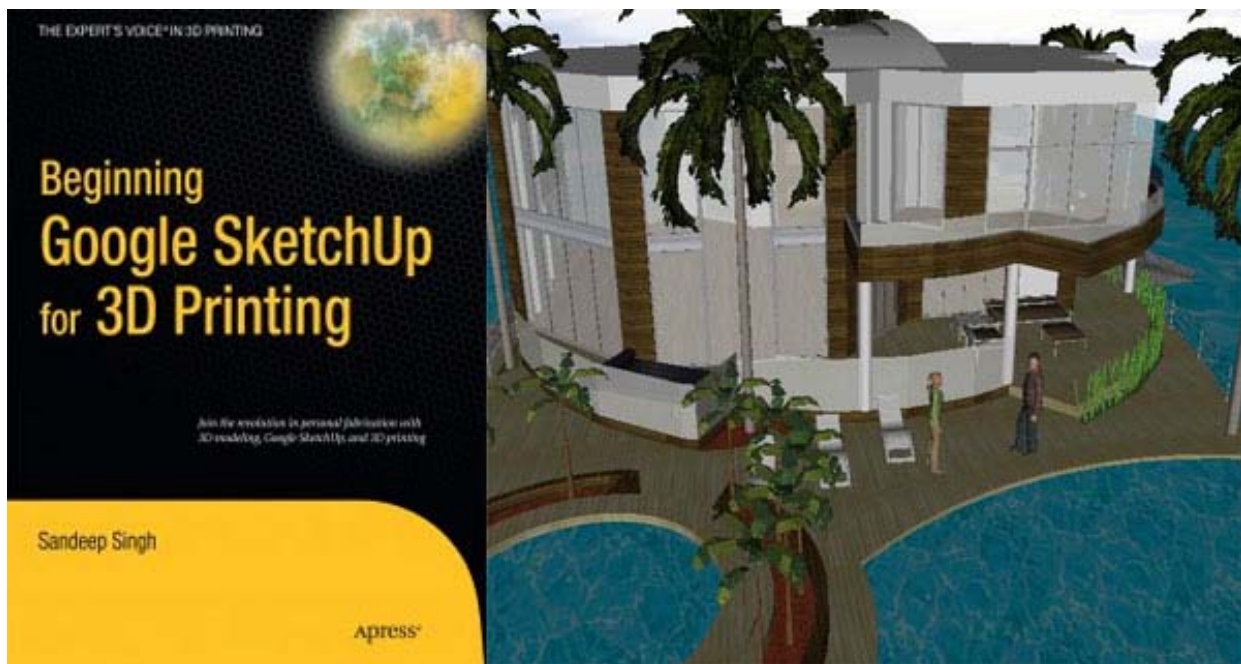
## Modeling with SketchUp for 3D Printing Book Now Available

Modeling with SketchUp for 3D Printing written by Bonnie Roskes is now available for all SketchUp enthusiasts. The book consists of step-by-step projects that show how to design and print various different models that can be then created in any 3D printer.

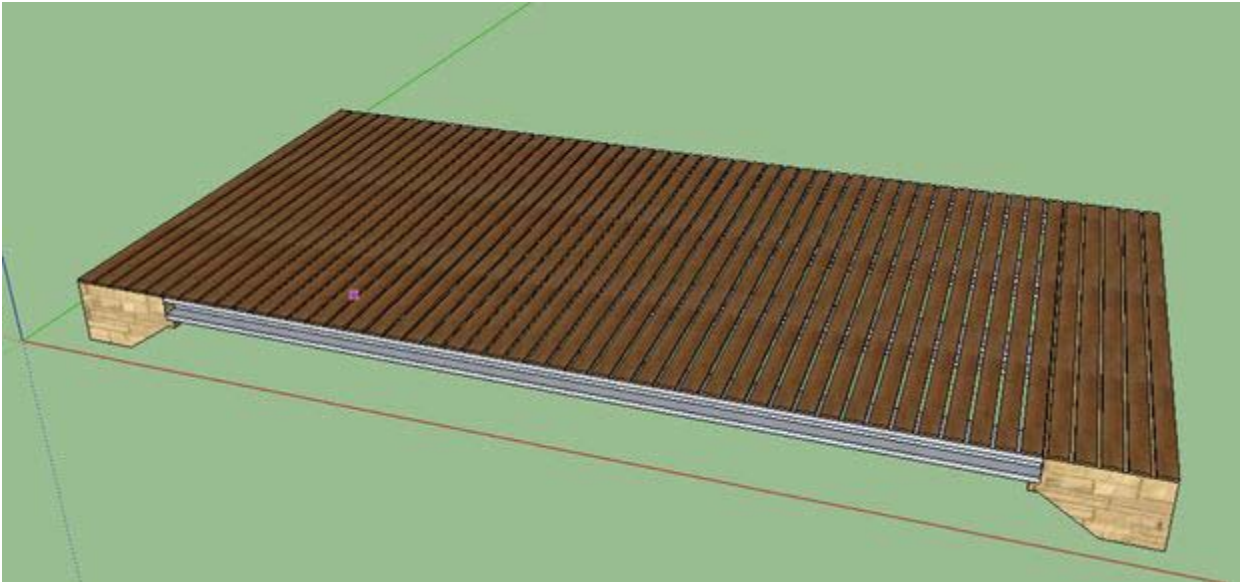
The book also demonstrates tools, techniques, and various important plugins that are required by every 3D print modeler. Starting from downloading and modifying ready-made models, users can create their own simple as well as intricate models with the help of this book. All the techniques and tools are applicable for both PC or Mac.

Users can start with a basic name plate, include some fun puzzles and tiles, and complete with complex models such as Lego bunk beds and DNA. Apart from SketchUp 2013 and 2014, this book works with previous versions of SketchUp (with slightly different icons) as well.

The illustrated exercises teach every aspect of SketchUp which includes editing tools, components and groups, basic drawing, working with materials and digital images, presentation, animation, Google Earth, etc. The detailed, clear, easy-to-follow format of the book makes it not only comprehensive but also provides a hands-on SketchUp training in a very easy method. Available in printable PDF format as well as colour print with 290 full colour, letter-size pages, this book is a part of the new SketchUp Specialties Series.



## How to Create a Simple Bridge in Google SketchUp



SketchUp is a wonderful program made free by Google that allows you to model 3D objects. The extent of this program is limited only by your own creativity and ambition. In this particular set of instructions, I am going to go through, step-by-step how to model a simple 3D bridge on Google SketchUp. If you follow my instructions, hopefully you will learn how the program works and begin designing your own 3D creations! If you are in any sort of engineering or design field, knowing how to functionally use SketchUp could help you show off your creations to a client or a boss in a more aesthetically pleasing way than a typical computer aided design (CAD) program could.

If you are completely new to the program, my instructions will try to explain to you how to work with Google SketchUp's various settings, tools and controls. If you have had experience with another 3D modeling program, you may find some similarities while working through this tutorial. The only things you will need to complete this tutorial is a computer, a connection to the internet, and about a half hour.

### Step 1: How to Get Google SketchUp

All you need to run Google SketchUp is a computer and a connection to the internet. Google has made their program completely free, so you don't need to worry about busting out your credit card.

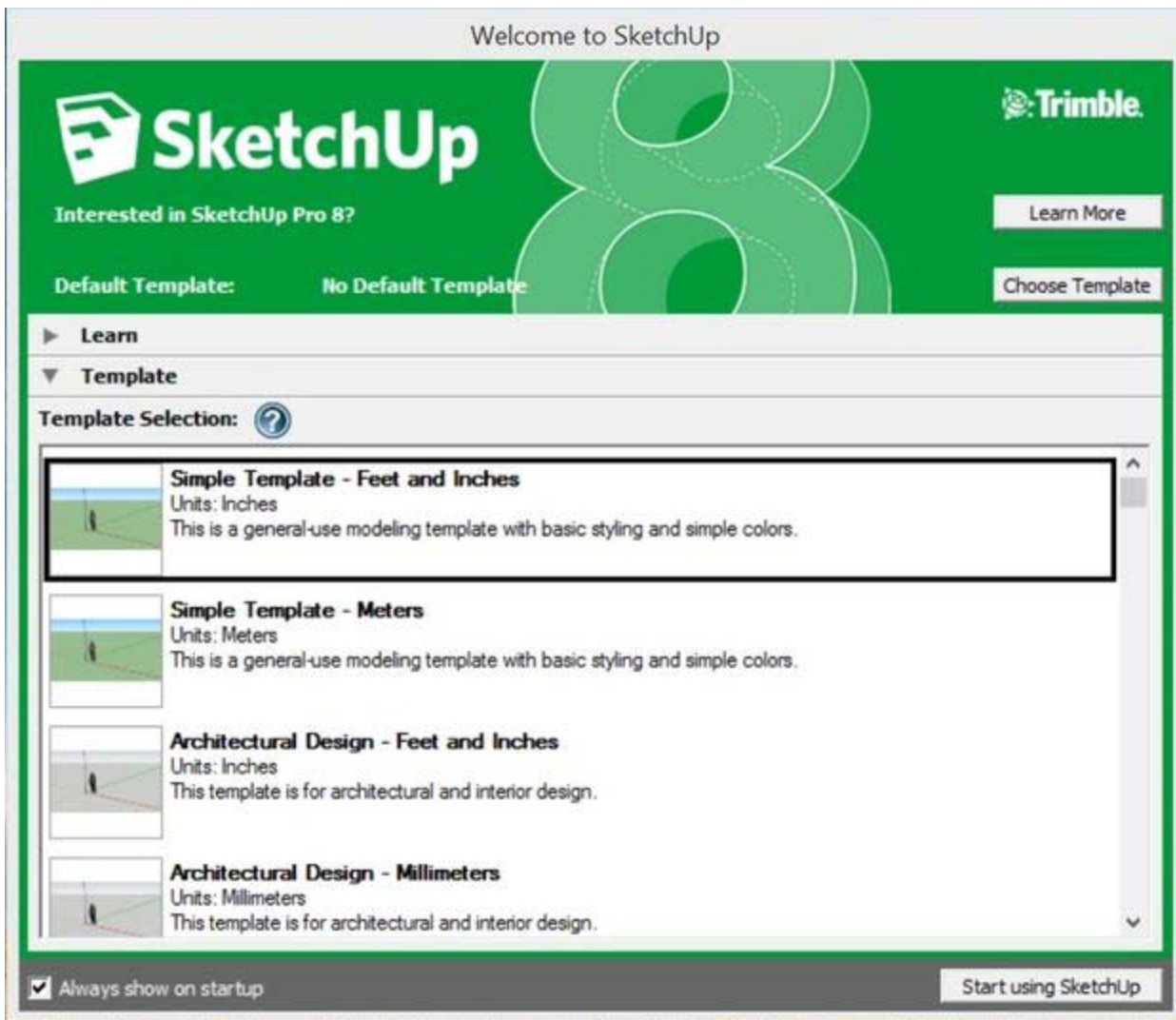
1.1 Go to <http://www.sketchup.com/>

1.2 Hit the button that says download

1.3 Once it is download, install the program to your hard drive

It's that simple!

### Step 2: Starting the Program



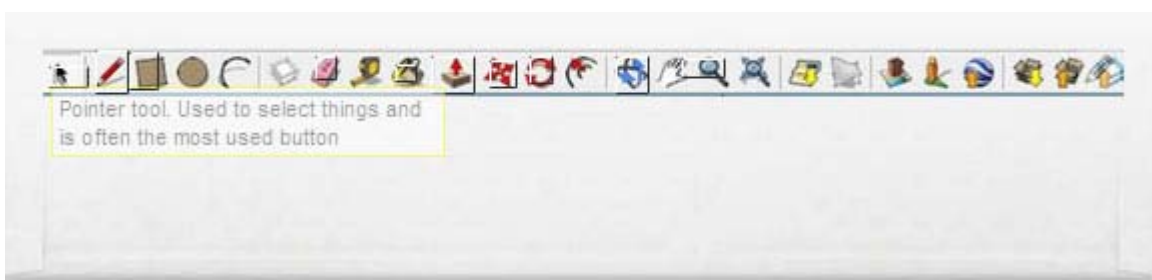
Once you installed SketchUp, you're ready to start it up.

2.1 Click the short cut for SketchUp 8 on your desktop

2.3 You're going to want to start a template to begin our bridge. Most of the world prefers to use the metric scale, but were going to use Feet and inches for this particular tutorial. Click **choose template** and then click **feet and inches**, which is the first option.

2.2 On the bottom right of the window, click "**Start using SketchUp**"

### Step 3: Getting the Right Tools

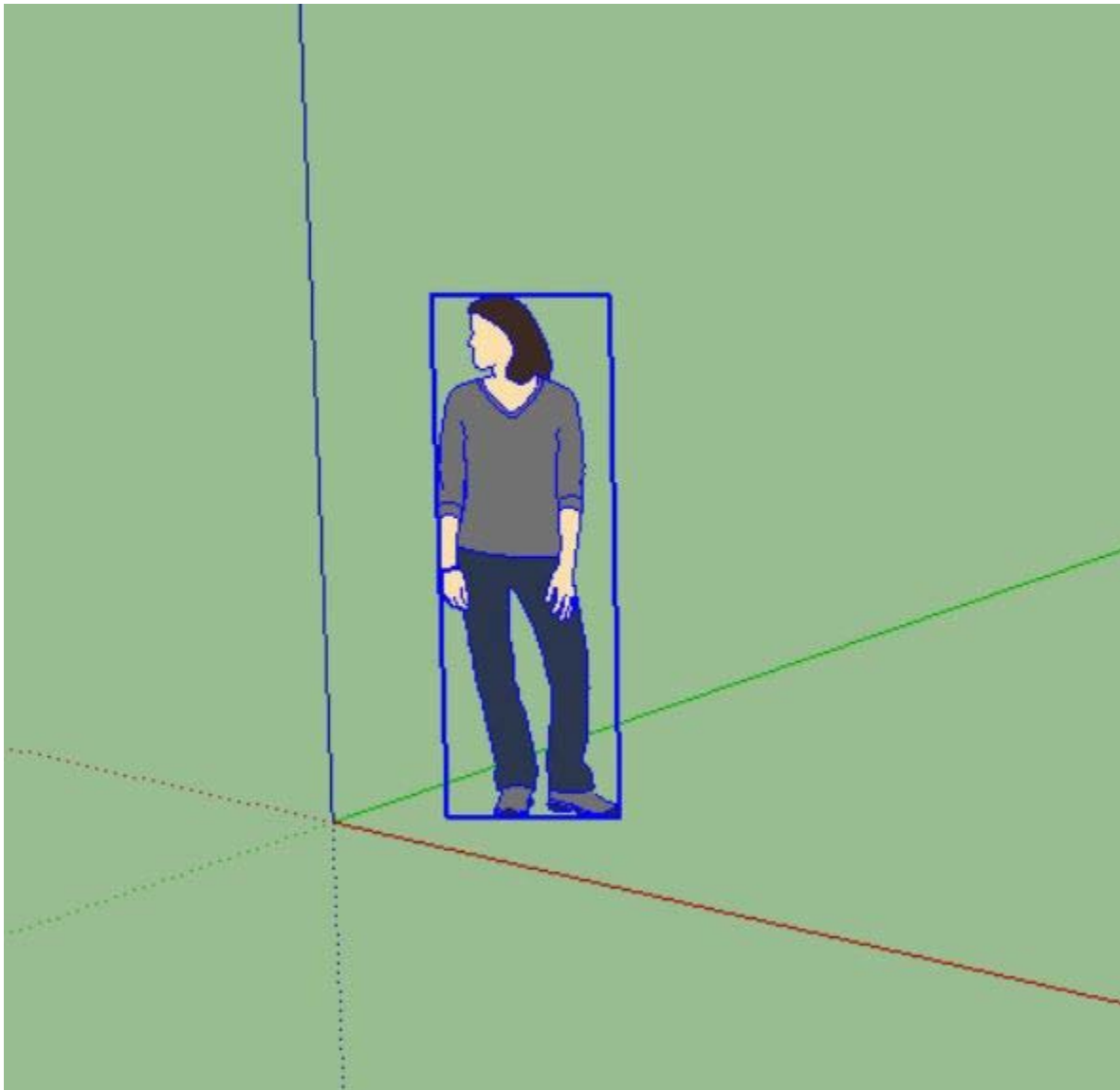


SketchUp Offers a cornucopia of different tools that help design three dimensional models. However, in this particular tutorial we will only be using a handful of them. In the attached image, you can hover your mouse



over the tools we will be using when building our bridge. If at any point in this tutorial you don't know which tool to use or how it works, refer back to this page to understand what each tool does.

#### Step 4: Starting Out



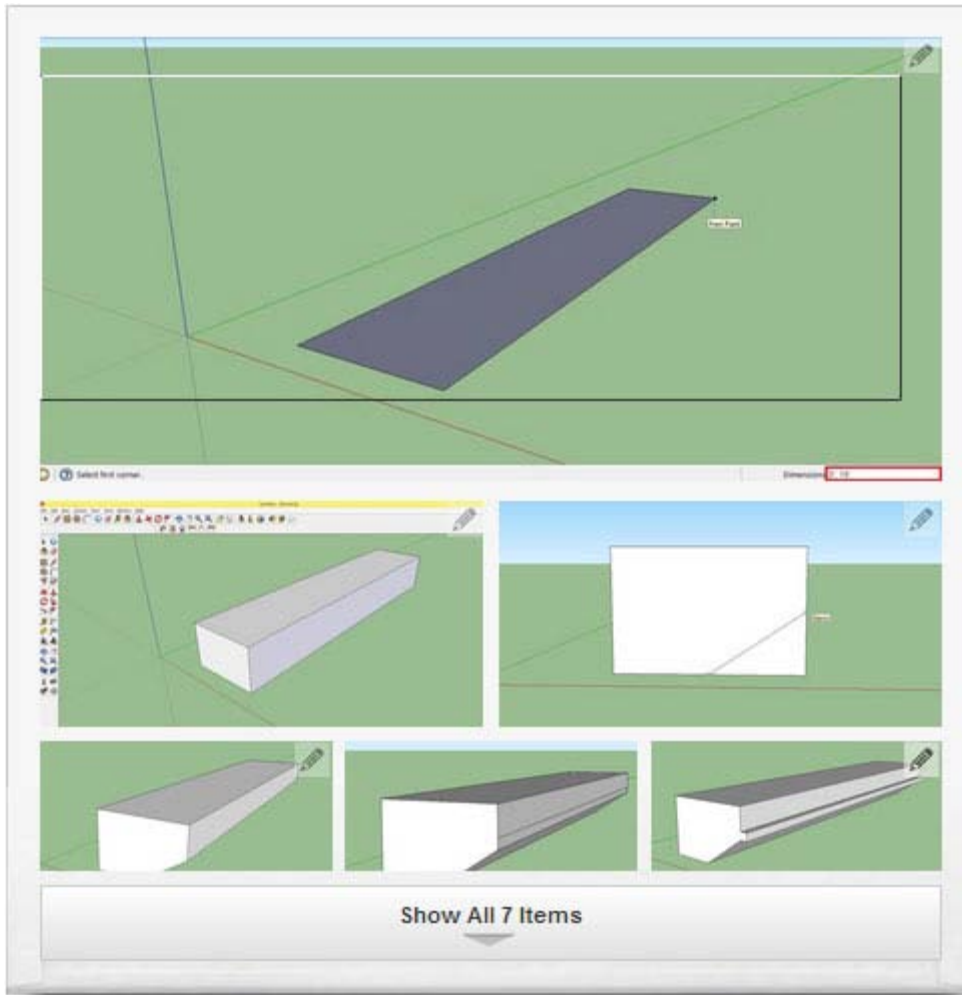
When the program starts up you're going to see the image of a girl near the origin. Some people like to leave her in as a reference so their model is scaled to a person in real life. She is unnecessary for this particular project so we are going to delete her.

4.1 Select the pointer tool

4.2 Click on the girl

4.3 Press delete on your keyboard

#### Step 5: Building the Support



Every bridge needs a solid support to hold up the span. Our bridge's support will be two slabs of concrete about 50 feet apart.

5.1 Select the draw rectangle tool

5.2 Click and drag so the rectangle lies on the red and green axis

5.3 Before you let go type in "2', 15' " This means the dimensions of our rectangle is going to be 2 feet wide and 15 feet long. You can see what you are typing in in the bottom right hand corner as marked on the diagram.

5.4 Next you want to select the Push/Pull tool

5.5 Click on the rectangular space and pull it up along the blue axis. Before you let go of the mouse type in 2'. This means our block will be 2 feet thick.

5.6 Next Use the orbit tool to orient your view so your are looking directly at the square space.

5.7 Select the line tool and draw a line from the midpoint of the bottom of the block to the midpoint of the right side. You can tell you are on the midpoint because the mouse will stick to it and a little blue circle will appear.

5.8 Use the push/pull tool to push the newly drawn triangle through the block. This will cut the shape out of our rectangular block.

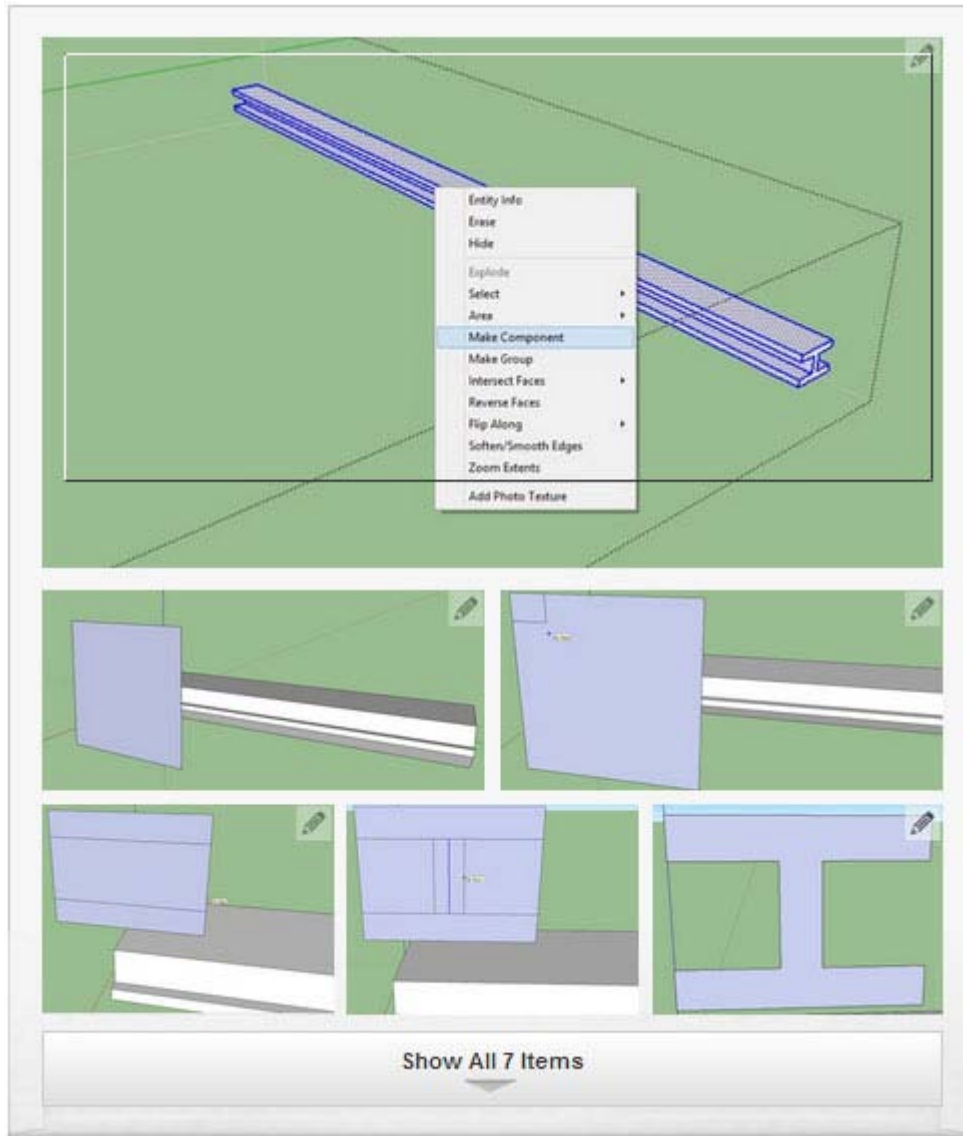
5.9 Next you are going to use the rectangle tool to draw a 3 inch by 15 foot rectangle on the right side of the block.

5.10 Finally you are going to use the push/pull tool to pull the rectangle out 3 inches. Remember to type in your dimensions before you let go of the mouse.

5.11 You are finally done building the bridges support! To finalize it we must make it a component. To do this use the pointer tool and double click the support. Right click the support and on the drop down menu, choose "Make Component"

Note: Making an object a component helps us put all of the pieces together later on.

## Step 6: Making the I-beam



To draw the I-beam, it is simplest to draw a plane in the direction we want to have our beam's face oriented. Then we will cut out the unwanted pieces to form the shape of our I-beam's face.

6.1 Using the rectangle tool, draw a plane in the axis shown in image

6.2 Draw 1 foot by 9 inches rectangle by typing in 1', 9".

6.3 With the eraser, delete all of the square outside of the new one you just drew.

6.4 Draw 2 horizontal lines 3 inches from the top and bottom of the new square as shown in picture.

6.5 Draw a vertical line directly in the center from the two closest parallel lines.

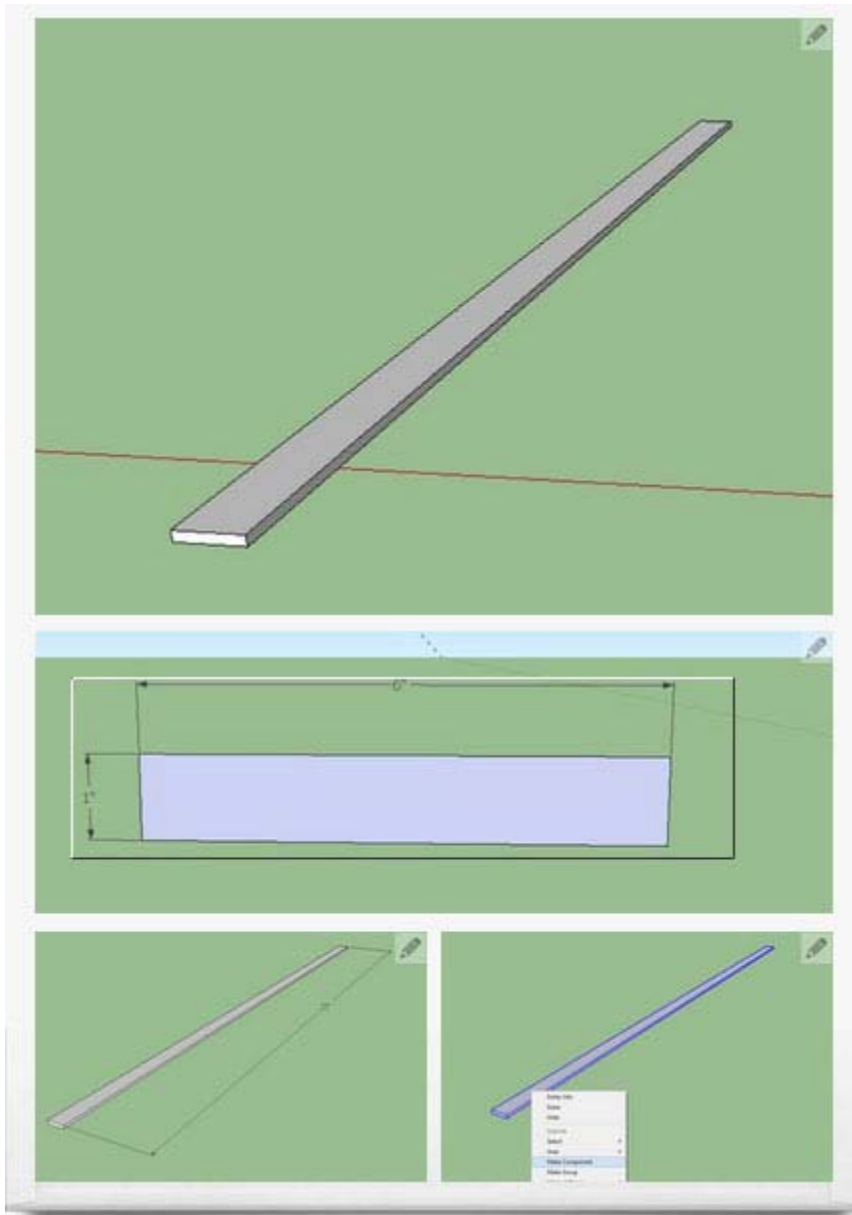
6.6 Use the move tool and select the vertical line. Hit CTRL and it will clone the line. Move it both one inch to the right and one inch to the left.

6.7 With the eraser tool, delete all lines that do not belong in our beam. By the end it should look like a capital I.

6.8 Next we select the push/pull tool and expand the beam 25 feet out.

6.9 Double click the beam with your pointer tool, then right click and choose "Make Component."

### Step 7: Making the Plank



Making the plank should be very simple at this point so it shouldn't take very long to make.

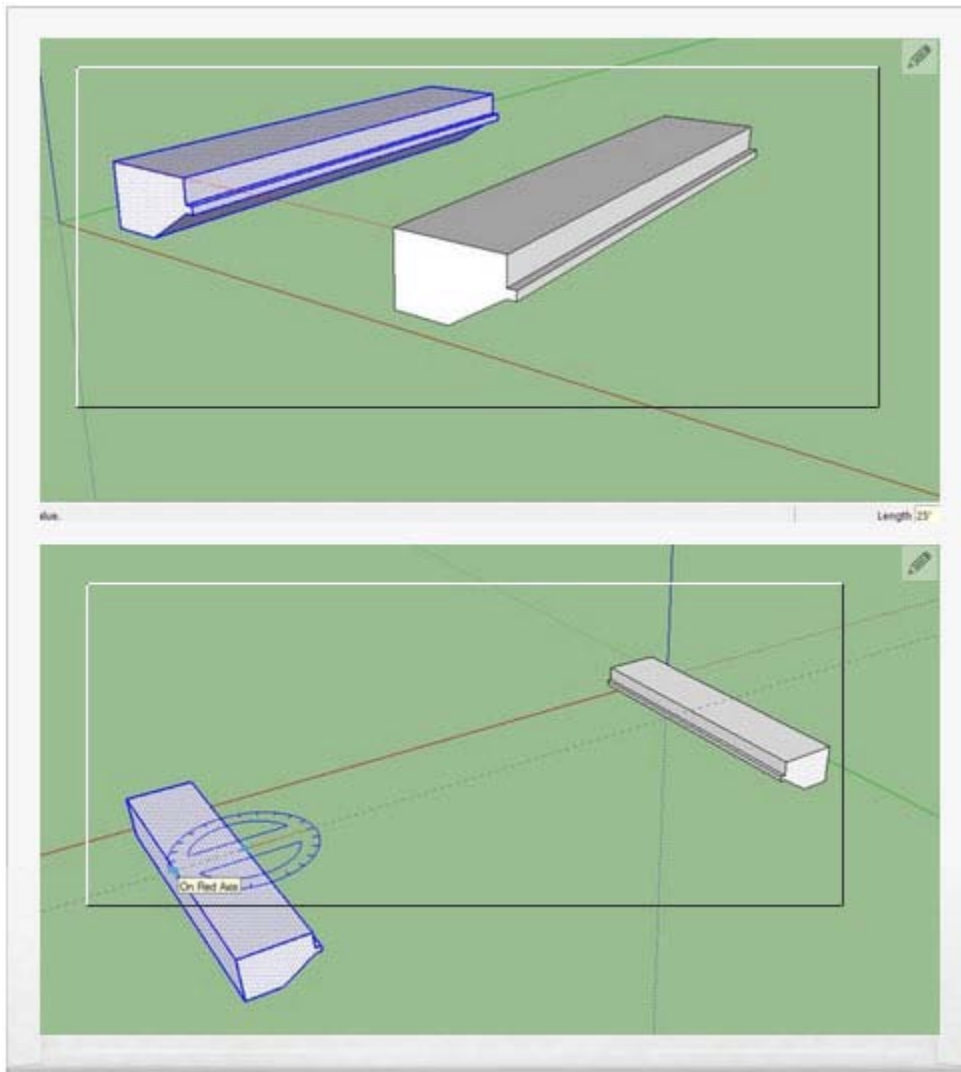
7.1 With the rectangle tool draw a 6 inch by 1 inch shape.

7.2 Push it out with the push/pull tool 25 feet.

7.3 Double click the object. Right click and hit "Make Component."



## Step 8: Copying and Rotating the Support



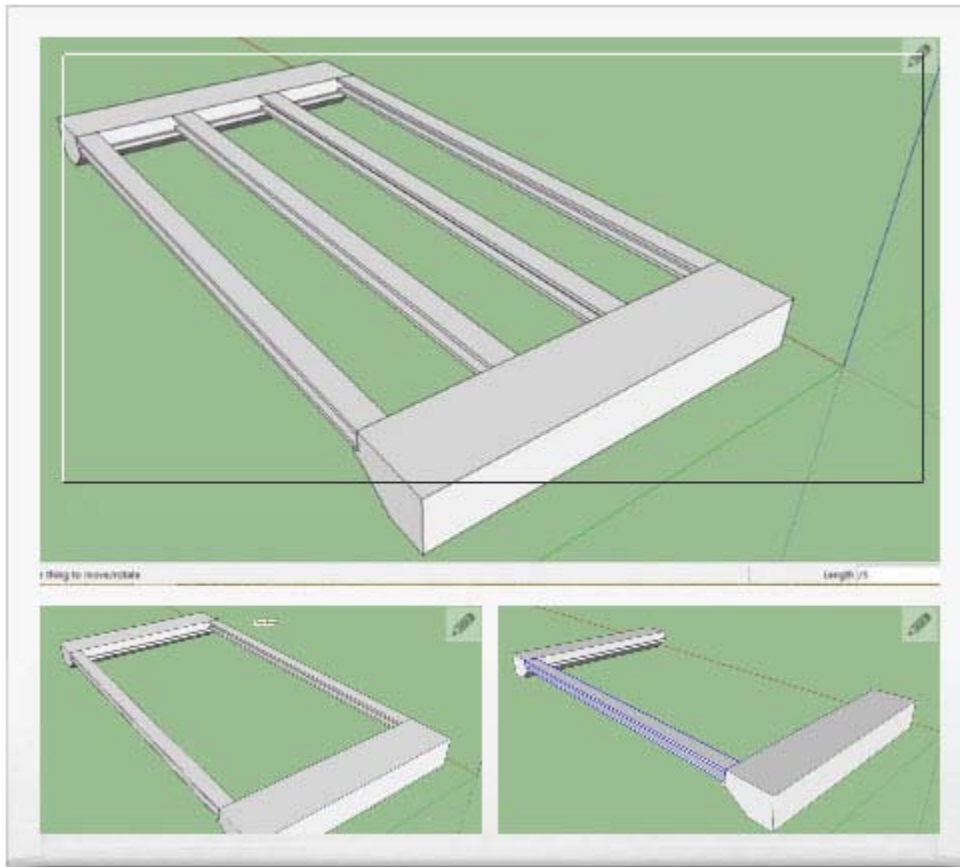
We know our bridge won't be able to be level if it only had one support. We must not copy our support and then place it at the opposite end of our bridge.

8.1 Click on the move tool and select the support. Next hit CTRL so the original support stays in place.

8.2 Drag the copied support out 25 feet with the push/pull tool and then type 25'.

8.3 Next we must rotate the support so it is facing the right way. Click to rotate tool and click on the midpoint of the new support. Move your mouse around the compass until it makes a 180 degree turn. Then click again to lock it into place.

## Step 9: Placing the Beams onto the Support



If the supports are like the shoulders of the bridge, then the beams are the back bone. They are what up the load on the bridge. Connecting them to our supports is very simple.

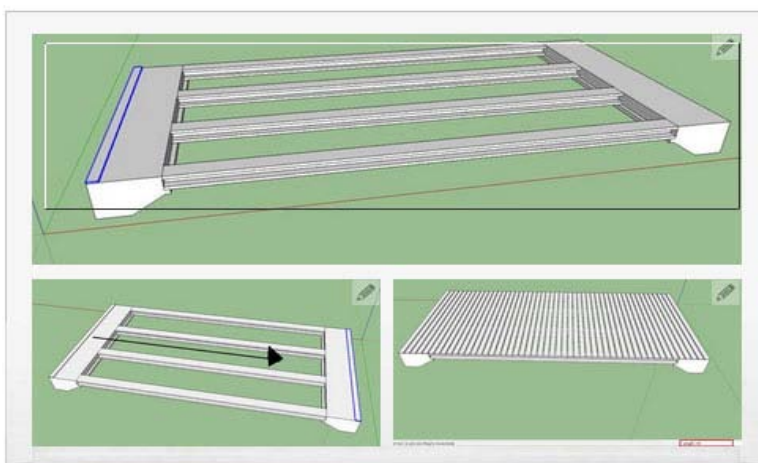
9.1 Click on the move tool and select the bottom corner of your I-Beam.

9.2 Drag it to the outermost corner of your supports where it should fit nicely. You will notice the beam fits perfectly between the two supports.

9.3 With the move tool click on the beam and also hit CTRL. Drag the beam down to the opposite end of the support as shown in picture 9.3.

9.4 Before you click anything, type in  $\frac{1}{3}$  and hit Enter. This will create 3 copies of the beam in perfect spacing instead of one.

## Step 10: Placing your Planks on your Bridge



People need a place to walk on, so we are going to put wooden planks on top of the metal beams.

10.1 Select the move tool and then click on the plank. Move it to the very end of the bridge as shown in the picture.

10.2 With the move tool, drag the beam to the other side of the bridge while clicking CTRL to leave the original in place.

10.3 Before clicking anything else, type in "/50" which will copy the plank 50 more times in between the two outer planks.

### **Step 11: How to Add Color to your Bridge**

### **Step 12: Conclusion**

So now that we've successfully modeled this simple bridge using SketchUp, hopefully now you understand how to use the program for your own creative desires. You may want to research information about texturing and scene creation, as those can really enhance the presentation of your designs. The extent to the amount of things you can create with SketchUp is endless. Thank for using my tutorial on how to design a simple bridge in Google SketchUp, and I wish you all the best wishes to your future in 3D modeling.

## Creating a Complex Crest Rail in Sketchup



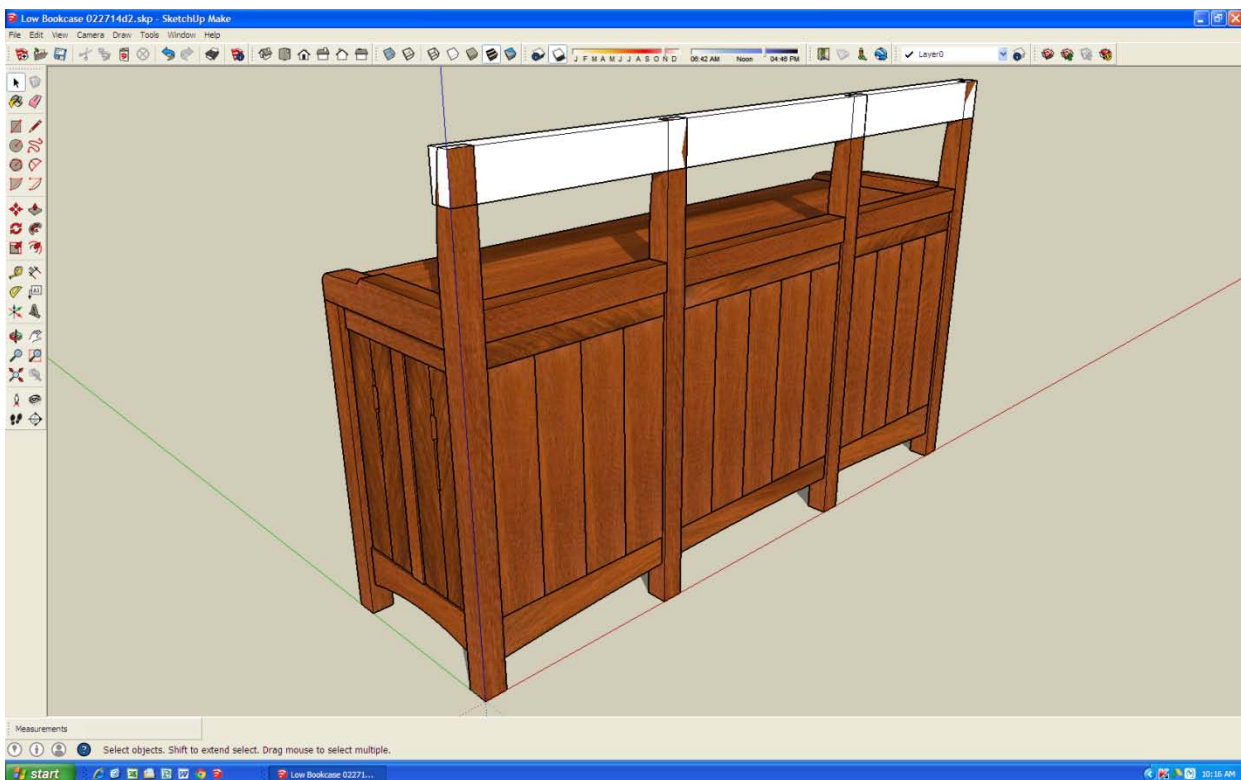
I have been a woodworker for more than 30 years. One of the fun aspects of this hobby is furniture design. In my early days of woodworking I used graph paper and pencil to draw furniture projects to scale. Now I design almost exclusively in SketchUp. For me, SketchUp gives me the ability to design a project to a very high level. This means I can work out all the needed joinery during design eliminating virtually all guess work during construction.

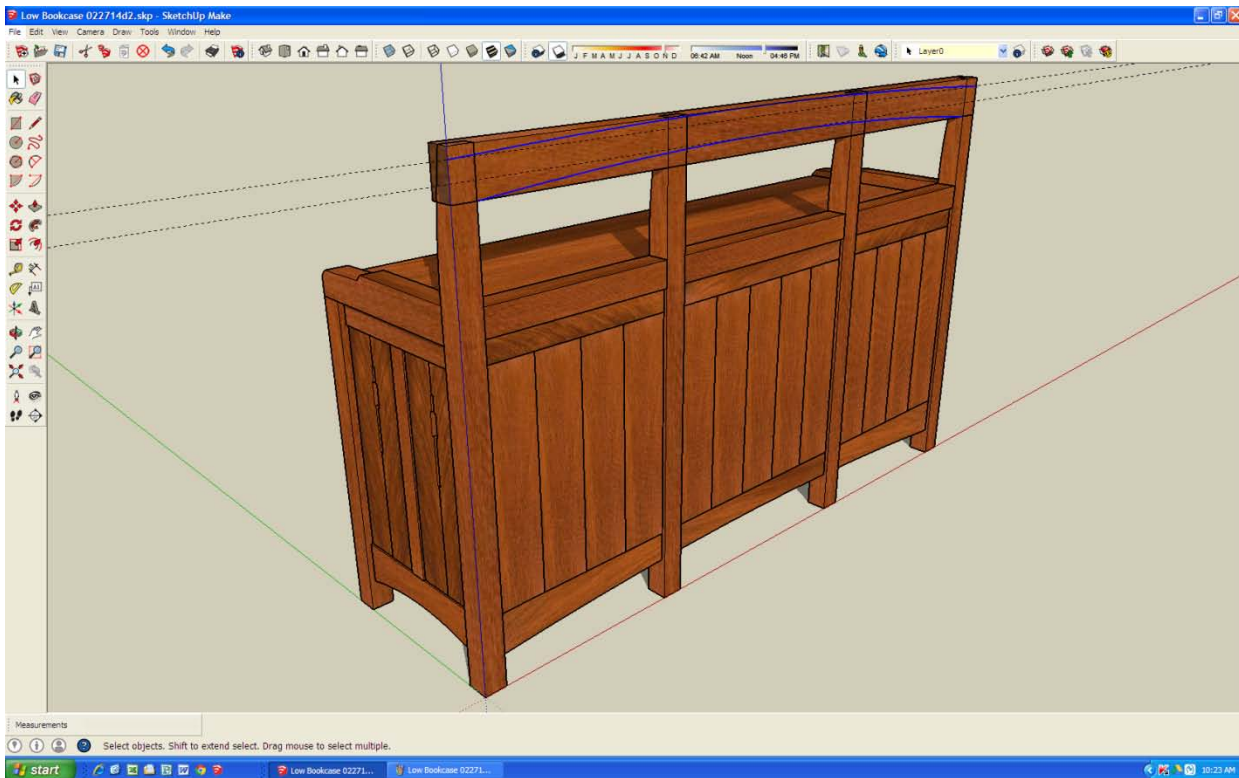
The design phase is where I am with my current project, a window seat bookcase for my daughter. This bookcase will reside in front of two windows and will serve first as storage space for books and second as a piece of furniture to sit upon.



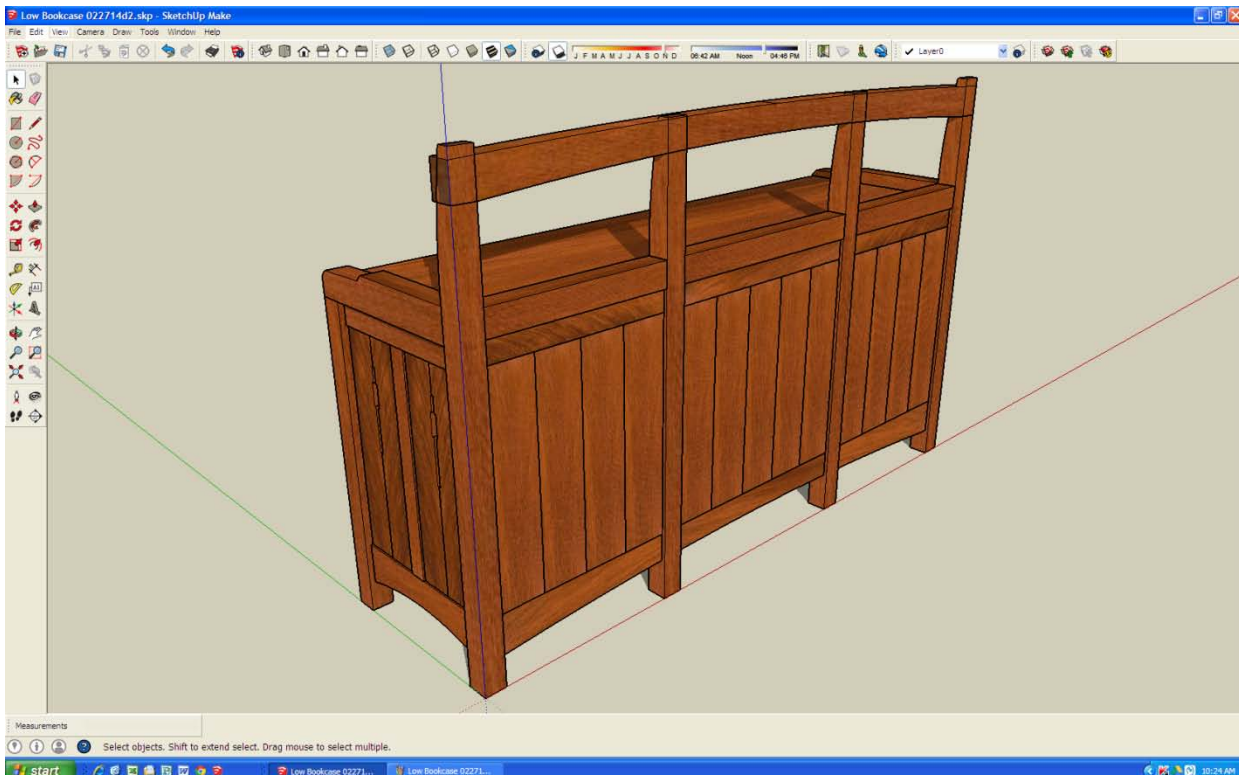
With this project, I am interested in doing some new things from a design perspective and curves are things which I usually stay away from. As you will see later, the previous design had a seat back with a call this a crest rail which was flat along its upper edge. I had received a suggestion that the design would look less hard with a curved crest rail.

This design change was a challenge for me to create in SketchUp. It meant that I would have to take a rectangular shape and form one flat face along with three curved ones. I am no stranger to using the intersect command in SketchUp, but after repeated attempts, the resulting crest rail contained poorly formed geometry. I got in touch with Dave Richards who writes about SketchUp at [Fine Woodworking.com](http://FineWoodworking.com) and he helped re-orient my thinking to a more simple approach. What you see below is the process he suggested along with the additional steps I took to break the crest rail into three separate components.

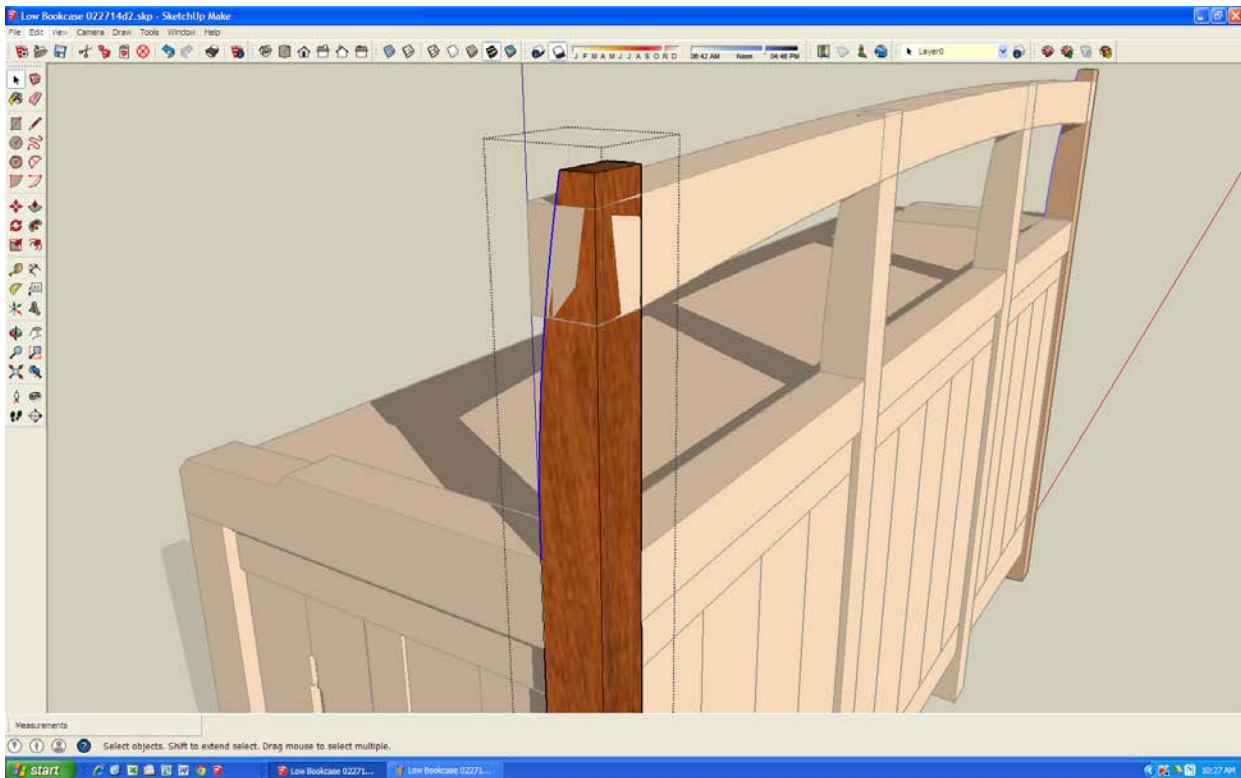




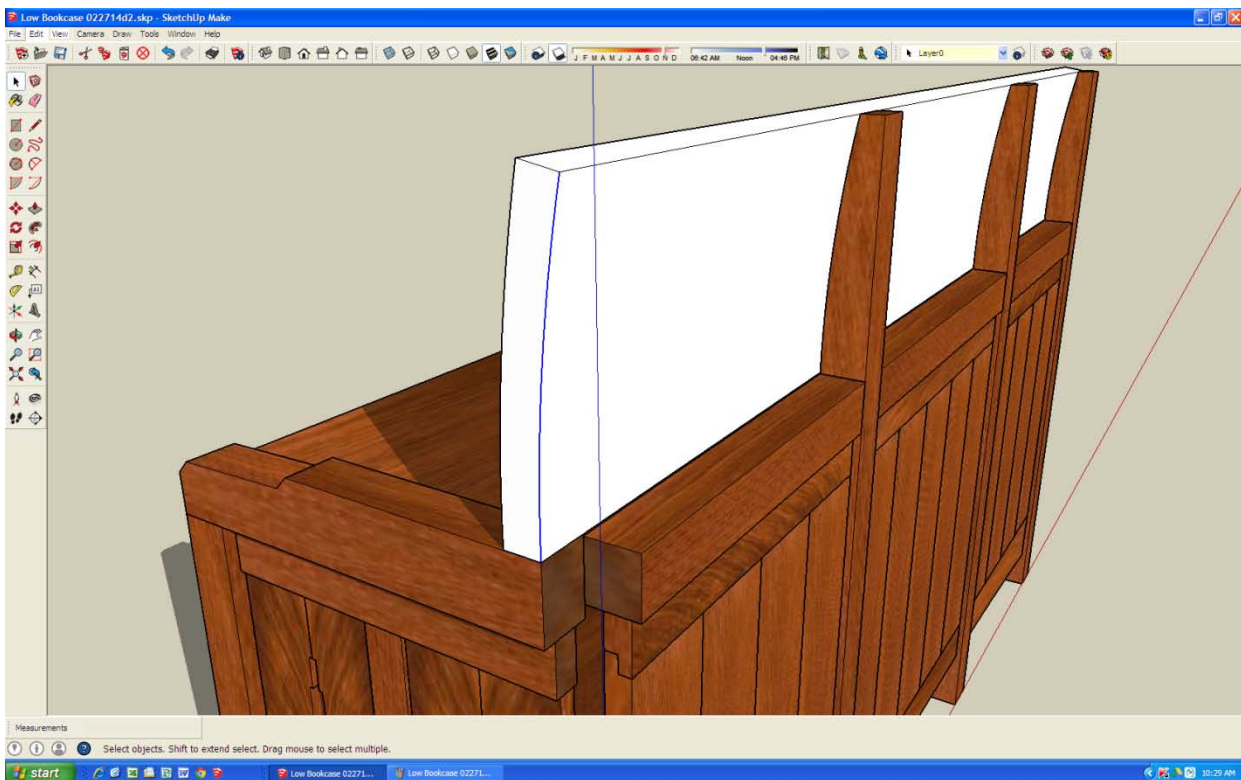
Note above, the arcs highlighted in blue. I went ahead and added the mahogany wood texture. The crest rail is not yet a component.



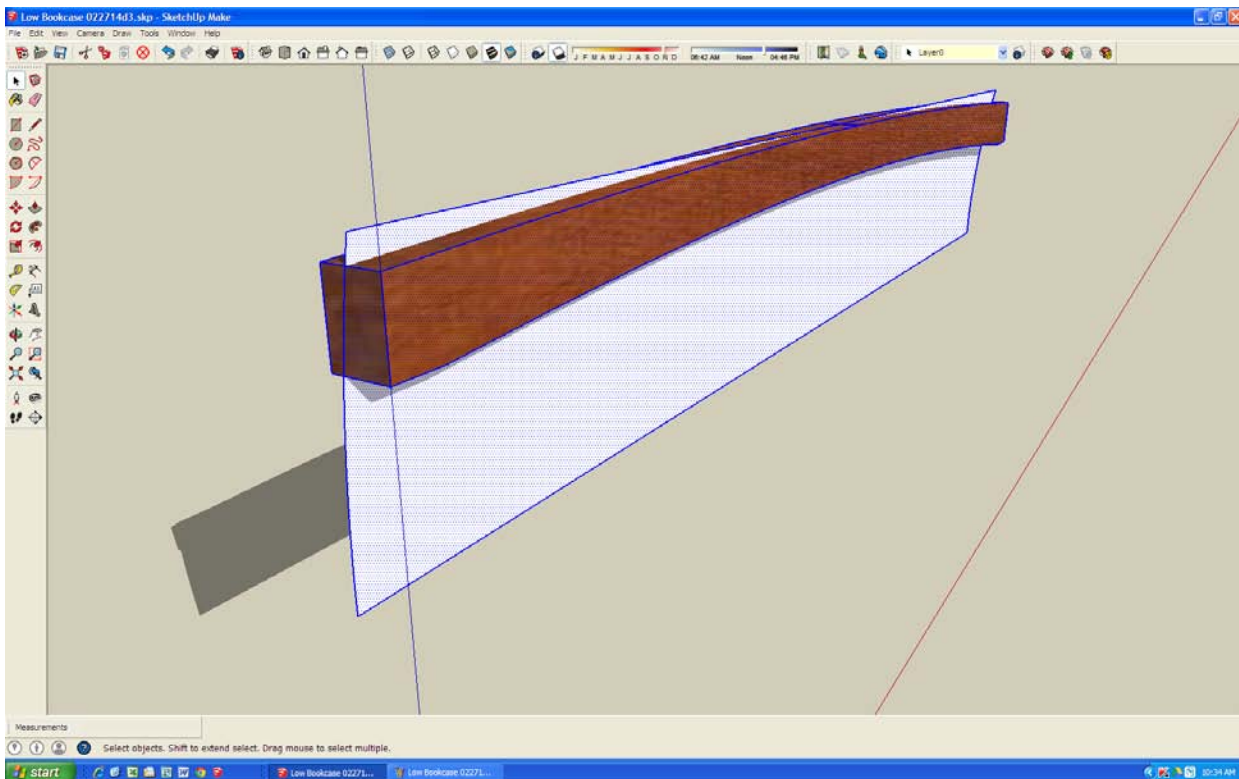
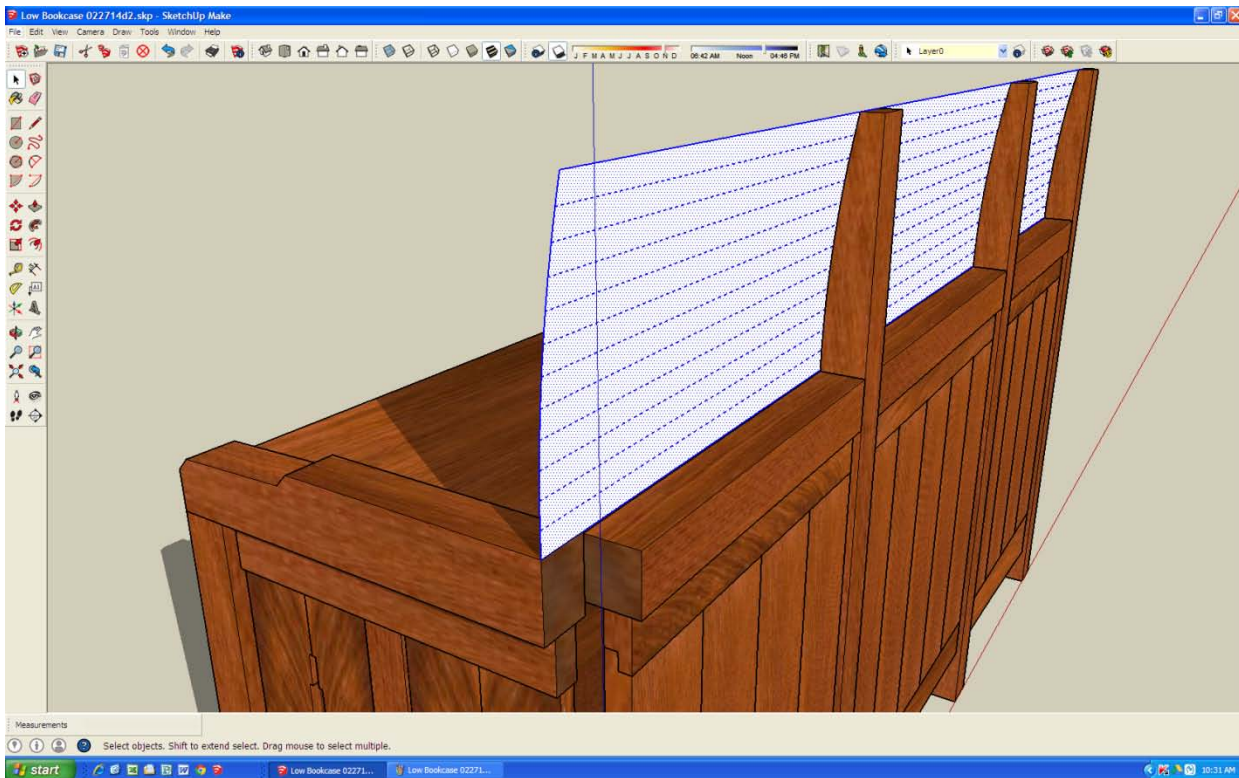
I make the crest rail a component at this point.



Note the curved blue line in the image above. I copy this curved line and use it in the step below.

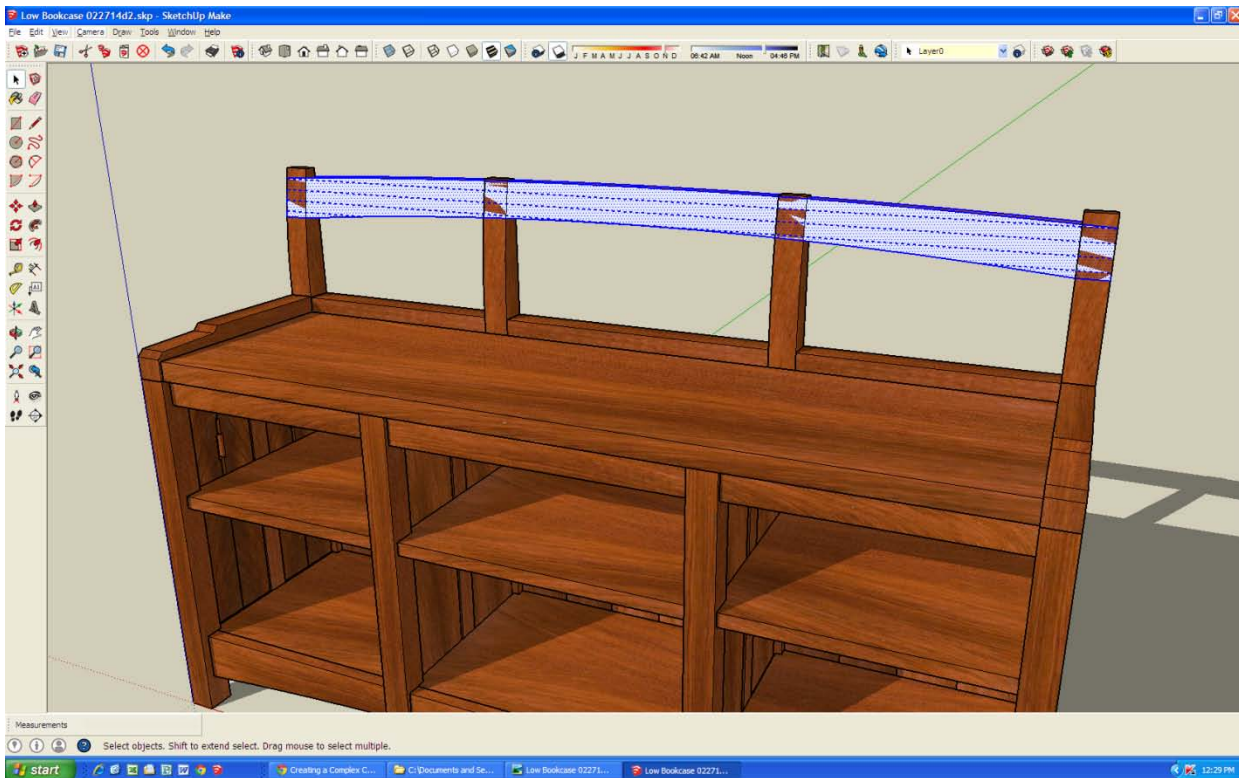




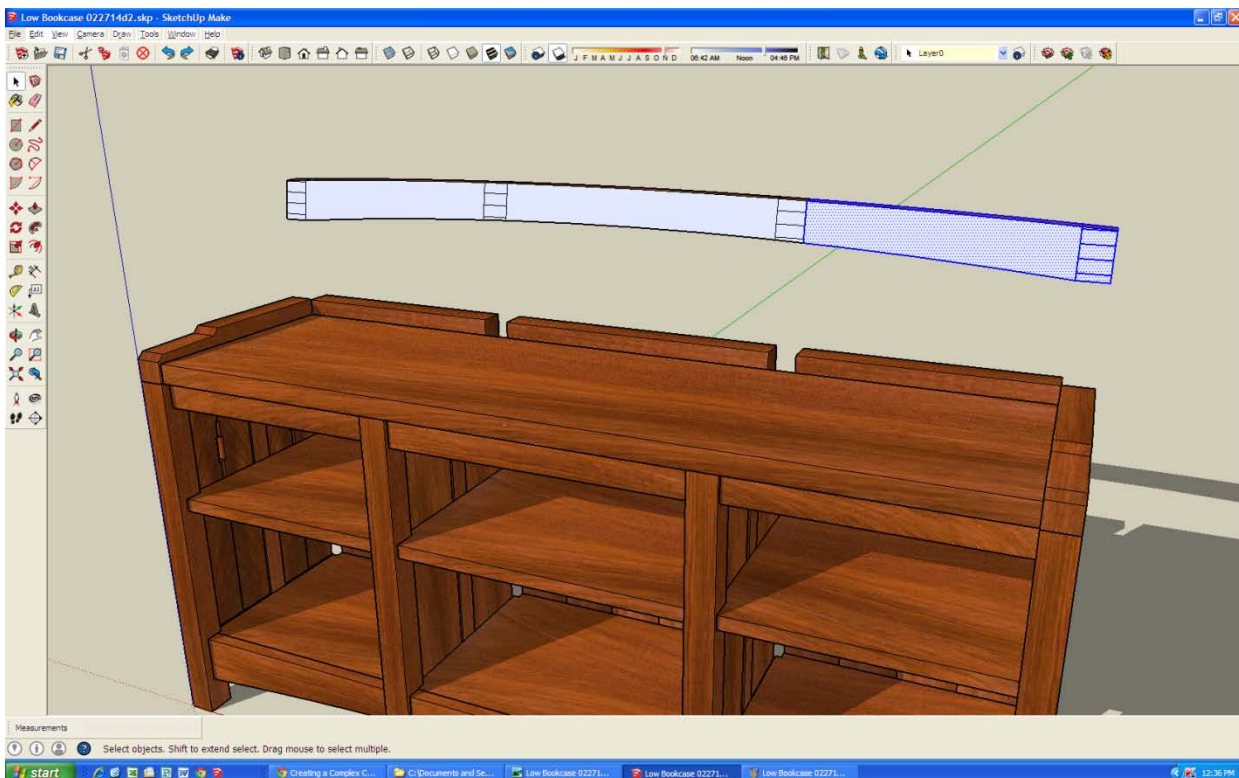


There is a lot going on here. I explode the crest rail – it is no longer a component. This enables me to combine the shapes of the crest rail along with the new curved plane which is used to cut the crest rail into two parts; executed using the intersect command. Then, the unwanted geometry is deleted creating a curved vertical face on the rail.

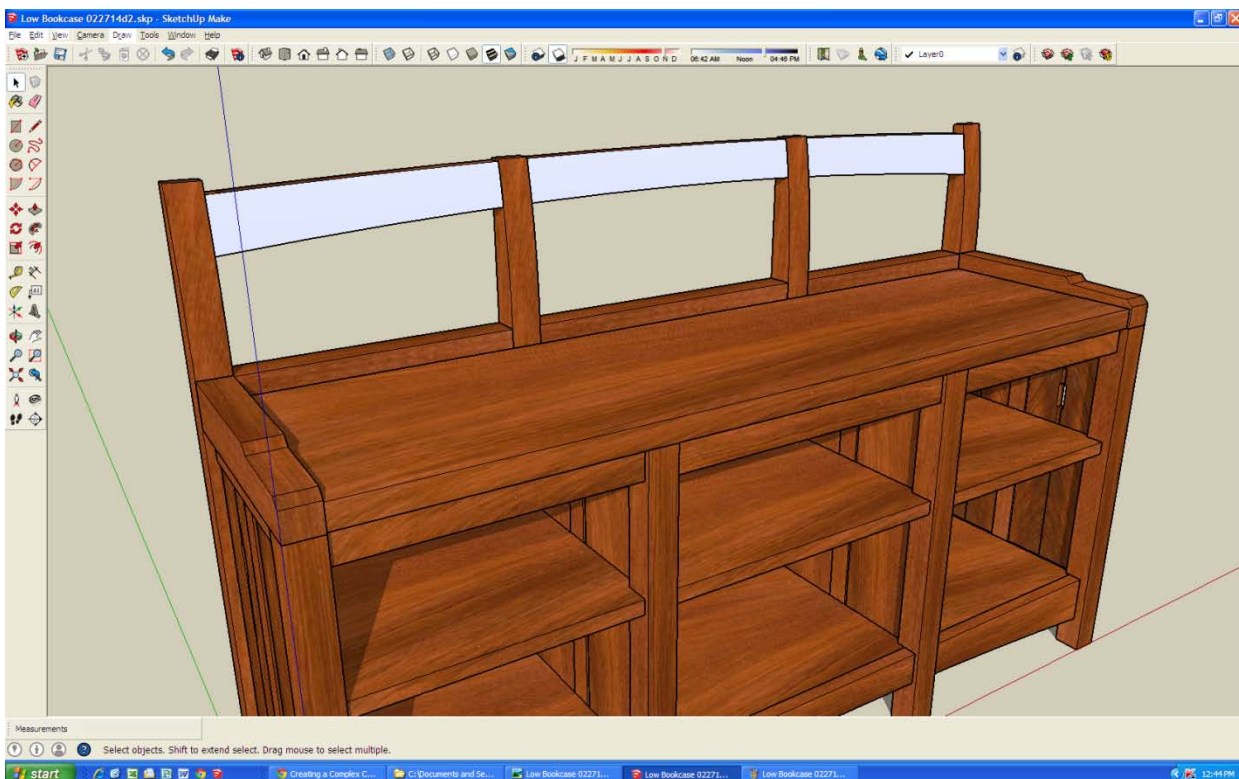
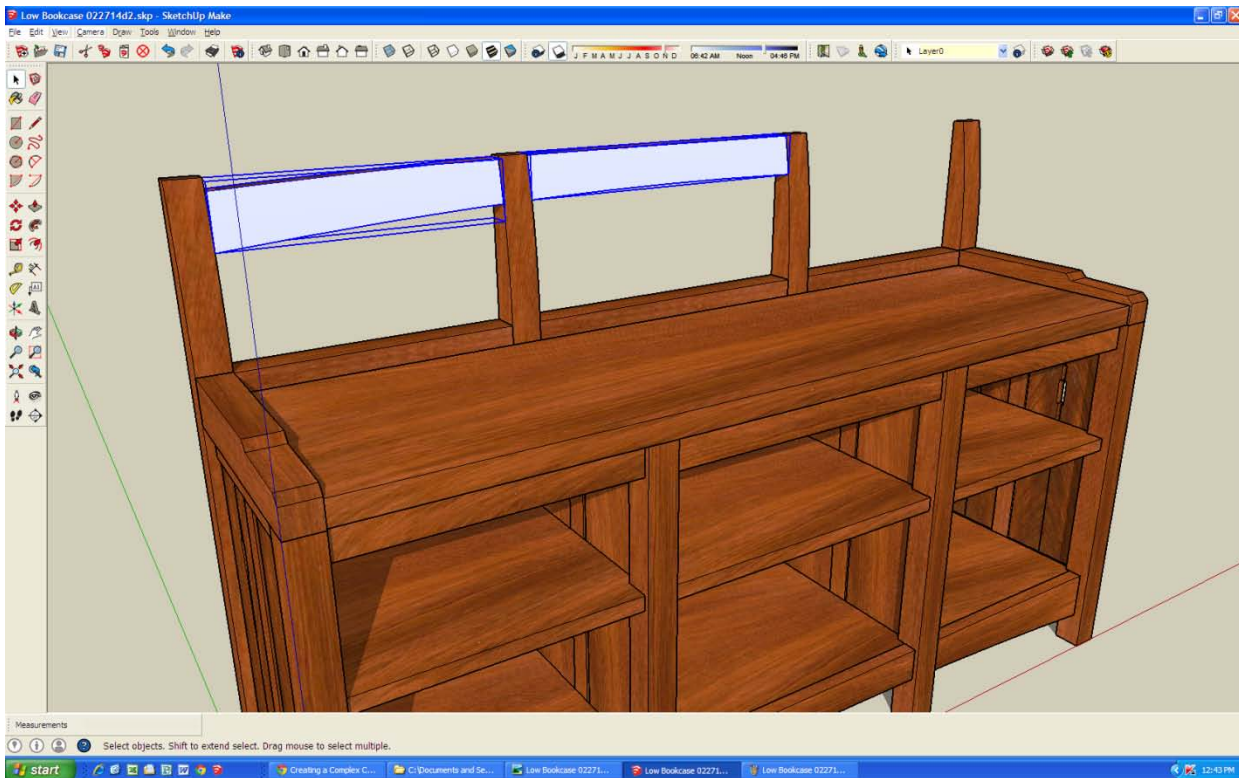




Next, I need to intersect the legs with the completed crest rail so I can get three individual parts. To do this, I click once on the crest rail and from the Edit menu, I click Intersect Faces and then click With Model. This imprints the leg locations on the crest rail. I then hide the legs which gives me a better view.



In the image above I am beginning the process of deleting everything I don't want. I want the left side crest rail and the middle.



The final step was to make a copy of the left side crest rail, flip it and positioned it on the right side. I then added a wood texture.

If that was not enough of a brain workout, I next had to do a similar, but not as complex process of trimming the legs to match the curve of the crest rail. After this was completed, I have a finished design to show my daughter.





Note the flat crest rail in the before illustration and the subtle curve in the after. I think this new design provides a more polished look. Not only did this new design test my SketchUp skills, I think the design will further test me as a woodworker.

Just as in woodworking, with the SketchUp user can often go about a modelling task in a variety of ways. How might you do this differently. Let me know in the comments below.

Jeff Branch is a woodworker, furniture designer and SketchUp user living in Pelham, Alabama, USA. You can find him online at: <http://jeffbranch.wordpress.com>.

## SketchUcation Tools 2.6 released

SketchUcation Tools 2.6 introduces faster downloads, up to 4x, device syncing of plugins, new API for plugin devs and tons of bugfixes, tweaks and improvements

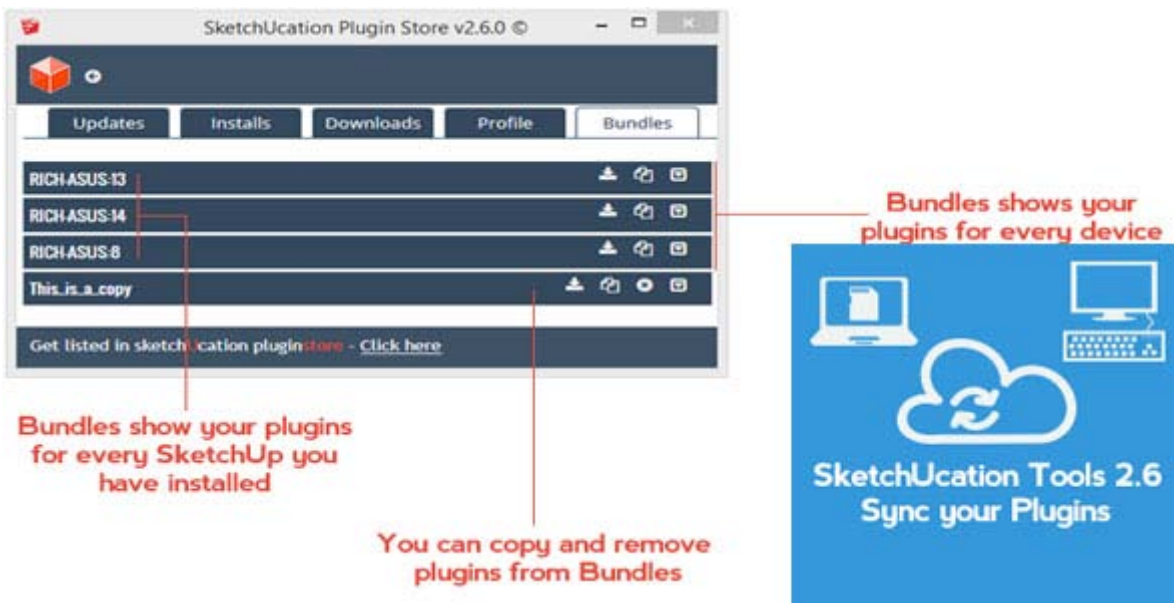
You NEED to update as this is the most exciting release to date. Keep all your devices plugins in sync across different version of SketchUp!

Yep....running v8 and need v2014 to have the same plugins? Simple one click solution to get everything in sync.

Bundles are a new features in SketchUcation Tools 2.6 that allow you to sync your plugin and extensions across multiple devices and SketchUp versions.

SketchUcation now stores your install setup to the cloud and allows you to retrieve it when you need it! If you get a new device or are upgrading your current version of SketchUp Bundles make it as easy as possible to get you up and running in an instant!

[Get it!](#)



SketchUcation Plugin Store v2.6.0

Updates Installs Downloads Profile Bundles

RICHASUS-13

RICHASUS-14

RICHASUS-8

This is a copy

Get listed in sketchUcation plugin store - [Click here](#)

Bundles show your plugins for every SketchUp you have installed

You can copy and remove plugins from Bundles

Bundles shows your plugins for every device

SketchUcation Tools 2.6  
Sync your Plugins

Reference: [www.sketchucation.com](http://www.sketchucation.com)



## Google SketchUp for Interiors: A conceptual guide for modeling i – Paul Stefanik

Google SketchUp for Interiors: A conceptual guide for modeling i write by very good author that named Paul Stefanik are free for download now, many version are offered, PDF version, TXT version and kindle version, if you are currently looking for this book of pdf version, you can download it from our site, the only site that offer free download of this book, free download of kindle books, google books, free pdf books, pdf ebooks, e-books, pdf files or pdf ebooks, enjoy!

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Reference: [www.wzhbook.com](http://www.wzhbook.com)

## DRS Releases Thermal Camera 3D Models Via Autodesk Web Service

DRS Technologies has unveiled a series of digital building product models of its infrared camera technology through an Autodesk web application service.

Autodesk's Seek online platform works to help construction architects and engineers view three-dimensional building information modeling data on DRS' WatchMaster thermal cameras, DRS said Thursday.

The WatchMaster BIM content is designed to allow designers to apply camera models into a computer-aided design layout by using Autodesk software, according to DRS.

DRS camera systems include Internet Protocol and analog connectivity features and are built to operate with other surveillance and security devices.

The company will display its WatchMaster IR camera portfolio during the ongoing ISC West exhibition at the Sands Convention Center in Las Vegas.



Reference: [www.blog.executivebiz.com](http://www.blog.executivebiz.com)

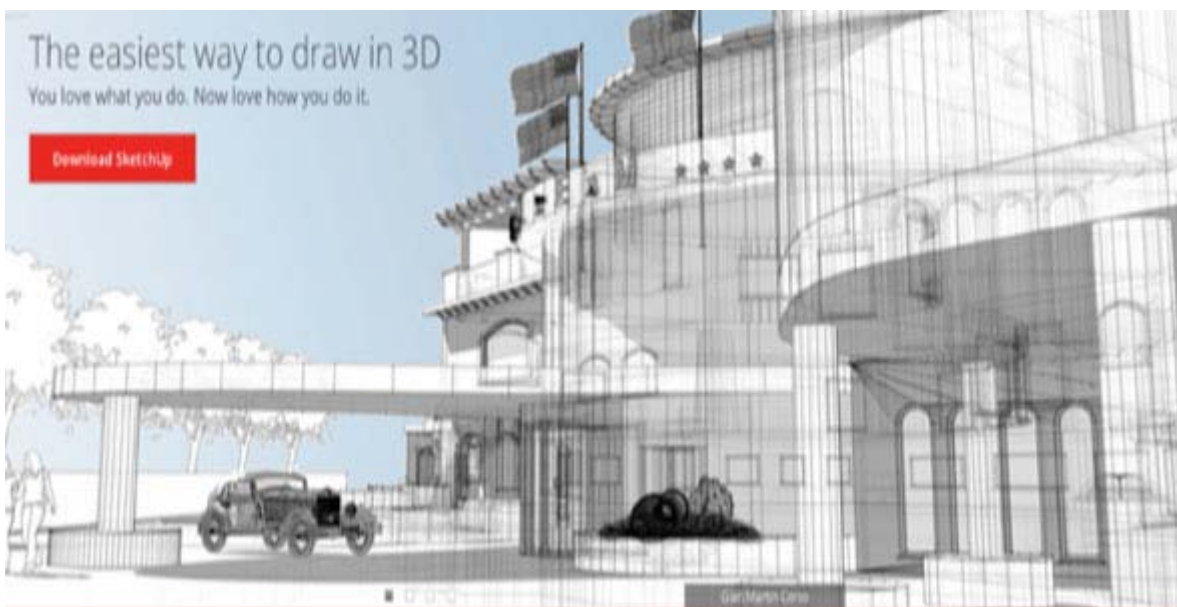
## 3D Design Software – Trimble SketchUp #3DThursday #3DPrinting

This week, I am sharing about [3D design software](#) that I recommend for those who want to get started with [design and modeling for 3D printing](#).

Thanks to the efforts of Thingiverse superusers like Michael “Skimbal” Curry, Trimble SketchUp (formerly Google SketchUp) has been the tool of choice for some of the most popular items from desktop 3D Printing. (See the Gothic Cathedral Playset below.)

With its intuitive “direct modeling” style of control (you will see ideas like these explored in 123D Design) and powerful free version, new 3D designers world over often get started in the craft using this tool. This app has a training system built right into the software itself, to quickly introduce new users.

Be mindful that the output from SketchUp was initially designed for rendering only — your model might need repair before it is ready for printing. There are a number of tutorials online to help you make sure your model is manifold when you export it.



Reference: [www.adafruit.com](http://www.adafruit.com)

## Konstruieren in 3D mit Sketchup 2014

*The 3D design program updates its programming to Ruby 2.0, gearing up for building information modeling and faster to render shadows. And: The Make-version remains free of charge.*

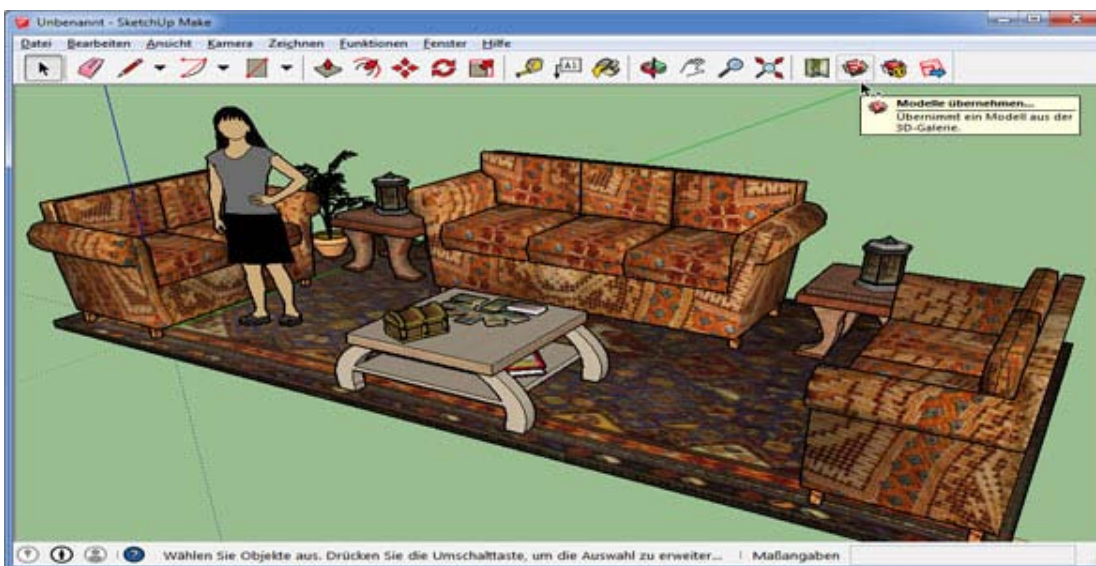
After years there is finally a new drawing tool in SketchUp : arcs can now be distinguished by having the user marks the center with the first click, the the second the beginning of the arc and with third click its end. This is more practical than the traditional method to mark only the beginning and end of the arc and then determine with the mouse, the curvature in many cases. The old method is still available for other cases.

Apart from the current SketchUp version differs from its predecessor mainly by the new figure next to the coordinate origin. For many versions of the development team immortalized there someone from their own ranks, alternating men and women - in version 2014 solves Sophie its predecessor Derrick from. The real changes play out in SketchUp for some time behind the scenes - as it is now updating the extension API to Ruby 2.0 - or relate to tools and services around it.

Example, the online model collection called was for the current version 2014 3D Warehouse completely redesigned. It has its origins in that phase of the SketchUp history, as the software Google was and at that time, among other things for building models was intended for Google Earth. The new 3D Gallery shows for all listed there 3D objects in an interactive WebGL swiveling preview and increasingly contains catalogs of furniture manufacturers and plumbing suppliers. Own SketchUp files can be uploaded, not only out of the 3D program in the gallery, but also directly through the browser now. The limit on the file size, the manufacturer Trimble set high from the previous 10 MB to 50 MB. Under the name of SketchUp Make a functionally reduced version for private use is free of charge. Unfortunately, SketchUp can still not install directly as such free edition, but insists on running as per trial eight hours. So first hike inevitably, the two supplementary programs LayOut and Style Builder with the hard disk.

LayOut is dedicated to the documentation, presentation and 2D implementation of the three-dimensional designs. Automatically inserted in templates for text about the date or the project name to save you time, vector graphics representations of complex objects and shadows to version 2014 up to 15 times as fast as the previous charge. A new meta-tool should help to classify components in SketchUp model as architecture typical objects such as walls, slabs, roofs or windows. The metadata can be stored in the IFC standard and are used with software for building information modeling (BIM).

SketchUp 2014 running under Windows XP to 8 and Mac OS X 10.7. The Pro version costs 537 euros. If a license for the previous version already SketchUp Pro has 2013 gets the update to version 2014 free, from older versions it costs 87 euro. For educational institutions , different conditions apply. Who does not want to edit SketchUp files, but only consider, can also a slender free viewer install.



Reference: [www.heise.de](http://www.heise.de)



## OTOY 3D Rendering Software Now Free for Students

Students can now download OTOY's [OctaneRender](#) 3D rendering software, including OctaneRender plugins for [Blender](#) and [Autodesk's](#) 3ds MAX (and, shortly, Maya), for free. The cloud graphics company is providing the software at no cost to anyone with a .edu e-mail address.

### Features of OctaneRender include:

**Unbiased rendering:** OctaneRender simulates light as an electromagnetic wave to produce precise representations of light interactions real life.

**Parallel processing:** The software uses the processing power of modern graphics processors, or GPUs, rather than serial computer processors (CPUs). According to the company, that means it can produce final images 10 to 50 times faster than comparable CPU-based rendering engines.

**Real-time results:** The WYSIWYG rendering environment displays changes to materials and lighting in real time.

**Multiple plugins available:** OctaneRender plugins support a variety of 3D modeling suites, including Graphisoft's ArchiCAD; Blender; Daz 3D's DAZ Studio; NewTek's LightWave; SmithMicro Software's Poser; Robert McNeel & Associates' Rhinocerus; The Foundry's MODO; Maxon's Cinema 4D; and Autodesk titles 3ds MAX, AutoCAD, Inventor, Maya, Revit and Softimage. Support for Daz 3D's Carrara and Trimble's SketchUp is on the horizon. Additionally, community-developed exporter scripts are available for a wide range of programs.

For more information, visit the [OTOY site](#).



## 3D printing in color with Photoshop CC, hands-on

3D printing is one of the most powerful new tools in the arsenal of many creatives, so it was only a matter of time before Adobe added support for it to Photoshop. You can get a sense of the capability from our coverage of the initial announcement, but since then I've been able to go hands-on and create and print — a small, in-color 3D statue using Photoshop CC and the Shapeways printing service. The process was a little trickier than I anticipated, but the statue came out quite nicely.

**Creating your model:** The process begins with a 3D model of the object you want to print. Photoshop has support for importing 3D objects, and creating textures on those objects, but it is not really a true 3D modeling tool. So you're likely to start your project by getting a model from an online site, although you could use one or more of the simple object samples provided with Photoshop.

You could also use a tool like the free Sketchup app from Google or the open-source Blender to create your model. Professionals may be willing to pay up for a high-end tool like Solidworks. In my case, I decided to use the same Thingiverse model of a Buddha that our sister site PC Magazine has used to test 3D printers. The model is monochrome, so this being a Photoshop project, the first thing I had to do was give it some color by painting it.

**3D Painting:** Photoshop's 3D painting tools may be unfamiliar to many Photoshop users who have only used the program for images. They are much more sophisticated than Photoshop's traditional image painting tools. Its 3D painting model not only incorporates the texture of the underlying material in how colors are applied, but also lets you set the way paint is applied. Typically you'll be painting on what Photoshop calls the Diffuse surface, but you can also paint Specular highlights or change the Roughness of the image, for example. The paintbrush tools also have settings for how the paint falls off as the surface curves away from where you are painting. In essence, you can model many of the physical properties of a paintbrush on a 3D surface to create highly realistic objects.

**Discovering lighting the hard way:** Since almost all 3D printing is done in single color materials, there typically hasn't been any need to worry about either color or tonal values. As a result, 3D models tend to be lit in a way that makes them pleasing to view online — with the lighting completely ignored when the object is printed. However, since my goal was to print in color, the print driver had to decide how to handle the lighting in the model. I received a nasty surprise when my print preview image was almost black — the driver had literally turned off the lights. Even with Adobe's help, there didn't seem to be a way to change that behavior, so I needed to lower the intensity of the lights in Photoshop and completely repaint the image. I would have thought that a simple Curves layer would have accomplished the same thing, but it doesn't work that way when you're doing 3D printing.



Reference: [www.extremetech.com](http://www.extremetech.com)

## Magazine Details – The Creative team of Sketchup-ur-Space

Started in September 2010, Sketchup ur Space (SuS) was the first online magazine devoted to SketchUp, that unique, innovative 3D design tool from Google. It holistically covers features, events, news, updates, reviews and many tips and tricks.



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Rajib, the editor-in-chief of SketchUp ur Space magazine is the main writer. He is responsible to write the cover story, blog and many other columns. Along with it, He is creating a liaison between the writers and the readers.



**Manoj Kumar Singh:** [manoj@jobs2india.com](mailto:manoj@jobs2india.com)

Manoj is enthusiastic helps to put the content of the SketchUp up Space magazine in the html version. Manoj is the html developer who beautifully creates each and every edition with care along with the PDF version.



**Abhishek Mondal:** [abhishek@jobs2india.com](mailto:abhishek@jobs2india.com)

Abhishek is the designer-in-chief of this magazine with the help of his creativity Sketchup ur Space has gotten a classy as well as trendy look...