Part 1 of Google Sketchup - Come Along for the Ride seriesPart 2: In the beginning..... »

So you asked for it, so here it is—- a blog about Sketchup. Now the first thing you have to know is that I'm a complete novice and so this journey we are taking will be interesting. I'm looking forward to the challenge of bringing Sketchup to life for you and me! The other thing is that until Saturday I'm not going to be able to do much. My home internet is down until then when the repair guy comes, so I'm doing a little bit from work before the work day starts and maybe a bit at lunch time. Also know that I'm pretty much typing left handed until after my surgery, so if you see a typo, please forgive me. Fortunately I type for a living and my left hand knows where all the keys are!

First things first. You can download Google Sketchup (for free) at http://sketchup.google.com There is the free program and the Pro program. Definitely get the free one!

Having a mouse with a wheel helps a lot, but the program is also easy for us laptop folks. But if you use a mouse – try getting one with a wheel. (Although I think most new computers come with a mouse wit a wheel.)

Well – I need to get to work – a girls got to make a living.

I hope this blog will be enjoyable for you. I'm sur I'll learn alot as I've always said – the best way to learn somethin is to teach it to someone else.

Enjoy!

Ya, a mouse with a scroll wheel is pretty essential. I use a Space Navigator with my mouse. The navigator is handy for making big moves in large drawings and if you want to do multiple things like click and drag with the mouse and pan the drawing at the same time. They are relatively cheap, and easy to use once you get used to them.

Part 2 of Google Sketchup - Come Along for the Ride series

Part 3: Baby steps, the blind leading the blind »

So the journey begins. The trip is short this morning because I've got to start work shortly.

I'm a beginner at this program so thsy's where we are starting. I will do my best to answer, or find answers to all questions. ***Everyone***is welcomed to chime in with questions, answers, or corections to my answers.

So like I said short and sweet this morning.

First – definitely get a mouse with a scrool wheel—even if you have a laptop. I got my mouse out last night and it makes a ***HUGE*** difference in using the program.

Next when you open a new sheet there's this man standing there. Ten points to the one who can tell me his name! I know it already. Anyway – I don't like the guy. He's a sexist slob. How do I know this? because he appears to be walking and he has his head turned in the "Wow that's a good looking woman" turn. :-) Just kidding guys.

To get rid of the little guy – use the select tool, the little arrow in the top left corner to select him and then right click and scroll up to erase or hide. You can also just click on him and then right click.

I believe to make him go away permanently you need to make a template. I'll get into that later this weekend when my home internet is fixed and I have more time.

"Snip"——you know what that is right—- snip a stray thread off your shirt or you snip at your wife—- wait that must be snap at your wife——sorry. :-)

Snip is how you can stop what ever you are trying to do from happening again. Say, for instance you are drawing a line and are done and want now to draw a circle. You move your cursor to select the cricle but you are still dragging a line along for the ride to the circle tool.

To stop drawing your line, or rectangle or circle, etc. when you finish with the action press the "esc" or escape button. This "snips" off the line,ectangle, etc. and you can go merrily to another action.

OK, gotta go for now. Will do more exploring and more indepth blog this weekend.

Thanks guys and remember***Everyone***is welcomed to chime in with questions, answers, or corections to my answers.

-- Betsy - GO BUCKS!

I always get a chuckle when I see someones SU drawing and that guy is still there! I always erase him…I don't like the way he looks at me. The ESC key is also useful when using the tape measure tool. It is in mark mode by default, which means it will leave snap marks when you measure. You can turn this off using the CNTRL key to toggle back and forth between creating construction geometry or not. An easy way around this is just start the tool, click on where you want to start your measurement, then just let the cursor naturally snap to the point you want to finish your measurement…but don't click. Once you get your measurement just hit the ESC key and you will reset the tape without leaving a snap mark. Previous versions of SU the tape tool didn't leave marks until you hit CNTRL..I liked that better!

One little tip I would like to put out there is..explore keyboard shortcuts. It speeds up drawing and is allot more convenient than clicking on icons. Some of the shortcuts come pre loaded but if you go to the top menus :Window/preferences/shortcuts, you can change/setup the shortcut keys the way you want them. I usually have:
space bar = select tool
l = line
E = erase
H = hide selected
CNTRL+H = unhide all
P = protractor
Q = rotate
A = arc
F = follow me tool
O = offset tool
S = scale tool
Z = zoom
M = move
C = circle
Like I said allot of these are already there. If you print out the quick reference card they are noted on there also next to the commands.

-- Women love me.....trees fear me

Your Welcome!
Hey, everyone starts off "not knowing anything" about something they want to learn. I am following your blog to learn as well as possibly help. I always say that no matter how much you think you know about something you can always learn more. I think your ambition and drive to tackle the SU learning curve might help along some other people on LJ that want to learn SU but haven't started or tried it and got frustrated by it.

Something that helped me immensely and I always thought was great about SU was the amount of video tutorials there are available. When I started with SU, there was no Youtube, but there was tutorials on the SU website. Don't just watch them…open SU and follow along, try out the techniques. The key to getting good at SU is to have a good grasp on how to use the tools. When you don't have to think about how to do something, then you can concentrate on the creative side and really use SU as a tool.

Thanks Brad—- I've been working today trying to solve a problem and can't find the answer. When I opened SU today, all I get is a white screen—no axis lines, no little man, nothing and nothing I can find to fix it. Everything is hidden. Even if I select a tool and "draw" something nothing shows. I've been all over the net with no luck.

Any ideas?

Another quick tip for you… the setting that shows the little sexist guy is for general "Architectural" type drawings… gives you a bit of scale to see…

I almost always use the "woodworking" setting, which pops a little framing square up instead of that guy…

To change (which will maintain that setting until you change it again) go to Window, then Preferences. Click the "template" setting, and you'll have a pulldown menu to choose from. I use Inches (Woodworking) 3D, which gives much more granular measurements by default.

FYI, if you change that, you'll still see the guy… unless you start a new drawing, in which case you'll see the little square.

I haven't yet read the coming parts… maybe you've figured this out, or maybe not… I'll keep reading!

Part 3 of Google Sketchup - Come Along for the Ride seriesPart 4: Tools - general stuff »

Finally have my internet connection back!!!! Don't realize how much you use it until it's gone.

Learning Sketchup is no easy feat. I'm going to make the admission that I'm an not technically savvy and so this project is going to be taken in baby steps. Hopefully, those who are like me, technically challenged, will be able to learn from my little foray into the computer age. For those who are more technically able, perhaps this will provide some good fodder for jokes or water cooler talk! (I won't be offended in the least if you post your jokes here—all us woodworkers should be able to laugh at one another.) They, whoever "they" are, say you can learn the program in an afternoon———- well fear not those who are like me,,,,, not everyone can—but we will learn.

Be it hereby known, I will not be defeated! I will learn how to use this program if it's the very last thing I do! Now you have to hold me to it. :-)

But as always, any interjection of comments, questions, ideas etc or ***more than welcomed.***

My very first HUGE tip is to go to this site: www.youtube.com/aidanchopra —- this is the man who wrote Google Sketchup for Dummies. The videos are very helpful.

I did buy his book and the book says there is a website www.dummies.com/go/SketchUpFD. that you can use—- but I went to the site and could not get it to work for me.

The Youtube videos help to explain what you read in the book.

By way of minor review – the book is ok—- but it is still more technical than I'm used to. I am very old school and some of the technical stuff is mind boogling. I'm not stupid, I just have a different way of thinking of things and I think you have to change your perspective a bit to get into the computer age. I'm working on that and perhaps working through this program will help me to do just that.

The first thing I see that I need to consider with Sketchup (in legalees—- "SU" from hereinafter) is that we are working in 3D—- with axises as our guide. In SU there are three "lines" or axises on the screen. Blue, red and green. You have to view these lines correctly in order to work the system. What makes it work for me is to imagine that the green and red lines (which are the ground) come together in a 90 degree corner. The blue line (which is up or vertical) connects at the red/green corner and goes up into the sky (into infinity and beyond). If I am physically standing up, the green line goes to the front of me on the ground and the red line would go to the right of me on the ground. The blue line would go up through my pretty little head (I jest) into the sky.

OK – before we get to far. One way that I think I need to change is that we need to use the terms that SU uses. So from now on those red, green and blue "lines" are "axis"

(axises – plural). If you are going to be drug into the technical, computer world, might as well talk the talk. :-)

These axises are VERY important to understand. You have to pay attention the axis that you are working on in order to draw correctly.

OK—- the dog is ready at the groomers so this is all for now. In those famous words "I'll be back."

- Betsy - GO BUCKS!

Part 4 of Google Sketchup - Come Along for the Ride series

Part 5: A simple table preview »

So now we have to take a look at tools. There are LOTS and LOTS of tools to look at. But the three most important are the zoom, orbit and pan tools. It seems that their importance are in that order.

Again, I've definitely discovered that if you don't have a mouse you better get one. You can do everything with your keyboard and cursor – but you'll save yourself a whole bunch of aggravation by getting a good mouse.

Moving the scroll wheel back and forth zooms in and out. This replaces the tool that looks like a magnifying glass on the menu bar. This feature helps you to move in close to any particular portion of your project that you want to work on at any one time. When you have a lot of different portions of a project on the screen the zoom feature will be a big advantage. (Layers is another feature that will be useful as zooming – but that's way ahead of where we are now.)

Pressing and **holding** the scroll wheel down **orbits** – allowing you to move around the object and see it on all sides. This replaces the icon that looks like two arrows going in a circle. (It's the one right next to that ghostly looking hand.) You want to become an expert at orbiting—- you'll thank yourself for obtaining this little talent. Picture yourself wanting to look at the back of your house. The only way to do that is to walk from the front to the back—- orbiting is like walking to the back yard.

The pan tool—- that ghostly looking hand – this allows you to move the object around the window. It does not spin the object – just moves it from one side of the window to another. The mouse, in my opinion is less useful with this particular tool. To use the mouse you need to hold down the scroll wheel and at the same time hold the shift key down. This makes the pan tool appear – then moving the mouse around (all the while holding the wheel and shift key down) will make the object move around. I think it is

easier to use the icon – you have to select the icon then hold the LEFT mouse button down to move the icon/object around. I just think it's easier to have to hold only one thing down at a time.

Those are the three tools you MUST get a grasp on before getting very far.

Hopefully I'm not going to slow for everyone——I'm sorry if I am—- I am taking a long time to get the hang of the program. One thing that I think is very helpful is to just start "sketching" and clicking and doing the little things to get a feel for what each tool does.

I think that the biggest shortfall of any book, article, blog, or instruction on any topic is that the person who is writing or teaching leaves out some of the little things that make such a big difference to actually using the program—- I call those things the "Ah now I get it" things. The writer or teacher does not leave these things out intentionally, but the little things are just taken for granted. These are the things that I need to figure out to use the program. So that's what I'm going to try to do here.

Hopefully it won't be too boring. But we are going to take baby steps. I figure I have till about September before I can get back in the shop so that leaves a lot of time for baby steps! Not really, while I have until September, I won't really go that slow. :-)

One assumption that I've made that is not necessarily wrong as a whole, but is not exactly right—- (did you get that?) is that everything starts out as a shape – in other words you have to start with a rectangle or circle or triangle, etc. This is not right.

The important thing is that you have to have an edge and a face to get anything done. You can accomplish this with the line tool (the pencil) – you don't have to start with a "shape."

Just try this—- select the pencil tool, click on any spot then move your cursor to another spot and click again. You now have a line. Because it is a single line attached to nothing in particular it will be a dark line.

Now something about lines and SU in general. As you drew your line did you notice what color it was? If it was green, red or blue that means you are drawing **parallel** to one of those axes. If the line is black as you are drawing – that means you are not parallel to any axis. Most of the time you want to be parallel to an axis – that will make everything that comes after easier.

Now back to that line—- if you have not moved your cursor from where you clicked the second time, you may notice that green dot at the end of the line – that dot – no matter the color is called an "inference" you need to pay attention to those little dots. The green dots indicates that you are at the end of the line and if you click again while that dot is green and move your cursor around you will begin drawing a new line from the "end" of the first. If you move your cursor so that the green dot disappears along the line it should turn red, this indicates that if you start drawing from there that your new line will begin on an

edge not the end. Pretty simple. If you keep moving the dot will change to another color – light blue to my eye – indicating that you are at the midpoint or center of your original line. There are other dots or inferences to watch for. But those are the main ones to start with.

Now back to the end of your line where that green dot is take a look at the bottom right of your screen – you'll see a little box that says "length". This is the value control box. You can make this a complicated idea – but it's not. It's a dimension indication tool – that's it. Move your cursor away from the green dot and watch the box – it will show the length of your line. This will help you when you start actually drawing and want to make something a certain dimension. Don't make it a complicated thing——try to keep this simple. (That's what I keep telling myself.) If you are drawing a line – it shows length, if you are making a circle, it shows radius, etc.

Now just to complete (well not exactly complete) the thought on edges and faces—- take your line and draw four that are connected at those little dots. Once you finish that last line you'll see that the inside of the four lines turns a light black——that light black space is a "face."

Now let's play with that face. Move your cursor to the tool bar and pick up the "select" tool. That's the arrow in the upper left corner of the screen. Move the arrow over the new face and click—- that will change the texture of the face into a bunch of little dots. ANYTIME a face is **selected** it will have these dots. Anything that is selected will be the portion of the object that will be changed by any following action.

You can "select" by clicking as well – you don't necessarily have to use the select tool.

ok that's all for now – all this left handed typing gets tough! More later.

As always comments, suggestions, questions or corrections are always welcome.

oh and just because I don't think a blog is complete without a picture———

there – I feel better.

- Betsy - GO BUCKS!

It's great that your taking the time to get into the really basic details that sometimes are "assumed" that people know already. A few thoughts..
Line inferences are great, but you still have to be careful as you draw. SU will allow you to make non perpendicular geomentry…you think your making a rectangle when in fact its a trapezoid because one side is slightly shorter than the other. AutoCAD has the ability to go into orthogonal mode..where all your lines are either perfectly horizontal or vertical. SU, you just have to be careful!

Using the vcb(value control box) is easy and fast, but make sure you input the measurements in the format that SU wants to see it, or you might get lengths you don't want.

Sometimes the fact that you are drawing in a perspective mode, things might not look equal or parallel…thats when you have to learn to trust the colored infrences..if it says your drawing in the red direction, trust the software even if the line doesn't look right to your eye.

Zooming with the mouse wheel is handy and fun(ya, I have a low threshold of "fun") but sometimes you may find yourself zoomed in way tight to an object then you try and wheel back out but you keep spinning the mouse wheel over and over but your not moving anywhere. Make sure there is some kind of geometry in the view area, even if its just a line. If you are looking at space you wont be going anywhere when you try to zoom back out….it's almost like you need the piece of geometry to kind of anchor where you are so the software has a point of reference for you to zoom away from. this used to drive me crazy in my early years…i thought there was something wrong with the software.

Once you create an area of enclosed geometry (known as a region) a face will appear indicating that the object is now a solid. By default SU colors are white is the front face and blue is the back face. It's not that important unless you are going to use certain render programs, are extremely anal (like me), or like to just do things the right way it's a good habit to get into to make sure that your faces are properly oriented. If you create a box, and the face pops in blue all you have to do is select the face and right mouse click to get the menu and select "reverse face" and it will turn white.

Happy Sketching Y'all!

-- Women love me.....trees fear me

Part 5 of Google Sketchup - Come Along for the Ride series

Part 6: Table building --- starting simple »

I'm at work right now and don't have SU on this computer. But last evening I decided the best way to get moving on this was to put aside trying to do anything fancy (layers, components, MT joints, etc.) and do a simple table. So I spent about three hours or so putting a table together. The table is based on episode 11 of the Woodwhisperer's pod cast. I plan to take it one step at a time and go into detail of each step. I'm not going to do anything fancy like move, copy, tapers, etc. The only fancy thing will be guide marks. This will be an excercise in redundancy of effort. Such as you'll be forced to make 4 legs instead of one. But I think the practice will be good. Get the basics down and then the

fancy stuff will really be easy to get. Doing this this way will help you see the various mistakes you can make and teach you how to avoid them.

I had a lot of fun making the table. I think I ran into some "ah that's how they do that" things that hopefully will help someone else.

If you have time, watch Marc's podcast and then check back tonight on my blog. Hopefully we'll all be on our way to mastering this program!

As always your thoughts, comments, questions and corrections are appreciated.

-- Betsy - GO BUCKS!

Part 6 of Google Sketchup - Come Along for the Ride series

Part 7: Continuing the table - inserting guides and preparing for legs »

So the journey to building a very simple table begins. This table is based on one from Thewoodwhisperer's episode 11 arts and craft table. There's is nothing fancy that's done and that's the best part for this primer on using SU.

Now I've spent some time putting the table together—unfortunately, ***I've still not figured out how to post it here. So if someone can enlighten me on that little gem I'd appreciate it.***

Regardless – here we go. And remember – we are taking baby steps, trying to go methodically and get all, or at least as many as I can think of, the details in there. Hopefully this won't be too boring but I'm doing this as much for myself as anyone. Hopefully it will help someone along the way.

First things first. Open SU and go to Window—Preferences—- highlight "templates" on the left hand list of items, then with the arrow drop down menu choose "inches woodworking 3d."

This should give you a picture with three axes – those lines and a picture of a small framing square.

Select the framing square (click on it) – that will put a blue box around the frame—- hit delete on your keyboard – or right click and scroll up to erase.

So now you are left with the three axes. The red and green lines are the "ground" and the blue line is "up".

Move your cursor to the upper left corner and select the rectangle icon—- this action will turn your cursor into a pencil with a small rectangle next to it.

Move the icon to the "origin" which is the point where all three axes come together. When your cursor hits the origin perfectly on center it will create a yellow dot. Using your mouse – left click to start drawing a rectangle.

Let go of the mouse after you click (we are going to avoid "dragging"), then move the mouse along the green axis. You'll see your rectangle starting to take shape. You should also see a red line moving up along with your mouse. That red line means you are parallel to the red axis. You should also see a green line on the right which means you are parallel to the green axis.

Move your cursor about four inches up the green axis and then left click. This drops the end of the rectangle and it will turn the rectangle a dark blue color. This is the "face" or your rectangle.

Hit the "ESC" button on your keyboard to stop drawing rectangles.

Remember that anytime you make a mistake or want to undo anything, just go to Edit – drop down to "undo" and that will undo your last action. You can continue to "undo" as many times as you want. You can also undo the undo function—- ain't that fun!

Take a look at the bottom right corner of your screen. The word "dimension" should be there and then a box with some numbers in it. Those numbers tell you how big your rectangle is. You can change that number, in fact you should. Type in 36,72 then hit the Enter button. This will size your table top to 36" deep and 72" long.

(If you drew your rectangle on the red axis you would type in 72,36.)

You do NOT have to put a space between the numbers 36 and 72—all you need is a comma. You can put in a space if you want to—- but you don't need it. You DO need the comma. Don't forget your comma!

Before we go any further, you should "save" your table so you don't loose all your efforts.

Move your cursor up to the menu bar and select the push/pull tool. It's the one that is square with an arrow coming out of it. (10th tool from the left).

Place the push/pull tool anywhere on the rectangle – just moving it over the rectangle will make a bunch of pretty little dots to show up. That means that your next action will effect that portion of your project. Move the tool off of the rectangle and it becomes a boring little box again.

Put the tool back over the rectangle and left click once – the pretty dots disappear – don't let go off the left button and move your mouse up. This turns the rectangle white and gives it depth.

Take a look at the dimension box in the bottom right corner – you'll notice that the numbers have changed from the rectangular dimensions to thickness. Type in .75 or 3/4 then hit Enter button. Then hit the "esc" button. Your rectangle is now a table top 3/4" thick and it should appear white on the screen.

OK. I have to take a break—- this left-handed typing is tough! More later tonight.

Remember ***I've still not figured out how to post it here. So if someone can enlighten me on that little gem I'd appreciate it.*** If you can tell me how—please do.

-- Betsy - GO BUCKS!

Ok, there is 2 ways you can get an image out of SU. The easiest way is to click on file/export/2dgraphic. Set up your screen the way you want the image to look first and then click on all that. You will get a dialog box that asks you where to save the image , but more importantly, there is a little tab that says options under the cancel button. You can mess with the res and file size but the most simple way is just click screen res and crank up the image quality to max. You can also name the file and choose what format you want it to be in
(jpeg, tiff, bmp, png). Then hit save. If you are going to post it on here you might just want to set the res to 640×480 and then you wont have to re size it. Then just follow the procedure to post any other pic up here.
The other way to do it is you can set up your screen and then just hit the print screen button on your keyboard. Then open paint or any image editing software. Click on the edit menu and click paste. That should paste a screen shot of your display. Then just re size if needed and save. This method will show cursors and your whole screen including button bars and desktop stuff if its showing..

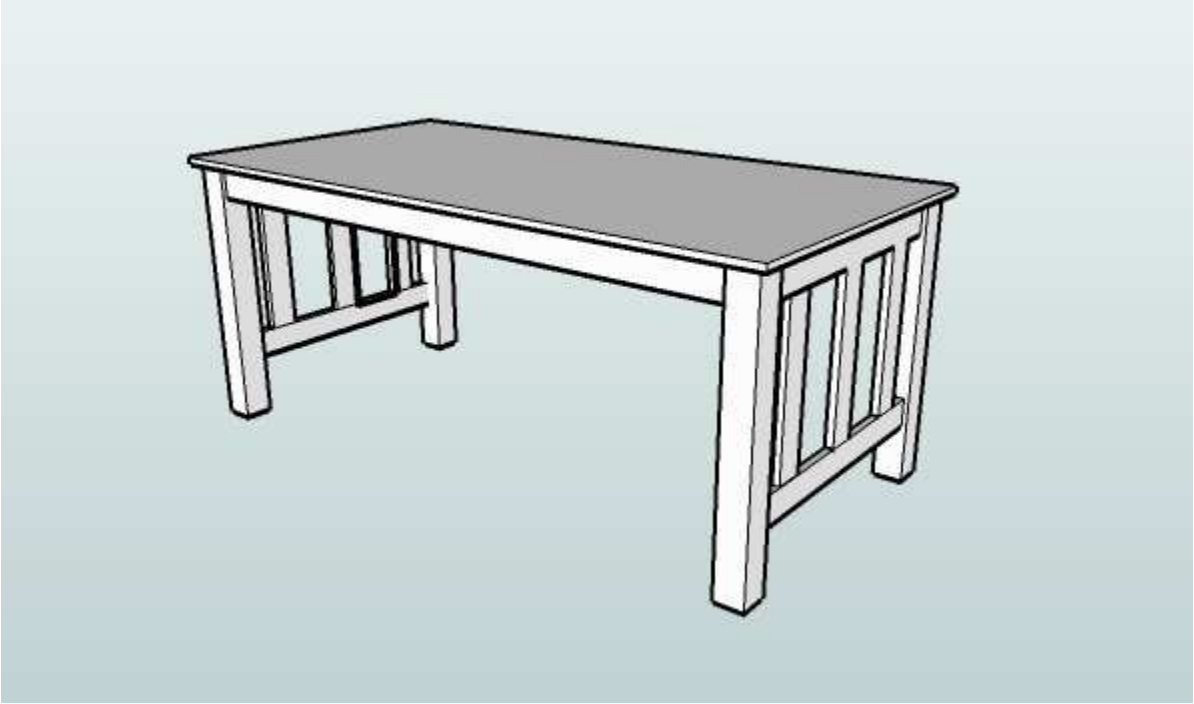
- Women love me.....trees fear me

Thanks Brad—- I'm not sure I get this part

“The other way to do it is you can set up your screen and then just hit the print screen button on your keyboard. Then open paint or any image editing software. Click on the edit menu and click paste. That should paste a screen shot of your display. Then just re size if needed and save. This method will show cursors and your whole screen including button bars and desktop stuff if its showing.”

If I do a bunch of jpeg pictures will that eat up a lot of memory or should I try to do the print screen thing you just outlined?

By the way – I think I’ve got the jpeg thing—- but I would like to do pictures of steps as I go——would your print screen procedure be the way to go?



thanks in advance.

-- Betsy - GO BUCKS!

Actually, either way is alright. You can show steps either way. The print screen version is good if you want to show menus or curser stuff. 2D export is the simplest and most straightforward.

Table is looking good.

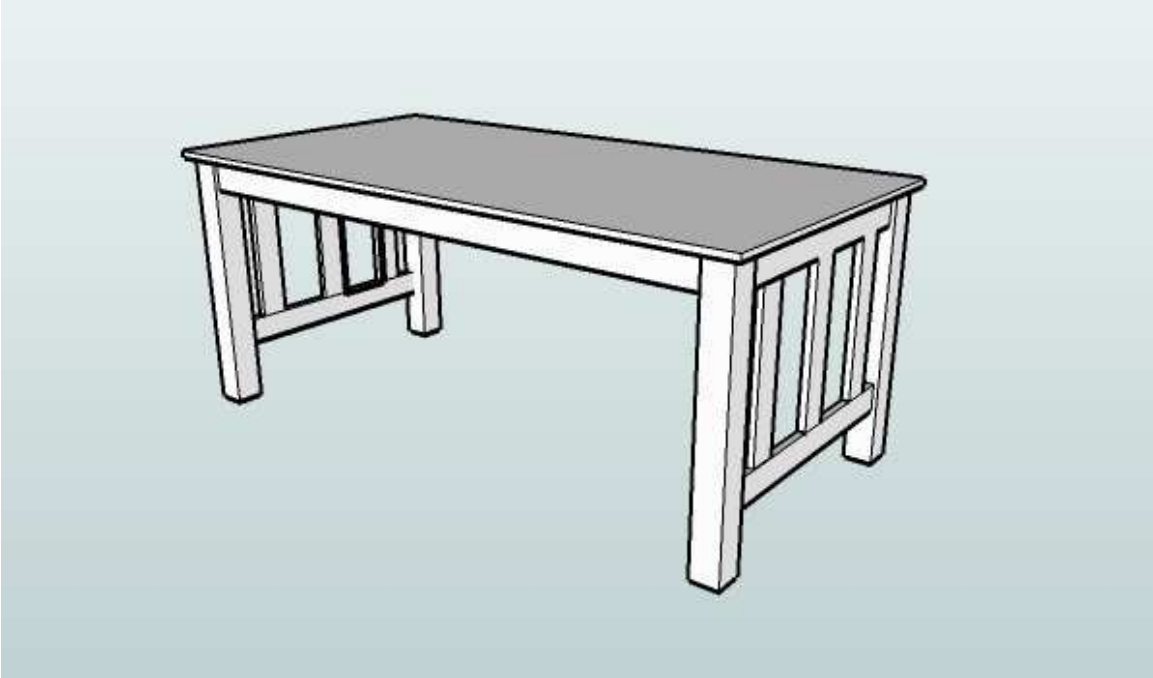
- Women love me.....trees fear me

Part 7 of Google Sketchup - Come Along for the Ride series

Part 8: Putting in the legs and zooming and panning »

I really appreciate Brad and others (some PM's) that have responded to my blog. That's what I want – all the responses help me by either encouraging me to keep going or adding to the blog with other thoughts. That's what I want and I appreciate everyone's input.

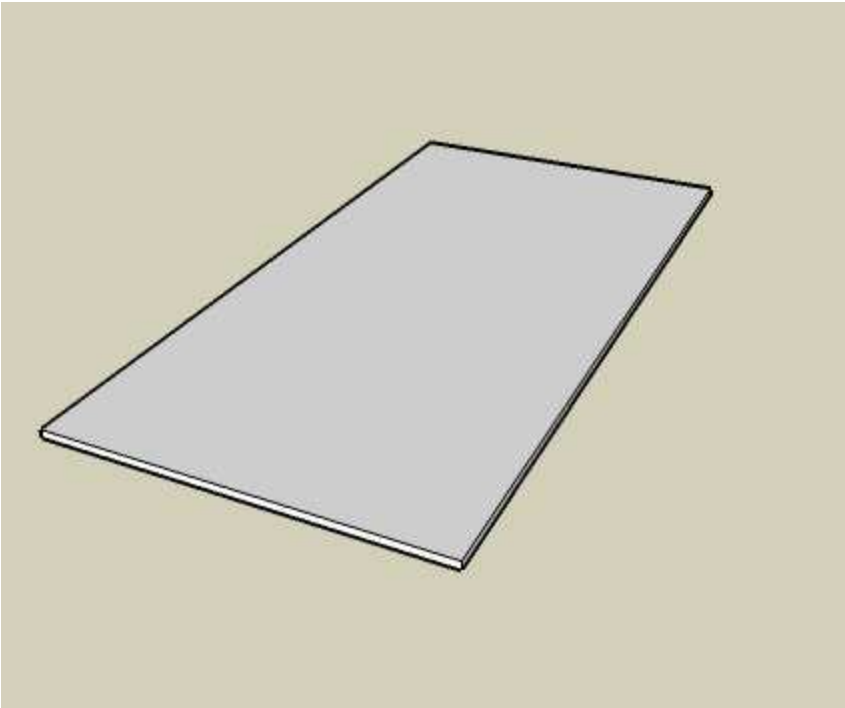
Thanks to Brad Nailor I learned how to insert a picture of the table I am blogging about.



It's a crude project—- but it's a start and I've learned a lot doing it. Hopefully as I move along on the blog you can learn how to do it also and I'll reinforce what I learned to! There is a lot that's not right with it, but just like woodworking where you start with butt joints——this is the butt joint of SU. We'll all get better as we move along.

I left off with have a table top that is 36×72 x 3/4. A table is not really a functional table without legs. So legs are the goal tonight. Remember that I'm taking baby steps nothing fancy is going to happen tonight. Basics, basics, basics and redundancy – that to me makes everything stick in my little mind.

If you are following along and making a table with me – you should open your saved project. This is what you should have.



Guides are basically marks, or temporary lines that help you place other objects in your project. They replace your little tick marks that you make with your square and pencil. You make guide marks with the tape measure tool. This tool does several things – but right now we are focusing *only on it's guide-making ability*.

Click on the tape measure and move your cursor onto the short edge of the top (the one closest to you). When you see the inference dot turn red it should say "edge". Because your top has depth you can actually place your cursor on the top edge and the bottom edge. Since we are placing legs we want to place the cursor on the **bottom** edge.

This can be confusing because you have to remember that we are looking at the **bottom** of the table. So you want the cursor's inference dot to be on the top of the bottom. Got that—I know it can all be confusing.

OK – so now you have your cursor on the top edge of the bottom – left click once – and let go. Move your mouse about 1" or so away from the edge and click again. You should now have a dotted line crossing the short edge of the top.

Notice the VCB (value control box) in the bottom right corner of your screen. The box should say “length” type in “1” and hit enter. This moves your guide 1” from the short edge of the bottom of your top.

Now move your cursor/tape measure tool to one long edge and do the same exercise. You’ll notice that your two guides cross at the corner – giving you a guide/location where to place your leg.

Next do the other short edge. You’ll notice that when you place the guide it looks like it is not the same as the other short edge. This is because of the way you are looking at it.

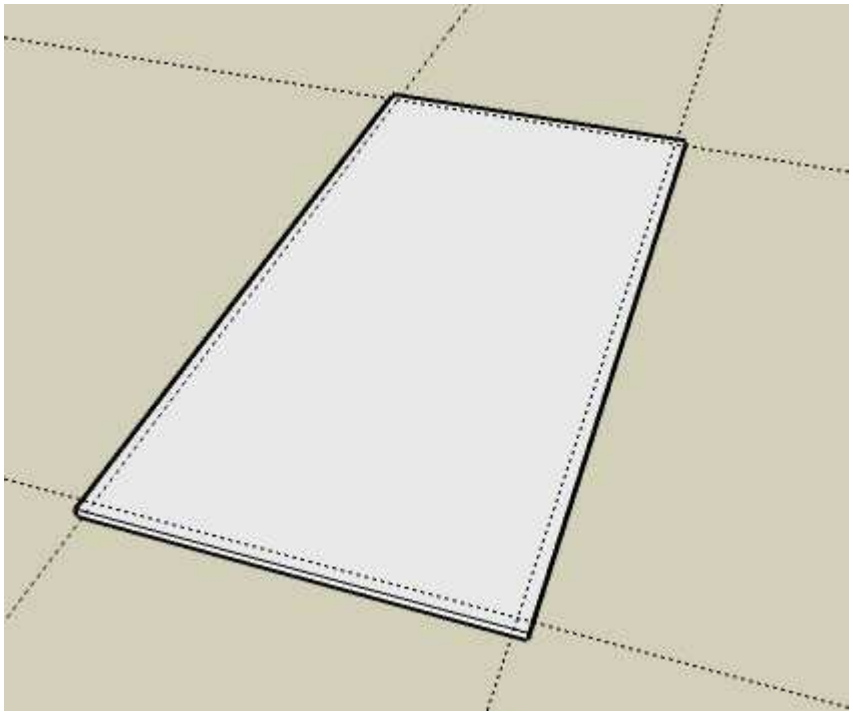
When you do the second long edge you’ll notice that it’s hard to get the red dot to show up—this is again because of the position the top is in. This is a good time to use your mouse and move the top around so that you can see that second long edge better.

So we need to “orbit” to move the edge so we can see it better and get that red dot to show up. Place your cursor over the edge and click and **hold down** the mouse’s scroll wheel. Your orbit tool should appear.

One tidbit here – it does not matter what tool/icon you have on the screen – when you press down and hold the scroll wheel it will always change to the orbit tool.

Now move your mouse around until you can see that second long edge better. Then release your scroll wheel. You should now be able to get that red inference dot to show up. Go ahead and draw your fourth guide line and enter 1” for the distance.

You should now have this on your screen.



Next is to actually place a leg. But that's the next section of the blog. My little hand is getting tired so I need to take a break.

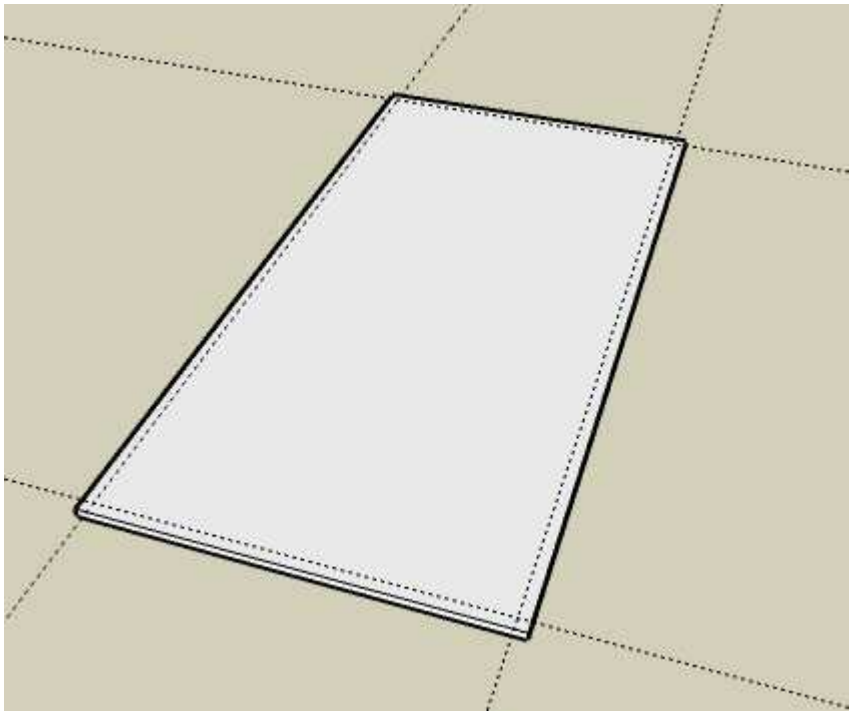
As always your input is welcomed.

- Betsy - GO BUCKS!

Part 8 of Google Sketchup - Come Along for the Ride seriesPart 9: The next progect »

Second try on this one. Had it almost done and it went into oblivion somewhere. Oh well – here we start again.

This is where we ended the last time.



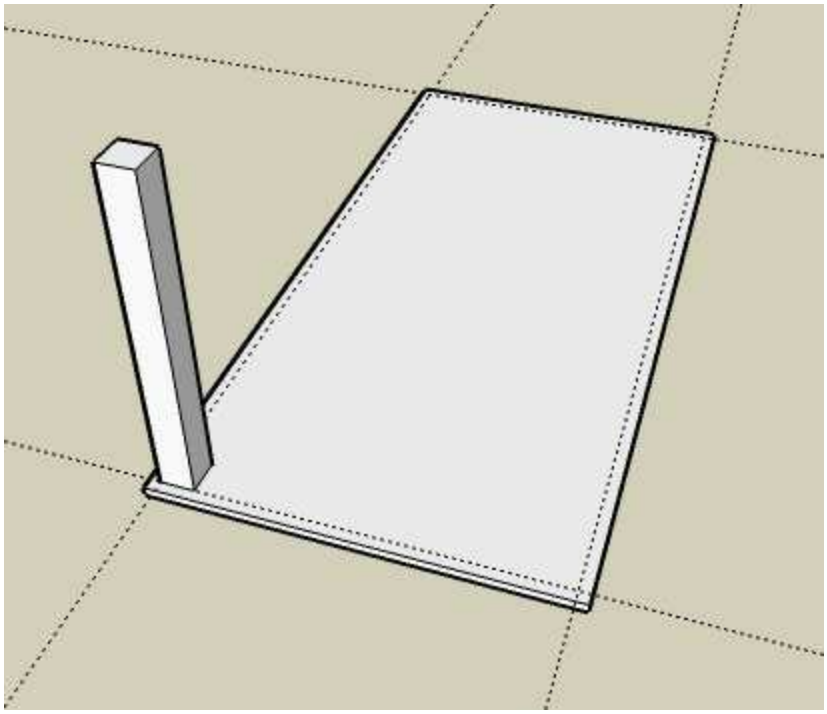
So now it's time to place the legs. This will be another exercise in redundancy. No copying and pasting – practice practice practice. :+)

We are going to work with the bottom left leg. You need to select your rectangle tool and move it to the corner of the two guide lines. When your tool hits the corner exactly a black inference dot will show up showing that you are at the intersection of the guides. Left click the mouse once and let go. push the mouse up about an inch or so and click again. Then type in 3,3 and Enter. This gives you the dimension of your leg.

Next select your push/pull tool, which is the same tool we used to give depth/thickness to the top.

One thing you have to remember about the push/pull tool is this—whatever it is hovering over will turn to a bunch of dots——that means the tool is ready to do something to that particular part of your project. Because of that you need to be sure that the tool is on top of the new rectangle/leg. Once you have it over the leg = left click and bring the leg up. Then type 29.25 in the VCB box and hit enter.

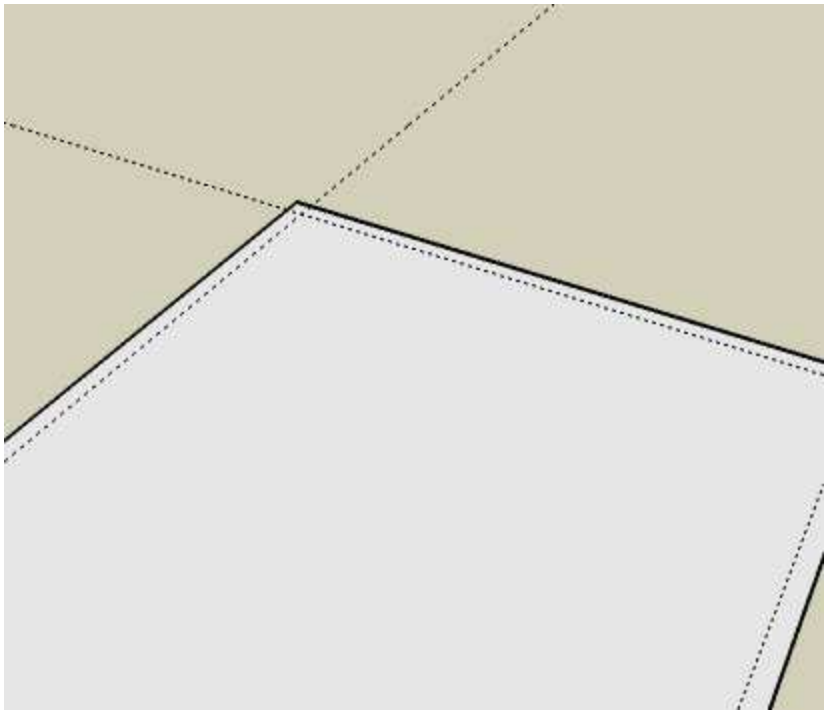
You should now have this.



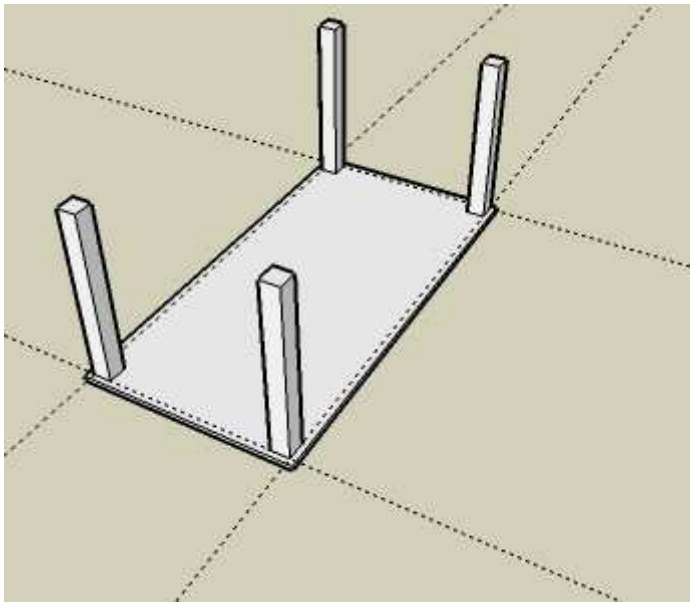
Now we want to work on the top left leg. You can see that when you place your rectangle tool there that it is not as easy to get the intersection to come into view. This is like standing at your workbench and not being able to correctly see the part you are trying to work on. So you either walk around the bench or you move the project. In this case if you physically walk around the project all you'll see is the back of your computer—- that won't help—believe me. What you want to do is to pan and zoom.

I like to pan (use that ghostly hand) and move the project to the center of the screen and then I zoom in (using the scroll wheel on the mouse) until I get a good view.

This is what my screen looks like.



Now try getting your intersection inference to show up. Place your second leg just like the first. Then zoom an d pan some more until you get all four legs in place.



Now is a good time to learn the eraser function. You cannot use the Edit drop down menu for this part – you can only use the eraser. The eraser is the flat pink tool (7th from the left).

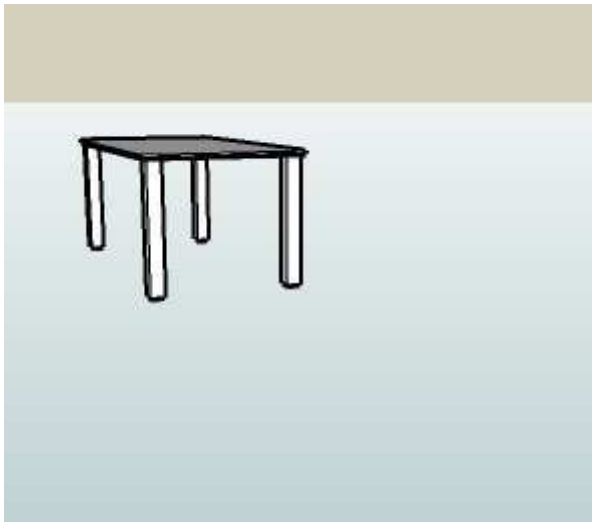
Before you go any further have you been saving your table progress? I'm assuming you are building with me and not just reading. Maybe, please.

So anyway – now is a good time to get rid of those guide lines. You do this two ways one simple one not so hard way. The simply way if you want all of your guides to go away is to go to the Edit menu on the tool bar and drop down and select delete guides and just like that they are gone.

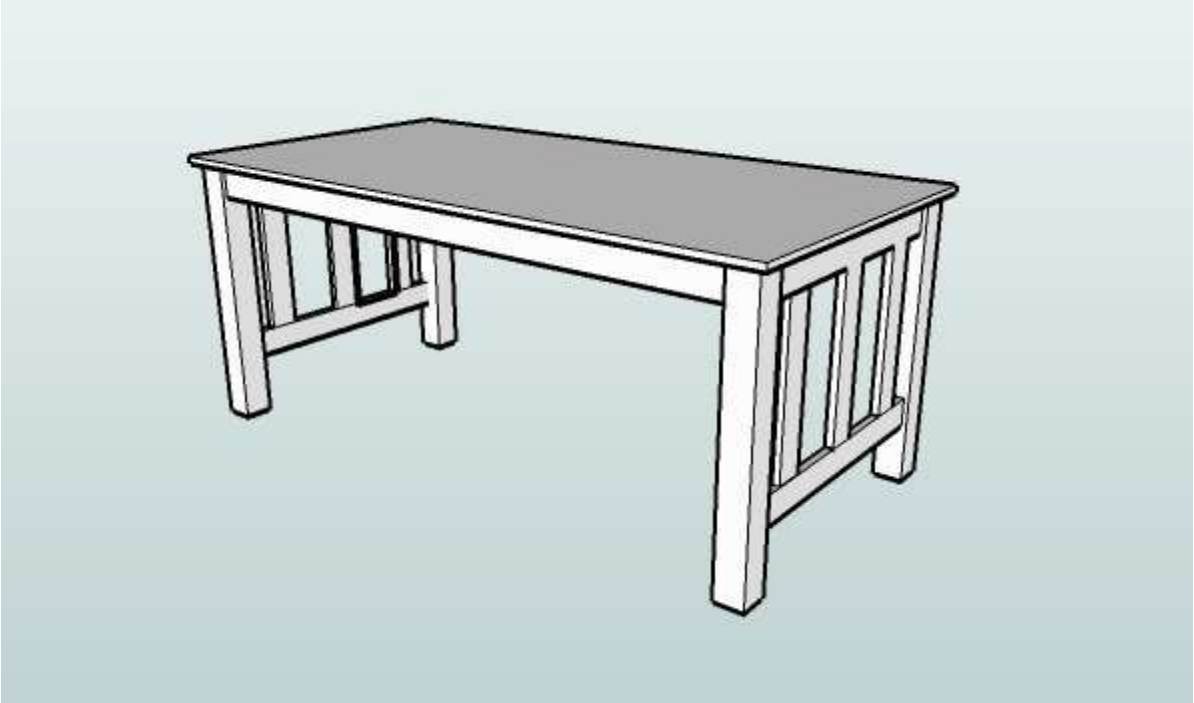
However,what if you need to keep one or two guides and only need to erase one or two. Hummm you do that with the eraser tool and this is how that's done.

Select the eraser tool bring it to the guide you want erased and left click near the guide – it should turn blue the click again – and it's gone

So now we have an upside down table. That's not much use to us. Use your pan and orbit tools to flip this table upright.



This is what we want to end up with.



Hope you all are getting a little something out of this. I know I am. All questions and comments welcomed.

- Betsy - GO BUCKS!

Hey Betsy..
Your table is coming along nicely. As usual, I have a few observations.

I know you are trying to keep it simple and emphasize the basics but you should think about using groups and components at this point. There really isn't anything particularly complicated about this…basically, it's just a way to group certain geometry together. This accomplishes 2 things..it allows you to more easily manipulate the elements in your model, and it keeps the geometry of certain elements from interacting and changing other geometry in your model. For instance the way you made your table leg. If you just draw a rectangle on your table underside and extrude it that works just fine. But if you hide or erase your leg you will find there will be a hole in your tabletop. To avoid this you could just make the tabletop a group. It's real easy, you just select all the geometry (you can do this real easy by triple clicking on any element in the tabletop..top, side,edge or windowing all the geometry you want to include). Once everything is selected, you right mouse click and select make group…thats it! Now the tabletop is its own group and to change any of the geometry you click on the group, right click and say edit group…or

just double click on the group. The beauty of this is you can still draw on the tabletop, or snap any lines or guides to any element in the group. Now when you draw your rectangle for the leg, you can still use any geometry in the group as a reference, or make your own guides the same as you did before, but when you make the leg it doesn't make a hole in your tabletop! The new geometry doesn't change or interact directly with the grouped geometry. Once you make the leg you can group it the same way as the tabletop. Then when you make you stretchers they wont mess up the legs etc, etc. It also makes it easier to hide things..you can hide the whole leg with one click instead of several. It also makes it easier to copy elements as well.
Components are really the same as groups, but when you make an item a component, you can also name it , and set some other attributes about it. The real cool thing about components is that once you make something a component, and copy it, if you make a change to the component all the copies change as well. Say you make a table leg real basic. You make it a component and copy it 3 more times for your table. Then you say..I want to put a bunch of complicated turnings and chamfered edges on the leg. You double click on one of the legs, and make your changes, and all the legs will change along with that one! You will see when you go into edit mode, that the rest of the legs will get that haze over them as you edit. This is a real time saver, especially if you have allot of copied or repeating elements in your model. Give it a try,..it doesn't really take any extra time or effort…you just have to consider what elements you want to group. You can also group other groups as well. You can make your table a group, then all the elements inside that group (tops, legs stretchers) could be groups/components.

Also, when you flipped your table over you really didn't flip the table over you rotated the view. Essentially the table is still upside down, the viewer is just standing on his head looking at it. look at the screen shot you can see the ground is now the sky! You should use the rotate tool to flip the table around. Just select the entire table then grab the rotate tool click on an anchor point (this is the axis point that the item will rotate around) and flip it. The problem with rotating the view is now everything in the model is oriented in reverse.

Hope this helps….

-- Women love me.....trees fear me

Martin does this make me a celebrity worthy of MsDebbie wanting an autograph? :-)

Brad – you are awesome! Thanks for the tips. Those are the things I am going to put into the next project.

“the viewer is just standing on his head looking at it.” – that’s hilarious – I didn’t realize what I had done!

Brad your input is invaluable and that is what I was hoping to get from doing this blog. You’ve given me some good pointeres.

This first project is really basic but the next, a hall table, will incorporate all the things you described. With help from fellow LJs like you I’m going to work my way into “expert” status! Weellll maybe, matbe not. But I’ll be able to do my projects.

Thanks again for the help!

Jerry – I’m glad you are getting something out of it.

-- Betsy - GO BUCKS!

Part 9 of Google Sketchup - Come Along for the Ride series

Part 10: Rotating ---- not sure I've got this right but here goes »

I’m nearing the end of my basic table blog and will be starting another project that will be more complex. Such things as groups, components, etc.

Since I’m not allowed in the shop right now, I’m not going to tempt myself by designing a new progect. So what I’ve decided to do is to use SU to make a drawing of a project I’ve already done. It’s the hall table that I have posted.
http://lumberjocks.com/projects/3507

I’ll be finishing up the table tonight and moving on to the hall table. I’m sure I’ll need lots of pointers and tips on this new project – so feel free to help me learn SU!

Stay tuned!

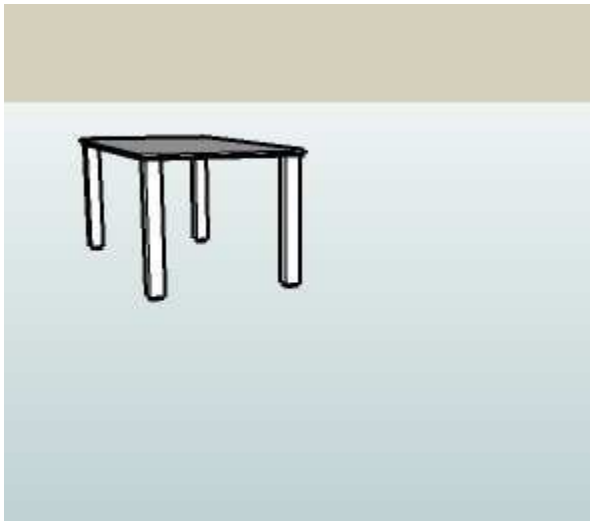
-- Betsy - GO BUCKS!

Part 10 of Google Sketchup - Come Along for the Ride series

Part 11: Last of the simple table blog - then onto bigger and better projects! »

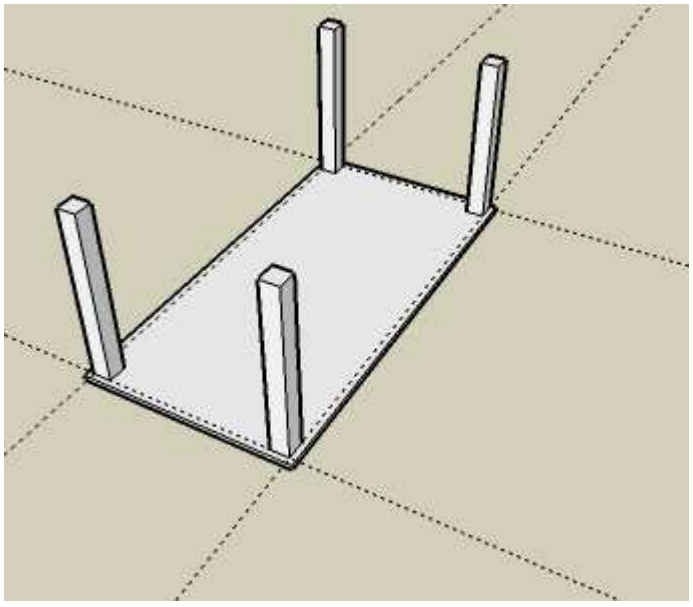
Well I should be able to finish up the table project tonight. Still going slow and methodically. To everyone who has commented and added tips—- THANKS. I really appreciate it and hope you continue to add to my blog. This is all about learning after all.

So we left off here.



Now we have to back up just a bit. If you remember from the last section I had used the orbit tool to turn the table upright. Well come to find out there's a better way (thanks Brad!).

We started with the table upside down to add the legs. Like this—



Instead of using the orbit tool to upright the table—use the "rotate" tool. This is the 12th tool from the left and looks like two arrows chasing each other. When you click/select

this tool when you move your cursor back over the work space – it should turn into a circular protractor. Pretty slick stuff!

The Rotate tool is just too much fun to be allowed actually. First the academics—- to flip the whole table you have to "select" the whole table. I'm pretty certain I'm missing something here. But let's just use the select tool to select the entire table – move the select tool over the table and left click three times, this should turn the entire table blue outlined.

Next just for giggles move your cursor around the table—notice how it changes color? What ever color the tool is means that your actions will take place in that axis.

Yet for more giggles try this little exercise. Move the cursor over the lower right corner until you see the green end point inference dot and the protractor turns blue. Left click and release—- then move your mouse around—- and watch the table swing around and around———- I know it does not take a lot to entertain me.

OK – back to the serious stuff—- hit the escape button to release the protractor (and for good measure go to edit and undo any rotating you might have done).

This is how I used the rotate tool – but I'm not sure I'm doing it correctly – but it seemed to work. I moved the tool to the left side of my table and let it turn to red – for the red axis then moved it so that the red/edge inference dot showed up and then double clicked. Then in the VCB I typed 180 degrees and hit enter. This flipped the table to its upright position.

So I think that's a way to rotate. But I really think I'm not grasping the rotate tool just yet. I'm going to have to work on that a bit more – OK a lot more.

Any help would be appreciated.

With all that said—- to do the rails on the table as I did them originally—in slow baby steps without anything fancy—- you need to flip the table back onto it's top. So you can practice with the rotate tool or can go to edit – undo rotate.

I'll do another section on this later tonight—maybe tomorrow – my neck is really bothering me so I need to take a break.

if someone can shed some more light on the rotate tool and how to use it correctly – I'd (and I'm sure someone besides me) would appreciate it. Jump on in!

-- Betsy - GO BUCKS!

Part 11 of Google Sketchup - Come Along for the Ride Part 12: Simple Sketchup

series bookcase »

So now we are going to finish up the table. Since I started this little project I have learned a ton of stuff. All that will be explored on my next project – the hall table, however, I really feel like I need to finish this blog project the way I started, with baby steps – and not necessarily the very best way to get things done.

(one caveat—my pictures are screwed up and I'm not exactly sure why. So there are not many pictures tonight. Will start fresh for the next project.)

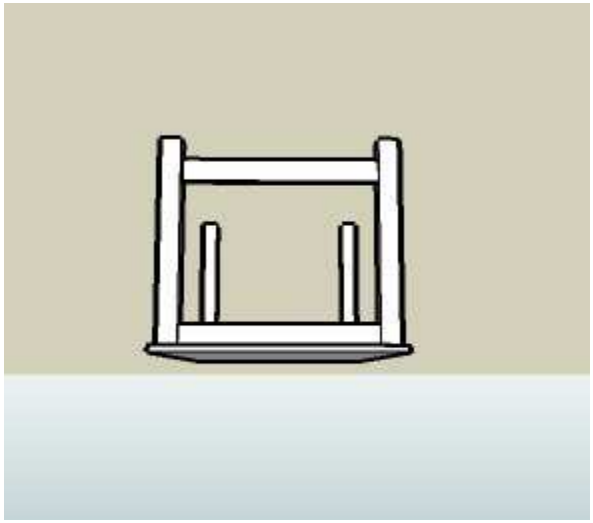
The last blog we flipped the table over onto its feet. Now we need to undo that and set it back on it's top.

Use the "select" tool and triple click the table so that it turns completely blue. Select the rotate tool and click the edge of the table so that the red inference dot is showing. Left click again and type in 180 in the VCB box—- then hit enter. This should flip the table back onto its top.

We are going to put in the aprons, end rails and stiles. I'll do several ways. Mostly I'll do this to show you really why you do want to do things differently, by using components, groups and layers. So this exercise really will be helpful in the end.

Use your zoom tool and pan tool to move the table around so that the legs are filling up much of your screen.

So now use your guide placing talents to place a guide 3/8" from the outside edge of the leg. Then place guides 3" from the top and 3" and 6" from either end of the leg. It should now look like this.

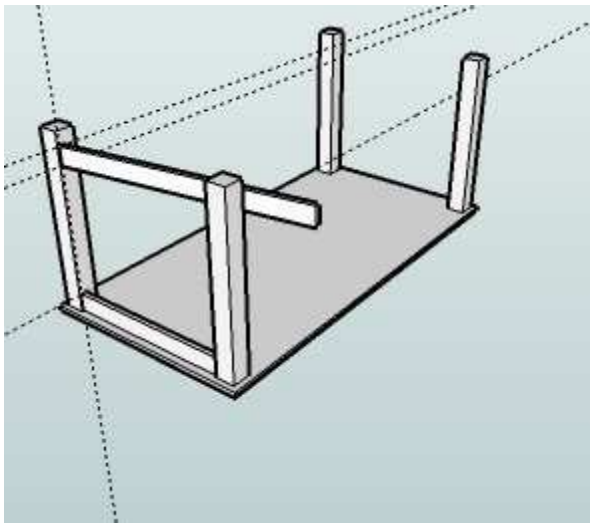


Select your rectangle tool and move it so that you get the black intersection inference dot to show (in the lower left corner at the "top" of the leg). Move the cursor up to the guide

mark and over to the right slightly. Type in 3, .75 in the VCB box. This should give you a tall rectangle – not one on it's side.

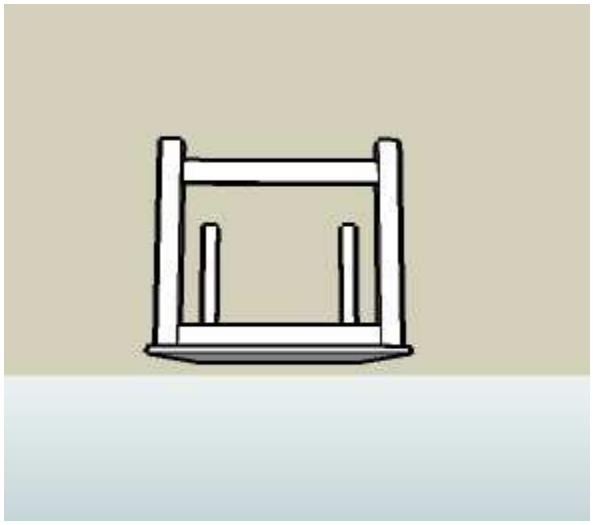
Now do the same for the other end of the leg. You now have your short apron rail.

I've pictured here what will happen if you do not put the rectangle squarely on the axis.



Now you need to redo that rectangle to make sure it is square on the face of the leg. Now pan around so that the table's end is facing you and use the push pull tool to pull it out the two rectangles to meet the other leg.

This is what you should now have.



Now onto the stiles. Use your new found zoom and pan skills to zoom around and get a good look at the bottom rail and draw guide lines to place three stiles evenly across the width. (3, 6 and 12.5 from each end).

Then zoom and pan around to place a guide 1/8 in from the outside of the rail.

Place your first rectangle and push/pull and this is what you should have.

Repeat two more times on one end and duplicate the actions on the other. Very, very repetitive, and not necessary.

The next blog will explore a better way but doing a hall table.

Hope you have enjoyed this ride. I know I've learned a lot. Mostly that I've got a lot more to learn!

-- Betsy - GO BUCKS!

Part 12 of Google Sketchup - Come Along for the Ride series

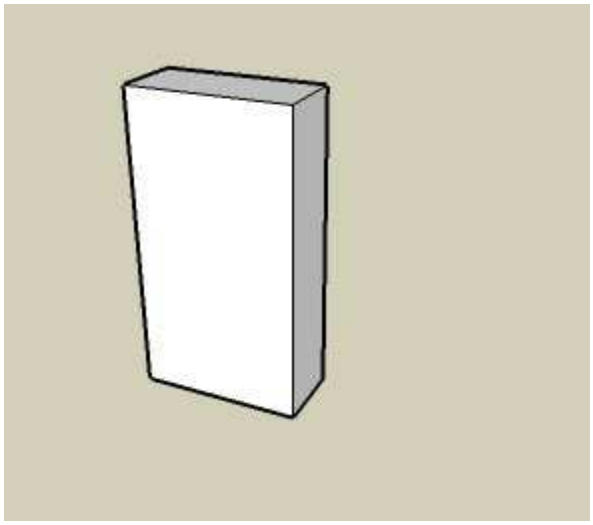
Part 13: Hall table project - starting out »

Here I am going to try a little bit more of this Sketchup program. I'm having a bit of trouble getting the hang of things – but I'm determined to whip this program into submission! I was going to work on a hall table – but decided that's still out of my SU talent range so I've decided to do a simple bookcase. I've picked up few tricks. Nothing to fancy – but more than the baby steps I took with the table blog.

Between the medication for my neck and the cat sitting on my keyboard – I might get this accomplished.

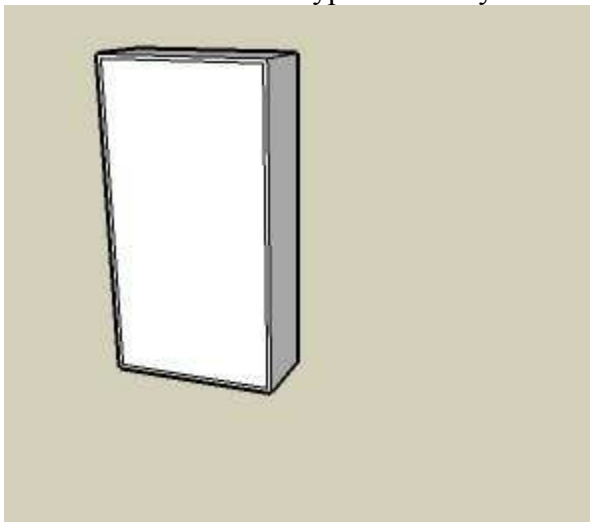
First start with a rectangle the outside diameter of the bookcase. I'm shooting for 14" deep and 32 wide.

Use the push/pull tool to pull the rectangle up to 5'.

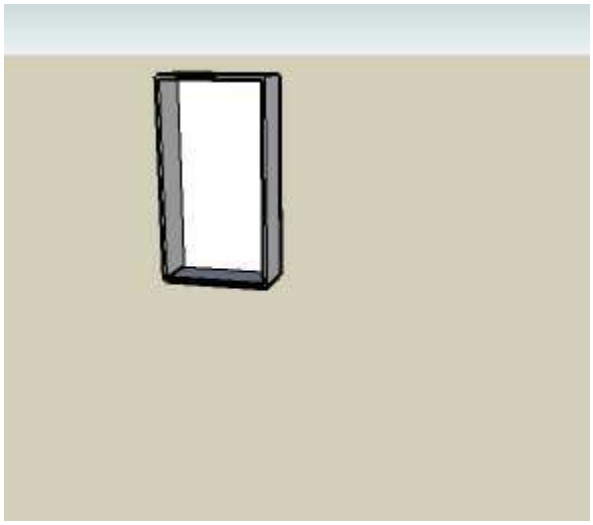


Now we'll use the "offset tool." This is the tool that looks like a half circle with an arrow coming through the top (13th tool from the left of the small tool bar).

Position the offset tool on the top edge of the rectangle so that the red inference dot shows up. Then slowly move the tool inward – you should see a second rectangle being created – left click and type in ¾" in your VCB box. This will give you ¾" sides.



Next select the face of the rectangle and use the push/pull tool to push the face back 13.75"



As it appears this is just a simple box that will have shelves added. Nothing fancy. I've not figured out how to show the rabbet on the back or the dados for the shelves. But I'll get there!

Next so that nothing happens to my shell – I'll make this into a "group."

Select the box by triple clicking so that all the edges are blue.

The right click and select "make group"

Now onto making a few shelves.

Select the rectangle tool and draw a rectangle on the bottom of the case. I choose to make mine 12" deep (by 31" long).

Then select the rectangle and right click and select "make component."

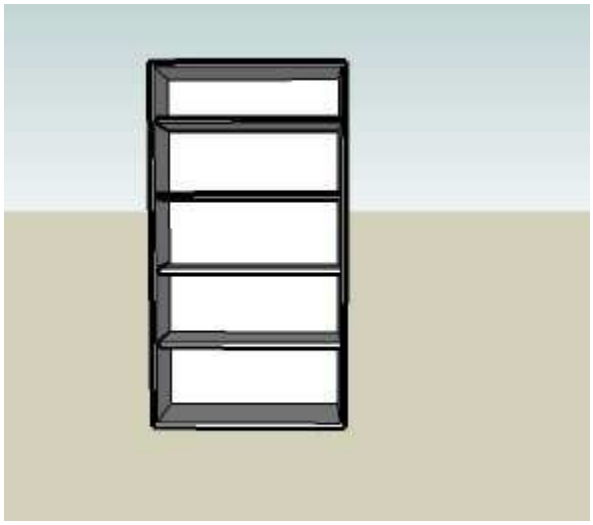
Now select the rectangle/component by using the select tool and double clicking,

Bring the move/copy tool onto the shelf component you should see four red crosses (x's) and it should say on "on face on group"

Left click and hold the control key down—and move your copy up to the top of the case. Type in ***/4*** then hit Enter. You should get four additional shelves evenly spaced.

Click on the bottom shelf (the original rectangle) and delete.

Now select one of the shelves by double clicking and use the push/pull tool to expand the shelf – ¾". Because you made the shelf a component – what ever you do to one shelf will happen to the others.



Certainly nothing fancy here. I want to work on figuring out how to put the rabbet on the back and the dado's for the shelves. I still need to figure out how to show the screen I'm looking at into the blog. That would probably help a lot. But I'm missing something in my fellow LJ's explaination of how to do that. But will keep trying.

Hope this makes sense!

-- Betsy - GO BUCKS!

---

ou asked for it. ;)

One thing you might consider is drawing the sides, top and bottom as separate components. It would be the same idea as the way you would build it in wood. Make one side by drawing a 3.4" x 14" rectangle and pull that up to 5'. Make that a component, copy it with Ctrl+Move and then mirror it either with Flip along or Scale and -1.

Draw the bottom in between the siides; a rectangle and Push/Pull. Make it a component. Do the same for the top.

Make the shelf component and copy it as you did. OK, that's got the case.

Orbit around the back and zoom in close open a side component for editing and draw the limits for the rabbet. You could set out some guidelines with the Tape Measure tool if you want. Use Push/Pull to push the rabbet in. Repeat that for the top and the bottom. If you didn't do it before, edit the shelf component to push the back edge in so it'll clear the back panel. Then use rectangle and Push/Pull to make the back panel and make it a component.

I'll try to make some images to help.

Dave

-- "Duck snored."

Hello Betsy,

Thanks for the step by step approach. I agree with Dave though; I try to use SU to mimic what I'll be doing in the shop so I like to create the components as if I was actually machining the wood. This give me the benefit of having to work through each step of construction digitally before going into the shop and making sawdust. I initially did as you were doing just using SU to 'sketch up' the piece to be worked on…but that left me wondering "How am I going to build this?". Using Dave's approach I am solving that question as well as designing the piece. My $0.02 worth… thanks again for the tutorials.

-- ....next big purchase is wood for the next project, Mark

"but that left me wondering "How am I going to build this?"…I am solving that question as well as designing the piece. "

Mark, I like that statement. That's exactly the way I approach drawing a project after I've worked out what the thing is supposed to look like.

Every piece of wood that will need to be made in the real project is made as a component—never a group—so that it can be easily separated from the model later if desired. There are several reasons for only using components and not groups.

1. Using components rather than groups for parts which will have multiple instances (even if they are mirror copies) helps keep file size down which keeps computer performance up.
2. If I want an exploded view of the model for dimensioning or to show how it goes together, I make a copy of the model and move that copy off to one side. That copy gets exploded. In some cases there may be multiple copies of the model made for exploding. If I need to make a change to the model, I can edit the original and all other copies get edited as well.
3. Components can be saved for future use in other models if desired.

4. If I want to make a cutlist from the model, the parts must be components as the plugin won't do anything with groups.

-- "Duck snored."

Part 13 of Google Sketchup - Come Along for the Ride series

Part 14: Hall table progress with questions at end »

Well – I'm still recovering from my surgery. Today is my first day/night at home by myself. I'm trying to keep busy by learning this Sketchup program. So far, it's beating me. But I'm still going to keep at it.

So my thought is that I can't just keep trying to make things up to learn how to do the program. I think I mentioned before that I would try to use the program to draw the hall table that I made a long, long time ago. I happen to have the prototype in my bedroom so I could get the measurements and work from there.

These are still baby steps but I have learned two very important lessons while tooling around.

If you are going to need more than one of anything in your project, such as a leg – make it a component.

If you need only one of something in a project, such as a table top – make it a group.

To me the two terms "component" and "group" are a little confusing. A "group" seems like it should be more than one thing. Not sure why they use the term the way they do, but it is what it is. Just remember if you need more than one – make it a component and if only one is used make it a group.

So the dimensions for my table are:

Top 42×14 x ¾
Legs 1.5 x. 1.5×28
Long aprons 36×5.5. x ¾
Short aprons 9.5 x. 5.5. x ¾

The front apron is divided into five individual parts.

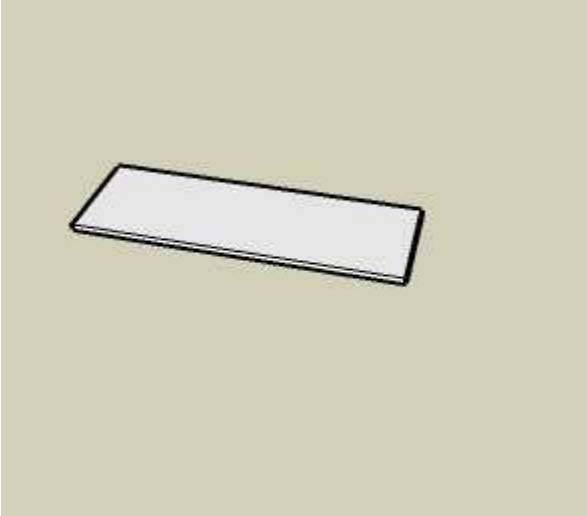
The top and bottom pieces are 36×1.5. There are three small dividers that make the openings for the two drawers. The two dividers on the ends are 2.25×3.5 and the middle divider is 3.5×3.5 and is, of course centered across the length of the apron.

The legs are set in ¾” from the front and back edges and 1.5” from each side.

So here we go, we’ll see how far I get this session.

First is to make the top. Select the rectangle tool and make a rectangle 14×42 and use the push/pull tool to bring it up to 3/4.

Use the select tool and triple click on the top so that the entire top is blue.

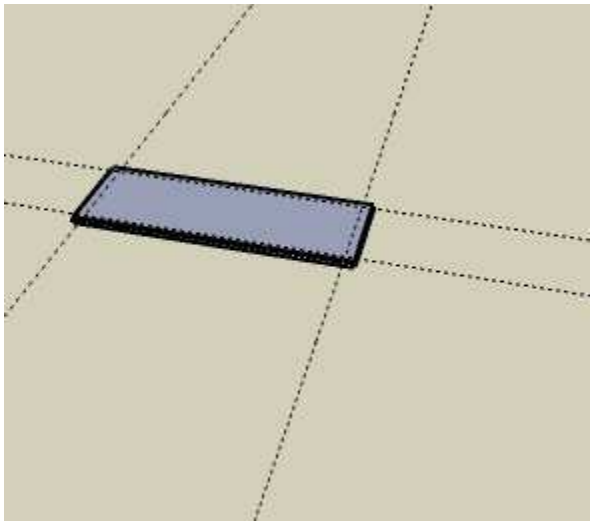


Right click and select “Make Group.”

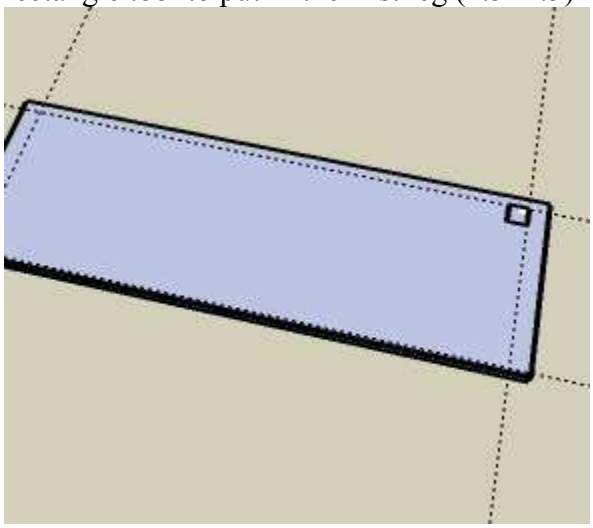
Once you’ve made the top a group – no other geometry, or parts/functions will change the top.

To change the top you just open the group and edit as desired.

Now we get into a bit of the confusing part for me. I’m going to put in some guide lines using the tape measure tool to place my legs. There are two ways to get to the bottom of the top – orbit around so that the bottom shows or right click the top and select “reverse face.” I think that you need to orbit around to the bottom.



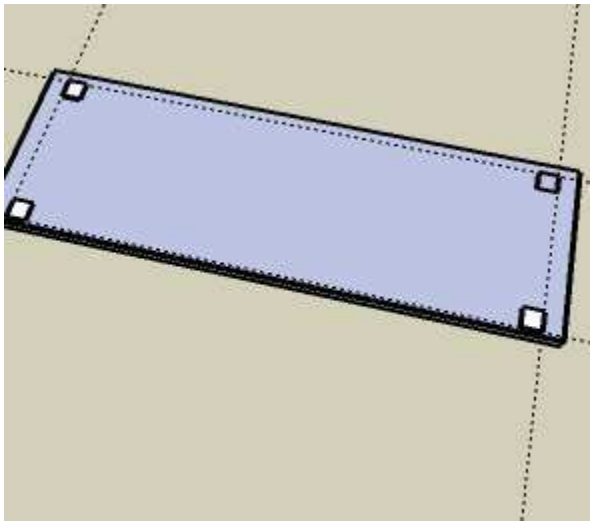
Next orbit and zoom around until you can adequately see the guide marks and use the rectangle tool to put in the first leg (1.5×1.5)



Select the rectangle and right click and select “make component”. I’m going to call my component – “leg” – how creative!

Then while the component is selected – capture your “move/copy” tool and while holding down the control key (option on Macs) click on the leg component and move your mouse to the other corner. Repeat two more times.

There is a way to copy once and then select both copies and then move those copies to the other end of the table—- but I’m not sure how it’s done.



Double click one of the legs to open the component.

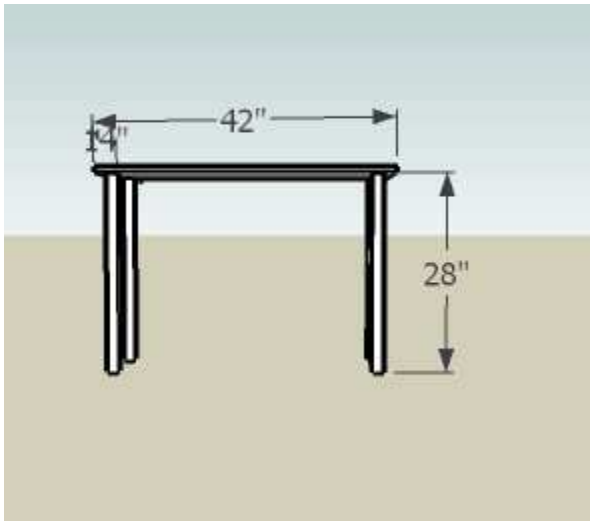
Select the push/pull tool and pull to 28”. Pulling one component will pull all four legs up.

Now orbit around to put the table back on it’s feet.

Here’s a big question that I’d appreciate help with.

I’ve used the measuring tool to measure between the inside of both front legs and that distance should be 36”—- I’m 1/8” off. **How do I move the leg just a little bit to make that distance?**

When I placed my leg copies I placed them to the guide marks. There must be a more accurate way to do that.



Well I think I'm done for now. I'm still having problems getting all my pictures to download – but I've got a few in here.

Thanks for any help you can give me.

-- Betsy - GO BUCKS!

I would go back and double check everything with the tape…make sure your guide lines are where you think they should be…make sure your tabletop is the right dimensions on all sides. Also make sure your precession is set to at least 1/16"...I usually set the snap and precession to 1/32" if I am doing furniture, and 1/16 if I am doing construction (architectural) drawing…
To move something an exact distance you could use the tape tool to mark a spot 1/8" from the edge of the leg corner then grab the leg corner and move it to your mark. Or you can select the leg, grab the move tool and slide the leg over (in the plane) a little in the direction you want to move it then type in 1/8" in the VCB. Even if you moved the leg over a foot as long as you didn't click the second time it will move whatever value you type in the VCB. Once you get comfortable with the tools and using the VCB you will probably not use markers and construction geometry..I hardly ever use them myself. Another cool trick is, say if you were doing evenly spaced railing balusters 4" apart. You would construct the first piece, make it a component, then position it where you want it to be. Then grab the move tool, click CNTRL to go into copy mode then move the copy over so you have a 4" gap between them. Then while your still selected before you do ANYTHING else, type in the number you think you might need, say 20 in the VCB, and 20 more pieces will appear the same distance apart as the copied piece! If you made too many then type a smaller number in the box…not enough, type a bigger number.

-- Women love me.....trees fear me

Hi there,

It is really easy to make small moves very accurately in Google SketchUp. Just start moving it and make sure it is hovering parralell to one of your axes and then use the

value control box (VCB) to type in the exact amount you want to move it. I made you a quick video to show you how:

http://sketchyquestions.blogspot.com/2008/08/small-moves-in-sketchup.html

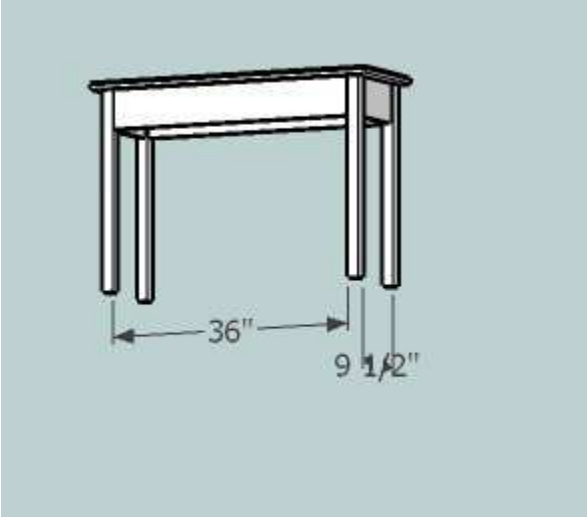
ManOfSkill
http://SketchyQuestions.blogspot.com

Part 14 of Google Sketchup - Come Along for the Ride series

Part 15: Hall table redo -- just putsing along - and questions, course »

Today, I'm going to put in the aprons and hopefully with the help of my LJ friends the openings for the drawers.

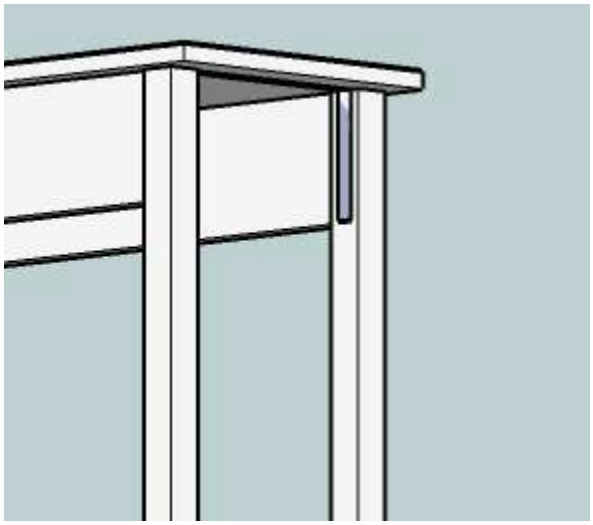
First the aprons. This is what I what I'm going to end up with at the end of this blog session.



Use your zoom tool and pan tool to move the table around so that one of the "short end" legs are showing. (Since I've already managed to get the aprons on, I'm simply going to erase one short apron to demonstrate what I did.)

Select your rectangle tool and move it so that you get the black intersection inference dot to show (in the lower left corner at the "top" of the leg). Move the cursor up to the guide mark and over to the right slightly. Type in 5.5, .75 in the VCB box. This should give you a tall rectangle – not one on it's side.

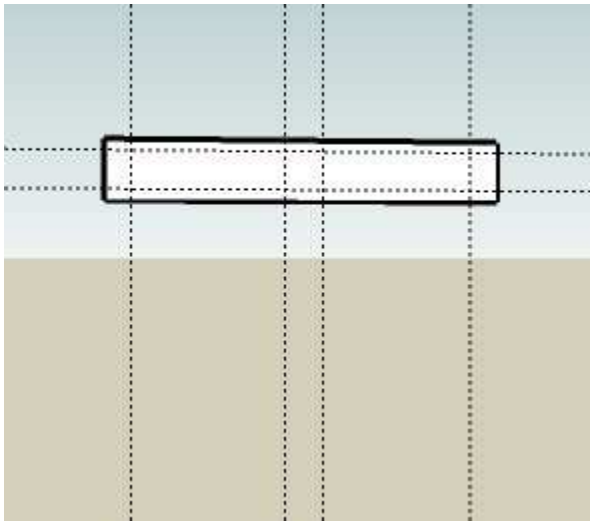
Use the push/pull tool and pull the rectangle out 9.5”. This will give you your short apron. Do the same procedure on the other end. On the front and back do the same procedure but pull out the rectangle to 36”.



Now my problem – how to do the front.

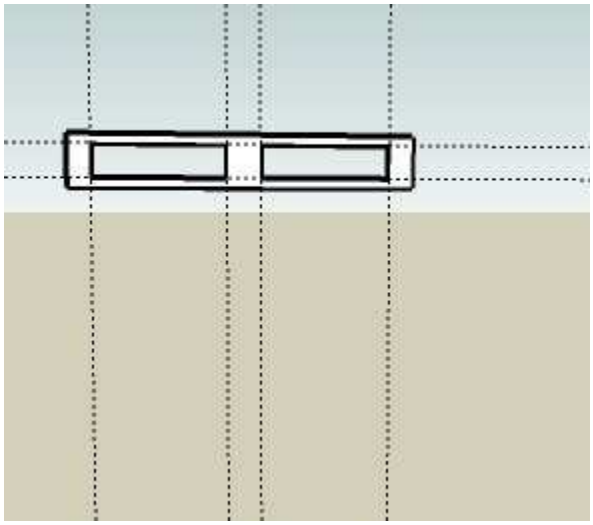
What technique should I use to make the front? The front as made in the real world is 5 pieces. Top and bottom rails are 1” x 36”. There are three stiles. Two stiles on the ends are 2.25×3.5 and the center stile is 3.5×3.5.

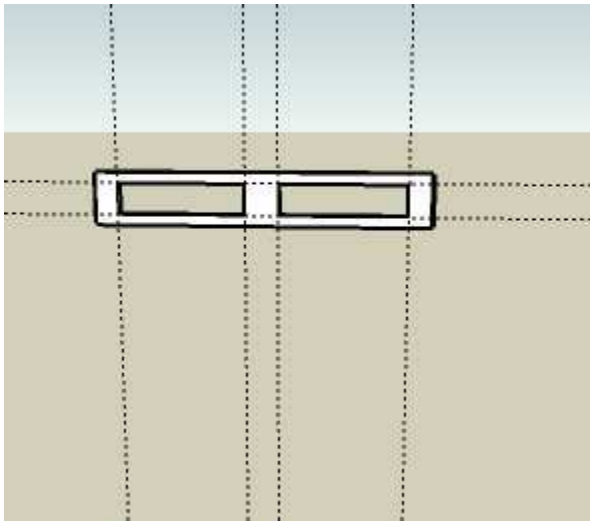
I’ve put in the guide lines.



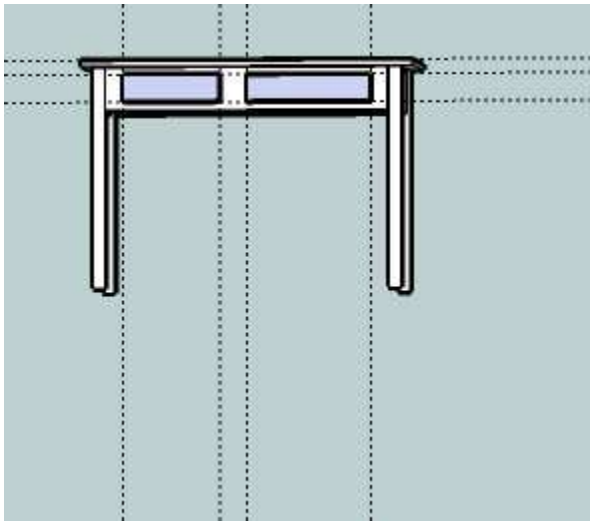
Now the question should I use the line tool to outline the drawer openings or should I use the rectangle to do so?

I've drawn a separate front and did the lines and did both the line tool and the rectangle tool. I came up with the same result.

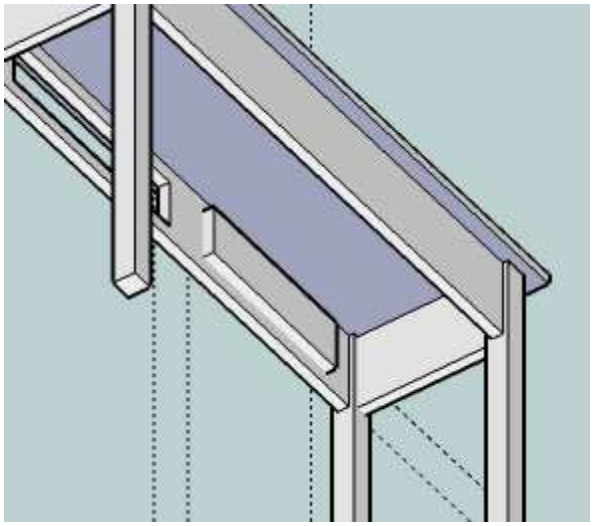




Now I've gone back to my model and drawn the lines and then used the rectangle tool. Doing this brings up the blue "face" of the drawer openings.



I've tried to use the push pull tool to push the openings and it does not go all the way out. From under the table you can see what I'm talking about.



I can get one drawer opening to push all the way to be an actual opening but the other I can't get to do the same.

So how would you do the front of this table?

Thanks in advance.

- Betsy - GO BUCKS!

I see the problem you're having but without seeing the model, I can't be sure of what is happening. It looks like the rectangle for the opening was not drawn on the face of the front apron piece. Is it possible that your guidelines for that rectangle are not lying on the surface of the part?

Perhaps you could send me the model? I could probably tell you better with it in front of me.

Dave

-- "Duck snored."

I think the rectangle is drawn correctly but will try again. I sent you my model via e-mail.

-- Betsy - GO BUCKS!

Would I have avoided this whole problem by making my front apron separately as a component and moving it into the model??

-- Betsy - GO BUCKS!

I think Dave might have hit it right on the head…I bet your guidelines aren't coplanar, or on the same plane as the front face of the apron. All it would take is a slight discrepancy , say the apron is on a very slight angle and the guidelines are perfectly straight. That might explain why one worked and the other didn't. This is a pretty common thing…SU will let you make mistakes…it will let you draw trapezoids when you think you are drawing squares or rectangles. Even with all the guides, tools, and inferences you still have to be careful and make sure things are the way you want them…ACCURATE! I can't tell you how many times 1/32" inaccuracy has bit me in the butt…you don't even realize it till you are waist deep in a complex model, and then things start to unravel and it's because something is short, or long, or skewed ever so slightly. Go back and look at things real close..get out the tape and verify your dimensions. Just a suggestion….if I was

making this model I would make all the parts seperatly like they are in the real world then assemble them just like you would if you were making it out of wood. That to me is the beauty of SU and any 3D software..the ability to work things out exaclty like the real world!

-- Women love me.....trees fear me

No. It shouldn't matter if the front apron is drawn in the same model or not.

If even one edge of the rectangle is not on the surface of the front apron the rectangle will be pushed through to form a box rather than an opening. One thing you might try is changing the line color to By Axis to see that all four edges of the rectangle are aligned with the global axes.

Send the SKP if you would.

Dave

It looks like I have things on the plane correctly.

I've checked my measurements and they are correct. I've taken the guide lines out and deleted the rectangles to try again and came up with the same result.

I think you are right Brad, things should be built piece by piece and put together!

Dave——I'm not sure how to send a SKP file. I can attach something as an attachment to an email but it is a jpeg file.

I'm showing my electronic illiteracy but how do I get the file to a SKP file (which I'm guessing stands for Sketchup) and where do I find it to send it?

You guys have the patience of saints to teach me this stuff!

I'm going to have to take a break from this for a few hours—- my neck needs a break!

Will check back later.

Thanks again.

-- Betsy - GO BUCKS!

Betsy,

I expect the SKP files which are your SketchUp models are being saved in My documents. that's the default location anyway. You should be able to attach the SKP file just like you would a JPG.

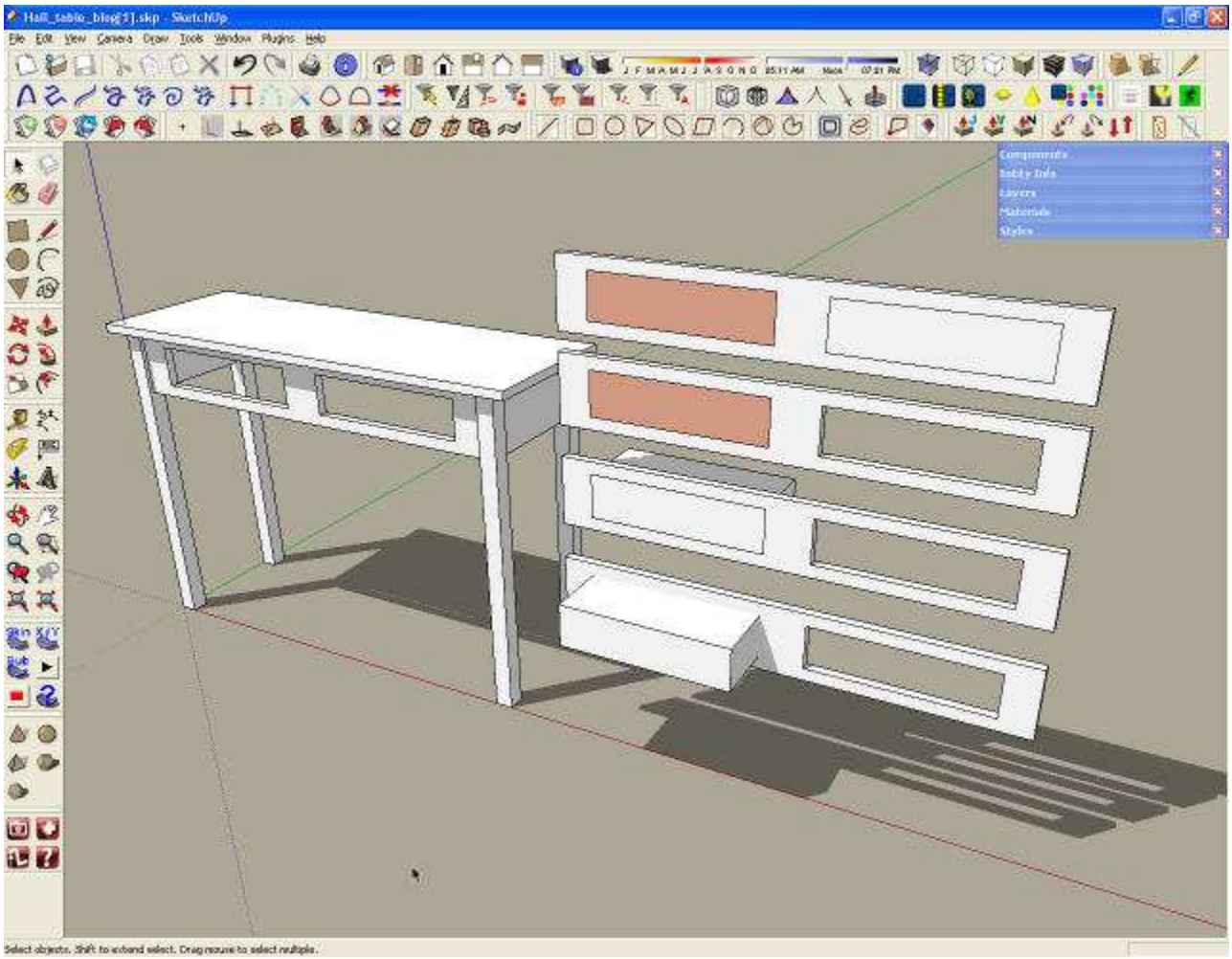
-- "Duck snored."

I had a look at your model and sent you an e-mail. I hope it gets through. I'll try to post something here later after I fix some stuff.

Dave

-- "Duck snored."

Alright, I made an example of what appears to be the problem with the way your drawer openings got punched. Or didn't get punched. Your file didn't include the geometry that caused the trouble so I induced it myself. See the included image and the description below.



This is a link to a larger version of this image.

On the left we have the table with the holes cut through the apron. On the right is the example with the problem. From the top we have:

The apron board with the rectangles drawn “on” it. The rectangle on the right is the same color as the board. this is the Face Front color. The salmon-colored rectangle on the left shows the Face Back color. The rectangle doesn’t actually lie on the face of the apron board. Instead, the left end is 1/64” out from the face while the right edge does lie on the face of the board.

Next, I’ve pushed the right rectangle through the board with Push/Pull. The opening is cut as expected.

In the third part, the left side has been pushed through. Notice after Push/Pull the face color has switched to the front color. Also notice there’s no opeing cut and you can see behind the board, the opposite end of the box that resulted from the Push/Pull operation.

At the bottom, I've mirrored the part from above so you can see the opposite side. Notice that there is no edge where the box passes through the back face of the apron board. There's no intersection at this stage. Someone is going to be thinking something like, "Well then, just select the geometry and run Intersect which you could do. then you could erase the unwanted bits leaving an opening. It would probably even look alright. It wouldn't be technically correct because the vertical edges of the opening wouldn't be square to the face and the opening wouldn't be quite the right size.

SO the way to deal with this correctly is to start over and watch for the indicators that you are drawing the rectangle on the face instead of just near it. One thing that you may find helpful is to turn off Profiles in the Edge settings of the Style Edit tab.

No worries though. You will get this. Just keep plugging away.

Dave

-- "Duck snored."

Dude…what are all those cool looking icons? Rubys? Hook me up wit dat!

-- Women love me.....trees fear me

"Dude…what are all those cool looking icons? Rubys? Hook me up wit dat!"

Och, they're just for show. They don't really do anything. :D

If you'd really like to know what they are, take a look at this.

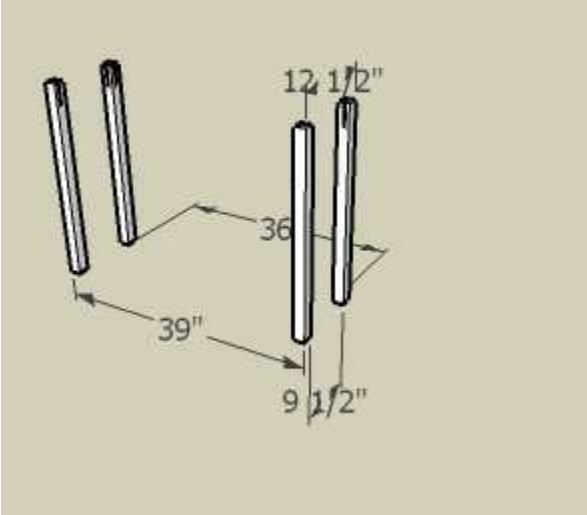
-- "Duck snored."

Part 15 of Google Sketchup - Come Along for the Ride series

Part 16: My saga continues -- really starting to get some ideas now though »

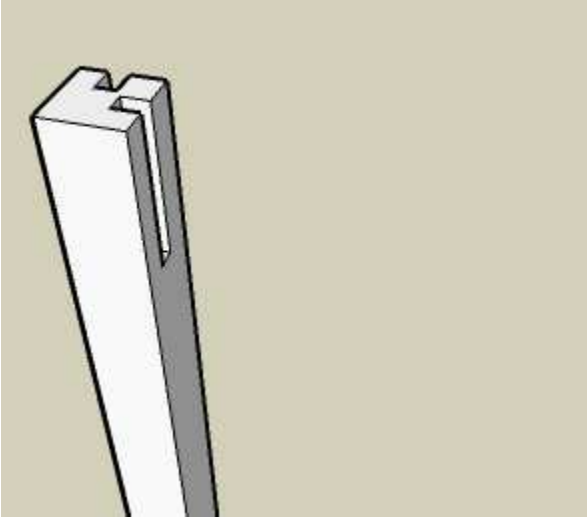
OK – so its redo time now I'm just playing a little trying to figure things out.

First off this picture is kind of messed up—not sure why my dimensions did not show correctly. But here it is.



I managed to get my legs spaced correctly at 39” front/back outside to outside and 36” front/back inside to inside measurements; and 12.5 side to side outside and 9.5” inside to inside measurements. The legs measure 28” tall. The mortises are 1/2” deep and centered on the legs. And surprise surprise, I think I’ve managed to get all four legs on the same plane.

Here’s an up close of the mortises.



With all the great help I’m getting from Dave and David (aka Brad-Nailor – by the way—- what’s the deal with the name?)—- I am probably (actually almost certainly) missing some of the small points of the instructions. Long and short though some of this stuff is sinking in.

Question – I made my first two legs and made each a separate component (left front leg and left rear leg). Then I copied each one and moved it across – then selected and right clicked to "make unique." Does that make each right leg their own component? The reason I ask is that when you select "make unique" it does not give you the option to give it a new name.

Question Now that I have all four legs made should I make them a group? If so, how?

I'll have to outline my steps making this far in a different blog entry.

I guess the next logical **question** is I need to make my side and front aprons and insert them into the legs. I am sure I need to make the short aprons (2), back apron and front apron separate components. Once I draw them, how do I insert or move them into the mortises?

OK – that's all I can do for now. I sure hope that my floundering around the program is helping some of my fellow LJs.

By the way—not only do I appreciate all the Sketchup help I'm getting, I really appreciate all the good wishes coming my way while I recover from surgery. All are encouraging.

-- Betsy - GO BUCKS!

Ok…
Question – I made my first two legs and made each a separate component (left front leg and left rear leg). Then I copied each one and moved it across – then selected and right clicked to "make unique." Does that make each right leg their own component?
Yes it does. It doesn't give you the opportunity to rename it at that time, but you can right click it and go into properties, and change the name there.
Question Now that I have all four legs made should I make them a group? If so, how?
I would…then you can move the whole "leg" group all at once. Just select each leg component, then when all 4 are selected right click and make group. You can have components/groups that are components/groups inside components/groups…hold on a minute, that one made me a little dizzy…

I am sure I need to make the short aprons (2), back apron and front apron separate components. Once I draw them, how do I insert or move them into the mortises?
The same way you move anything. Create one side apron with the tenons. Make a copy of it and put that aside for now. make the original a component and name it. Then to move it in place (I am assuming the leg is a component as well) Just grab the upper outside corner of the tenon (the move tool should snap right to it when you get close and

say “endpoint in component”) and then move it into place on the leg. Move the tenon into place inside the mortise you cut in the leg component, and using the snap inference, guide the apron tenon so it snaps to the inside corner of the mortise. You could also use the center inferences as well. You should instantly be able to see if you sized everything correctly. Now the other apron you copied and put aside, grab that and triple click on it make it a component and move it into place like the other.
Another cool trick is say your aprons were not centered on the leg. You cant make a copy and just move it to the other side. But what you can do is right click on the copy after you make it a component, and select “flip along” then select green for your axis. That will mirror the piece opposite the original, so it will work on the opposite side without having to re draw it. If your trying to use this feature and your not sure what axis to flip it, just try each one one at a time, but ***REMEMBER TO UNDO THE FLIP YOU DON’T WANT BEFORE YOU TRY AND FLIP IT ANOTHER WAY!***
Good luck!
Oh ya, and the deal with my name is…I just thought that was kinda funny..Brad Nailor…the air nailing gun..but it sounds like a persons name…I am Brad Nailor on Wood Whisperers site also!

-- Women love me.....trees fear me

I just finished addressing most of this in an e-mail which is accompanied by a version of your model so I won’t give the same, long drawn out response I did there.

At this stage in your model the legs don’t need to be unique from each other. Mirroring with either the Flip command or Scale and -1 is all you need to do. I prefer the Scale,-1 method because I don’t need to know what axis I’m flipping along. The end aprons should be instances of the same component and as BN mentions, one should be a mirror image of the other.

If the apron is to be centered on the thickness of the leg, grab the apron at the midpoint of the top end edge—the tool will snap there when you get close. Then move the apron until it snaps to the midppoint on the top edge of the leg.

As to the group thing, personally, I wouldn’t bother. In fact I rarely make nested groups or components. As I’ve mentioned elsewhere, I don’t use groups at all. The problem with nesting is that it can make the model complex to edit because you have to drill down through the group or component wrappers to get to the geometry you want to edit. It’s easy to get things screwed up.

If you do want to create nested components, wait until you’ve got all the components drawn. For example you might want to make a nested component of the parts for the

drawer. You mentioned in your e-mail animating the drawers. It would make them easier to move.

Just don't overcomplicate the model.

-- "Duck snored."

Part 16 of Google Sketchup - Come Along for the Ride series

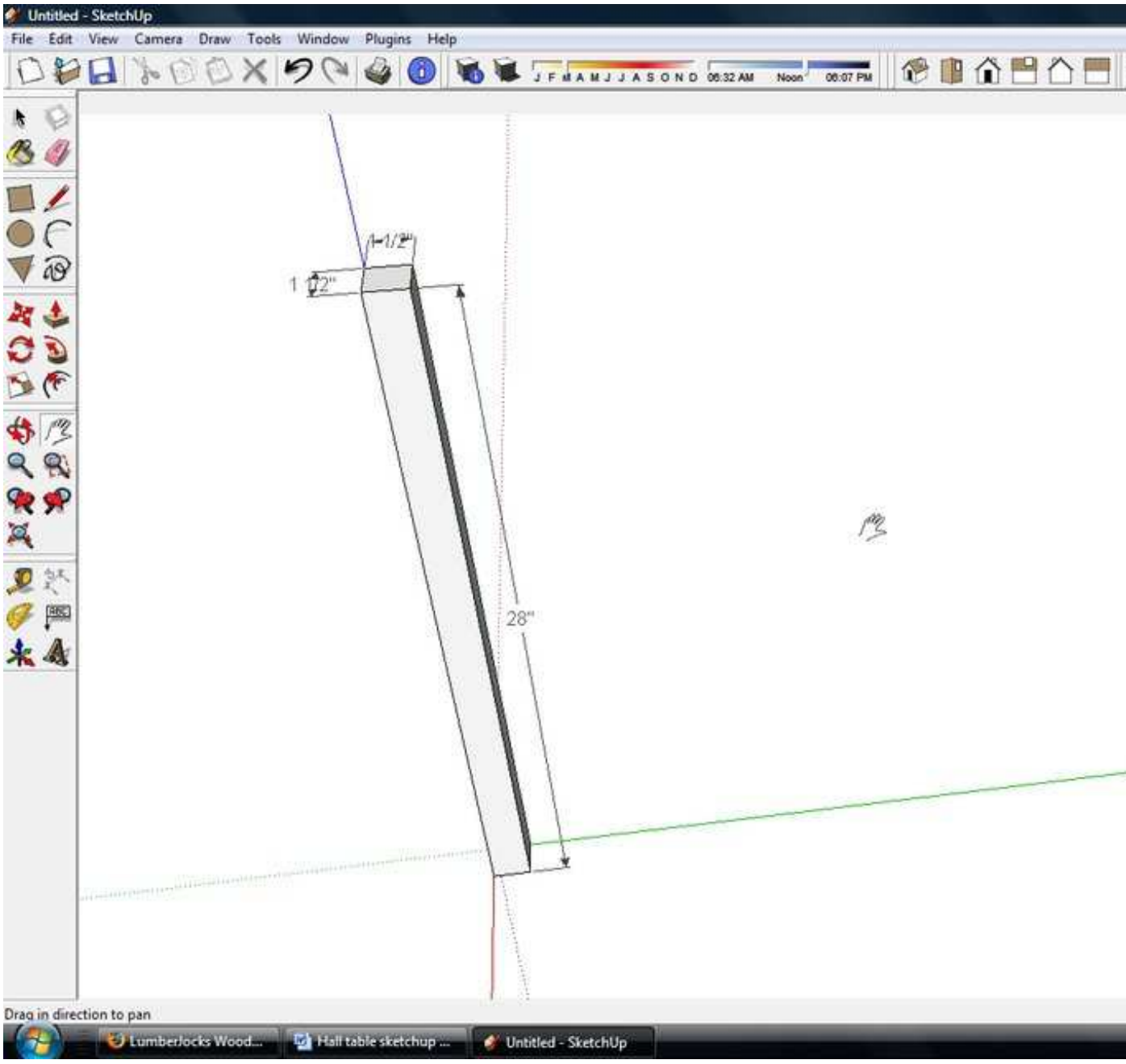
Part 17: Hall table - drawers -- not a good start »

As with any new thing – it's a stop and start learning experience. Yep. Still working on the hall-table-drawing. Getting a lot of great help from Dave and David – thanks guys.

So now I've started again with the legs. I've come a long ways from just a simple rectangle on the ground – but it's a long way from a fancy turning. But that will come in time. (I promise that I won't start from the beginning every single time I blog—- but right now it makes sense to me.)

The table leg is 1.5×1.5×28. Mortises are ½" deep x ¼" wide x 3" long centered on the leg.
The legs on the short side are 12.5" apart from outside to outside.
The legs on the long side are 39" apart from the outside to outside.

Start with the basic rectangle and size as stated above. It's a good idea to check dimensions as you go (unless, of course, you are designing on the go). I'm working of a model so I know my dimensions which makes drawing easier. You can adjust dimensions as you go, but I'm not so good at that yet.



To insert dimensions use the dimension tool (looks like a three sided box with a “3” at the top and slashes through the corners) – click once on a corner or edge then move your mouse to the opposite end click once and move your mouse to the side. You should see something similar to my picture above.

Next make the leg a component. Anytime you are going to make more than one of anything, make it a component.

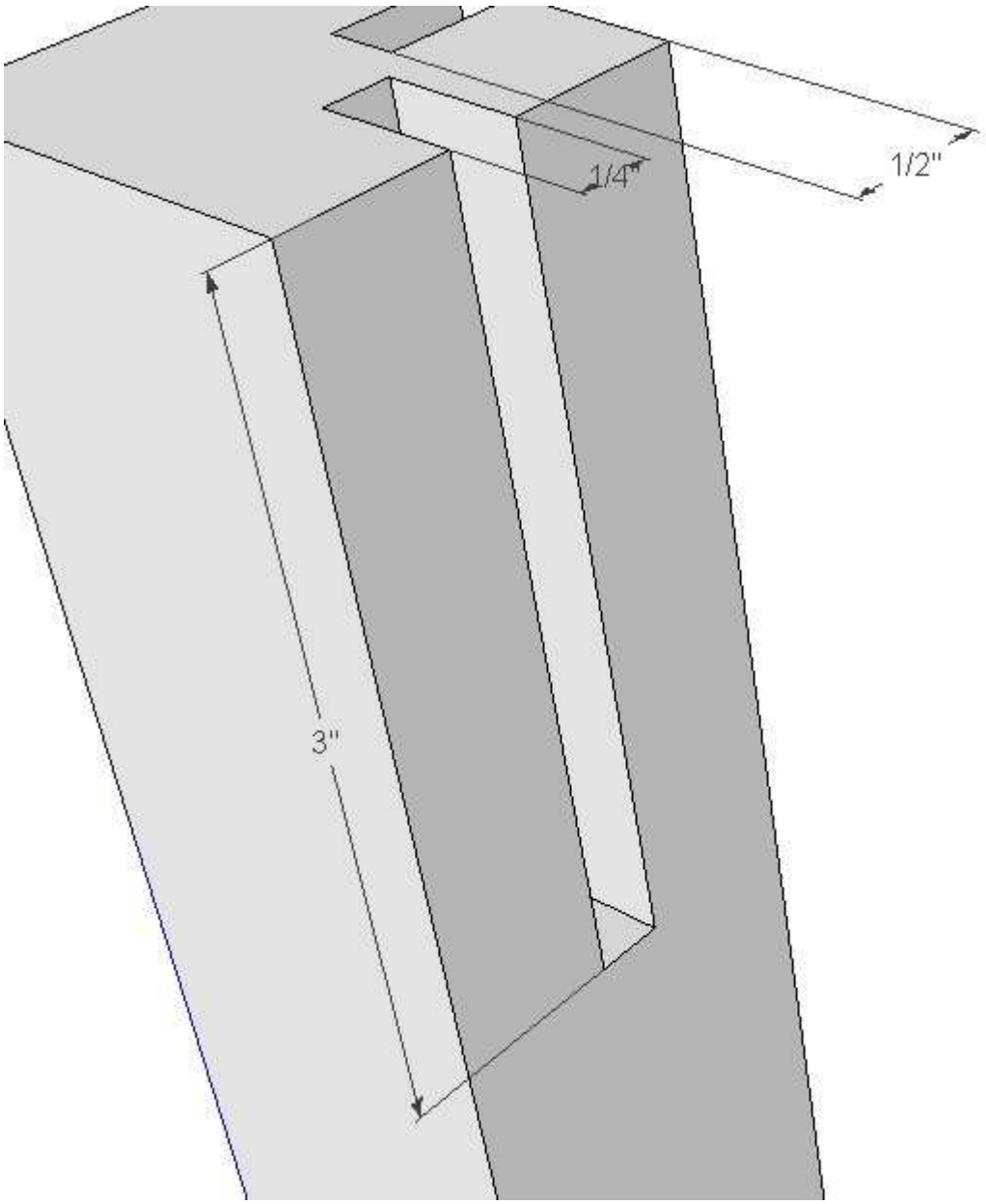
Select the leg by triple clicking (should be entirely blue) then right-click and chose “make component”. Name it whatever you choose – I choose “leg.” (very original I know.)

Now the fun starts. Because you’ve made the leg a component anything you change on the component will be made automatically to all copies of that component.

As in woodworking with the actual wood there are a dozen different ways to do everything. Drawing is the same. You have to be able to see what you are drawing in your mind’s eye. It seems like it is a ton easier to draw the mortises on the top of the leg because you don’t have to spin the leg around to see each side.

Draw in the guide lines by using the measuring tool. For my purposes, I’ve drawn lines at 5/8 from each side and in from the inside edge ½”.

Then use the rectangle tool to draw in the rectangle and use the push/pull tool to push the rectangle down 3”. Do the drawing guides on both edges and draw the rectangle twice. But the nice thing about the push/pull tool is that that second push/pull can be accomplished with a double click. (Provided, of course, that you intend both to be the same.)



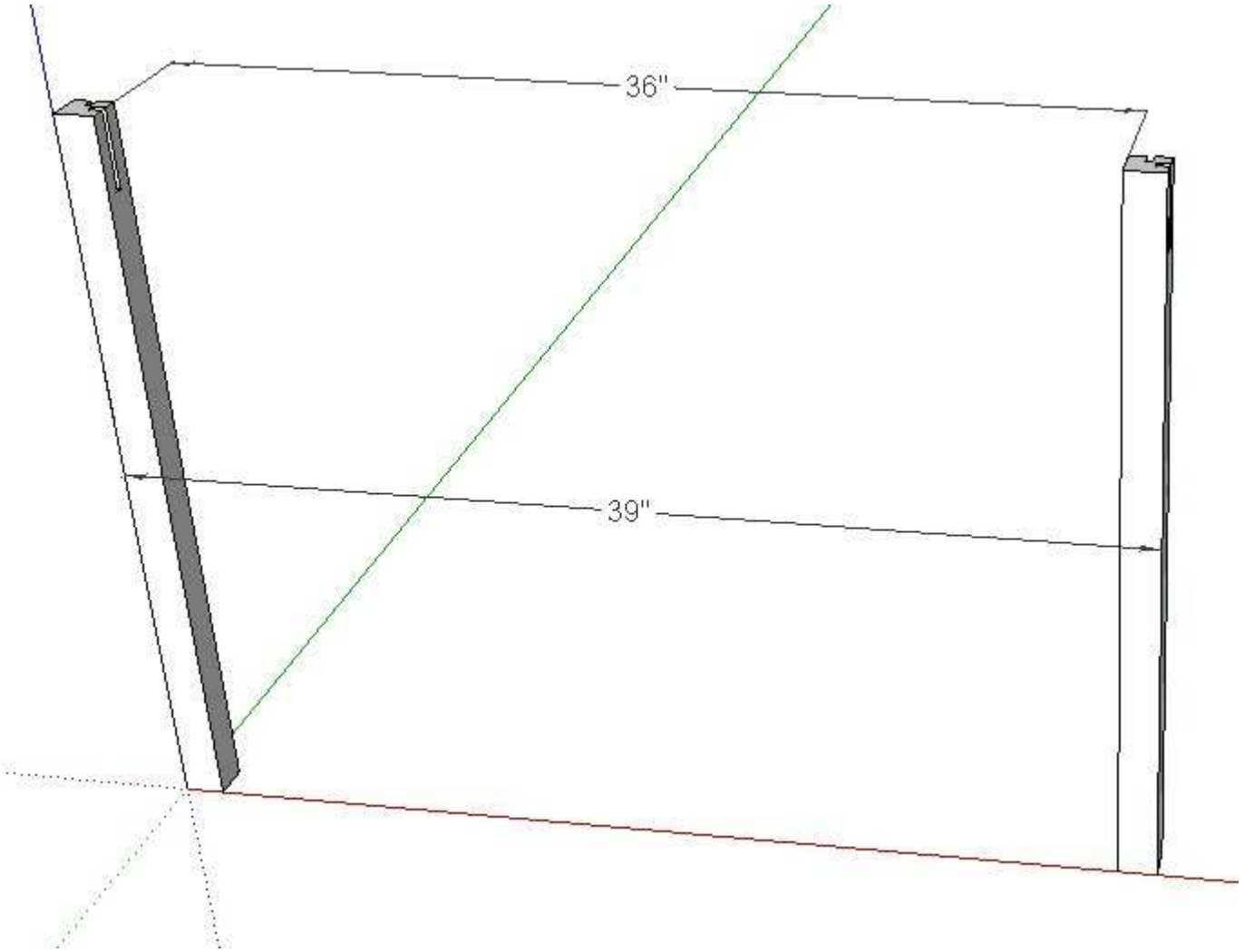
Now to copy and then rotate/mirror/scale/flip the second leg. Four terms/methods to do the same job – so you have to find the one that works best for you. I've not managed to get the scale tool to work for me yet. The minus 1 thing escapes me. The rotate tool has had me snagged as well – but I'm getting that by working on this project.

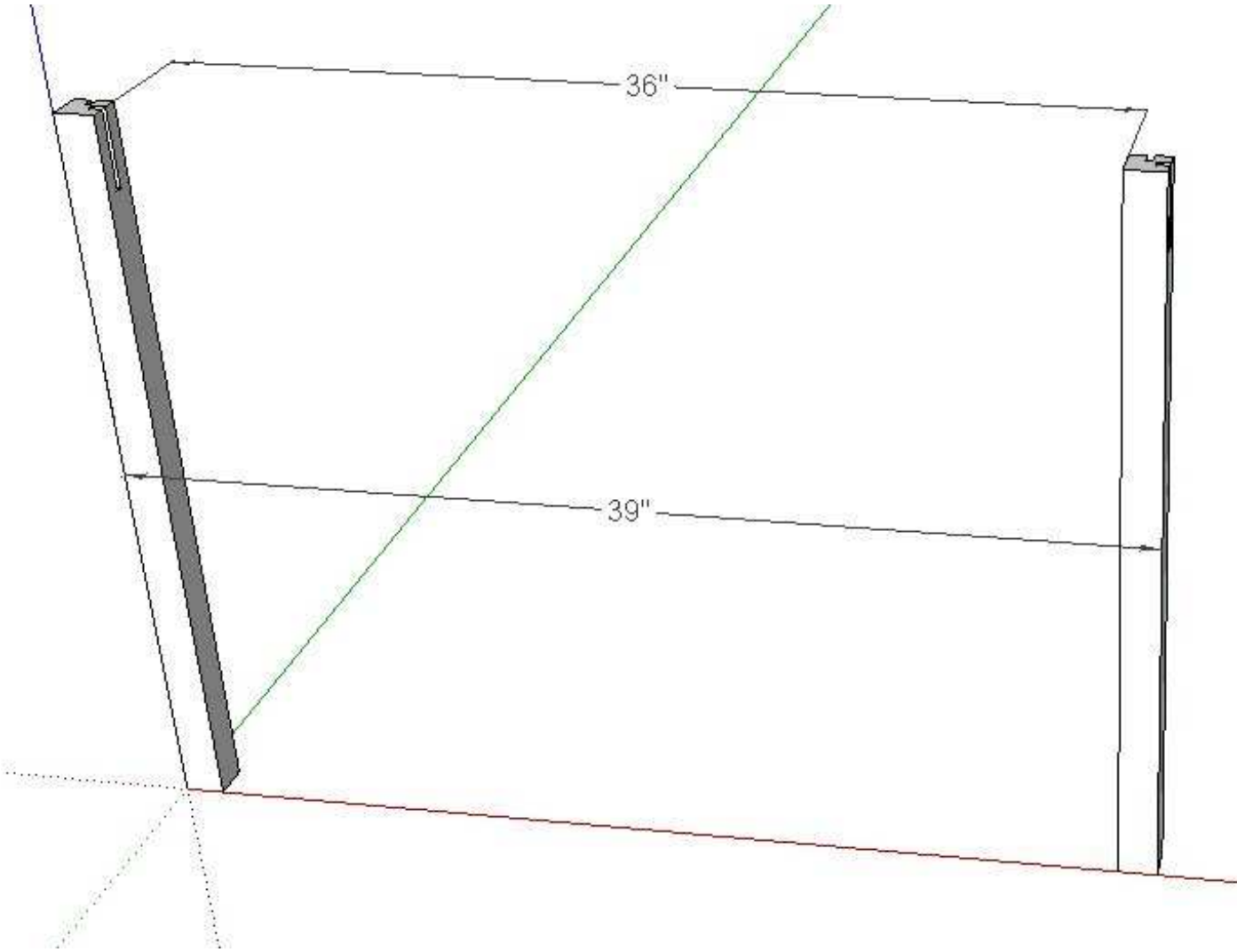
First start by selecting the leg by triple clicking (should be all blue). Then pick the move/copy tool and over the tool over the leg. Hold down the "Control" key at the same time moving the leg/copy to the right. As you slide to the right (or the direction you choose) you should see on the screen a light red dotted line along with "on red axis"

Continue moving to the right – make sure you keep the dotted line and on red axis showing – if that goes away that means that you are not on the same plane as your first leg.

Some other things to keep in mind. When you move the move/copy tool over the leg – if you position the inference dot over the top inside corner so that it says “endpoint” when you stop moving your copy over – if you type in 37.5 in the VCB box then it will automatically move the leg the required 39” outside measurement.

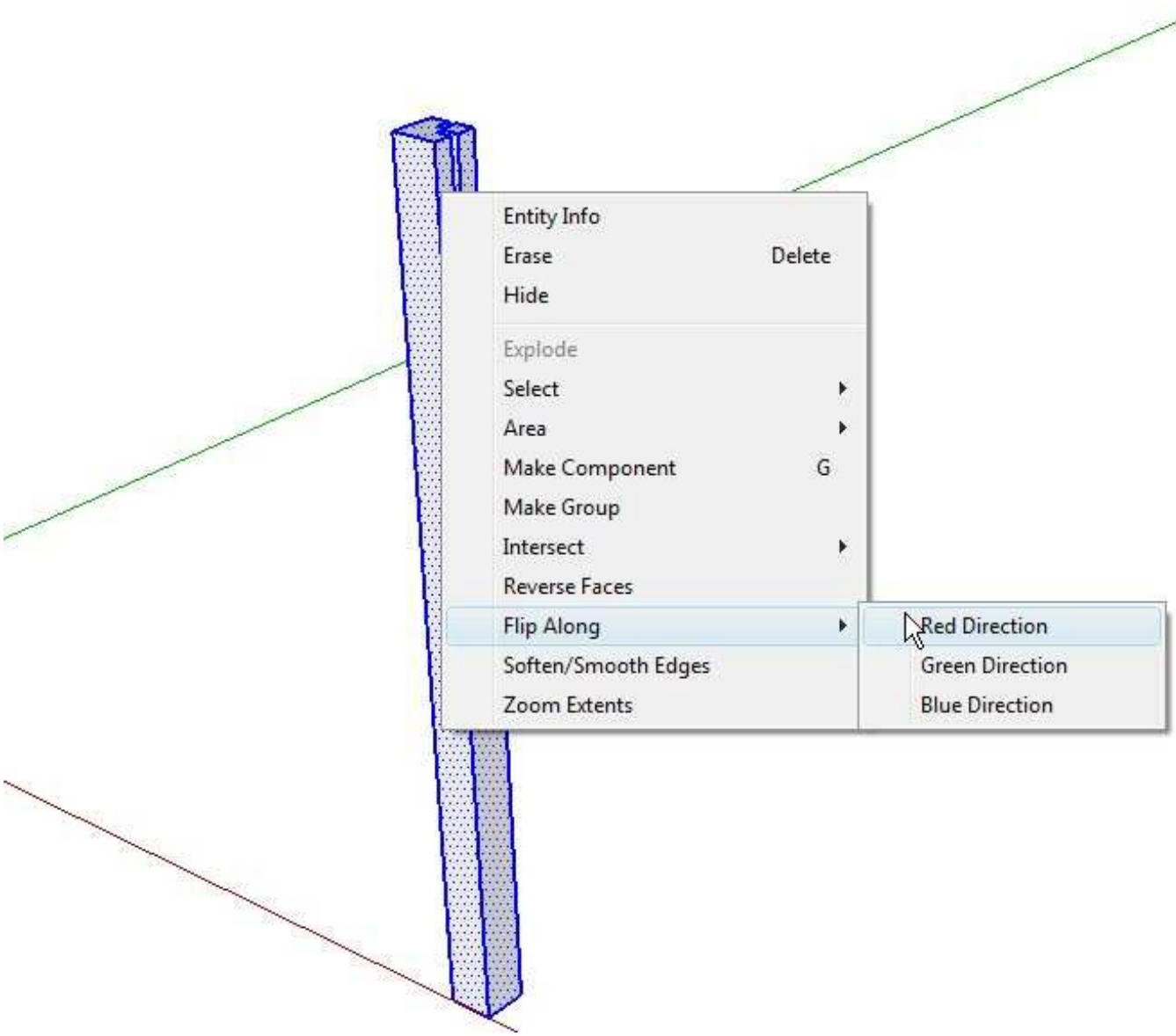
Also, once you start moving the copy – you can release the control key. As for the mouse key, the caveat with the mouse is that you can let go if you are going to type in the dimension you want. If you are going to place the leg precisely where you want it then don’t let up on the mouse until you reach your destination.





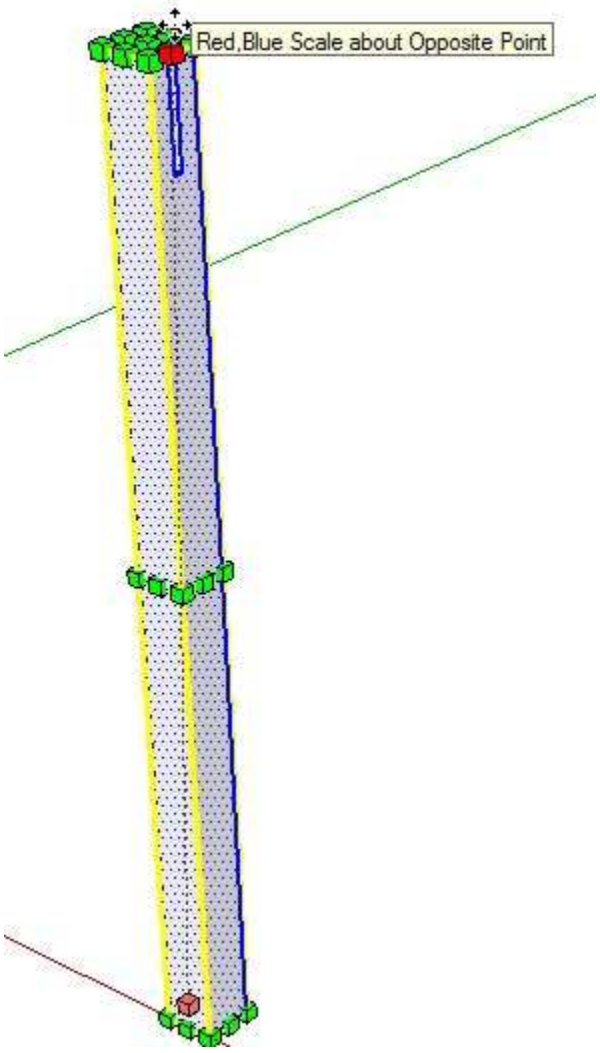
You'll notice in the above picture that the mortises are in the wrong direction for the right front leg. Not for long!

The easiest thing is to triple click the copy (the new right front leg) until it is all blue then right click and select "flip" "along the red axis." Double check your dimension and it should still be at 39".



To use the scale tool——triple click then select the scale tool (looks like a diamond with a brown corner) – you'll see a parcel of green dots on the leg. Move your cursor over the leg and watch how the dots are connected. That will give you some clues on how this works. Play with it some also. Just remember you can always undo what you don't want to keep by using Edit – undo.

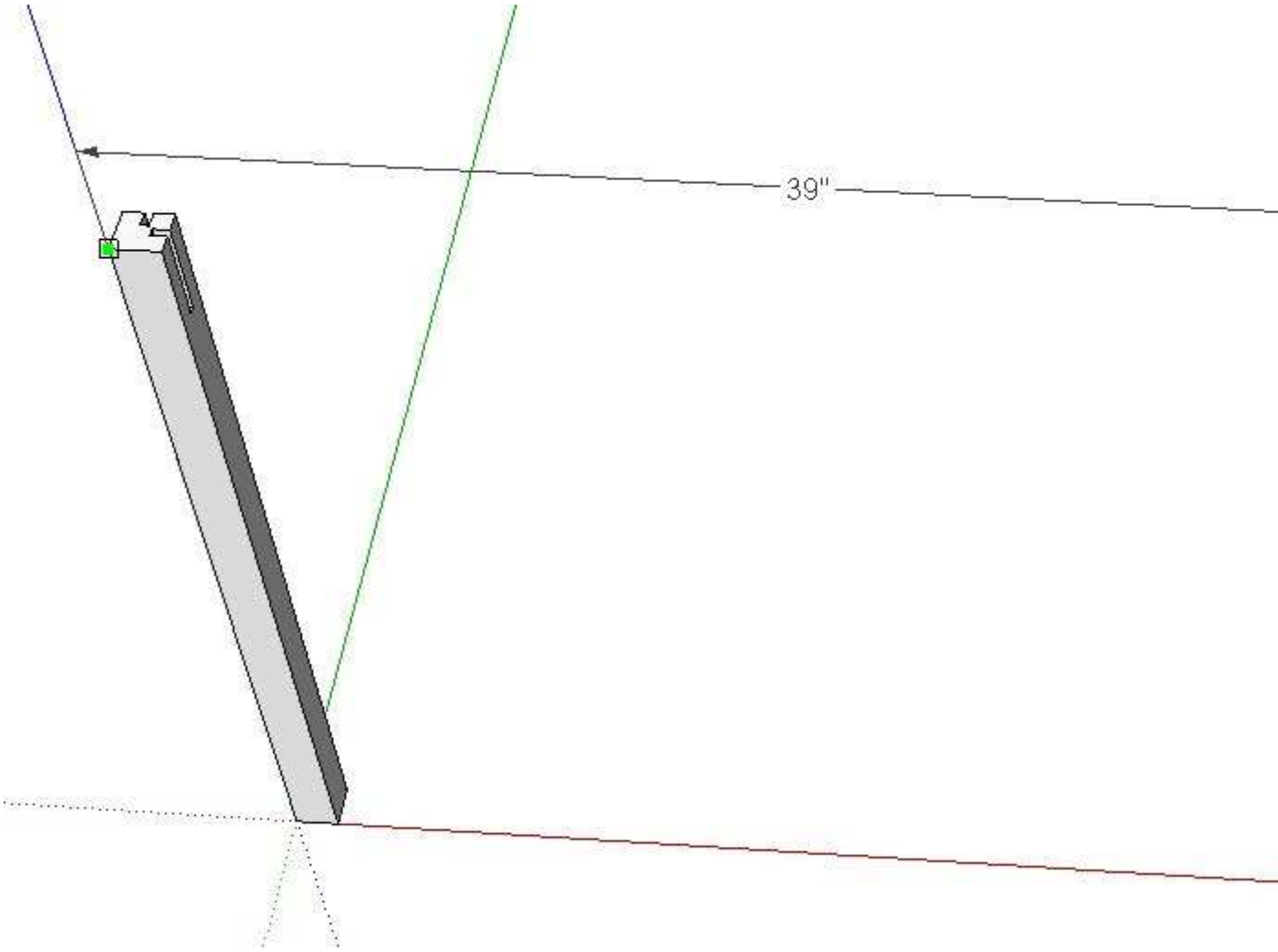
For our purposes on this project – move your cursor over the top middle dot.



Then while holding down the Control key and the left mouse key – move the mouse to the left. Watch the leg turn inside out. Let go of the Control and mouse key and type in -1, 1 on your keypad and hit Enter. Check your dimension. (Now here's a confession—- I can't get this to do it twice. So not sure what I'm doing wrong.) Will have to keep working on it. And on and on.

If you are going to use the Rotate tool to reposition the leg – start again by triple clicking until it's blue, select the rotate tool and hover – After that you're on your own. Still have not got this one figured out.

For now though—- use that flip tool. That worked great!



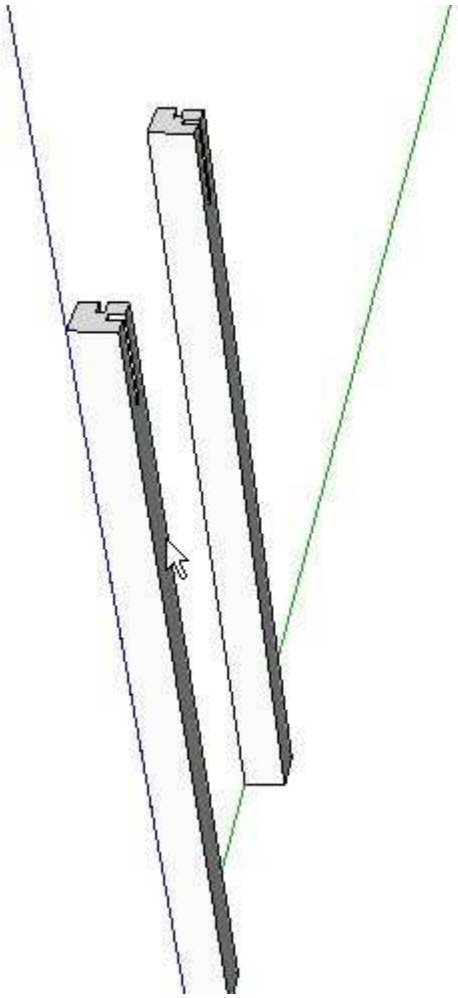
So now you have the two front legs with the mortises in the right directions and the right distance apart.

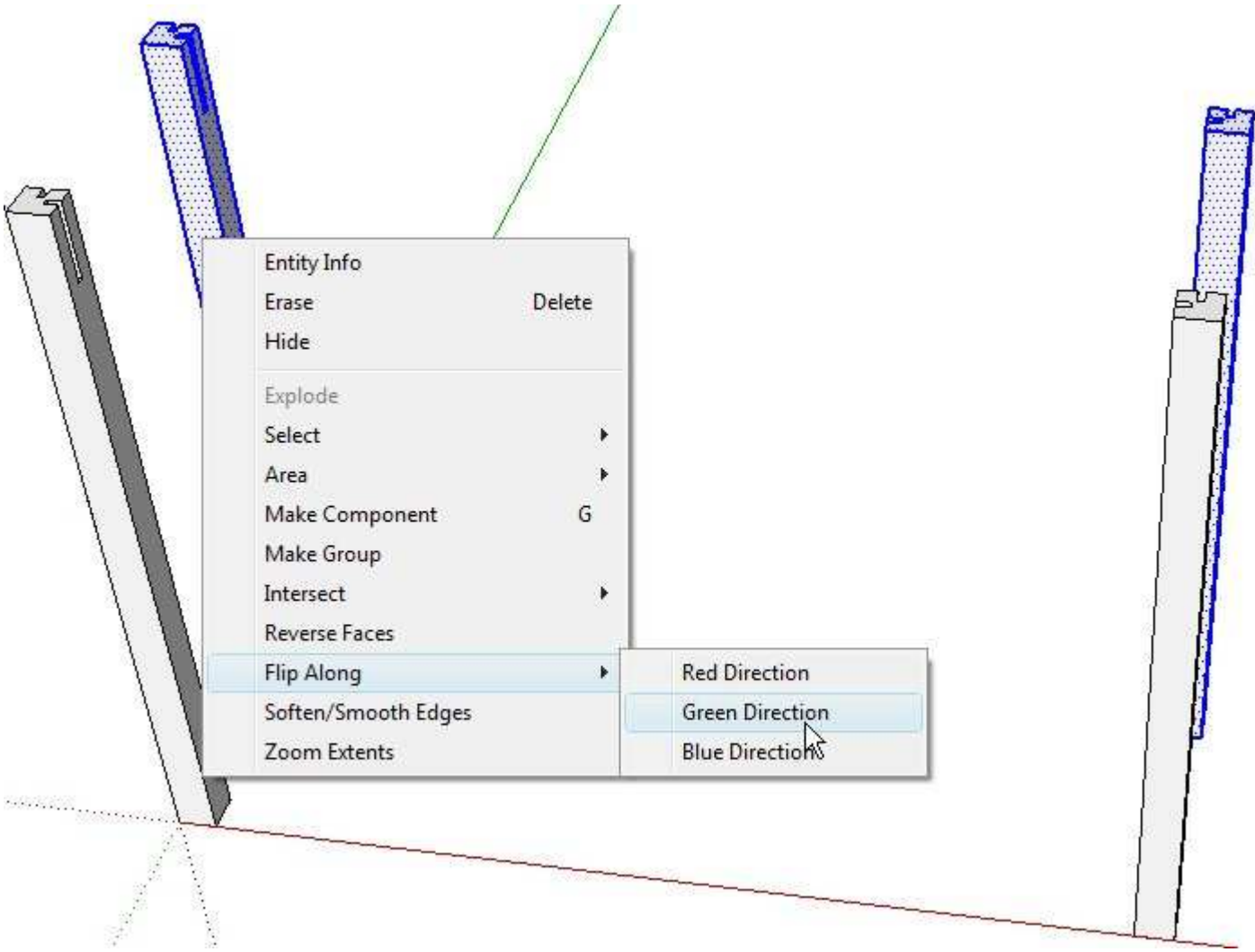
Here is something I did not know and, I suppose, is good to know for other computer programs (in my electronically challenged opinion) is that if you select one object and hold down the shift key you can simultaneously select a second object!

With that said, that's what we do next—- select both legs so they are both completely blue.

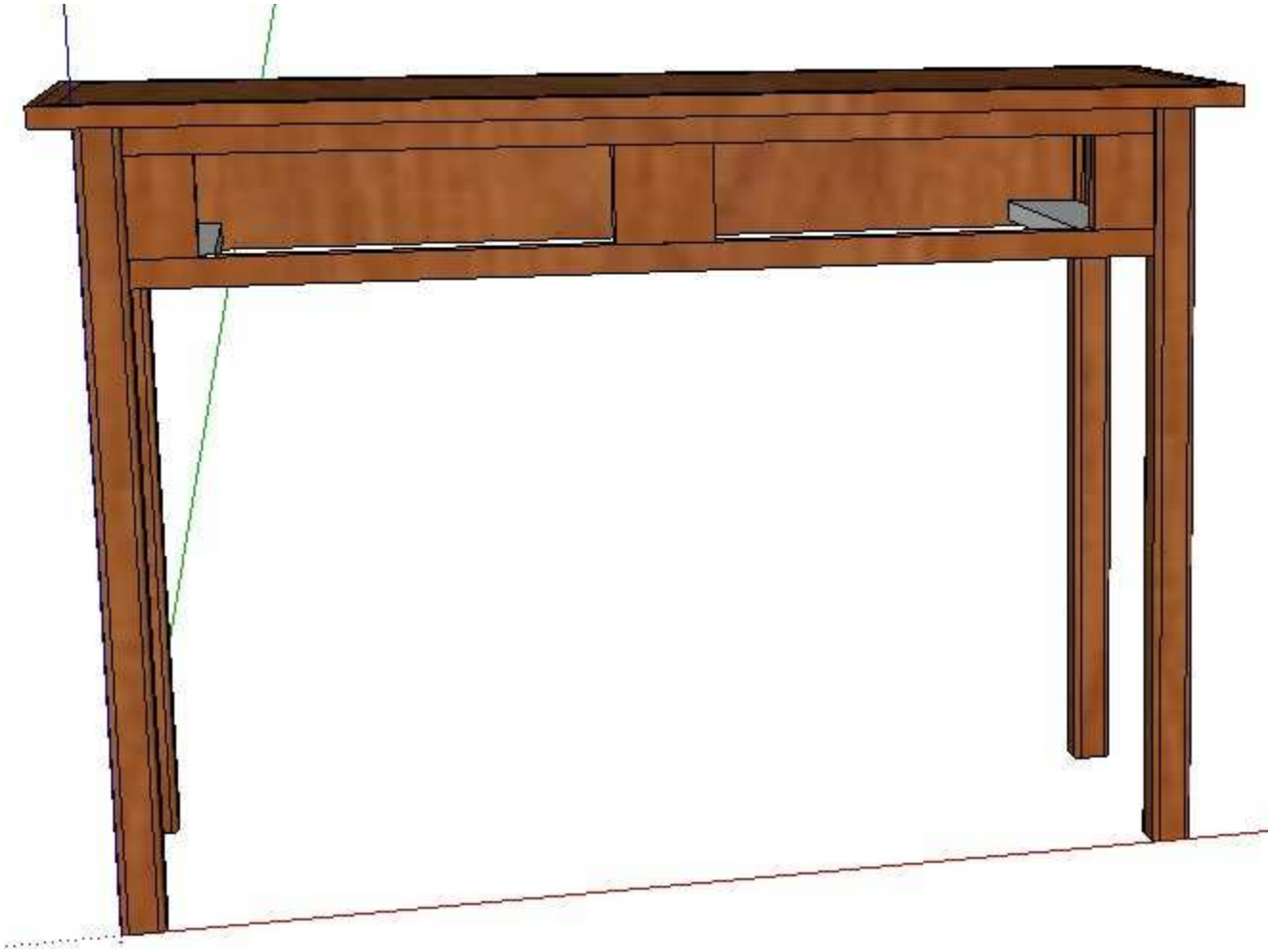
Then pick up your move/copy tool, hover over one of the two legs and move up along the green axes – if you position the inference dot over the top inside corner so that it says "endpoint" when you stop moving your copy over – if you type in 11.5 in the VCB box then it will automatically move the leg the required 12.5" outside measurement.

Now you have 4 legs – albeit the second set of two with the mortises going in the wrong direction.





OK that's all I can do tonight. Here is where I'm headed. Although, this model has a lot of bugs in it, I'm getting there.



-- Betsy - GO BUCKS!

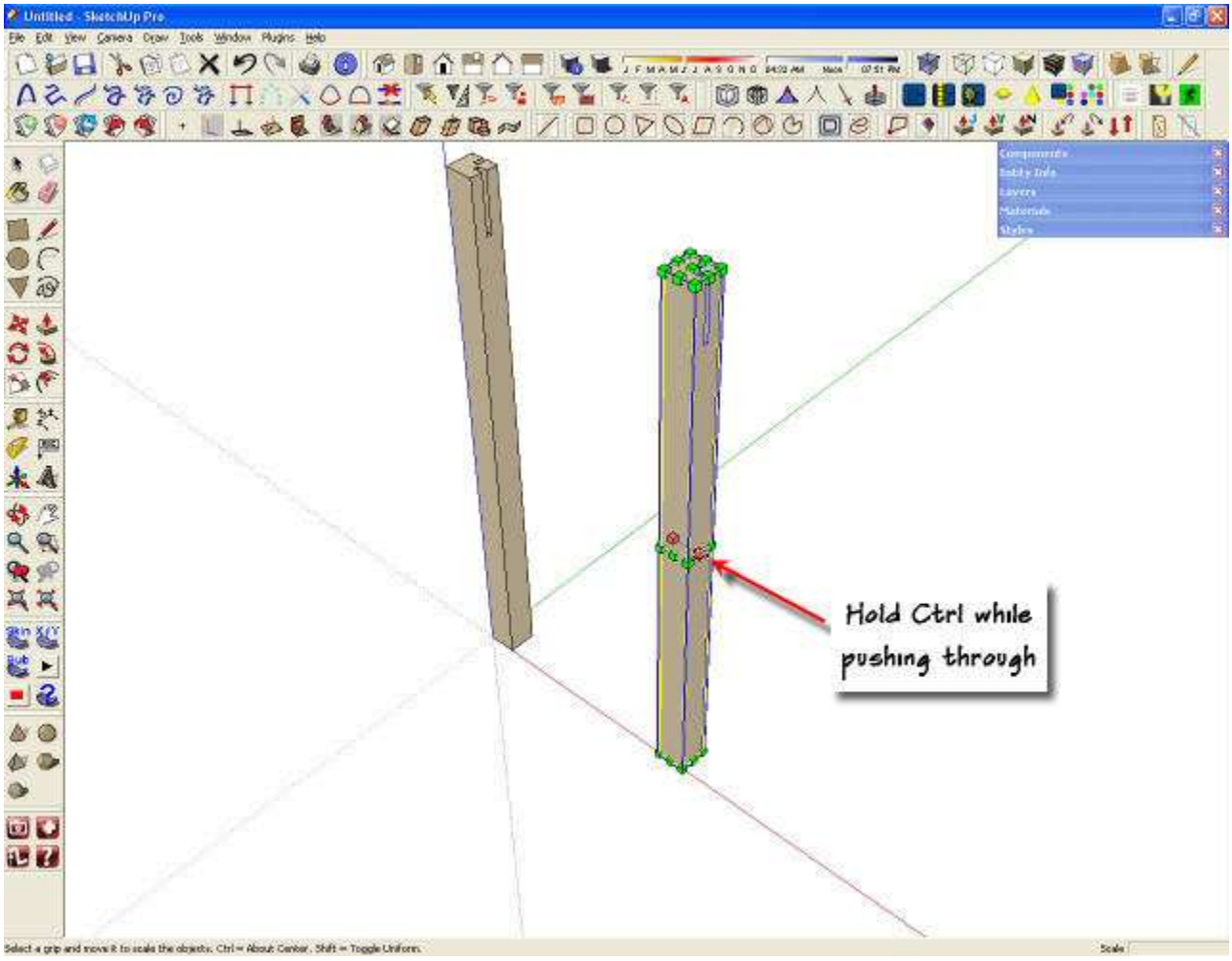
Looking good Betsy! Thats a cool thing about SU…I love how things come to life when you start playing with textures. I like the flip function..it's an easy way to mirror parts. What is it about the rotate tool you don't understand? Your first click is to anchor the protractor..that will be the axis the piece will rotate on. Then the next click you are kinda making a handle to grab to move the piece. Then just rotate the leg till its in the direction you want and click for a third time. Use the inferences to make sure your rotating at right angles.

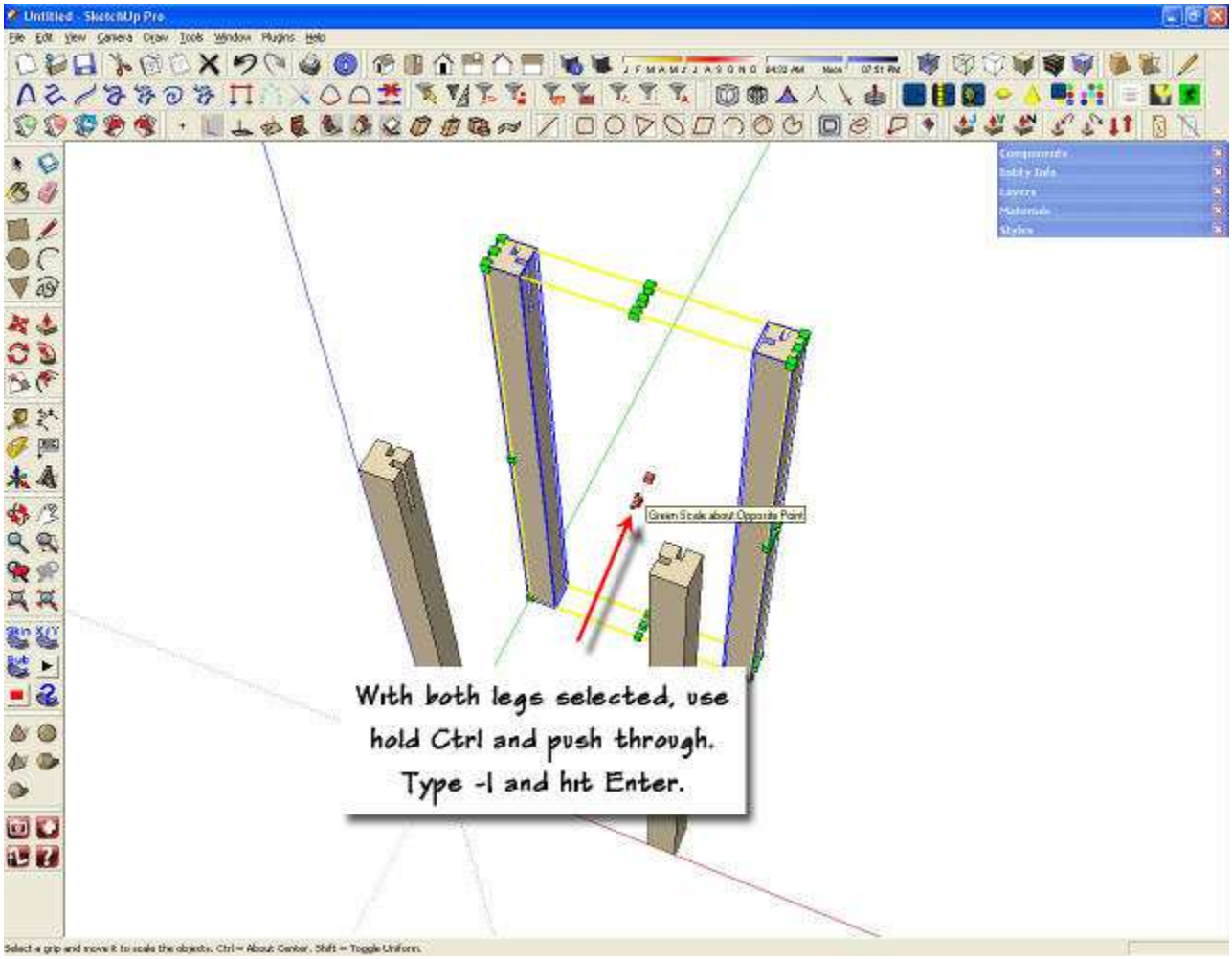
-- Women love me.....trees fear me

You are getting the hang of things, Betsy. Good on you.

Regarding the legs: In the case of your table you probably could get away with simply rotating the legs to get the mortises aligned as needed. Consider the case where the mortises are different on the different faces. Or suppose you decide to make the legs wider in one direction or add a detail on only the front face of the legs. As you edit one component, two of the others will be edited incorrectly. Using Flip or Scale to mirror eliminates that problem. I'll make an illustration that shows that.

As far as using Scale to do the mirroring, instead of pushing where your illustration shows, use the handle indicated in these views, below. Hold Ctrl to invoke Scale About Center. I couldn't show that with the screen grab.





Your screen shots indicate that you haven't made the leg a component prior to copying it. You should do that immediately before copying. This will keep the legs related.

The Copy function of the Move tool is a toggle thing. Hit Ctrl once to turn it on. Hit it again to turn it off. No need to hold it during the move.

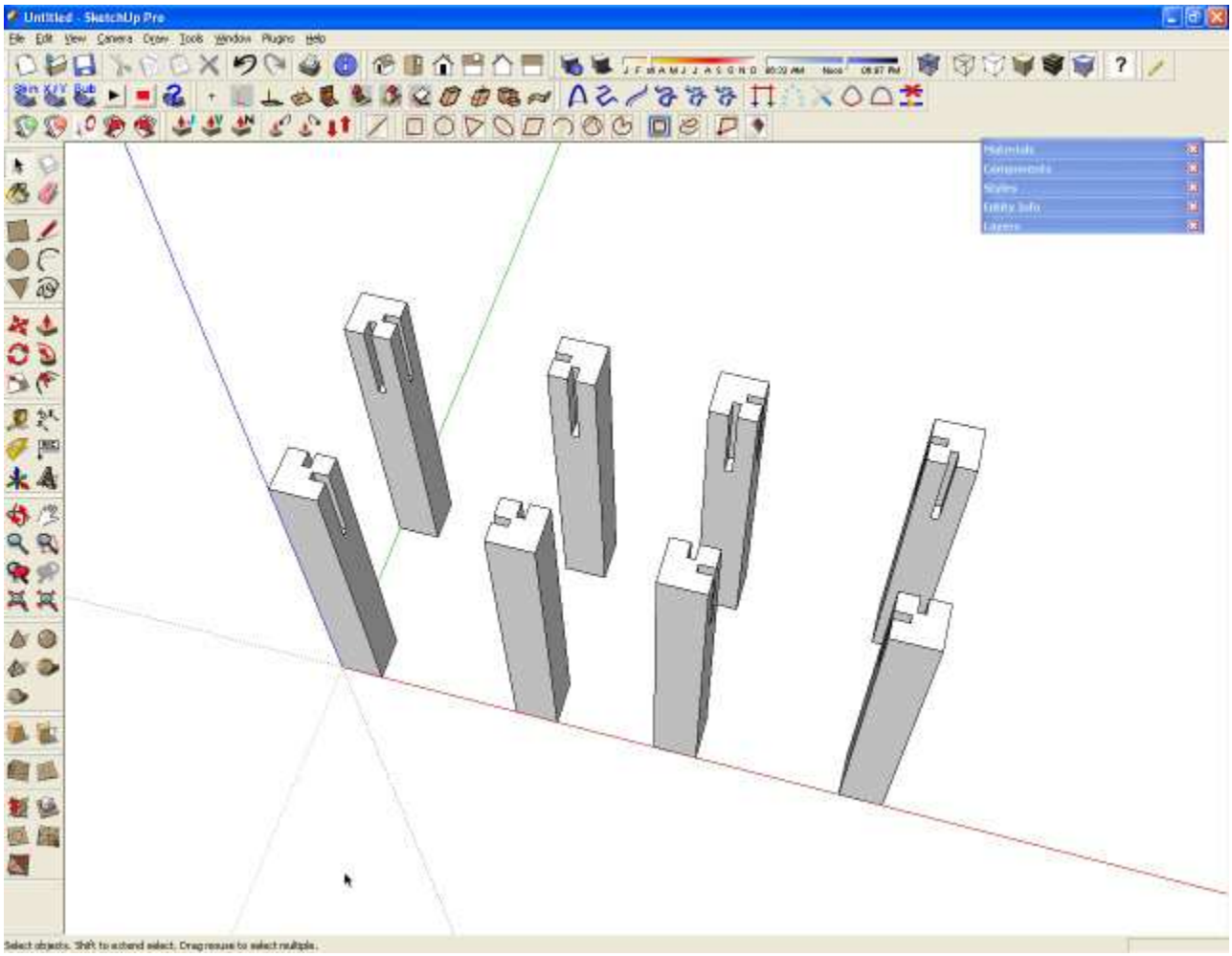
Keep up the good work.

dave

-- "Duck snored."

Here's a couple of examples. First, legs for two tables. They're all instances of the same component. The original was drawn at the origin.

The four legs on the left were positioned and rotated so their mortises lined up correctly. The four on the right are mirrored copies of the front left leg for that table. They all look the same.

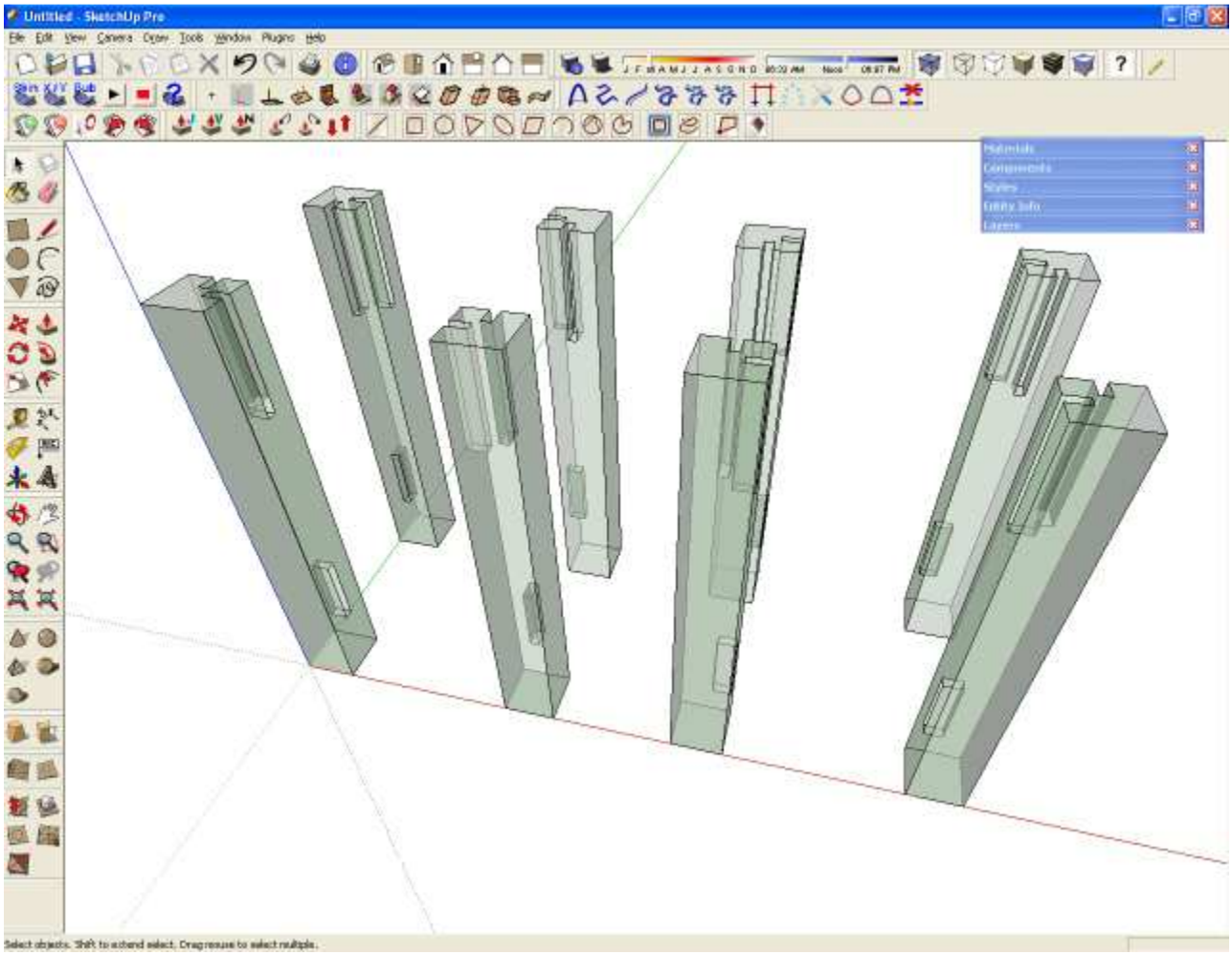


There's a larger version of this image at this link.

The next image shows what happens when a mortise is put in for a stretcher. The intent in this situation is to have only two stretchers; one between the front pair and one between the back pair. Then perhaps a shelf between the stretchers. (Or maybe we're looking at these tables fromn the side and the stretchers will only run front to back)

Notice the location of the mortises in the four legs on the left. Kinda looks like we're heading for some sort of M.C. Escher thing. And if you cut these in some rare and expensive wood like this, bad words would come out of your mouth.

With the mirrored components, all of the mortises are in exactly the right place.



Again, there's a larger version here.

-- "Duck snored."

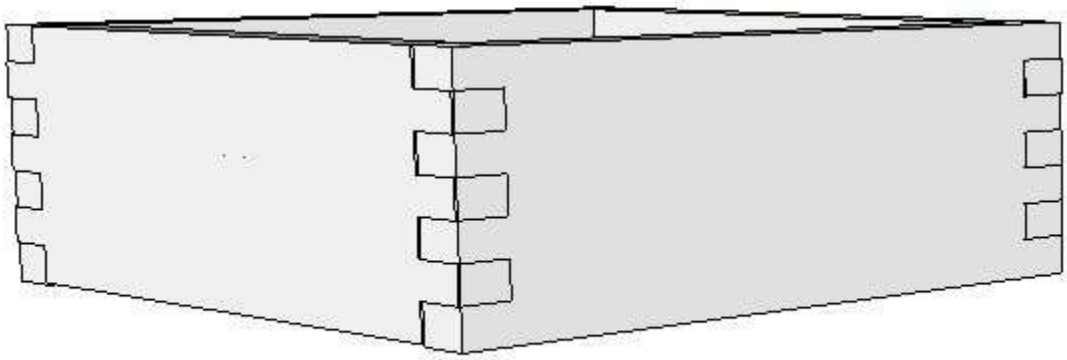
Part 17 of Google Sketchup - Come Along for the Ride series

Part 18: Drawer sides -- struggling along »

I was not going to do any more on this project tonight—- but could not sleep. So I piddled with the drawers for the hall table. They are not pretty. The box resembles and box joint box—but that's about it. I still have to work out how to to interface with other parts. But that will come. For now this is the box I'm working with to make a drawer for

my table. I am using 3/4” material here, but will switch to 1/2 material on the real project drawers.

So without further ado—- here is my masterpiece. :-)



Geez you guys have no idea how badly I want to be making sawdust and nicking my fingers with my chisels or even smelling the sweet smell of freshly jointed wood. But alas I must work on design and play with this computer until about mid-September at the earliest as it stands now.

So fellas—make some dust for me and appreciate it!

Thanks

-- Betsy - GO BUCKS!

You’re getting it Betsy.

One approach to drawing something like this is to make the sides the full length they’d need to be. Draw one side, make it a component. Copy the side and mirror it or flip it. *Do*

not rotate it. After it is in place, draw the adjacent side using the outside corners of the first two sides as the references. Use the Rectangle tool and drag from the upper left outside corner to the lower right outside corner. Use Push/Pull to create the thickness. Make that third side a component, copy it, mirror the copy and put it in place to close the box.

Use guidelines to lay out the joint (this would work for laying out dovetails as well.) then open a side for editing and draw in the joints. You'll edit both end of two adjacent side components.

When you're drawing the parts, draw them to the same size as they'd have to be if they were being made in wood instead of pixels.

-- "Duck snored."

Part 18 of Google Sketchup - Come Along for the Ride series

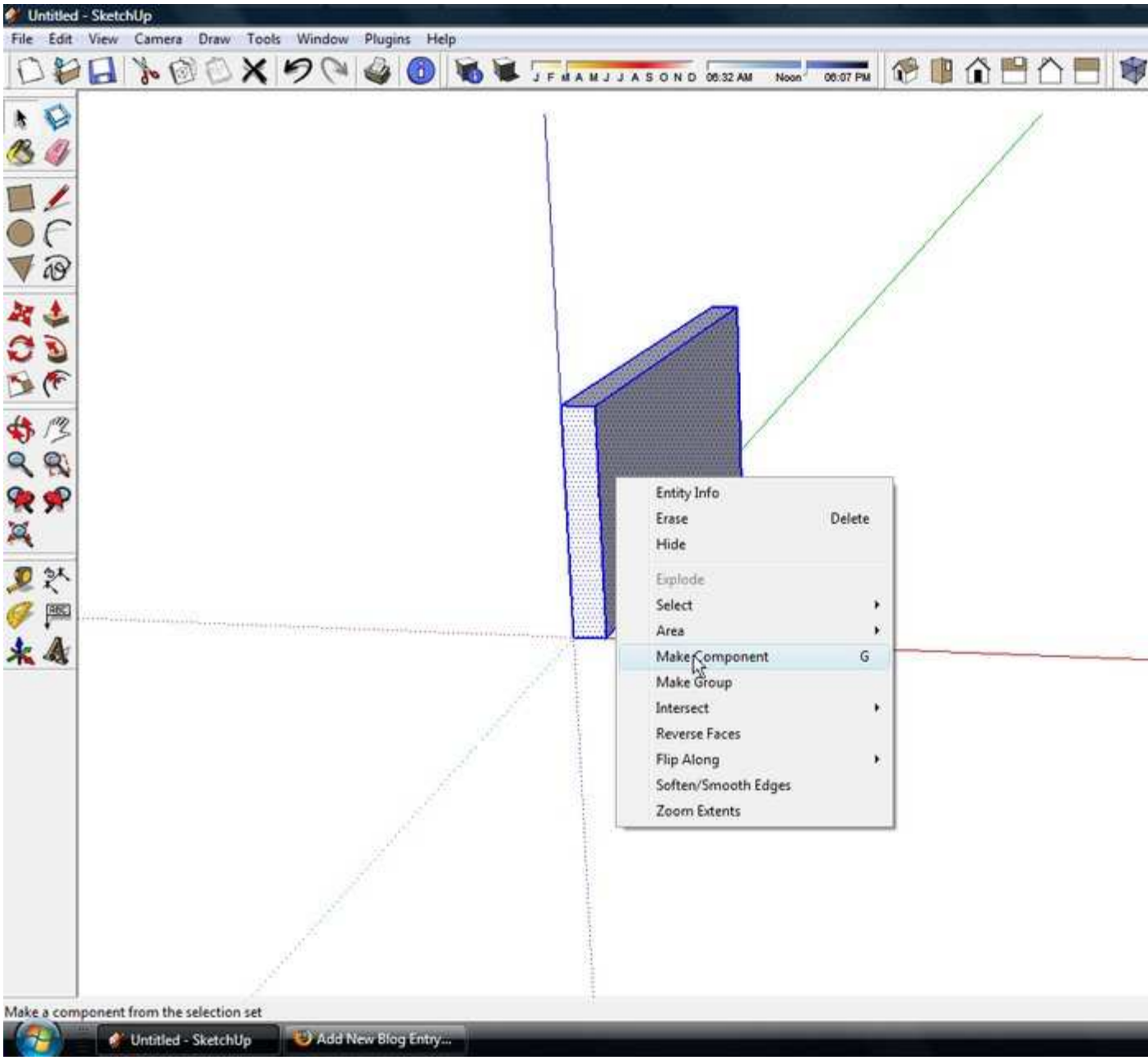
Part 19: Plodding along on my drawer project - having issues with scaling »

It's been a few days since I've worked on this—- and won't be doing much today, but I'm working on the drawer for the hall table.

This is how I've redrawn it.

The sides are 1/2" x. 10.25" x 3.5"

Drew the first side to above dimensions and then made it into a component.



Then moved the side to 13 7/8” (outside to outside) and then flipped along red axis.

(Because this is a basic rectangle – flipping it won’t look like it’s done much.)

Next I drew a rectangle from the upper left outside corner to lower right outside corner of the two sides to make the drawer front.

The push/pulled the rectangle to make the front.

Now the first problem. (Actually – this is the second issue – I can't get all my screen shots to work). When I push pull the front – it comes out "short" to the length that I need it.

Until I can get the front to be the right length – I can't actually drawer in my box joints and/or interface.

Any help would be appreciated.

That's all I can do today.

Thanks

-- Betsy - GO BUCKS!

Betsy, I was wondering what you've been up to.

So you say the drawer front comes out too short. How much too short? Where? Is it a height issue or a length issue? Is it possible you didn't get the rectangle started or finished on an outside corner?

Even if you didn't get it to the length you wanted you could use Push/Pull to fix that.

Is it possible that when you moved the copy of the side that you didn't move it parallel to the red axis?

Could you set up the drawing right up to just before the Push/Pull on the front and send it to me so I can see?

Dave

Hi Betsy, Watch this video. In particular, watch the lower right hand corner of the screen. That is where I am typing in the dimensions. I almost never use the mouse to drag boxes to the correct dimensions. It is just too cumbersome. Let me know if you have any questions. I'll be happy to help.

-- Scott - Chico California http://chicowoodnut.home.comcast.net

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The video is of much better quality at blip plus I am having trouble embedding the link. Here is the link.

http://blip.tv/file/1160443/

I'll try to fix the embedded one.

-- Scott - Chico California http://chicowoodnut.home.comcast.net

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Thanks guys!

Dave – I had to scale back a bit on computer time. Looking at the screen was hurting my neck a bit. I tried several different set ups and nothing seems to work very well. So will have to limit my computer time until after I get the neck brace off (another 4-5 weeks).

"So you say the drawer front comes out too short. How much too short? Exactly an inch.

Where? Along the length

Is it a height issue or a length issue? Length

Is it possible you didn't get the rectangle started or finished on an outside corner? I don't think so, I had the inference dot showing and it looks just like what Scott showed in his video.

Is it possible that when you moved the copy of the side that you didn't move it parallel to the red axis? I'm positive I had it on axis—have been watching that little red line.

Could you set up the drawing right up to just before the Push/Pull on the front and send it to me so I can see? – I'll try to send soon.

Scott – the video is way cool. All this technology stuff you guys give back amazes me. Makes me want to learn more computer stuff – I'm not sure I've seen blip tv before (or at least I've not noticed). The Windows version worked better for me.

Thanks for your help. I'll work some more on this later tonight and let you know my progress.

Scott – by the way, I have been struggling with that rotate tool – your video was an "ah hah" moment!

Thanks again – you guys are awesome!

-- Betsy - GO BUCKS!

Betsy, it is odd that the drawer front is exactly an inch too short. Using Push/Pull on the face shouldn't change the length of the that face. Only give it thickness.

Scott did do a good job on the video clip. Especially because it turned on a light for you. Privately I asked him a few questions about his methods which, while not wrong aren't the most efficient. He suggested I post them for everyone. I cut and pasted them below. Thanks Scott.

"First, I see you selected the first face you drew and then selected its edges via the Context menu. Although there's nothing wrong with that, why don't you simply double click on the face? For geometry of more than a face and its edges, triple click with the Select tool selects all of the geometry.

Second, why not draw the first face for the first drawer side using thickness and length? Then pull the side to height. This eliminates a rotate and a move step. It also results in the component's axes being aligned correctly. [axis alignment affects the orientation of direction materials such as wood grain textures. It is also important for the operation of some plugins so it is a good idea to keep tabs on the axis alignment.]

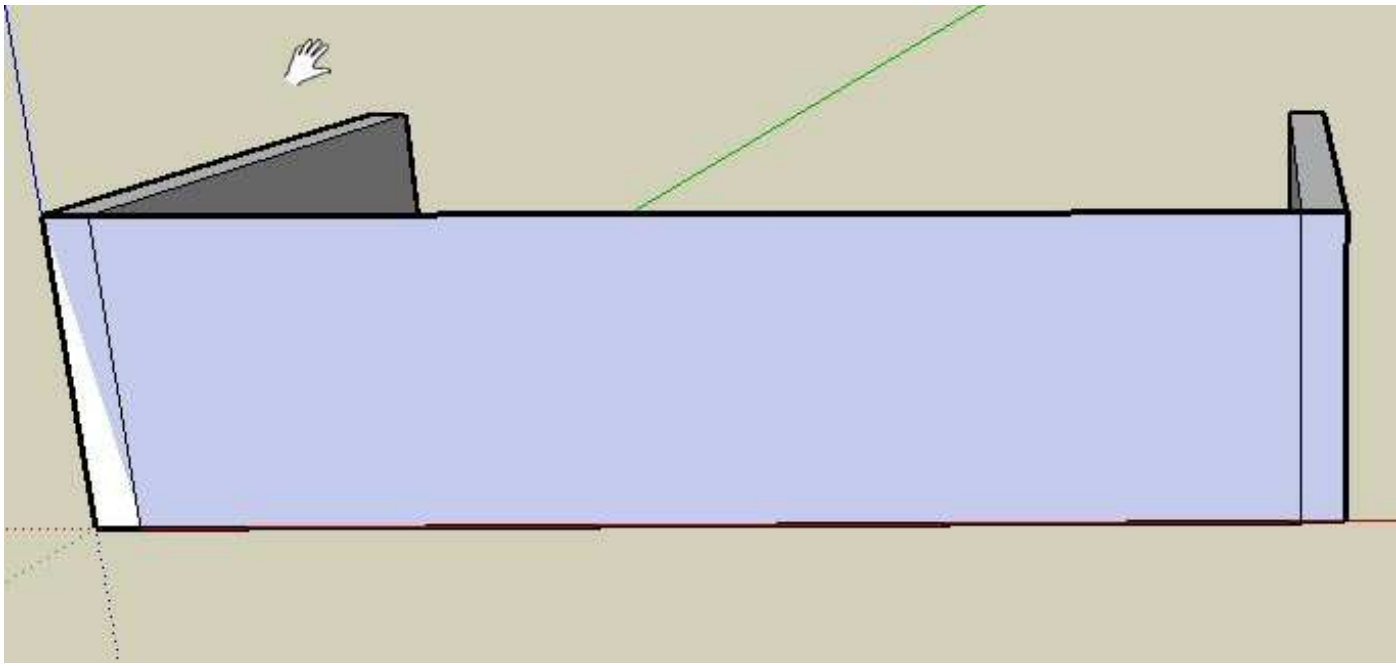
Third, I wonder why you don't use the Tape Measure tool to mark the width of the drawer before making the copy of the drawer side. This would eliminate one move step."

Dave

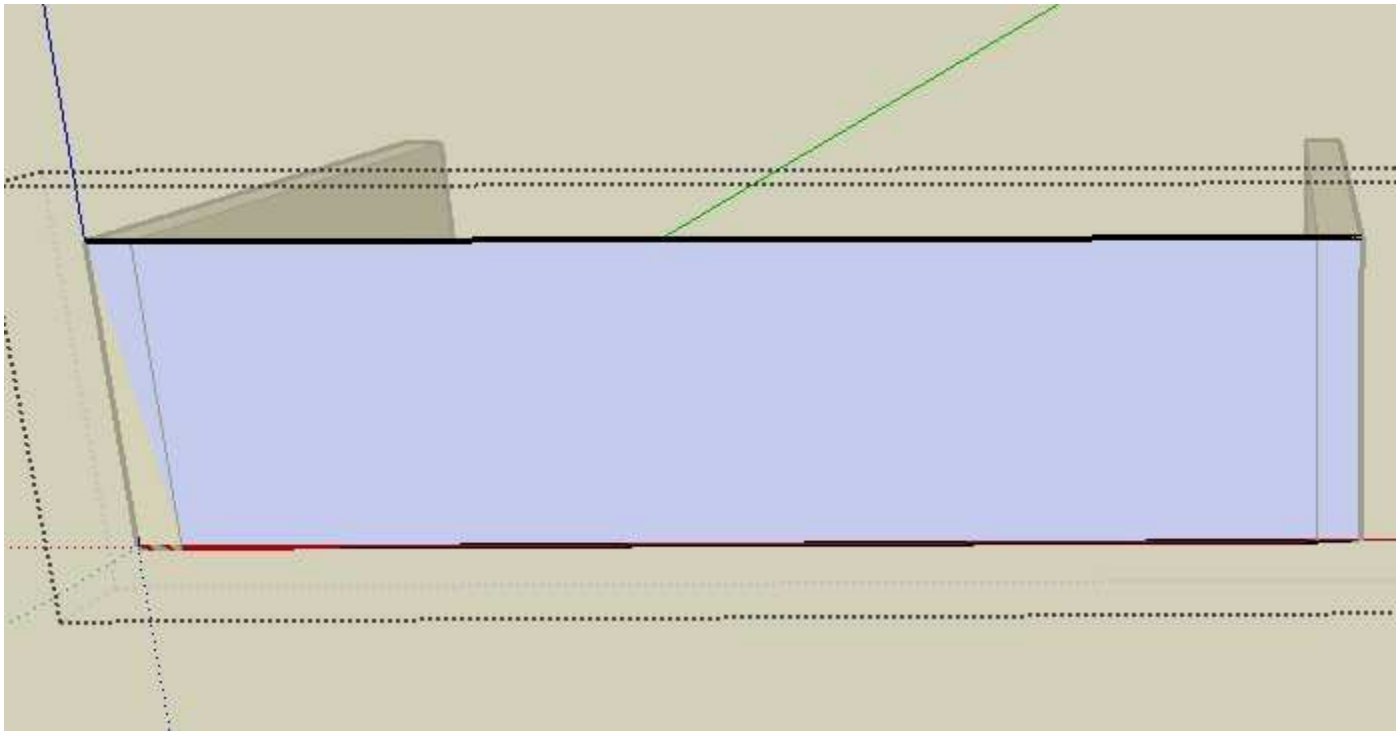
-- "Duck snored."

I'm absolutely not sure what I did differently this time around from the first – but here are some shots.

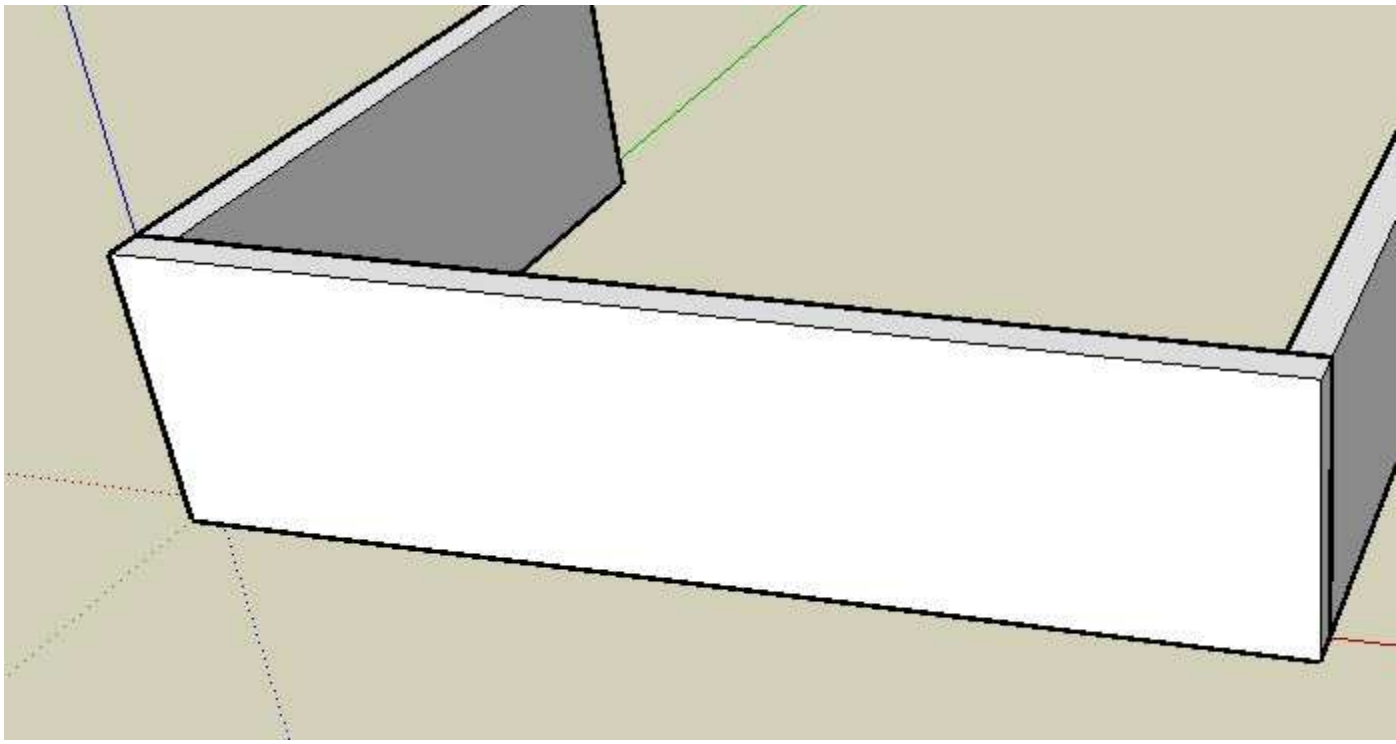
The first shot just shows that the front rectangle is sized onto two sides



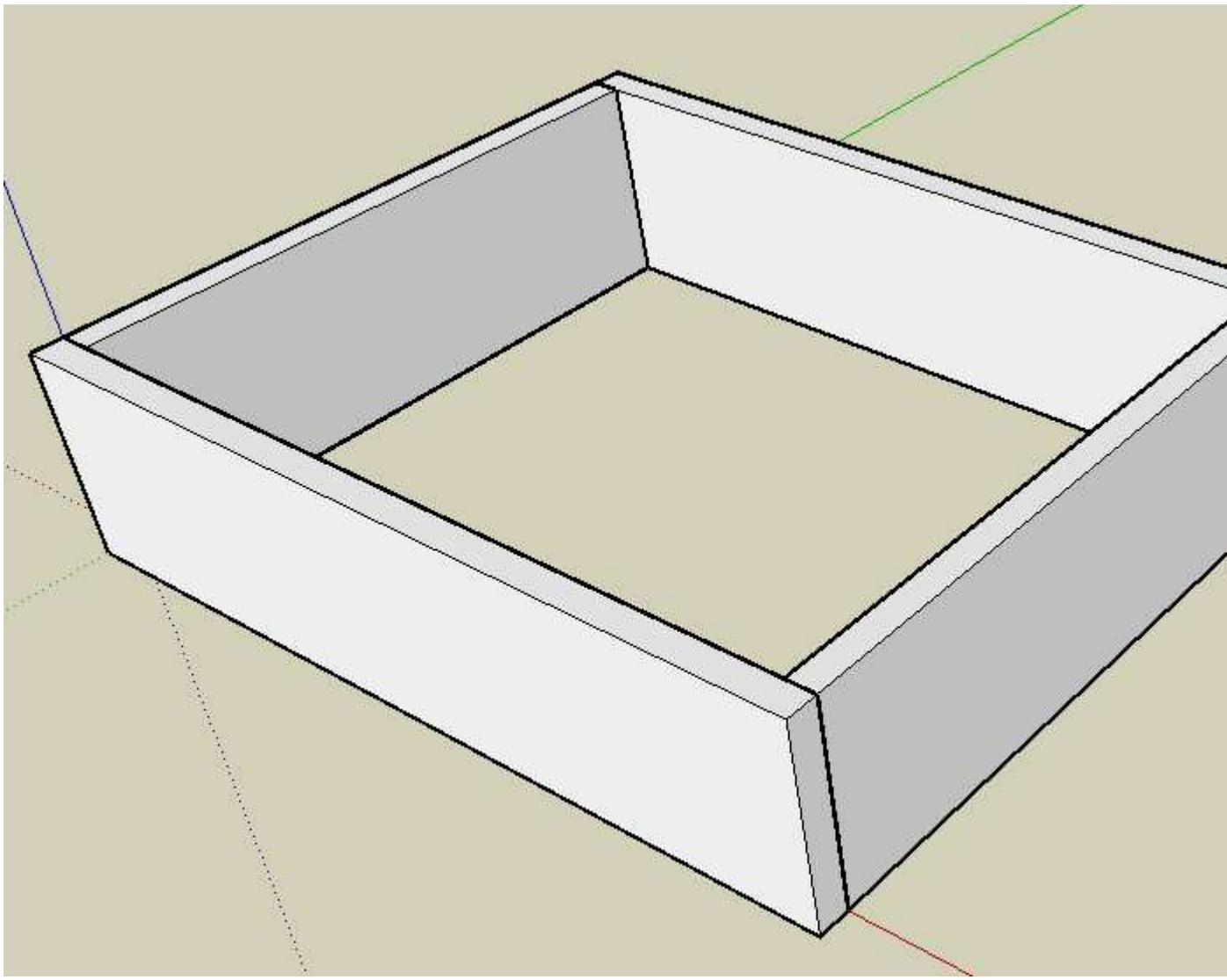
Next is just showing that I made the front a component.



Next the component is push/pulled to 1/2”.



And finally – copied and moved to the other end to close up the box.



Now the only problem—I know I'm having lots of problems learning this—- is, even though I thought I checked my dimensions – my side is shy of 10.25" that I want. How do I resize without deleting the side and redrawing?

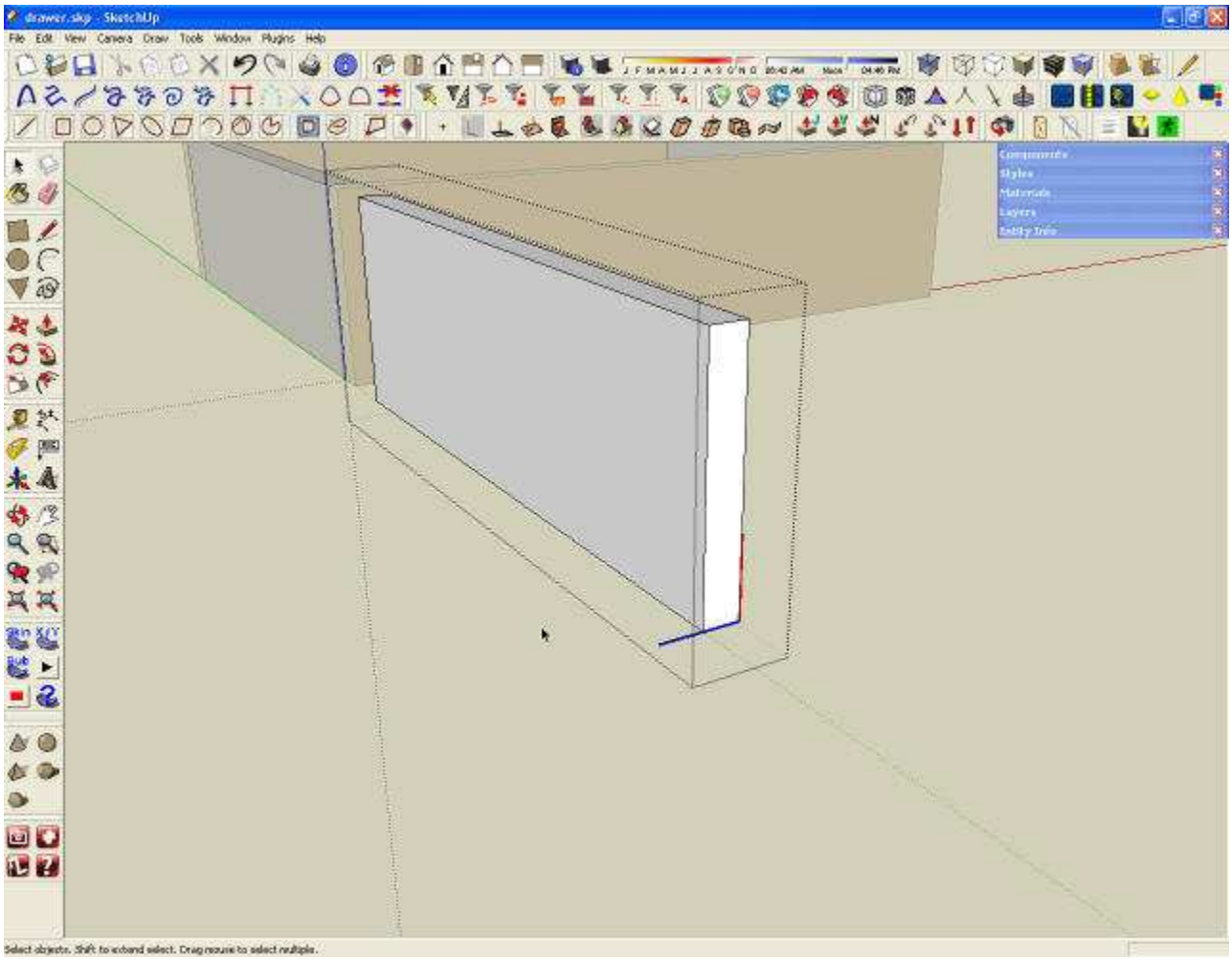
That's all I can do tonight. Thanks for all your help.

-- Betsy - GO BUCKS!

Betsy, I got your file this morning and I'll do up a thing for you in a little while but I wanted to post the following. It looks like you made the first side as Scott did by drawing

the large rectangle, making it a component, pulling it to 1/2” and *then* rotating it to its vertical position. The problem with that method is you end up with the axes oriented incorrectly. In the attached image you can see that the blue axis is parallel to the red global axis. An immediate problem with this is that the Flip command won’t work as one might expect. I discover the axis alignment thing when tried Flip along red to mirror the component and nothing appeared to happen. I had painted the opposite face for the demonstration I was going to do. Now I think
I’ll change my demo approach. I’ll post it as soon as I can.

Betsy, we need to go over that template thing again. The file you sent clearly isn’t using it.



-- "Duck snored."

I second everything the other Dave just said. You want to try and build your pieces in the orientation you want them in. If I was going to build a leg for instance I would make a box the size of the outer dimensions, and then extrude it up or down with the push pull tool. Same with the aprons or box sides. Then when you make them components everything will be correct axis wise. The flip along command is cool, but there are are also ruby scripts out there that will mirror objects for you (I think the next version of SU should have a mirror command). What Dave is demonstrating above is something like I was saying a few posts ago…little details that you don't pay attention to in the beginning will come back and bite you in the butt later on !

-- Women love me.....trees fear me

Lets see if this will help. Pardon my stammering and Thomas the Tank Engine in the background. I need a voice coach and a sound proof booth. ;)

Lets see if I can get the embedding correct.

-- "Duck snored."

Betsy, I'm glad the video helped.

the thing with copying the guidelines also works for geometry and components. Think spindles or slats on a headboard or studs for a wall.

You're right about the details.

Cheers,

Dave

Part 19 of Google Sketchup - Come Along for the Ride series

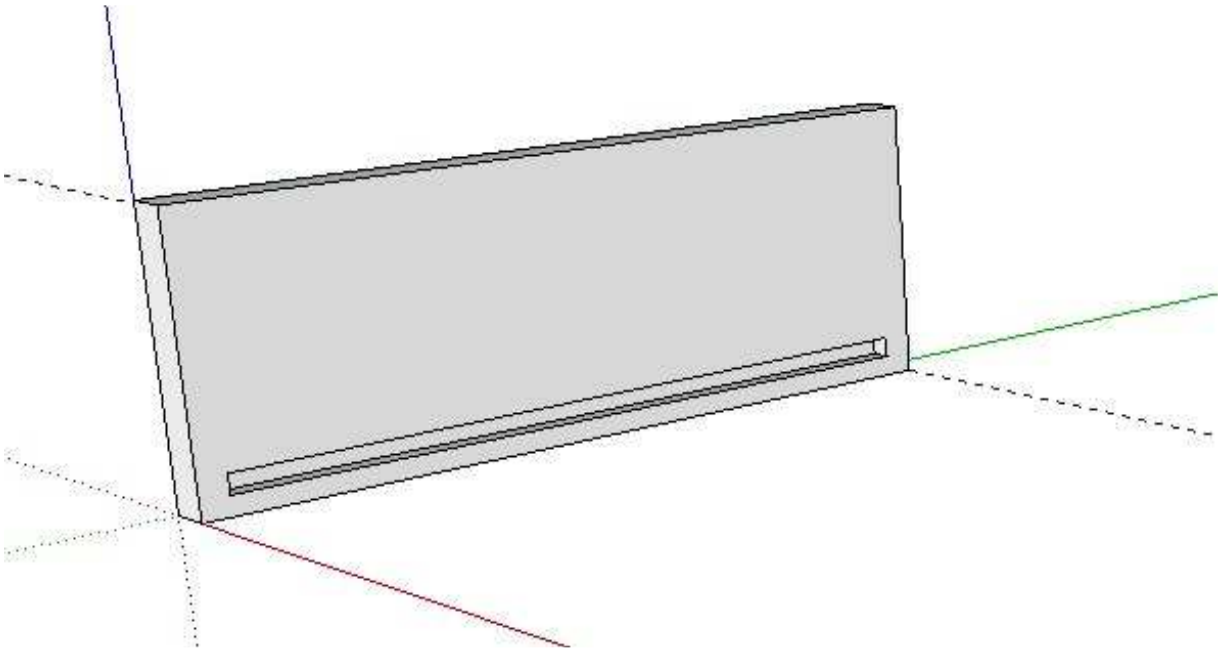
Part 20: A little tidbit that I picked up about guides »

So I'm home from the church concert – WOW – kinds of revs you up. So decided to try to learn a little bit more on the SU front.

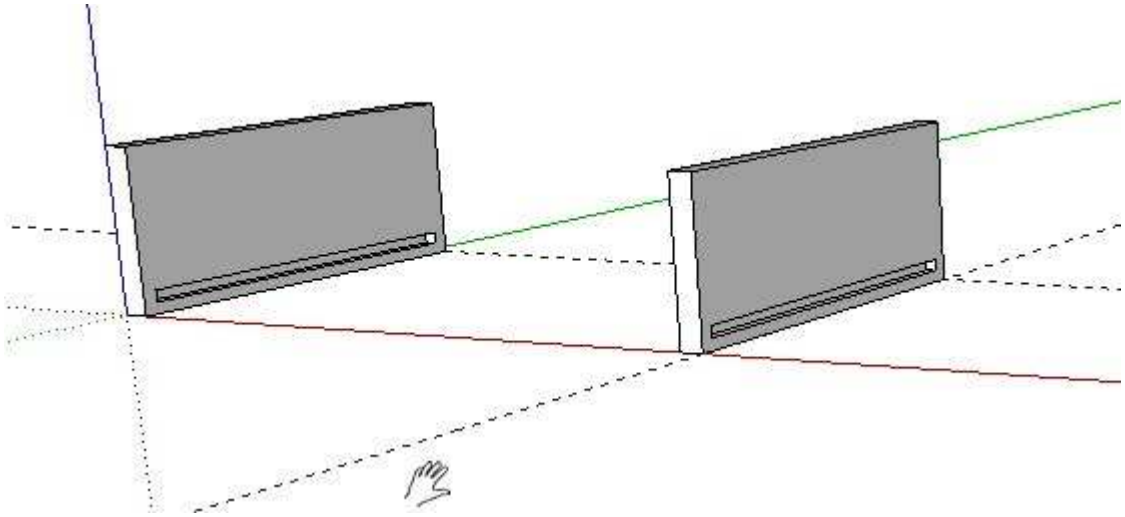
I'm probably the slowest learner on this type of stuff – but no one can say I'm not persistent!

So here I go.

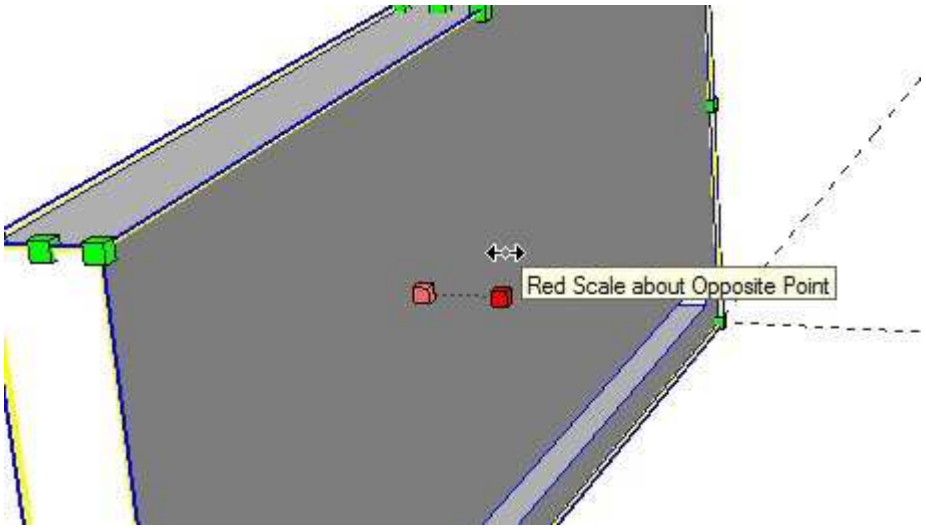
This is my first side – which shows the length (10.25); width (.5); and height (3.5) and I've made it a component.



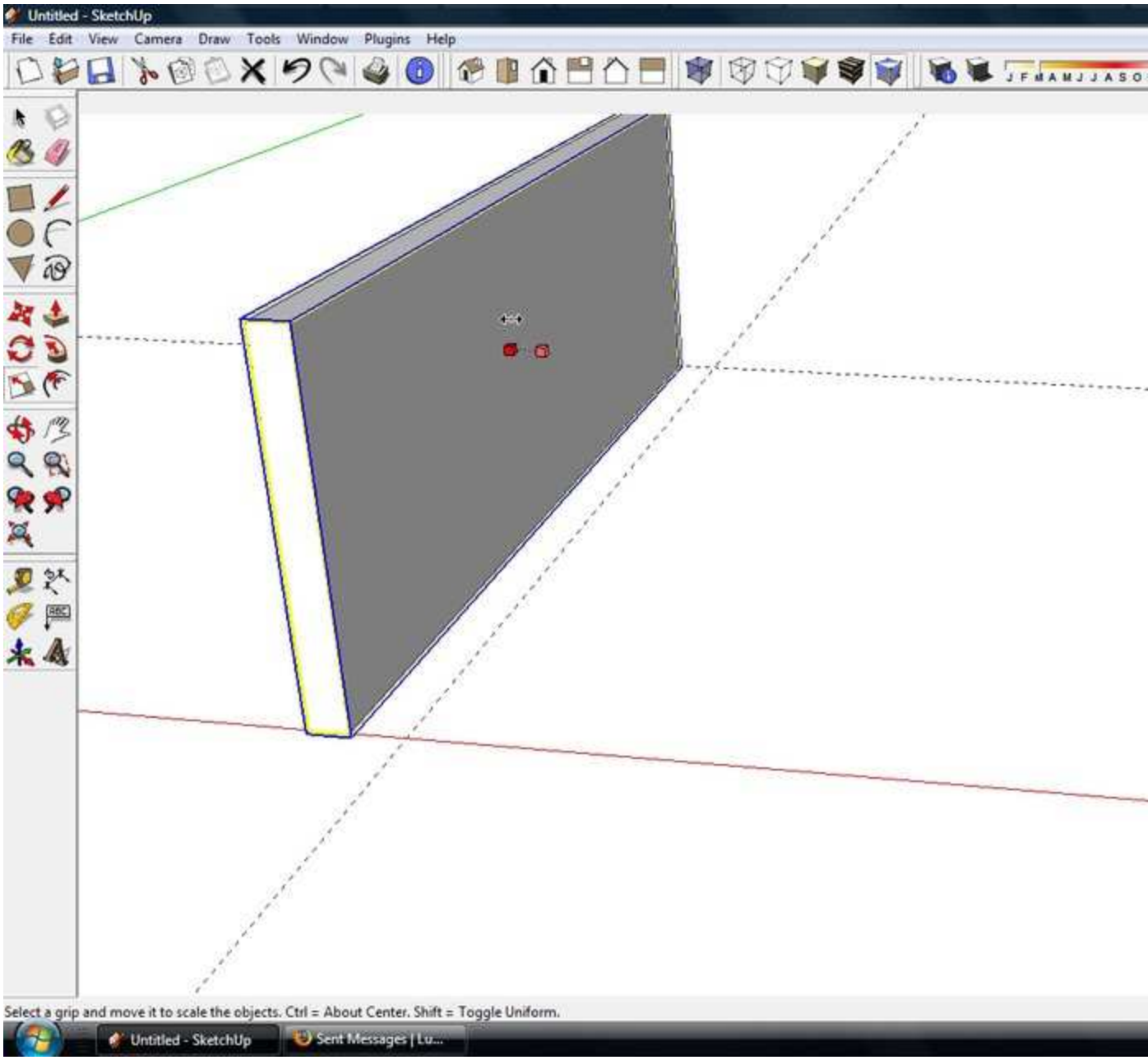
This next shot shows the second side having been copied and moved to it's location. Notice the dado is on the outside of the side.



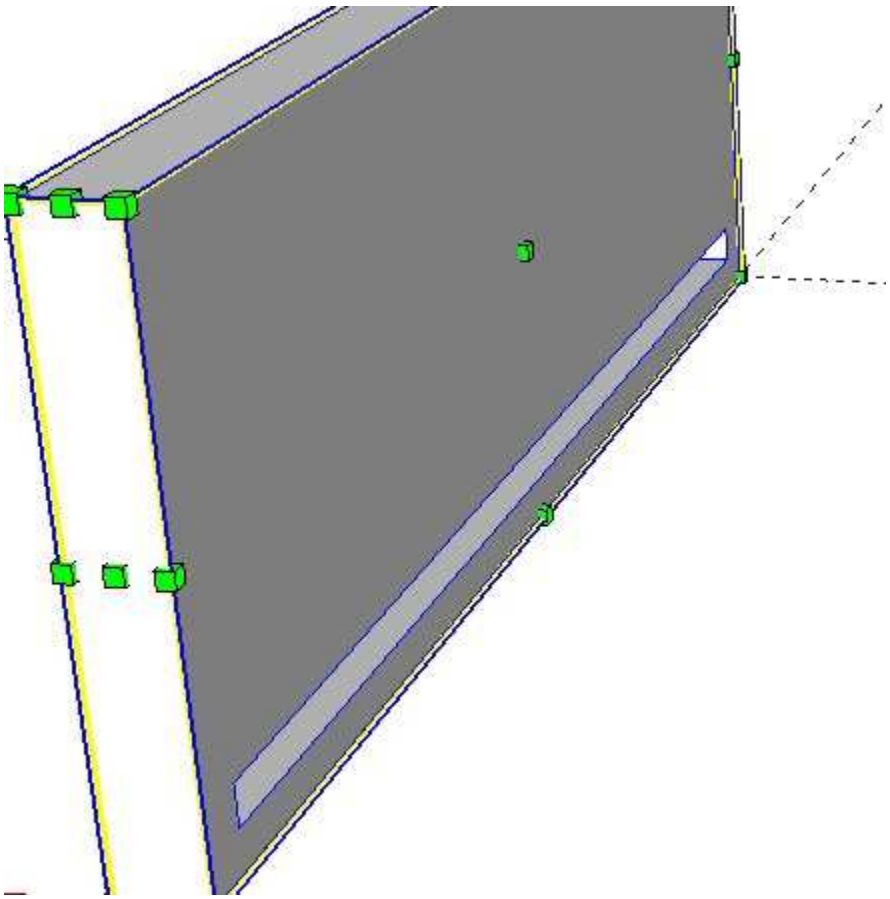
Now on to scaling. Select the second side and then pick up the scale tool. I'm certain I want to use the middle "grip".



Now I've "pushed" my grip **toward** the first side.

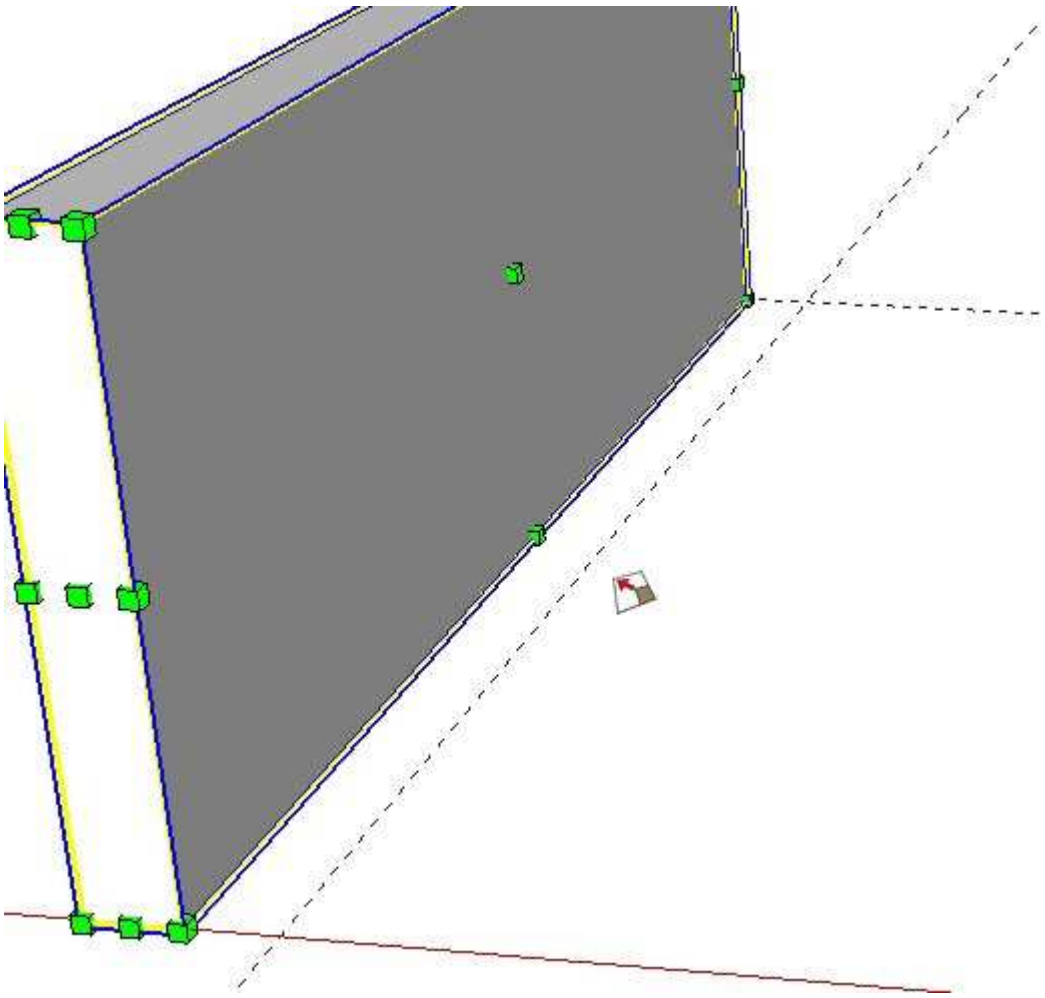


I typed in **positive** 1 in the VCB and this is what I've got.



As you can see the dado is still on the outside of the side.

I then tried the same move and typed **negative** 1.

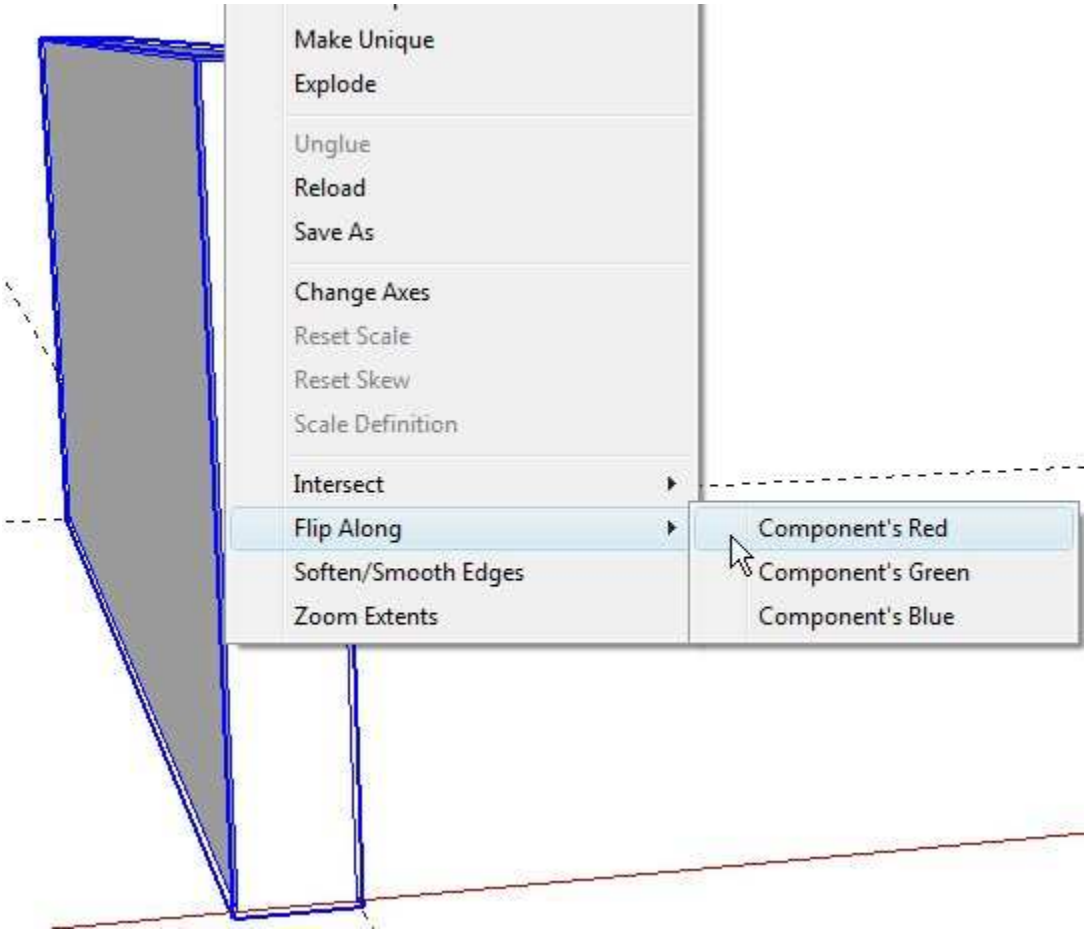


As you can see from the above shot – my dado is now on the inside, but I'm off my guideline mark by 1/2".

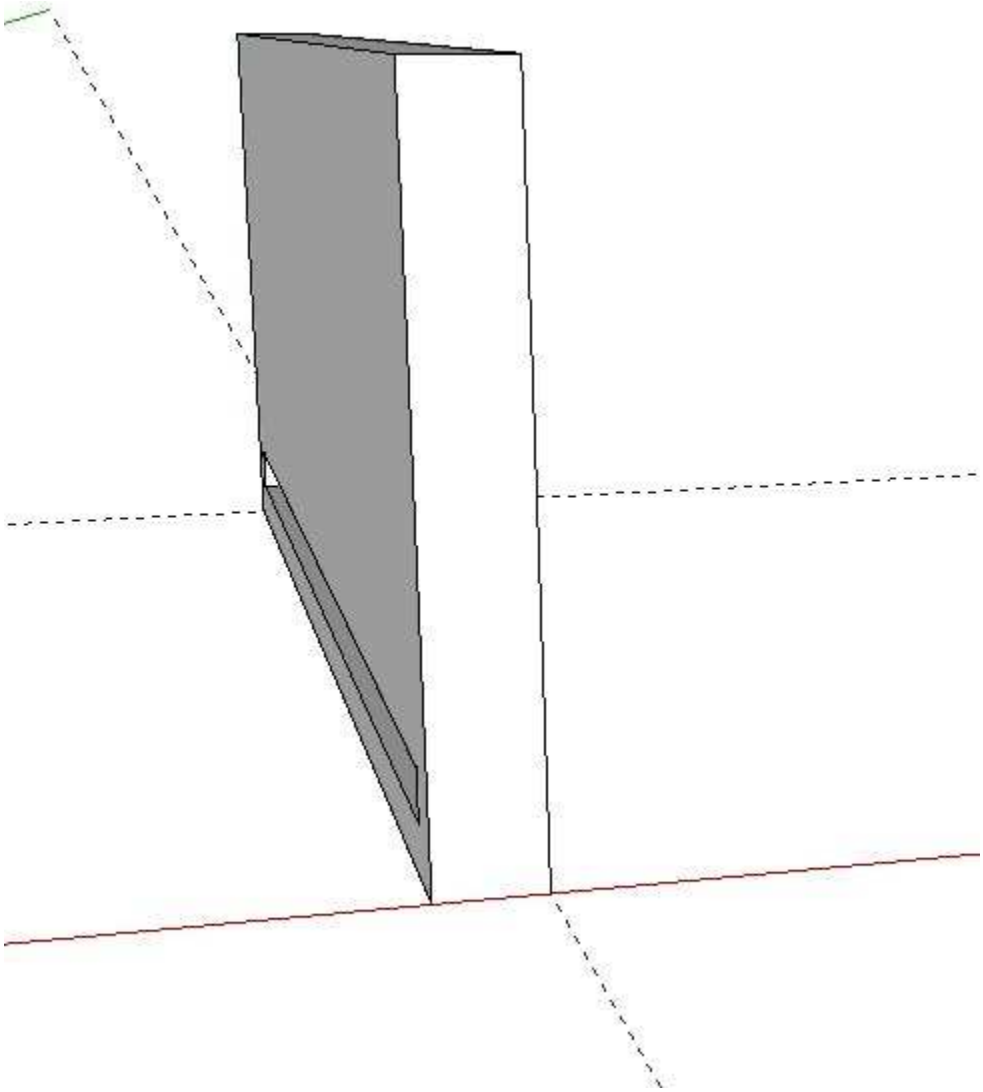
So I'm obviously missing a subtle little tidbit about scaling.

Dave – I've watched your video numerous times and I can't find what I'm missing that you did.

I ended up flipping the side along the red axis.

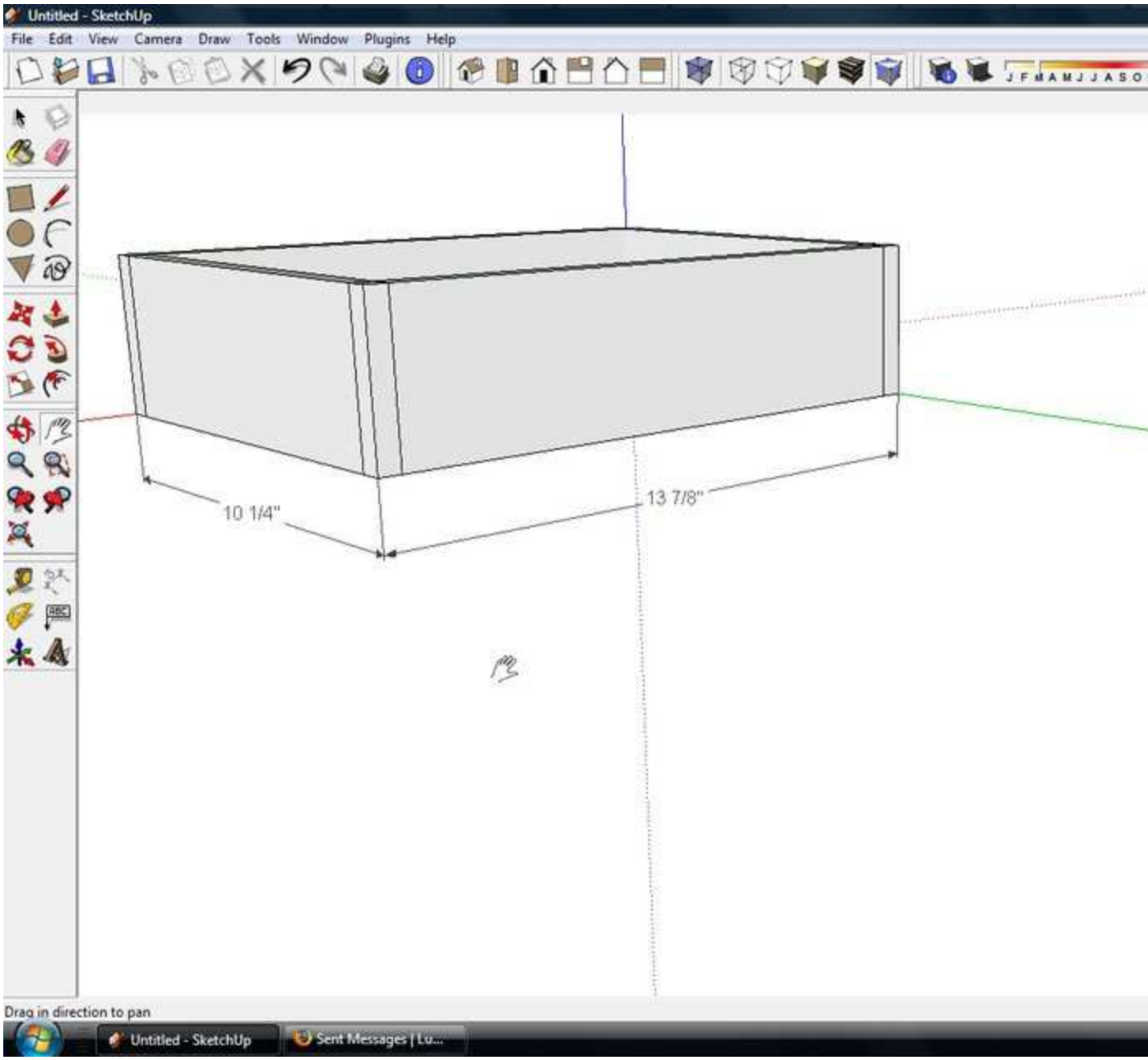


Flipping put the dado on the inside and the side on guide line.



I did the same technique from above to make my front/back.

You can see from the next shot that I have at least managed to make my box the finished size that I would like which is 10.25 deep x 13 7/8 wide x. 3.5 high.



So there you have my latest "masterpiece." I'll work on the box joints tomorrow.

As always – all help appreciated. Hopefully, my plodding along is helping others—or at least giving some good chuckles (which is more than fine with me)!

-- Betsy - GO BUCKS!

That is a point to be made with SU, and I'm assuming other programs, if you can't accomplish a task one way—- try toggle keys. The control key seems to be the master key.

Thanks Dave. Will work on my project a little bit more today.

-- Betsy - GO BUCKS!

Watch the bottom left of your drawing window. When you choose a tool, the modifier keys will be listed with their function.

Not all functions toggle though. For example Ctrl does toggle the Copy function of the Move tool. You don't need to hold Ctrl to maintain the copy mode. On the other hand, you do have to hold Ctrl to maintain Scale About Center.

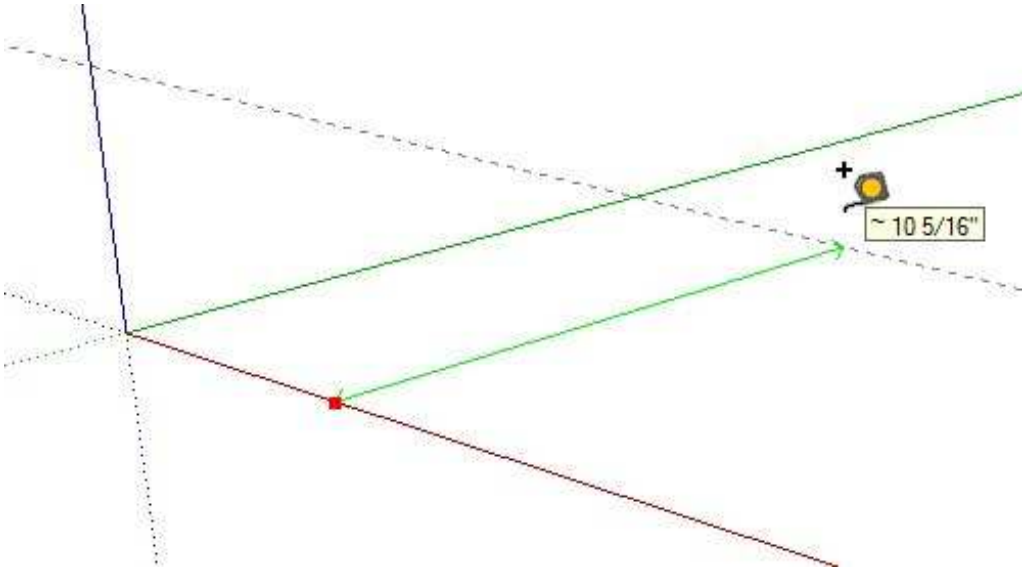
-- "Duck snored."

Part 20 of Google Sketchup - Come Along for the Ride series

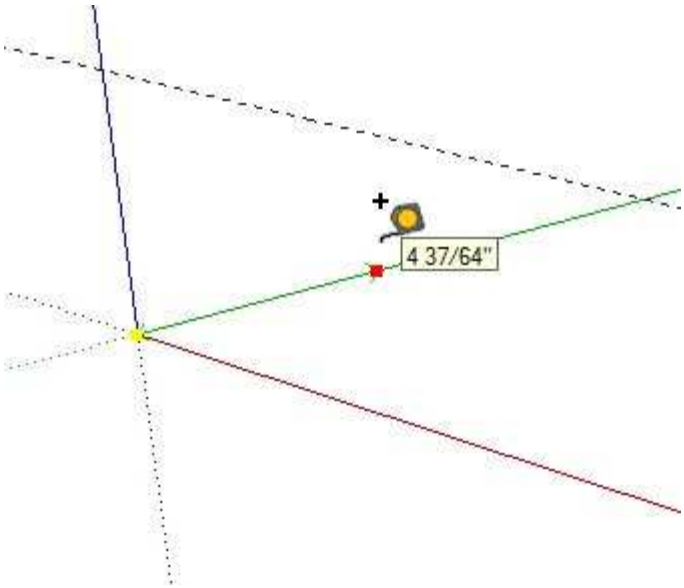
Part 21: Grand experiment on posting a video »

Here's a little tidbit that I recognized tonight while drawing my guidelines for my drawers.

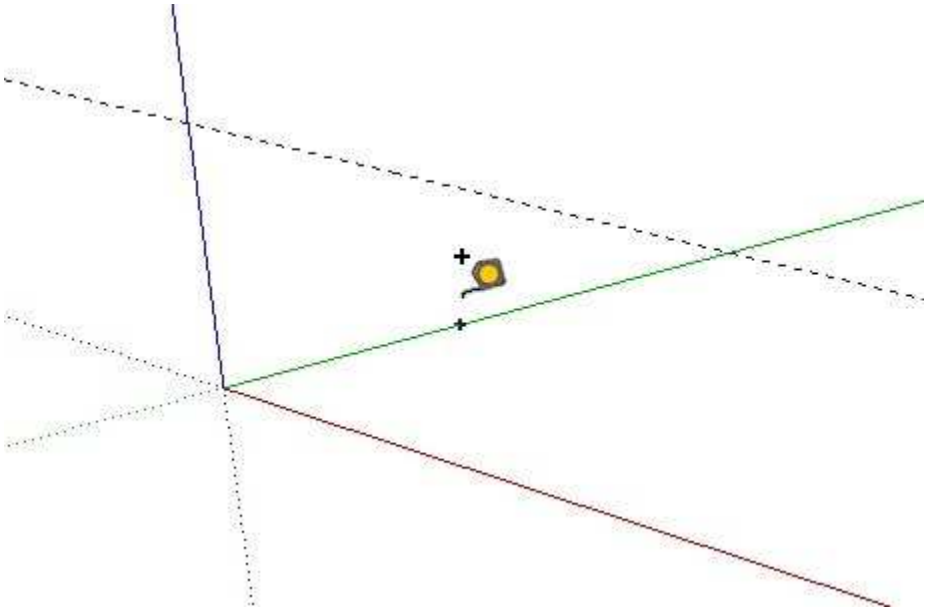
Notice on the first shot that my red inference dot is on the middle of the red axis and I've got a dotted line showing where my guideline will be when I release my mouse.



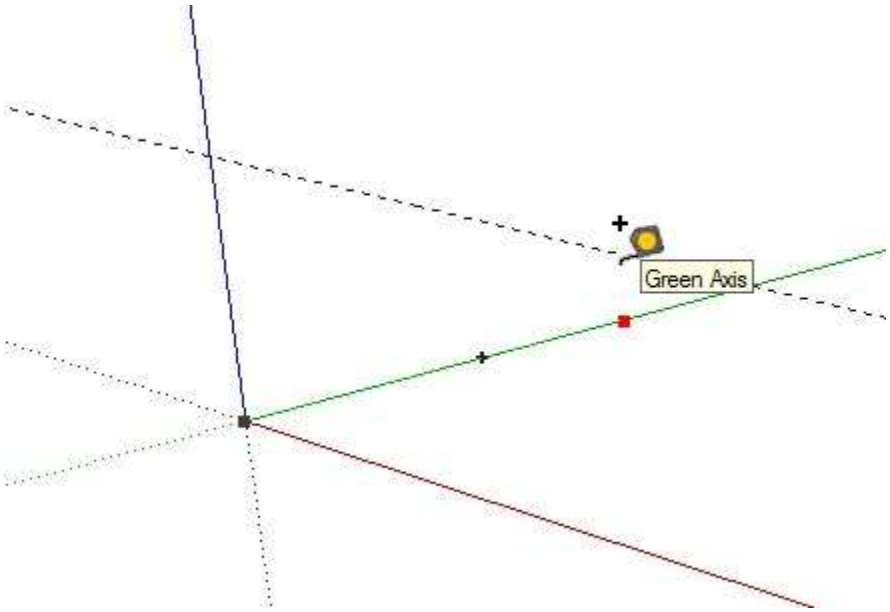
This next shot shows where I start on the “origin” (yellow inference dot) and move up the green axis.



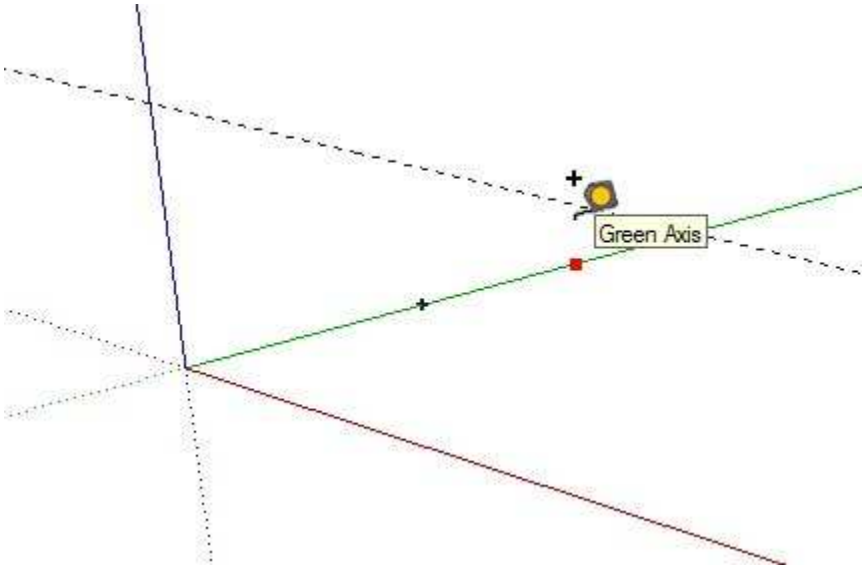
At first I thought that because I was moving on the green axis line itself – I did not get a **guideline** – instead I got a guide **mark** symbolized by the small cross on the green axis. But first thoughts are deceptive. You’ll see in the next group why you don’t want a black dot if you want a guideline and not a guide mark.



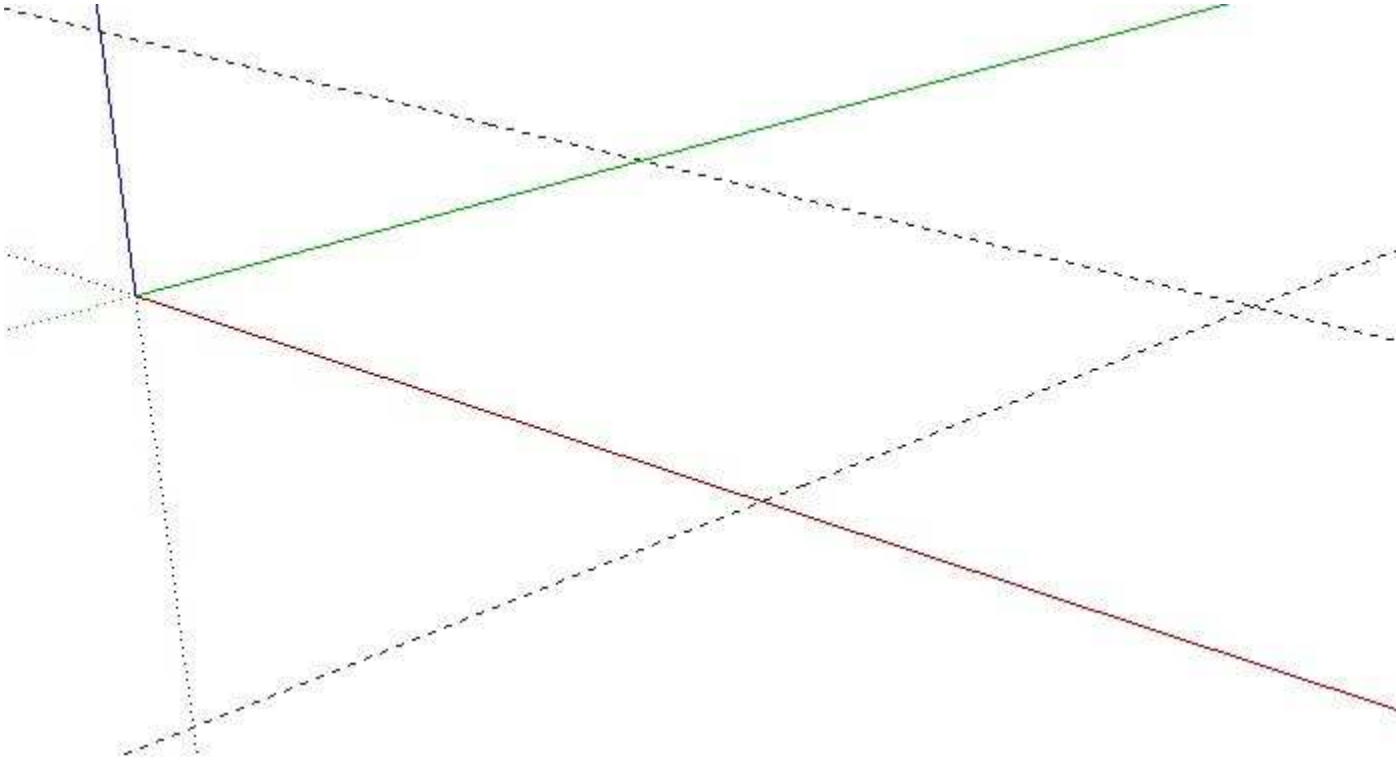
Now I need to draw my other line to make the outline of my box. Notice in this next shot that you see both the black inference dot at the origin and the red dot on the green axis. This will not give me the guideline that I need.



To get my second guideline – I need to get only the red inference line and move away from the green axis.



I finally have my guidelines for my box.



Hopefully that's clearer than mud.

-- Betsy - GO BUCKS!

Good on you, Betsy. Referencing from a point (origin, intersection, etc.) gets a guide point. Referencing from a line (axis, line, guideline) gives a guideline.

-- "Duck snored."

Part 21 of Google Sketchup - Come Along for the Ride series

Part 22: Scale tool ---- I DID IT! »

I've been wondering how some of you make videos to post on the net. Scott (Chicowoodnut) put me onto http://sourceforge.net/projects/camstudio/?abmode=1

It's a pretty cool looking program. I actually managed to do a very short video on SU. What surprised me when I played it back was that it had sound! I had no idea my laptop had a built in microphone. So if you play this video – you'll hear all the typing going on but nothing else. I highly suggest turning the sound down as I'm apparently quite a noisy typist. I stopped and started the video quite a lot while I messing with the SU.

I can certainly see where learning to do the video will help me to explain what issues I'm having learning the SU program. But, of course, this just gives me another computer thing to learn about. That can be a good thing, or not. There's a lot to know about these different programs. But I figure I've got at least another week off of work (at least I hope only another week) and another 4 or so after that before I can get back in the shop. So I should have some time to learn them.

I'm quite certain that I have not uploaded the video to this blog correctly. When I opened blip.tv (with the open mini-browser below) and hit my dashboard – it just started to run my video. I had to work on figuring out how to find the "address" of the video.

So anyway – here is my first video for what it's worth. It's no great shakes and has ***loads*** of room for improvement.

http://blip.tv/file/1162681

-- Betsy - GO BUCKS!

Betsy! It's great to actually be able to see you work.

Two things for you. First immediately below the Window menu you'll see two curved arrows. The one on the right is Undo. It'll save you going to the Edit menu. The other arrow is Redo.

Second, to embed the video here, click on the Share button on the right and change it to Embed. Then click on the Go button. The code will appear in a box below the Embed and Show Player buttons. Copy it and paste it here.

Finally, are you using your touch pad or a mouse? If not a mouse, I would strongly reccomend getting one—a wired one. It'll make your work easier.

Keep up the good work.

Dave

-- "Duck snored."

Good. Stick to the mouse. If it has a center button on the wheel that's good. If not, I would suggest getting one.

Center mouse wheel=Zoom
Ceneter mouse button=Orbit
Center mouse button+Shift=Pan

You can switch to those tools and back to what you were originally doing automatically. So, for example, if you are drawing a line that needs to be longer than your view allows, you can start the line and then switch to Panning by just pressing the center mouse button while holding Shift. Adjust the view as needed and when you let up on the center mouse button, you'll return to drawing the line.

-- "Duck snored."

Part 22 of Google Sketchup - Come Along for the Ride seriesPart 23: Hall table project »

OK – I know I'm a slow learner – but I finally got the scale tool.

One thing DaveR pointed out that I honestly did not see before is that when you select a tool from the tool bar – an explanation of what that tool does appears in the lower left

corner of the window screen. If there is a toggle option it will also show in the explanation.

So here's my short video on how I used the scale tool.

On to making the joints.

Thanks for looking. As you can see I certainly need to work on the video program – but that's for another day.

-- Betsy - GO BUCKS!

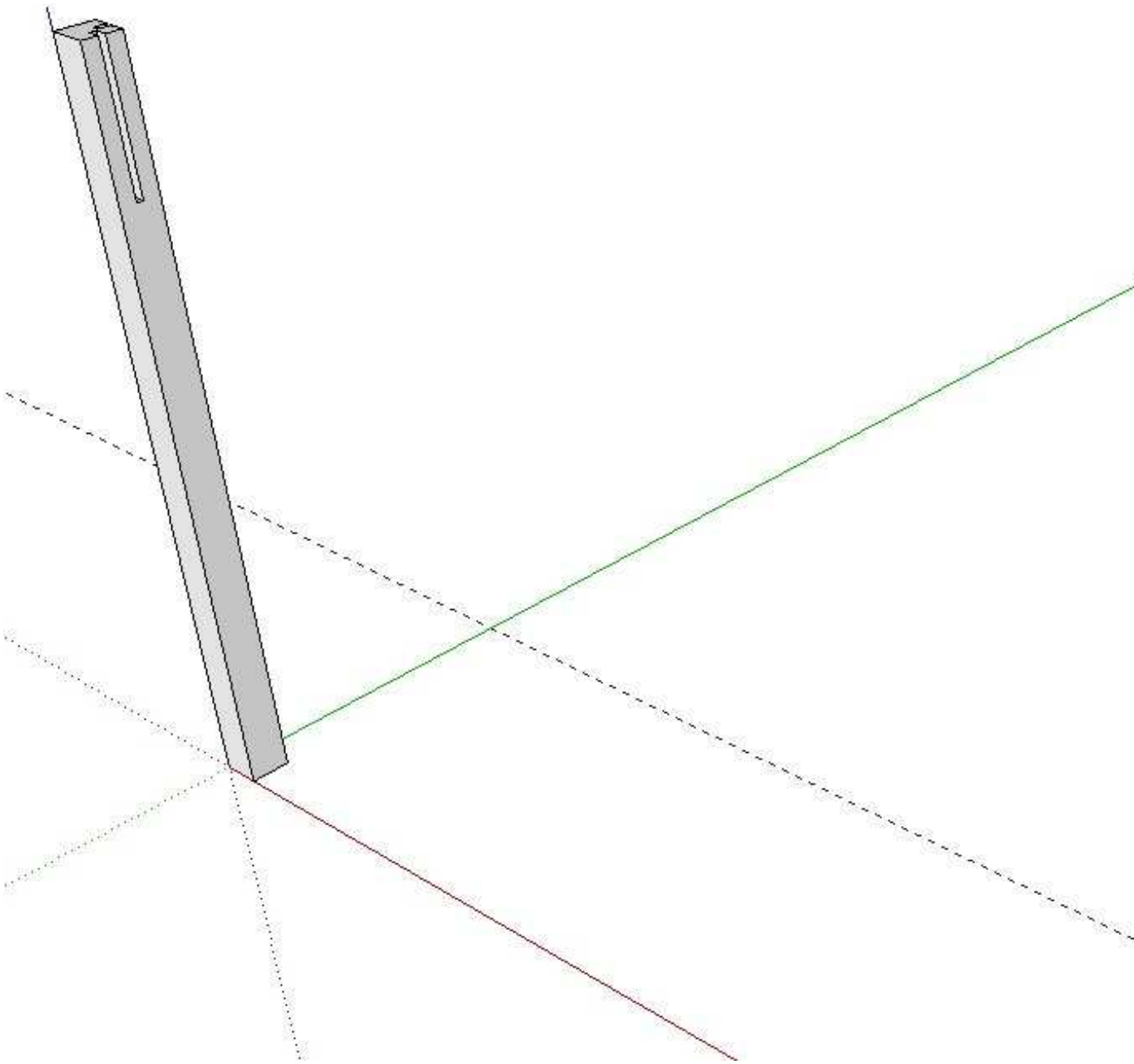
Part 23 of Google Sketchup - Come Along for the Ride series

Part 24: Web site for Sketchup »

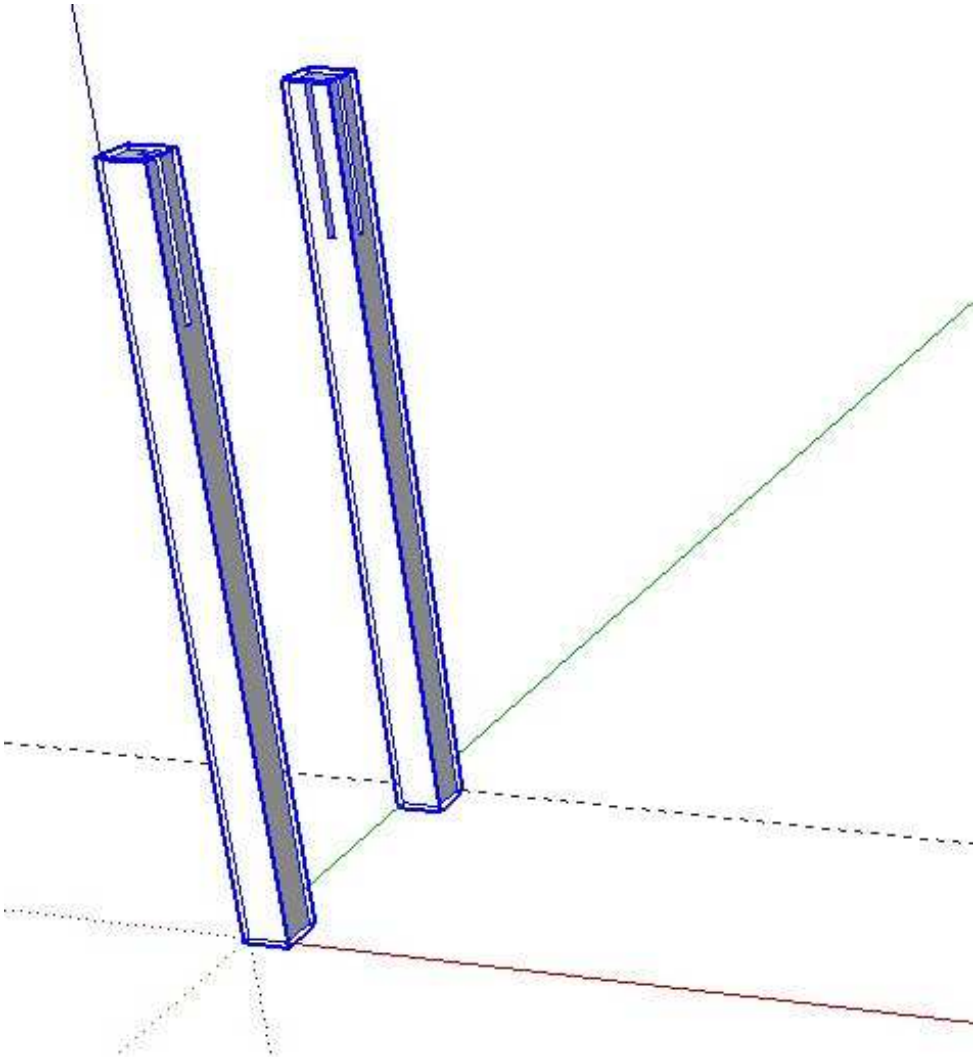
I know you have all probably have had enough of this blasted table by now, but the repetition is helping me learn.

I'm trying to blog about a few of the smaller things that I've picked up that I did not know before and that others may not have known. Some who are more computer savvy—- please look away and or forgive me!

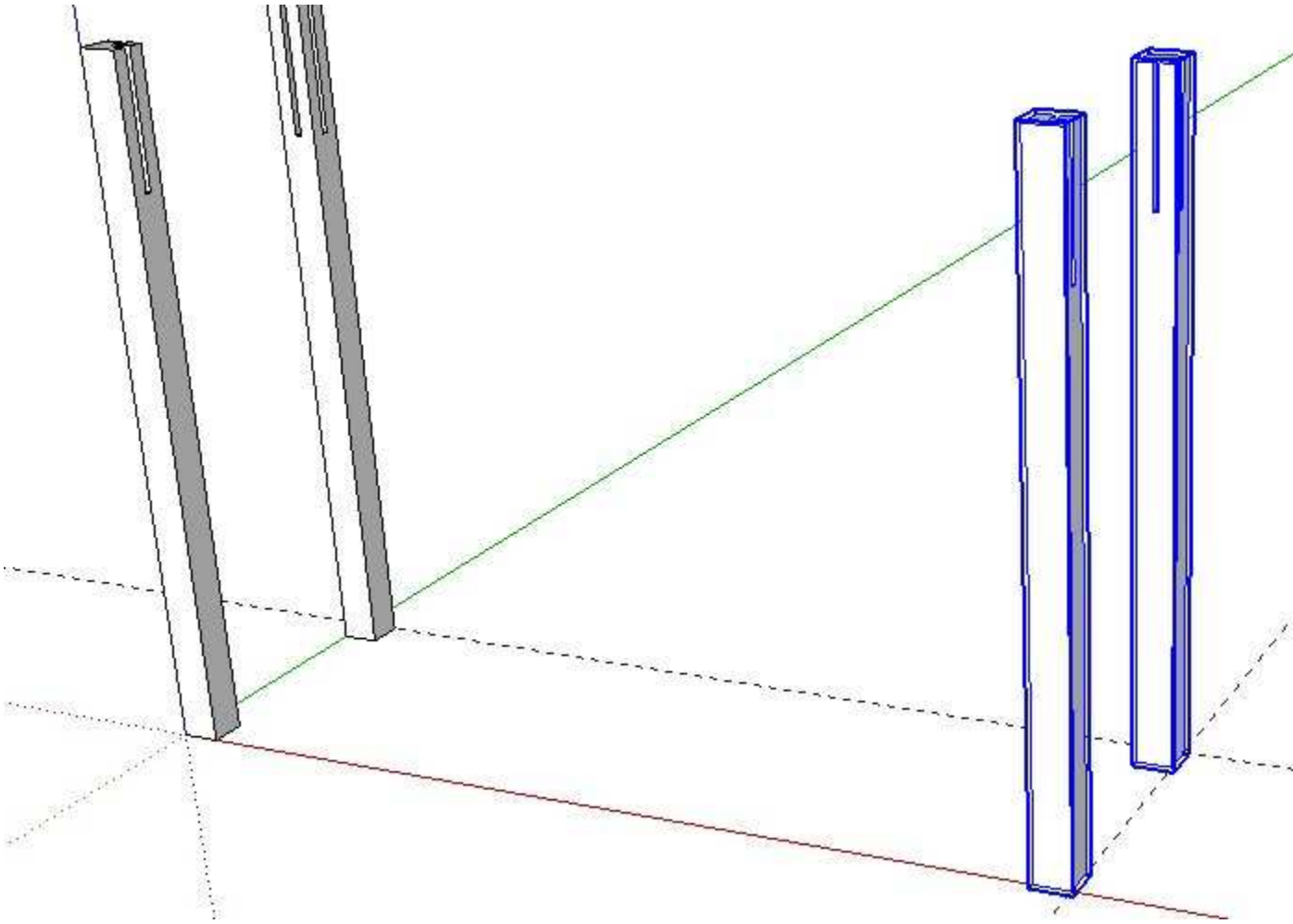
The first shot just shows that I've drawn out guidelines for the footprint of my table, my first leg which has the mortises cut in. Pretty basic – but until just a short while ago I struggled with. I made the leg a component.



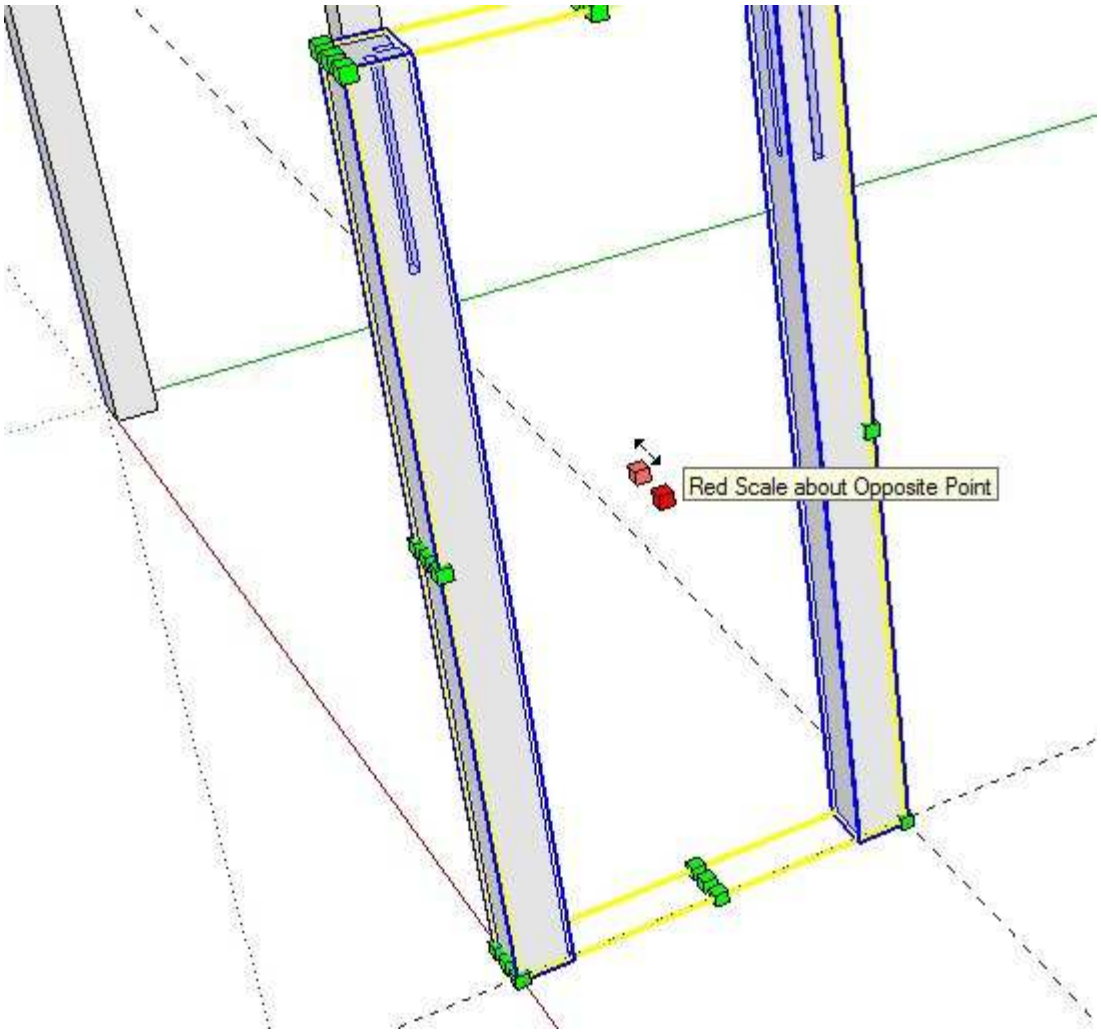
The second shot shows that I have copied and moved my leg. The shot shows that both legs are “blue” which means they are both “selected”. Until just recently I did not know that if you select the first object then hold down the Shift key and click the next object that both would be “selected.” (I believe there is a way to do so by clicking and holding down the mouse key – but I can’t seem to get that to work.)



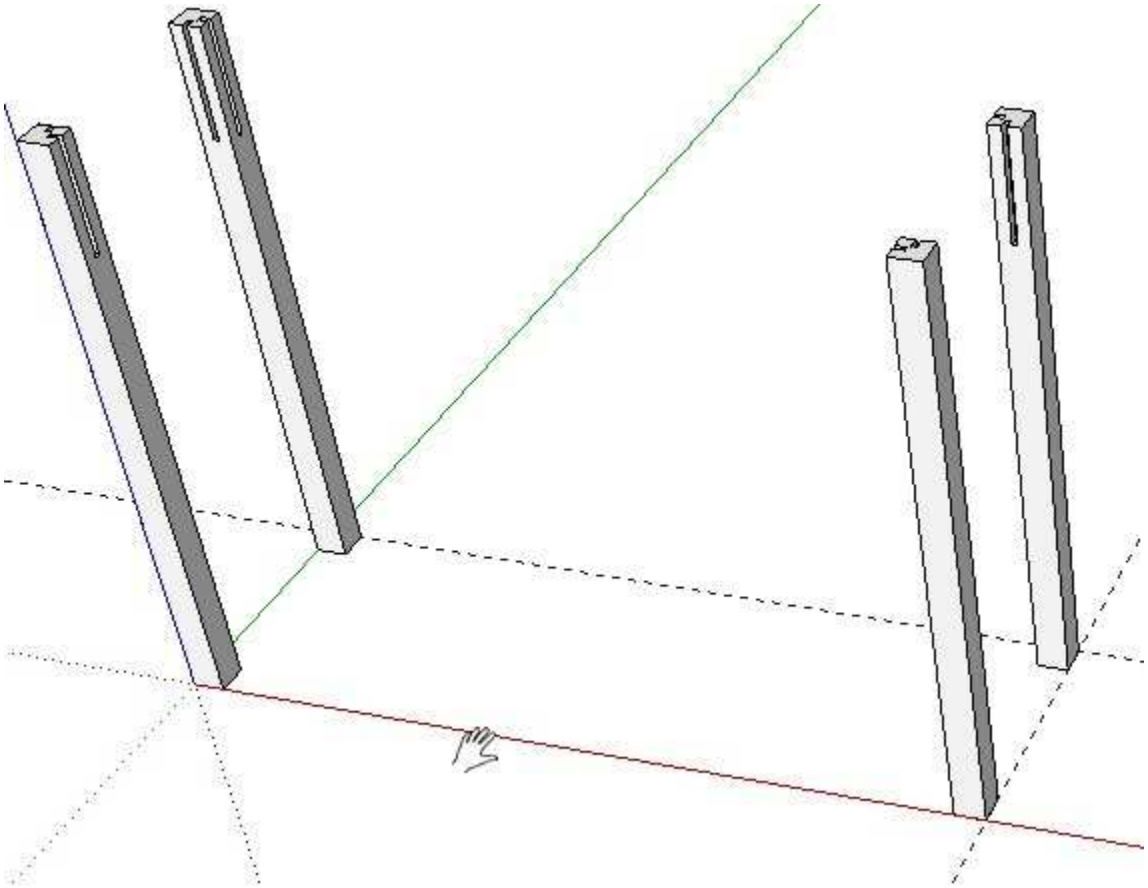
The third shot shows that I've copied and moved my two leg set to the other end of the footprint and both are still "selected."



The fourth shot shows that I have picked the scale tool and will be scaling/mirroring both legs at once. I could not get my print screen program to work while holding the Control key down—- but to scale across the center point of the object you have to hold down the Control key while you are pushing the object through.



The fifth and last shot simply shows that my legs are now correctly positioned with the mortises in their proper order.



The program is certainly getting easier to use and understand. The devil is certainly in the details.

-- Betsy - GO BUCKS!

Part 24 of Google Sketchup - Come Along for the Ride series

Part 25: Reinserting back apron, hide group, outline, x-ray view and questions, of course »

I have the Google Sketchup for Dummies book and it gives a website to go to for tips, etc. It's listed in the book as www.dummies.com/go/SketchUpFD, but I could never get that site to work for me. So I ended up tonight just e-mailing the author, Aidan Chopra, for help. He sent me a different link and I wanted to share it with all of you.

www.sketchupfordummies.com

I've looked at a great deal of the videos and they are well worth the time to view.

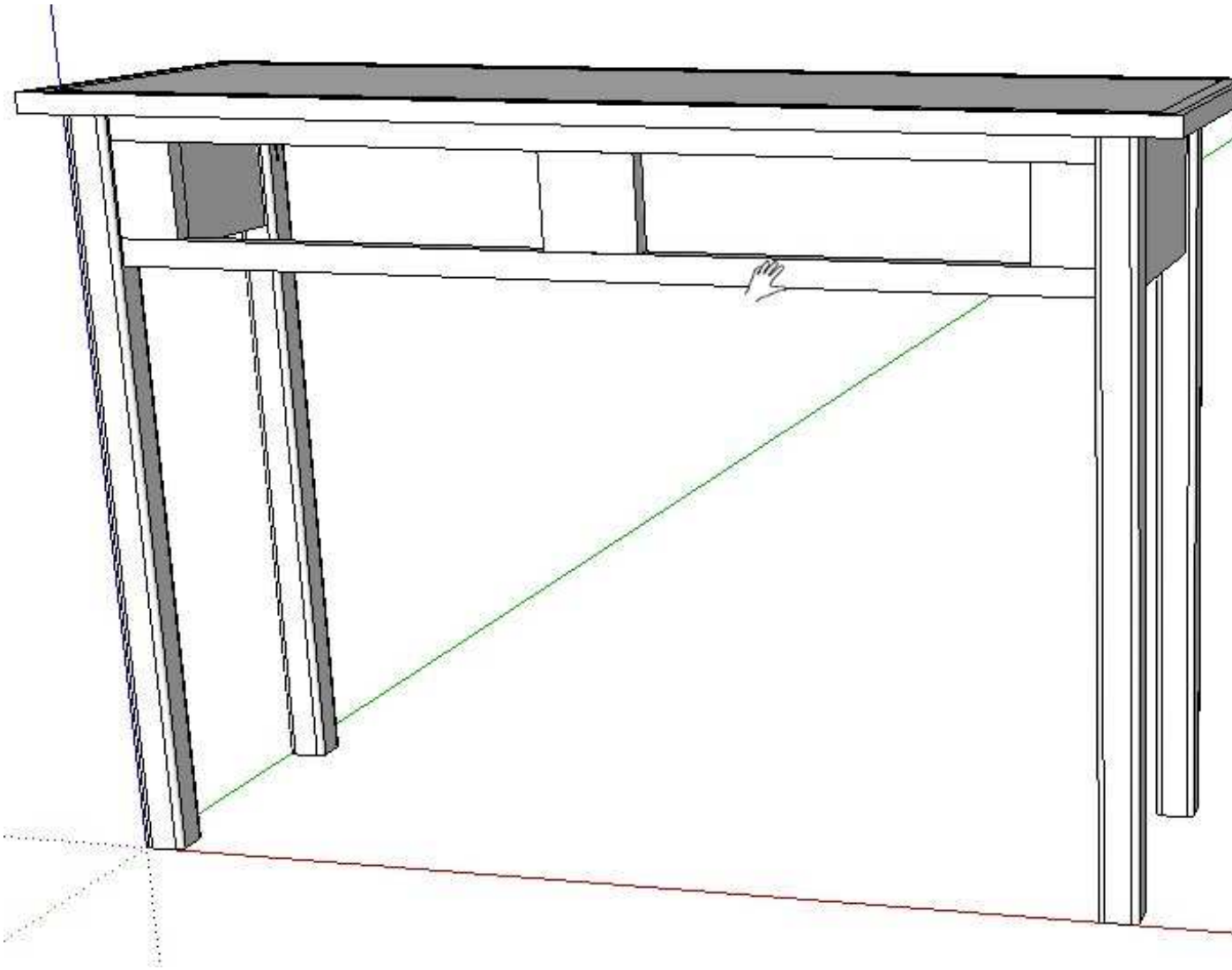
Happy sketching!

-- Betsy - GO BUCKS!

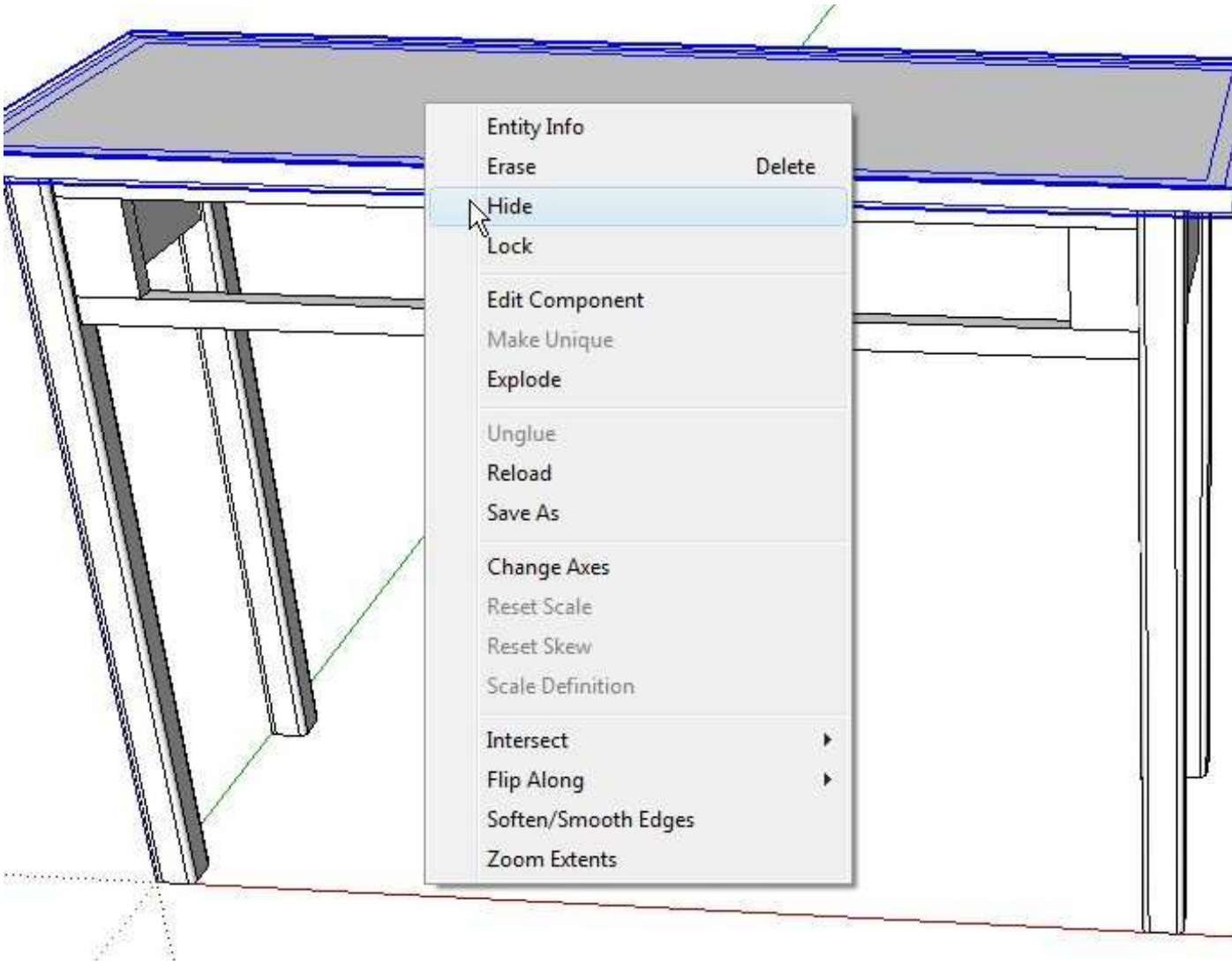
Part 25 of Google Sketchup - Come Along for the Ride seriesno next part

Heading into the home stretch. I redrew some of my table to point out some things I was learning. However, I left off on my hall table with a few problems (OK – more than a few) that I'm working on fixing. Specifically, I need to redraw my back apron because somewhere along the line I erased the back edge and did not make it a component. Because I did not make it a component, when I drew in my drawer runners – the runners broke the face of the apron. Secondly, I redrew my drawer runners because I did not like the way they looked or how I had them placed. I'm sure there is an easier way to fix it rather than taking out the rest and starting over, but that's what I chose to do.

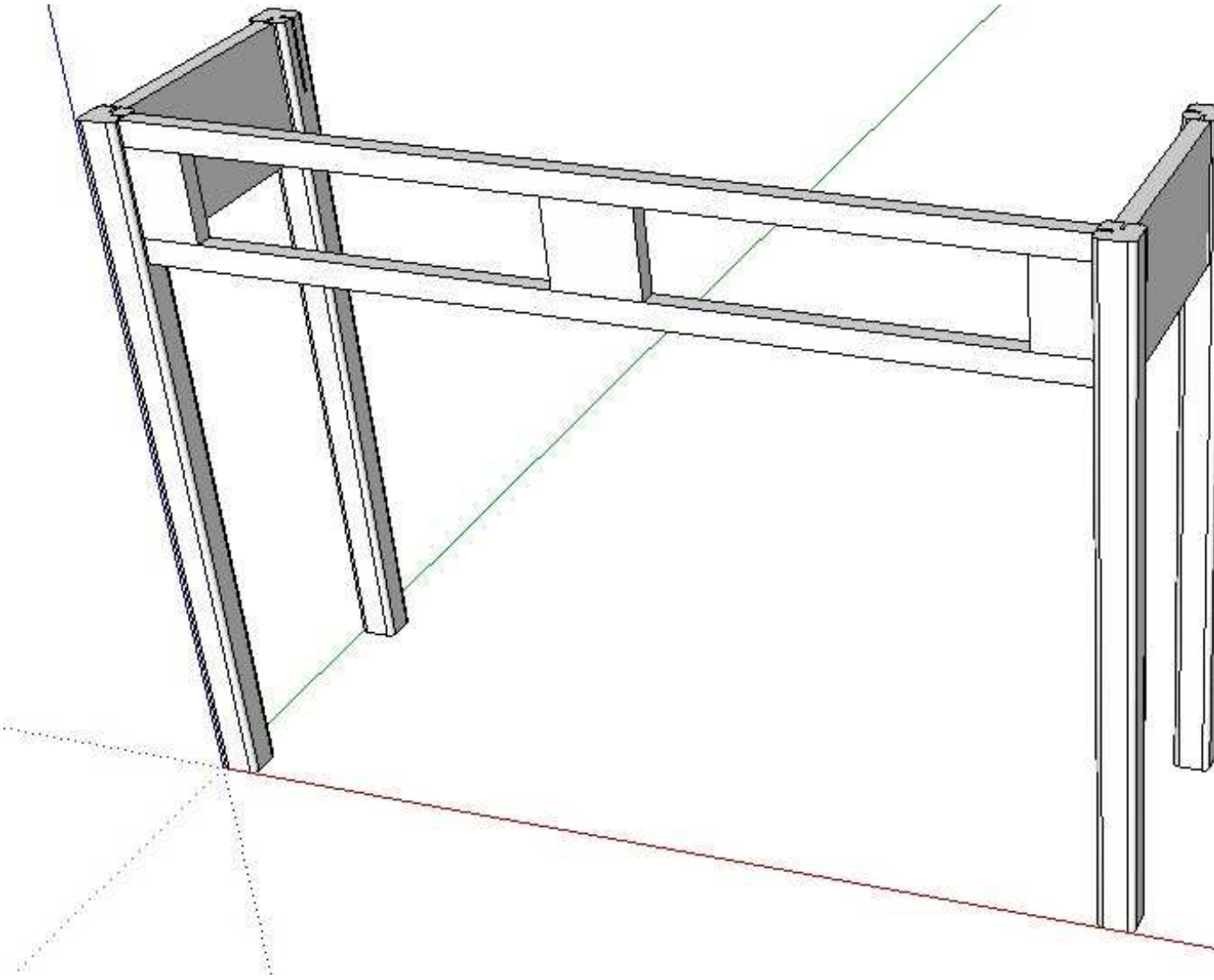
This is the "now shot" showing the back apron missing and without the runners.



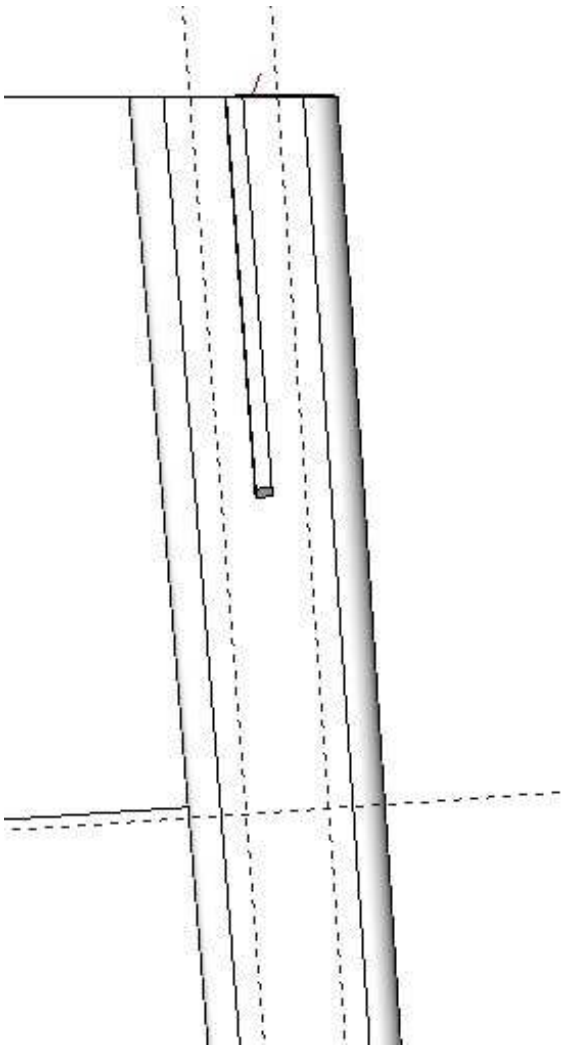
Somewhere along this long story, I made the top a “group.” Because it’s a group, I can hide it which makes it easier to work on the lower sections of the table. Select the group and right click to find the hide. Unhiding takes a few additional steps which I’ll show later in this blog.



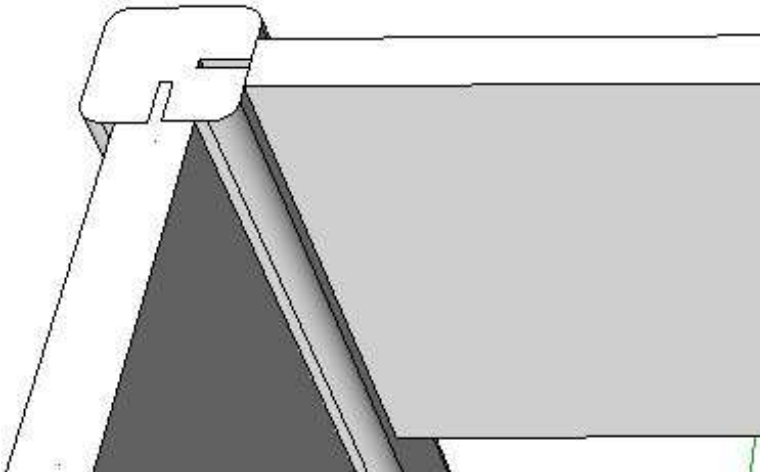
The next shot just shows the table in it’s present form without the top.



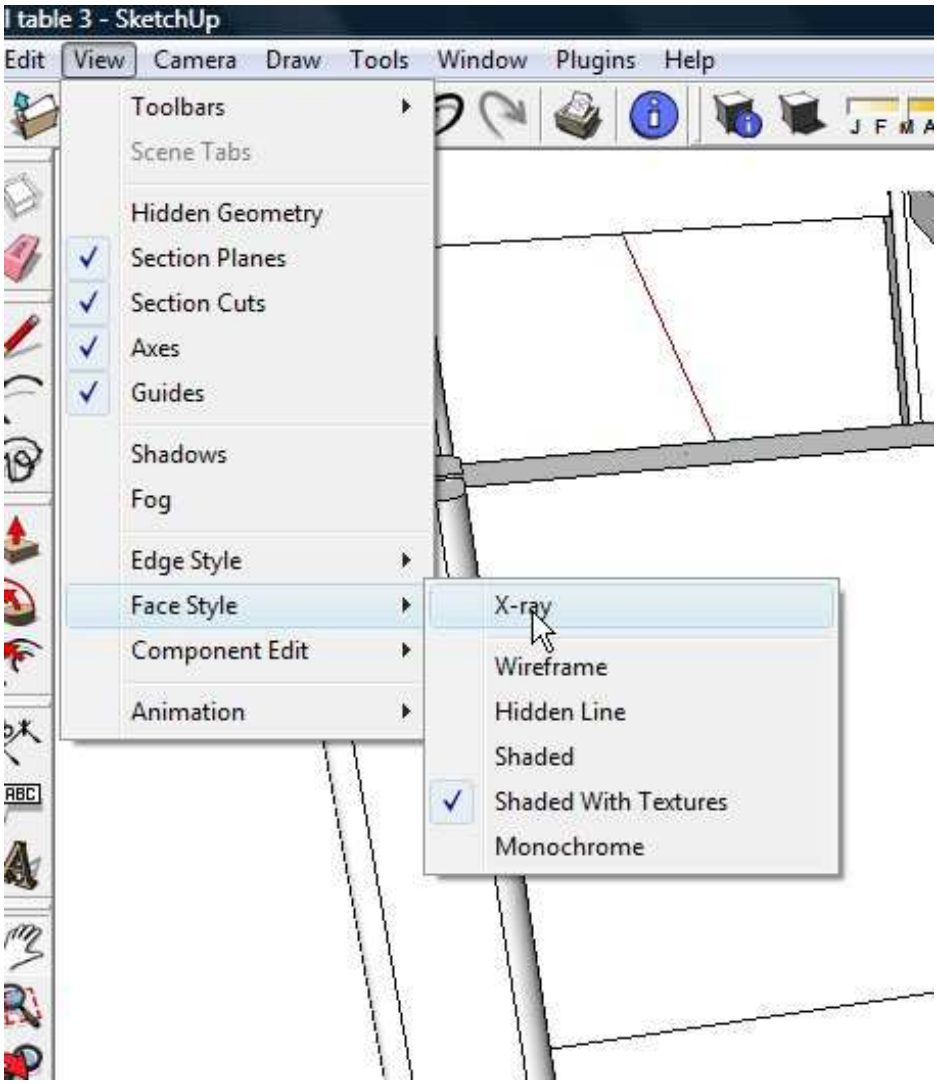
The next two shots just show a close up of the back leg where I need to reinsert the apron. Guidelines have been drawn in and I started working on putting in some text. **I still have not found how to insert the little arrows to point to things.**



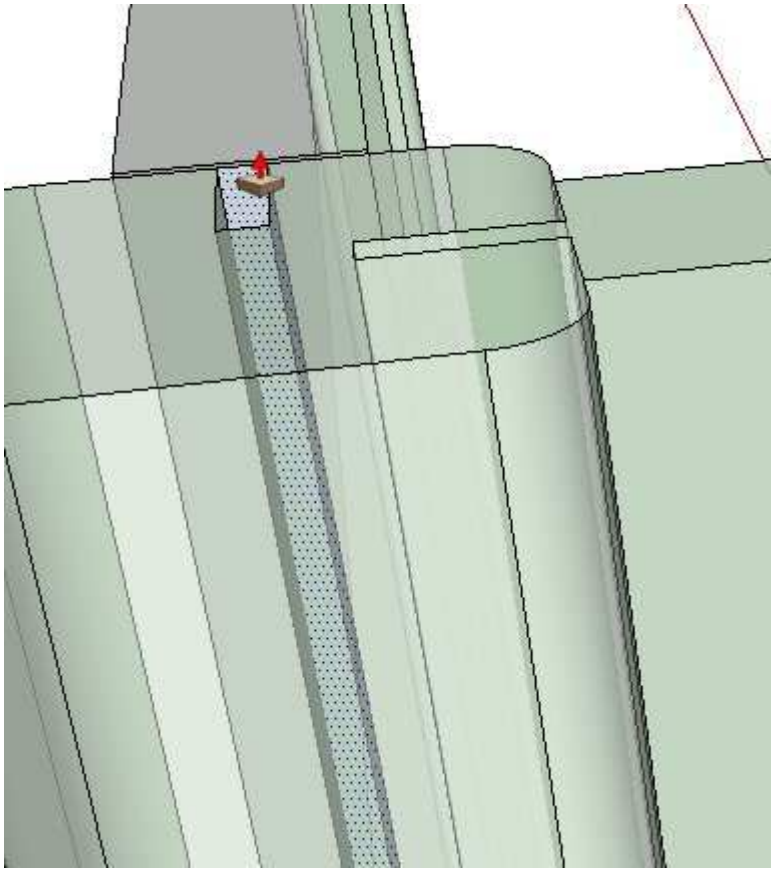
Missing the tenon



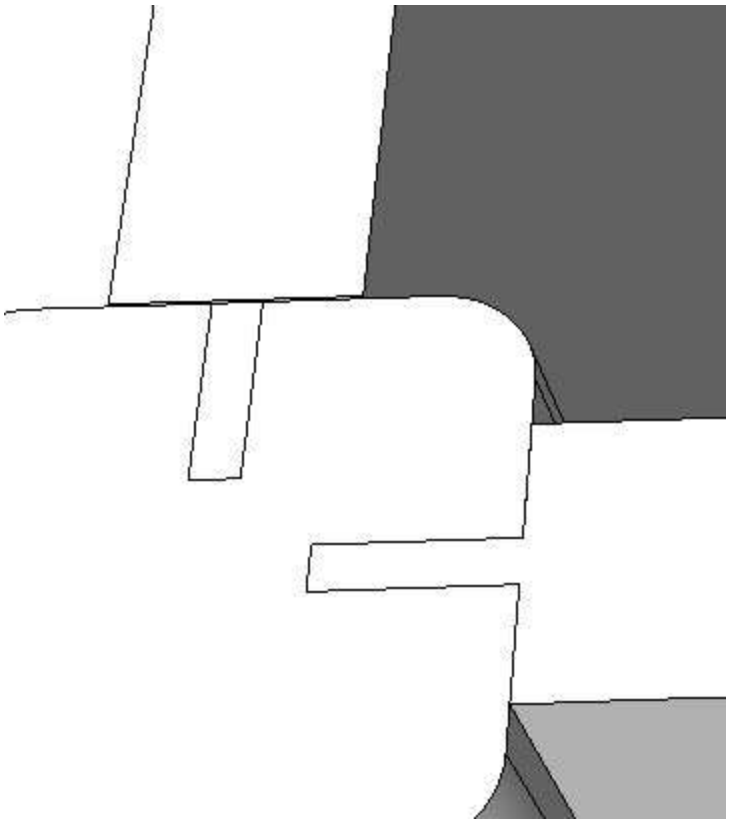
Next just shows the x-ray function. This is a great way to see through your geometry so you can add things or decide what you want to change.



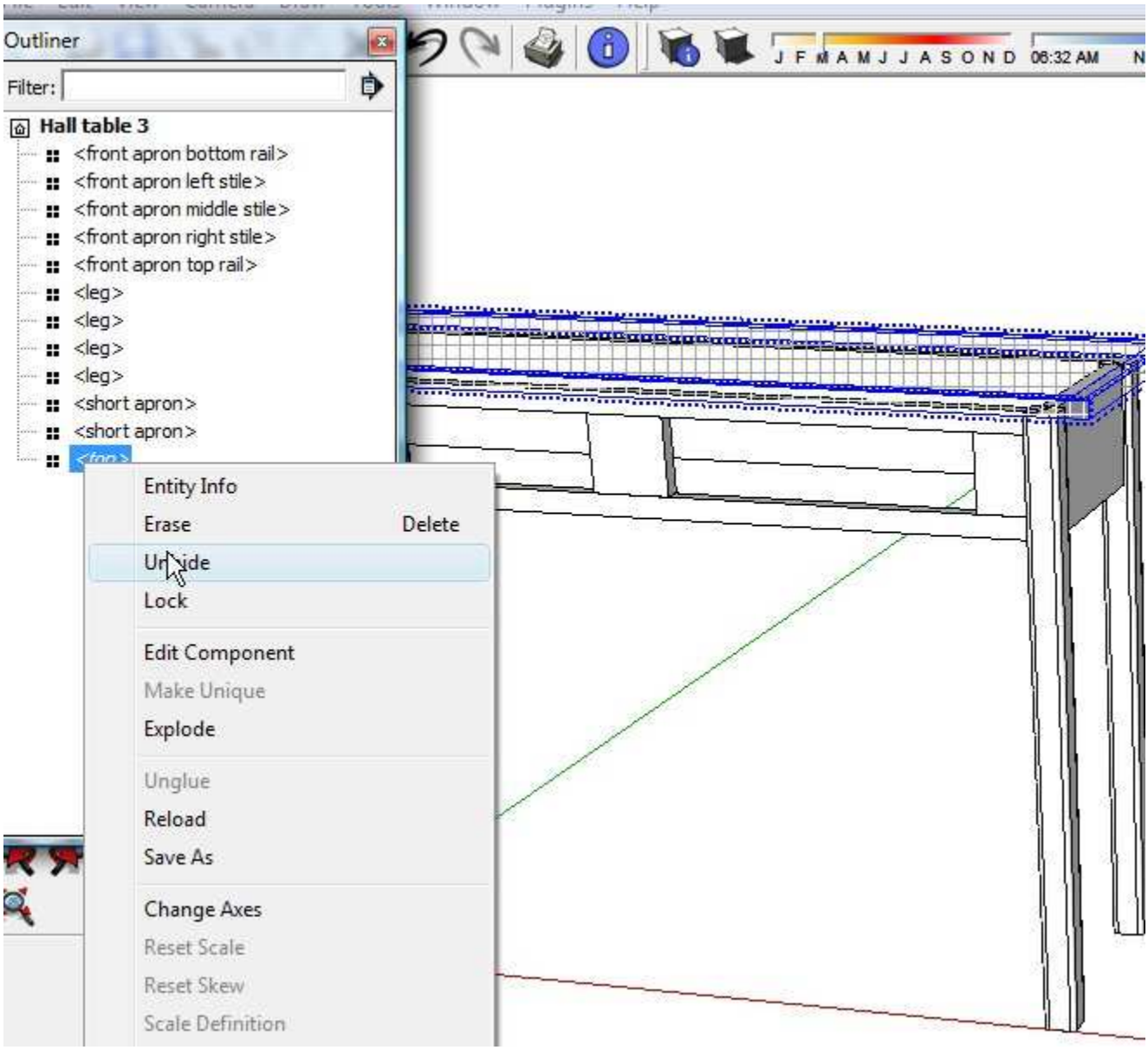
This shot shows that I've drawn in my rectangle for the tenon and have set it up to push/pull it to the 1/2" I need.



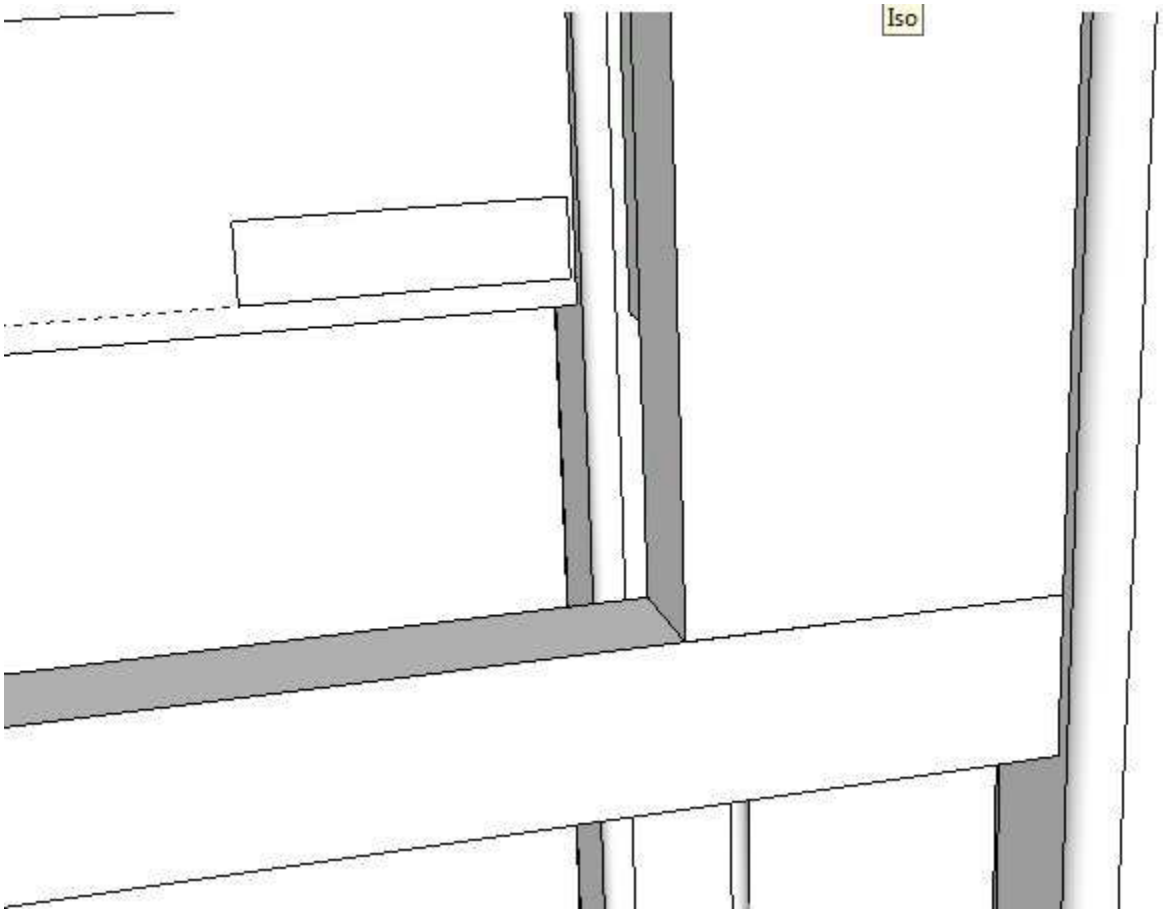
Now you can see one of my problems. **My tenon does not connect to my apron.**

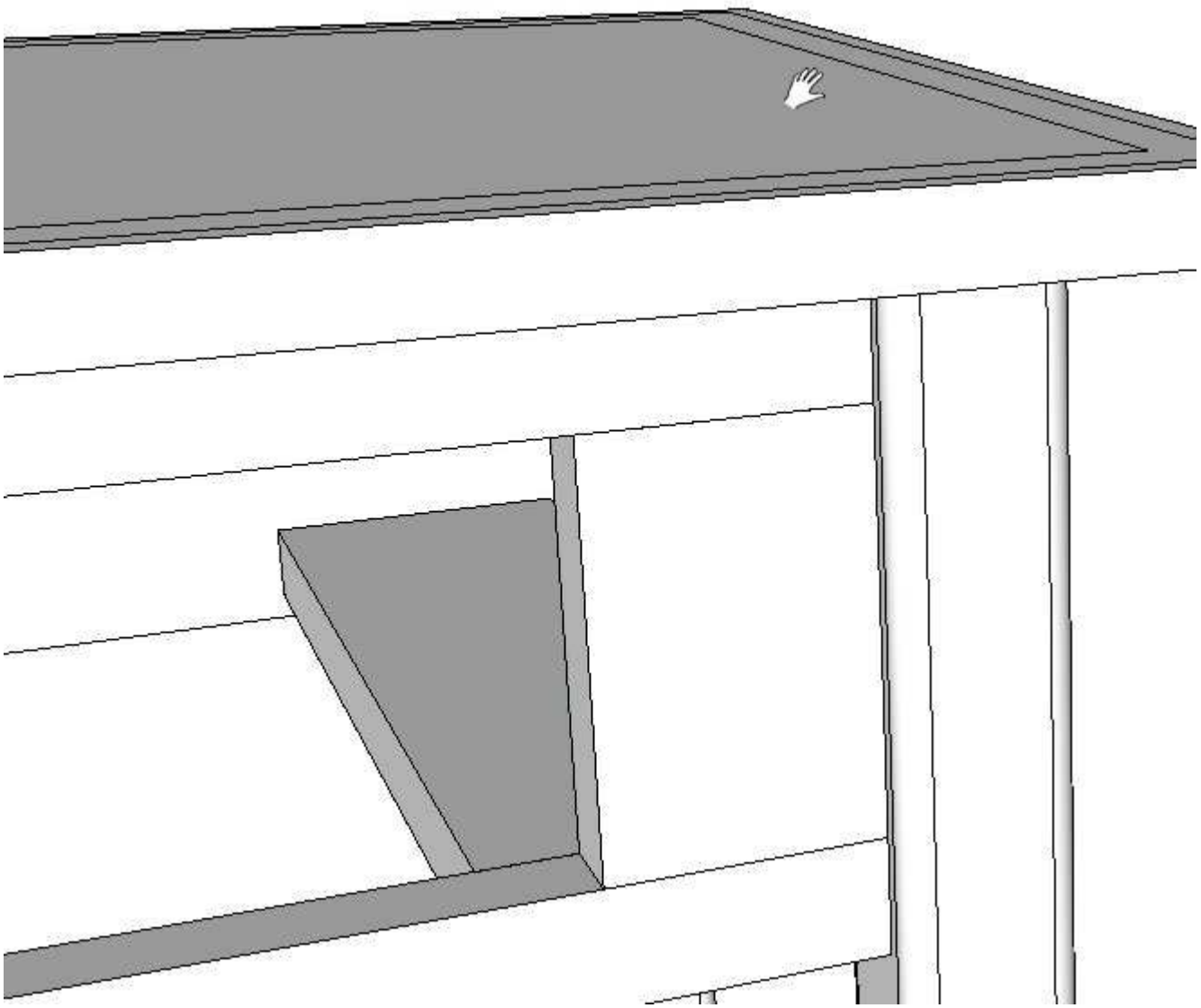


Now I've gone to "un-hide" my top. You have to use the "outliner" tool to bring back the top. The outliner is found on the menu bar under "window." My "group" that I want to un-hide is under the listing "top." You double click that file then right click to bring up the context menu to find the un-hide selection. Outliner is also where you will find all the components listed as well.

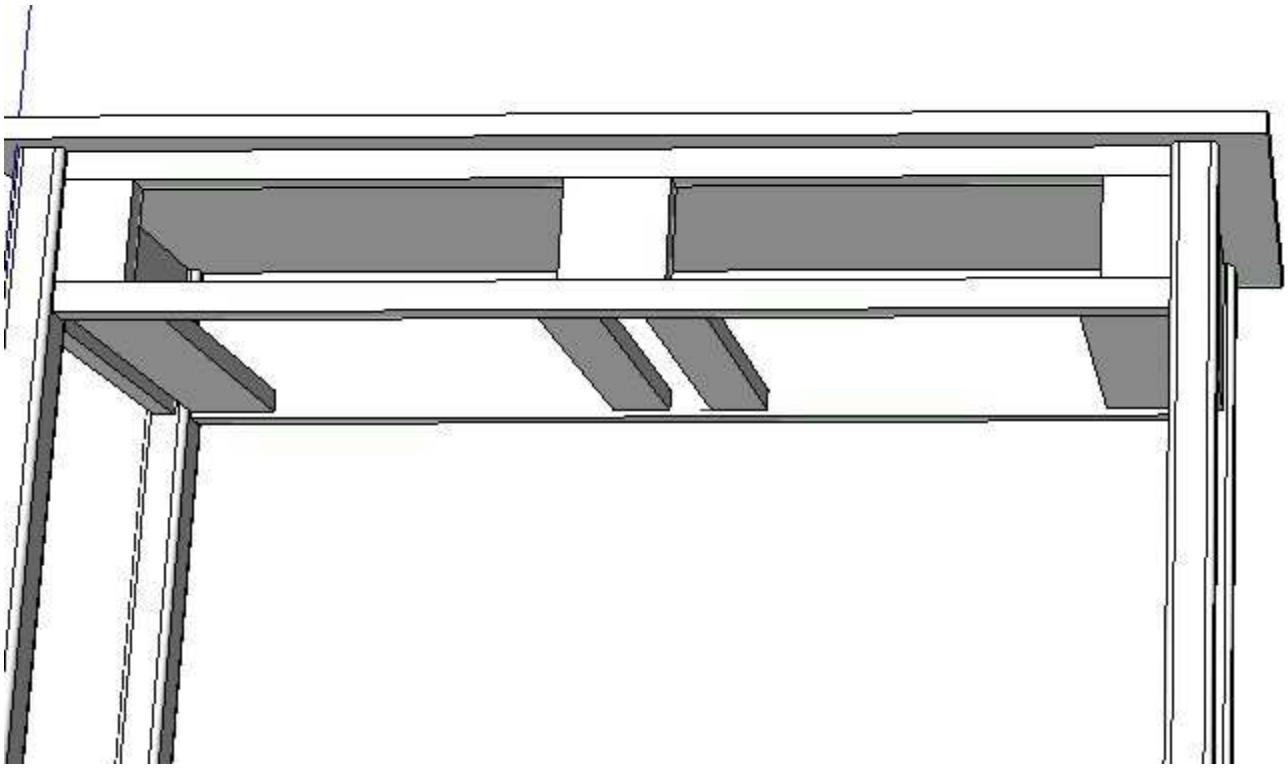


Next is where I am putting in a runner. It's a simple rectangle that is pushed/pulled to the other end.


Iso



So this is where I’ve left off.



Next, I want to put in the dado for the apron buttons and make/insert the buttons to attach the top. Then, of course, is finishing the drawers and inserting them in. So still lots to do.

As always, comments and suggestions/help are always appreciated.

-- Betsy - GO BUCKS!

Betsy, the shoulder of the tenon does not meet the leg as you point out. You should be able to select the apron component and grab it with the move tool at the intersection of the edges of the cheek and shoulder line and move it to snap to the corner of the corresponding edges of the mortise.

I would suggest that you make the top a component instead of a group. You can still hide it if you wish but by making it a component, it can be included if you want to create a cutlist with the plugin. Additionally, if you make a copy of the table later to pull apart for dimensioning and then find you need to edit the top, you don’t need to go in and find all the copies and edit them individually.

A question about the front apron. Are the top and bottom pieces instances of the same component? what about the end pieces? They should be since they are identical albeit mirrored parts.

Keep up the good work.

Dave

-- "Duck snored."

Thanks Dave. I'll try to fix that leg.

As the front apron—- The two end pieces are mirrored, but I don't think I made them components. The top and bottom rails are individual pieces. It honestly did not even occur to me to make such simple parts components—but it makes sense.

These plugins that people talk about – are they free downloads also?

Will keep you posted on my progress.

Second big night out tonight! Dinner with friends – so probably won't do any more work until after dinner.

I really appreciate all you help and tutoring.

-- Betsy - GO BUCKS!

Part 26 of Google Sketchup - Come Along for the Ride series

I'm still working on this project and the drawers are coming closer.

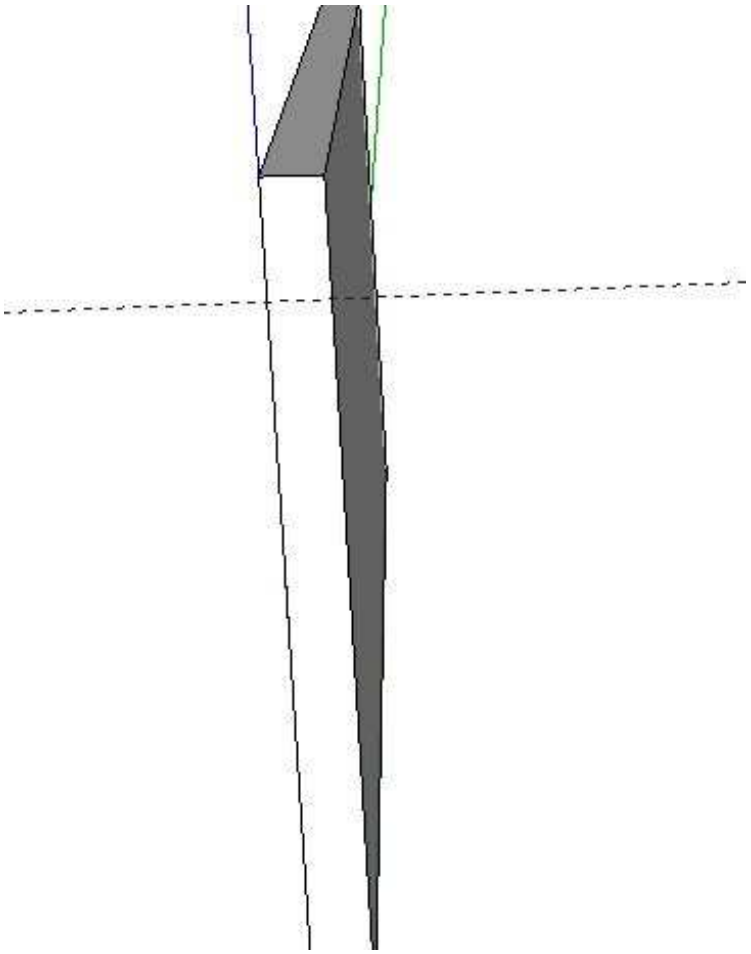
As with anything there are numerous ways to get to the same destination. DaveR, who has the patience of a saint, has been trying to show me how to do this project.

See this entry http://lumberjocks.com/jocks/Betsy/blog/5575

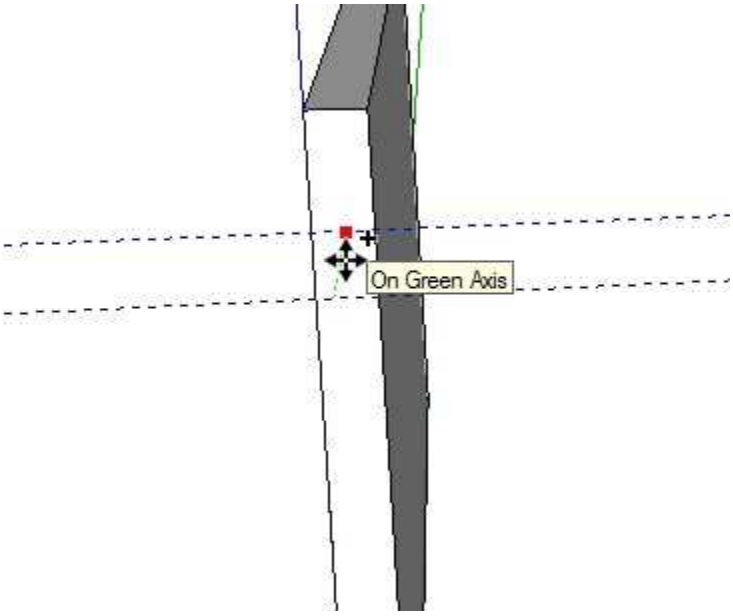
I've been struggling with this technique – not sure why – but it is what it is. Long and short I came up with an alternate method that probably won't work if I were going to do any cutlist plugins, etc. but it's getting me closer. I still have a long, long way to go.

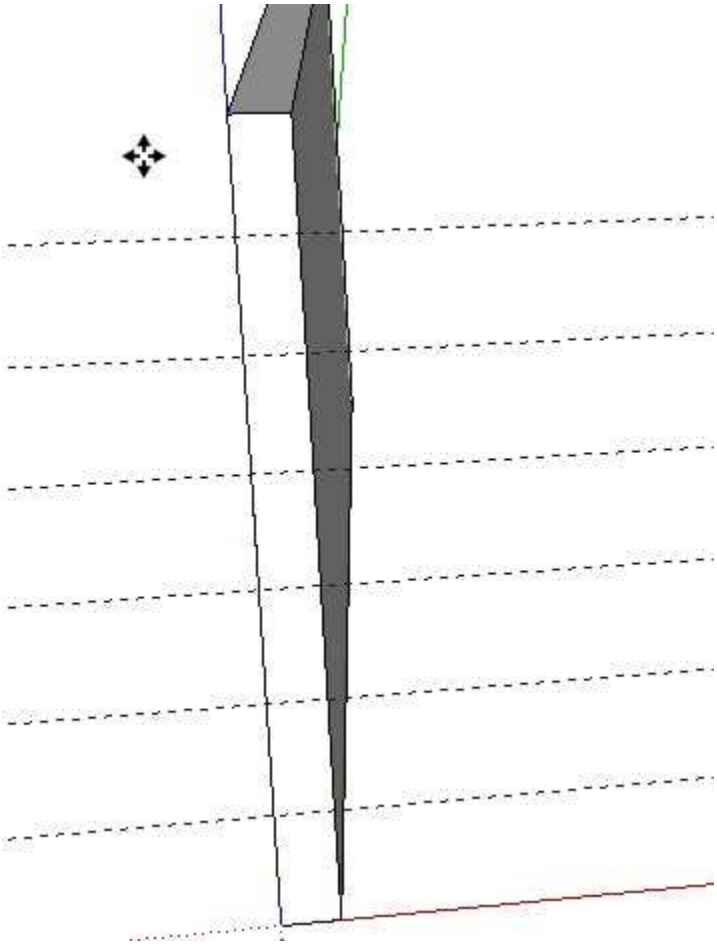
So without further delay – this is how I did my drawer.

First, of course, I started with my side which is .5×10.25×3.5. On one end I put in a guideline to 1/2" to start marking the box joint.

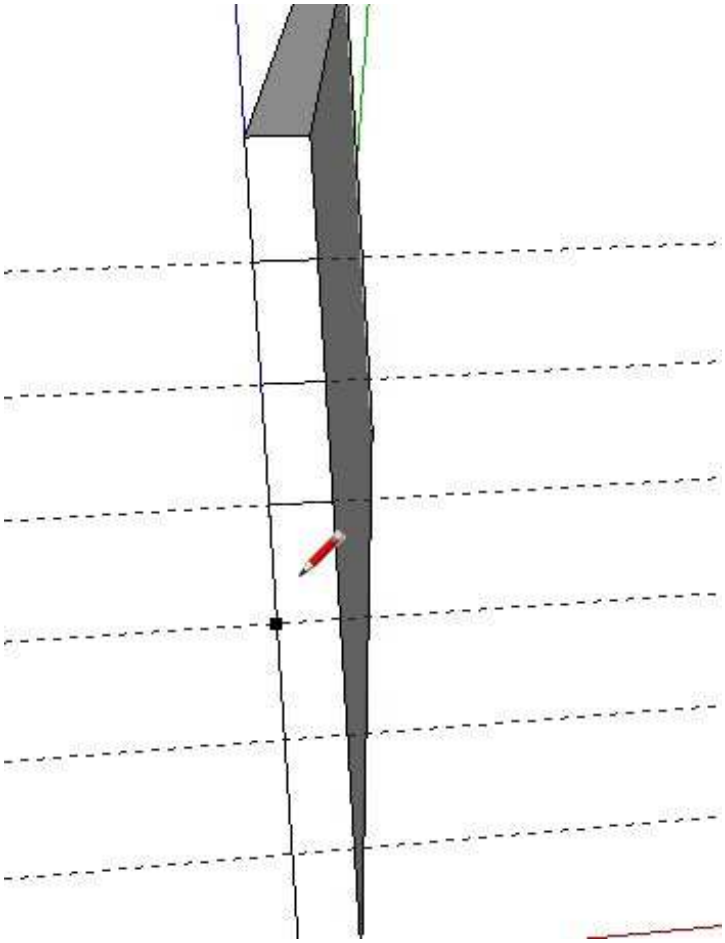


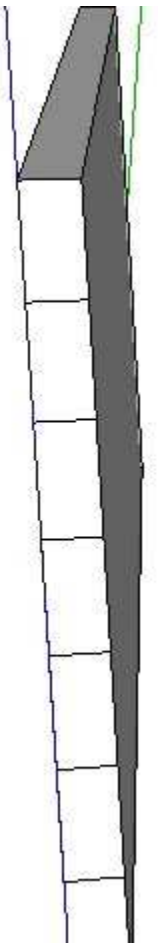
Next I copied the guideline, moved it down by 1/2" (typed in .5, hit enter, then **5) then did an "array" which is essentially the number of copies that you need to complete the project.**



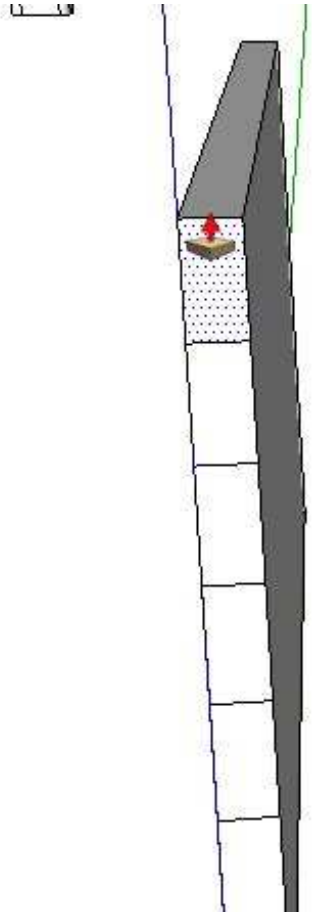


Then I used the line tool to outline each finger (just on the end).

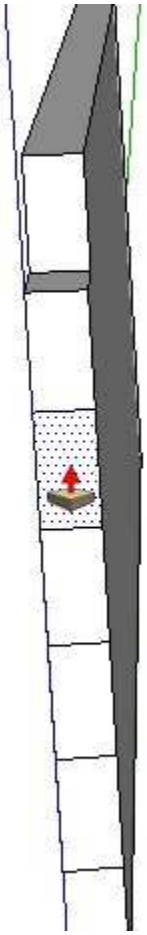


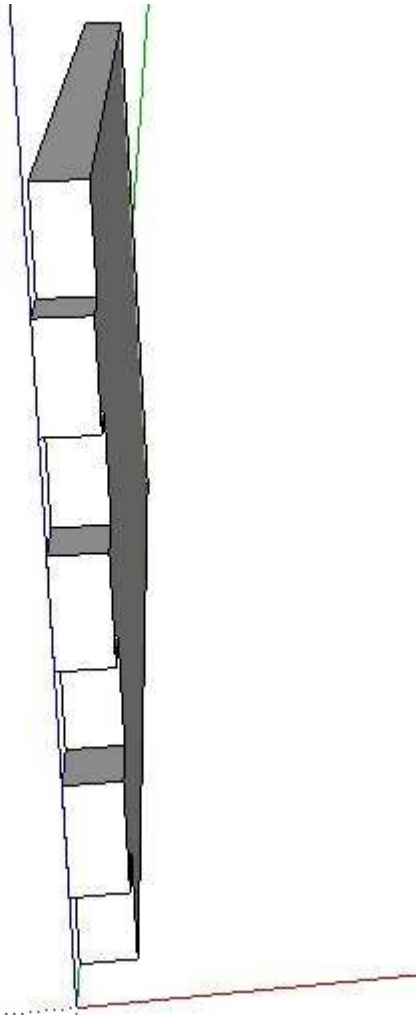


Next, I used the push/pull tool to push back the top finger by 1/2”.



You can push back the other fingers by double clicking the left mouse button.

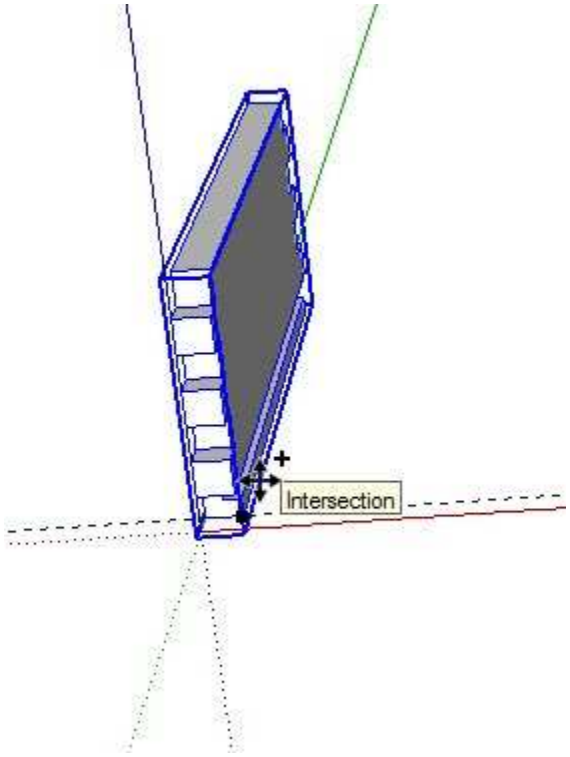


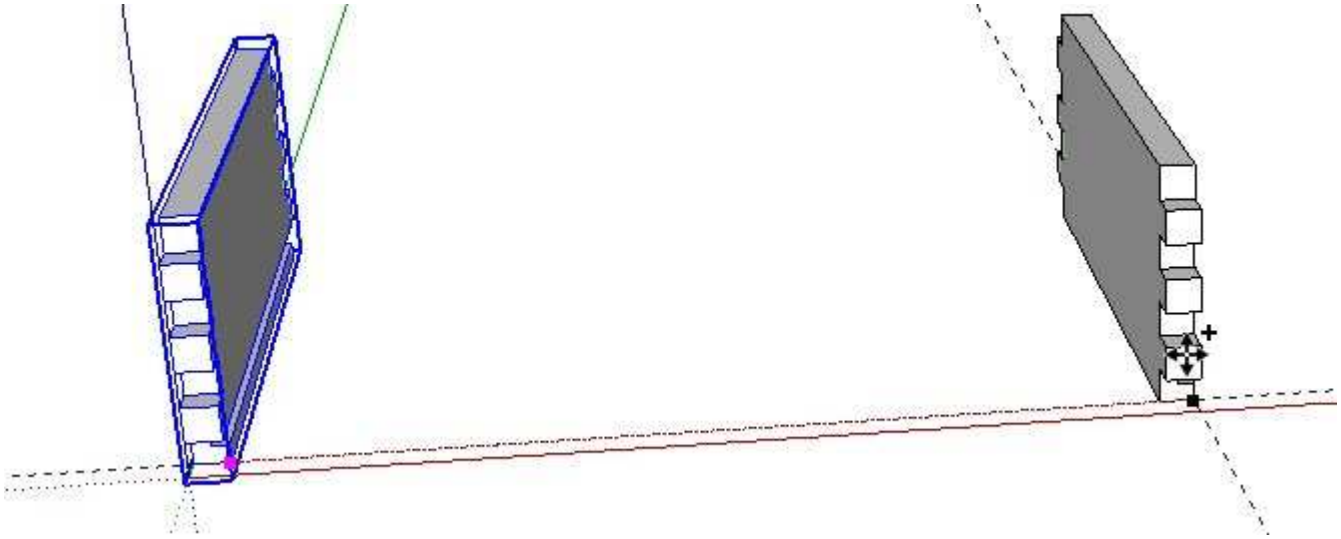


Repeat the same process on the opposite end.

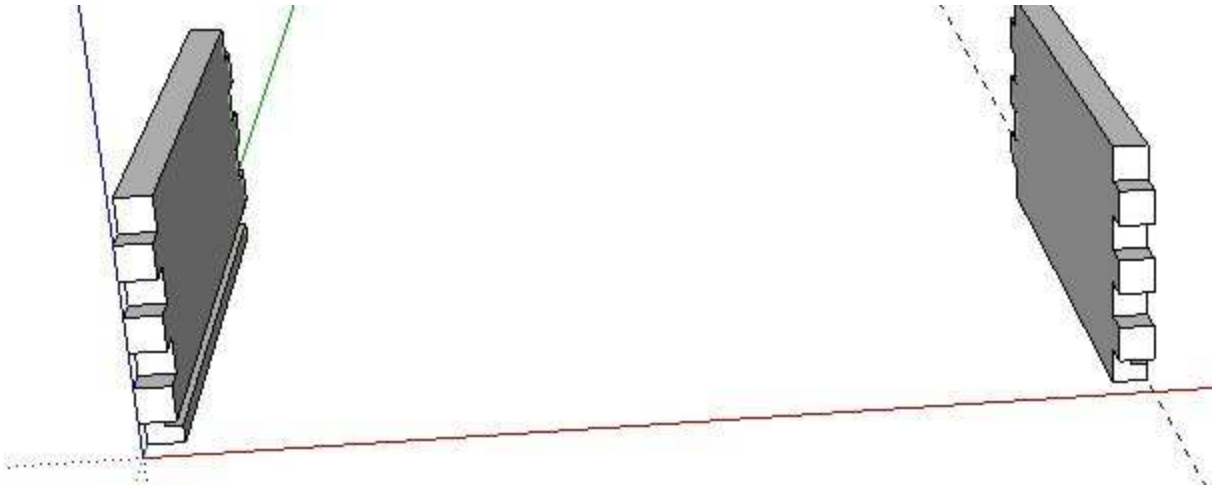
I don't show it, but I made a dado on the inside of the side to accept the drawer bottom. Then the part is made into a component.

You'll notice in this next shot that I have the part blued out and there is an additional guideline placed 1/2" from the red axis. You'll also notice the inference dot showing that I have the bottom inside corner of the last finger picked up to move over to the other side of my grid. The extra guideline makes it easy to know exactly where to drop the side.

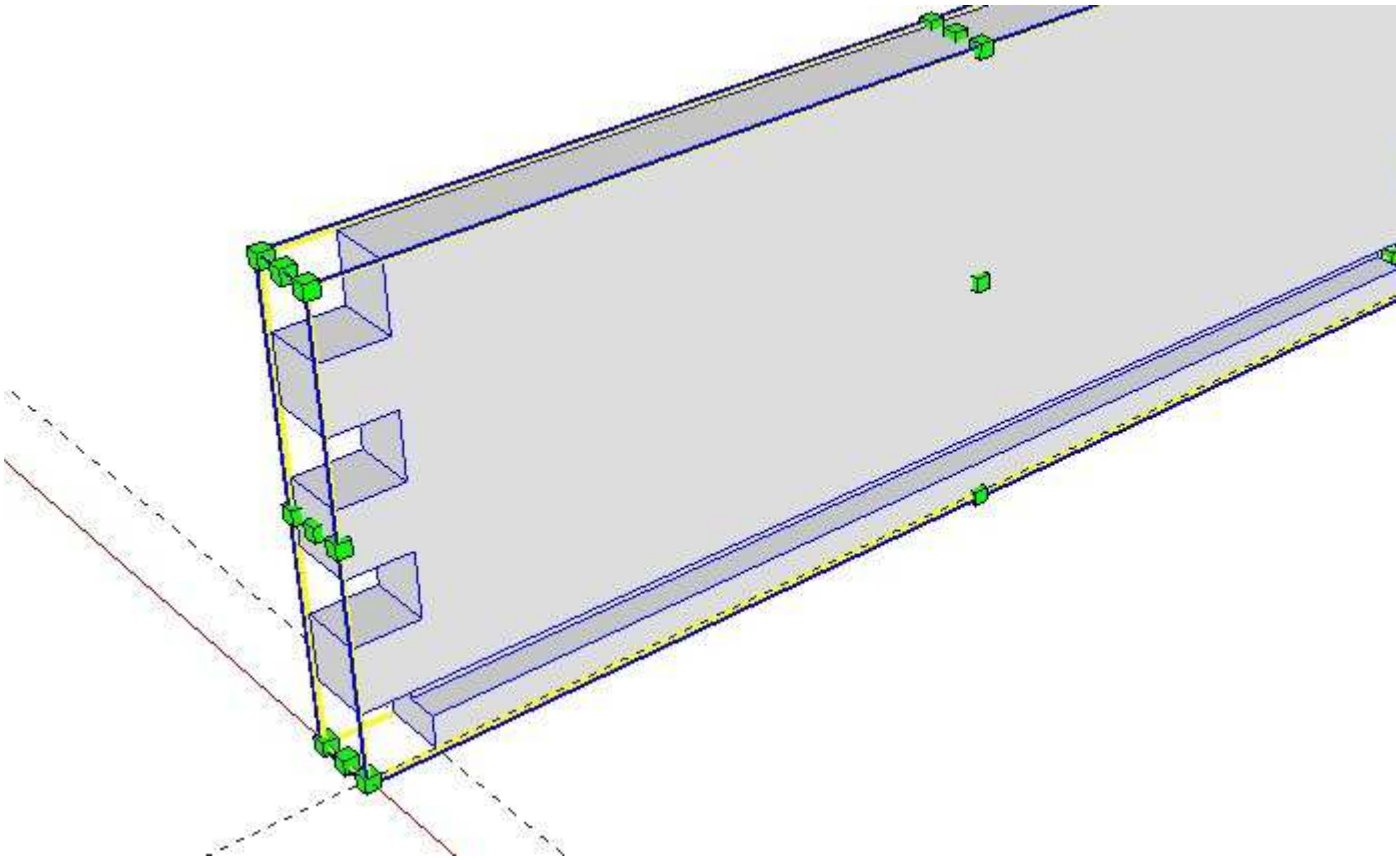




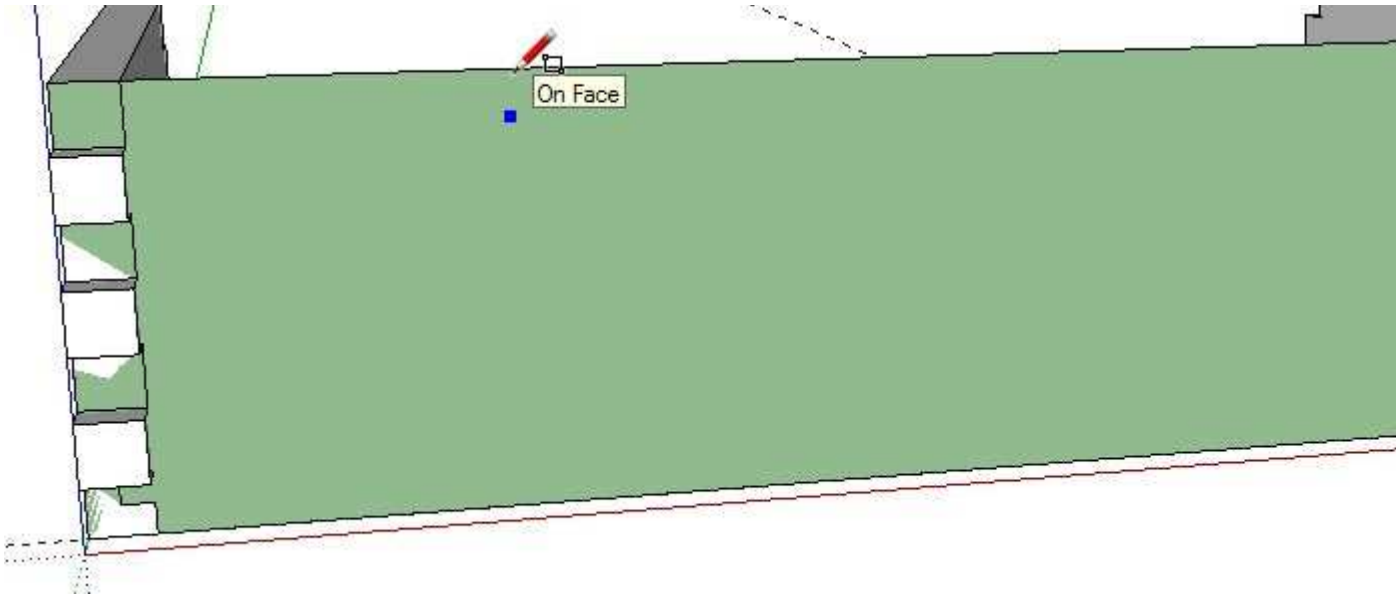
You'll notice that I took out the extra guideline and you can see that there is perfect placement of the second side.



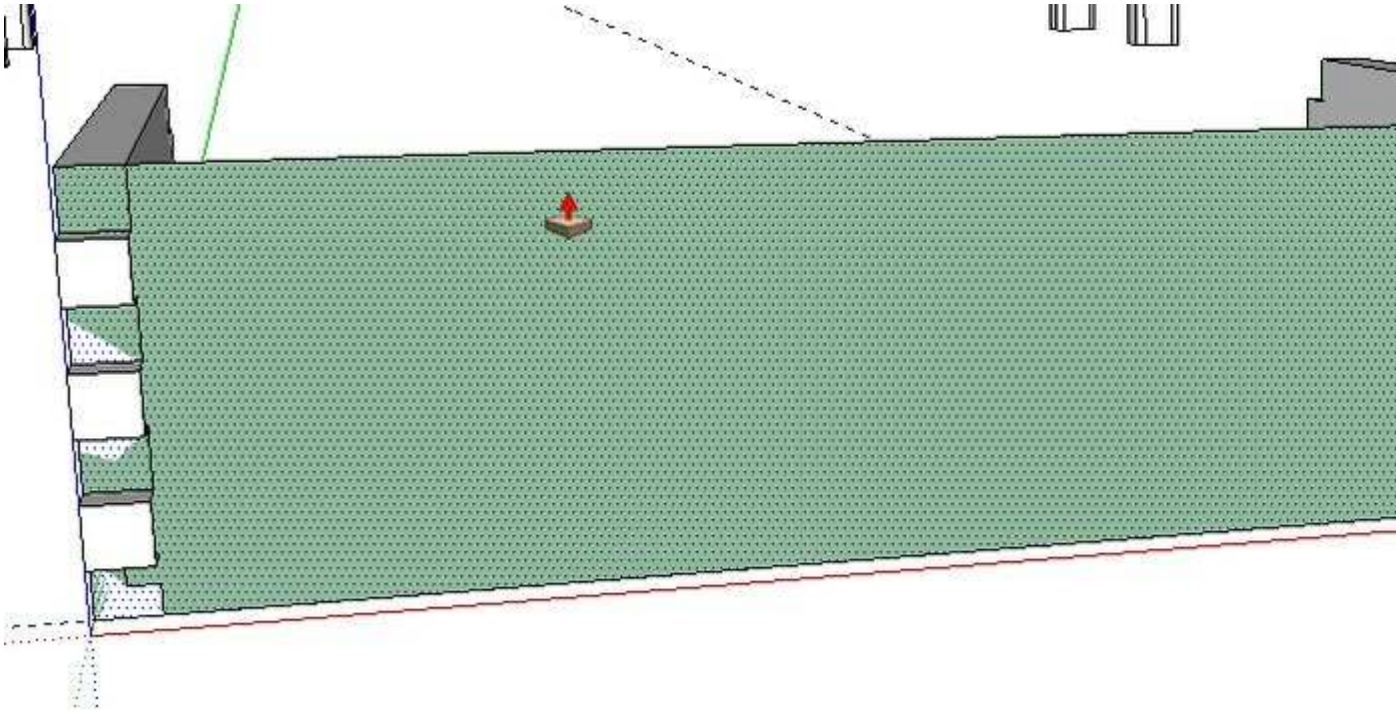
Next I used the scale tool to mirror the side so that the dado is on the correct side.

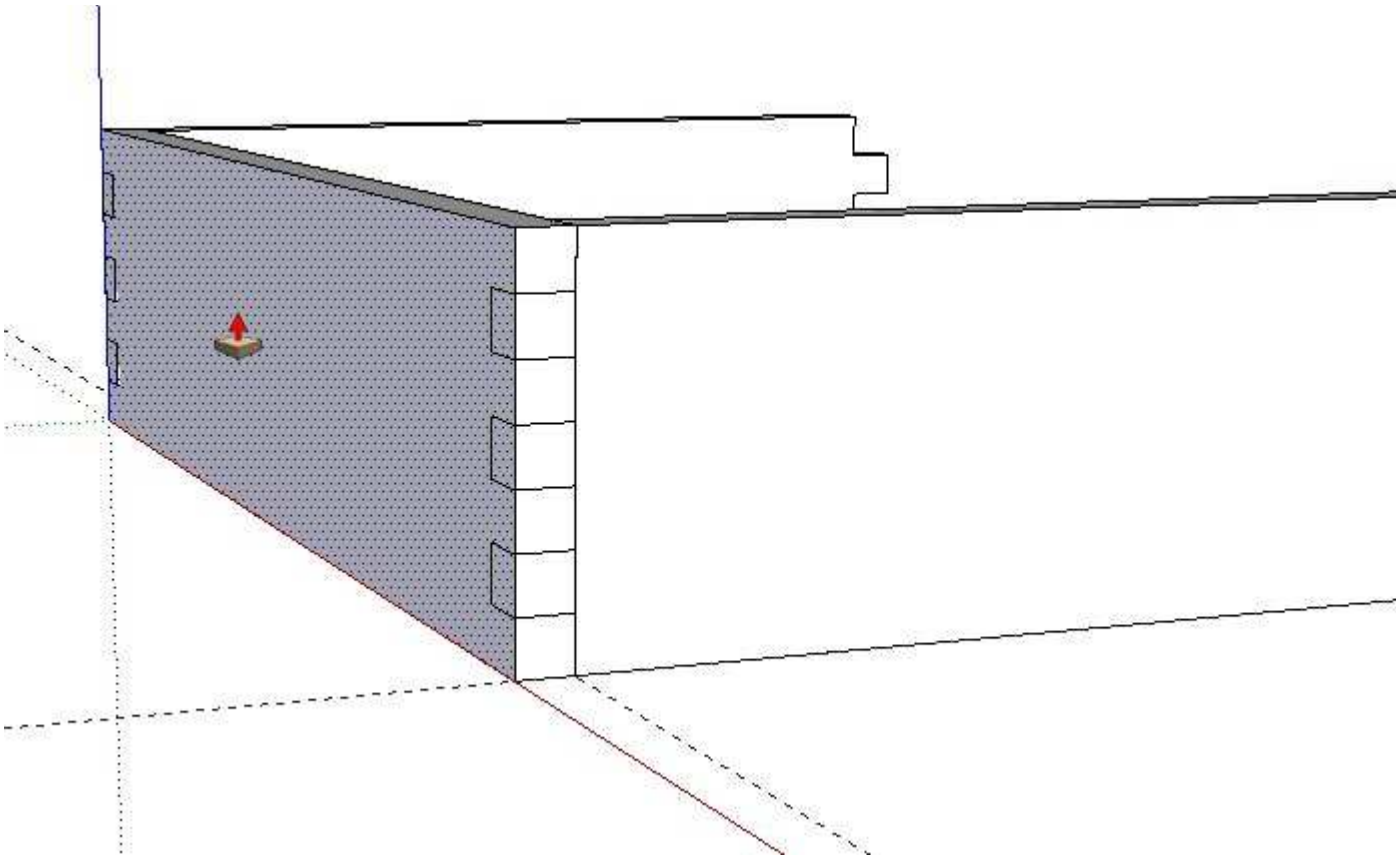


Now to work on the front/back of the box. I draw a rectangle from the upper left corner to the lower right corner of the second side. You'll see that it is green and the rectangle breaks through the box joint.

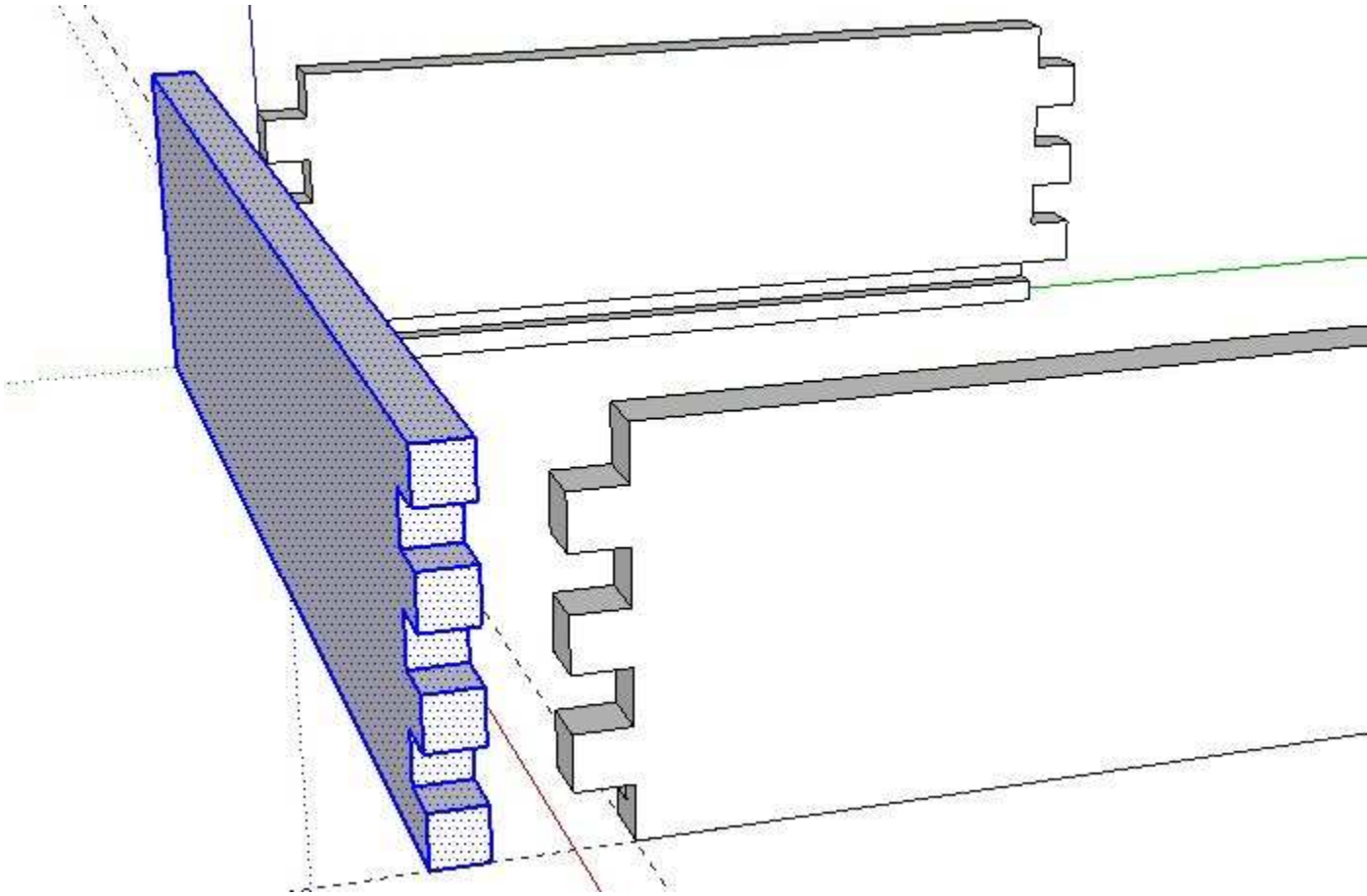


I next used the push/pull tool to *pull* the rectangle out by 1/2”

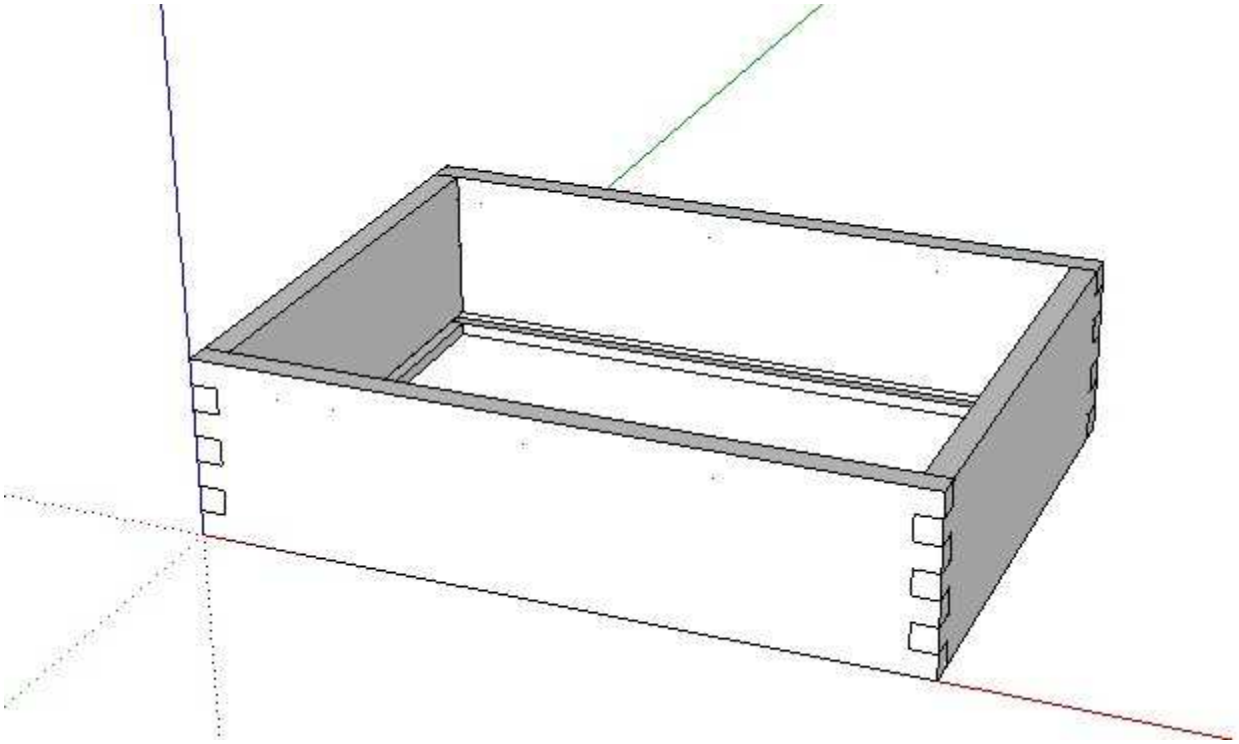




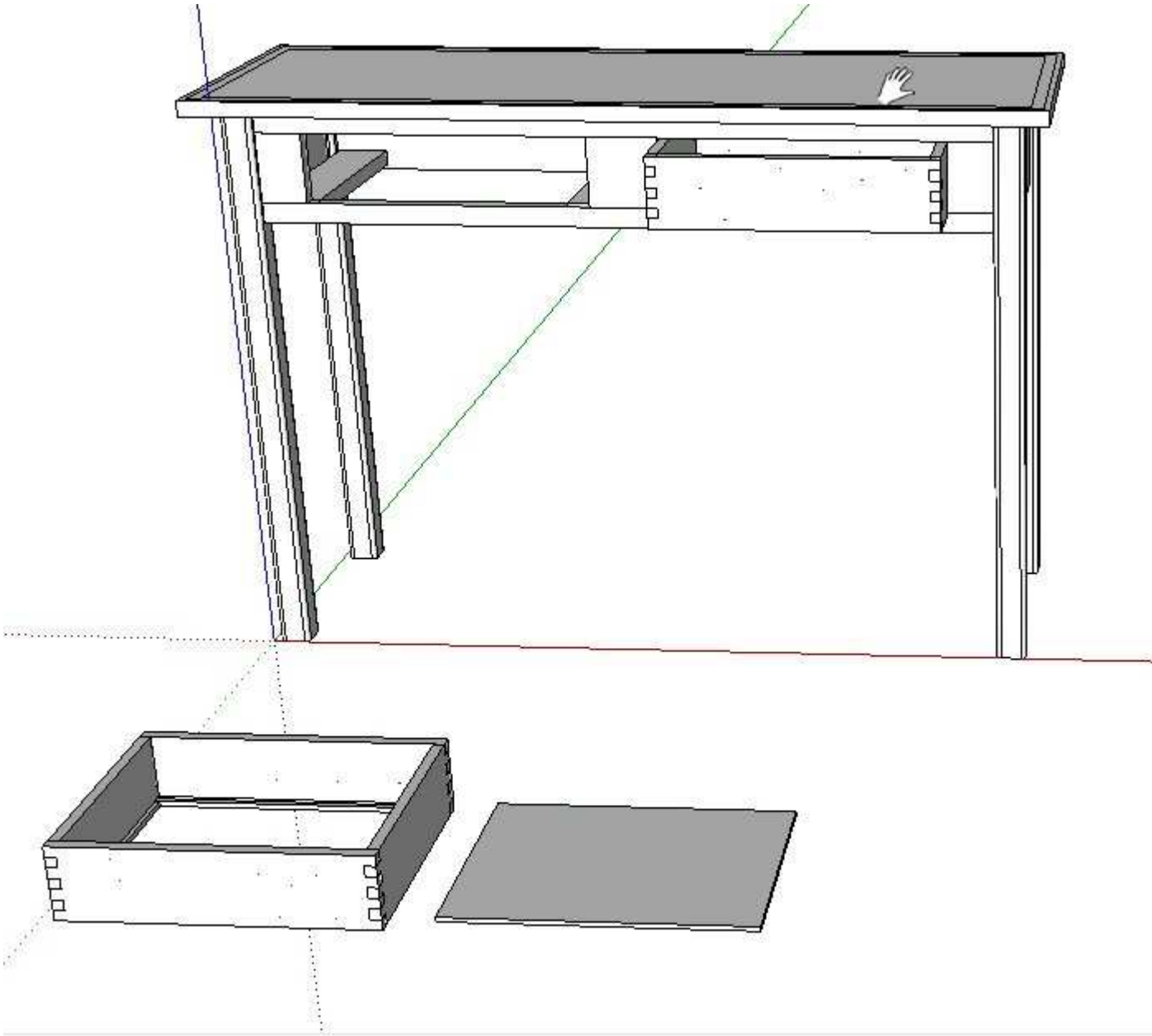
I failed to take a screen shot of this, but I used the line tool to outline the fingers on the front – on both ends and used the push/pull tool to move the fingers back. Then I pulled out the side.



You'll notice the completed box – I simply followed the same procedure to insert the dado and moved a copy to the other end of the box.



I finished up by making a second copy to simply move into one of the drawer openings. I also made the drawer bottom.



I next need to figure out how to place the drawer bottom into the drawer and apply the drawer front.

I've certainly been having fun with this project. Hoping to get it finished up so I can work on something else. But I really think I'm starting to get the hang of things.

If you have not already done so you should get on Youtube and search "Sketchup woodworking." You'll be given lots of good videos to watch.

As always any comments, help and suggestions are welcomes.

And a great *BIG** thanks to everyone who has helped me along the road here.

-- Betsy - GO BUCKS!

WOO HOO!

See? Your perserverance has paid off. Excellent work, Betsy.

So, to place the bottom you could do several things. You could switch to X-ray or wireframe so you can see inside the side components. Make sure when you grab the bottom component that you grab it by a corner and move that corner to the corresponding corner in the drawer assembly.

Another way that you might find easier is to zoom in close so you can see into the dados in two adjacent sides. Then set guidelines along, say, the top edges of the two grooves. These guidelines should intersect each other. Then hide the two adjacent sides so you have clear access to the guidelines. The intersection of them will give you the point to set a corner of the bottom component to.

Keep it up.

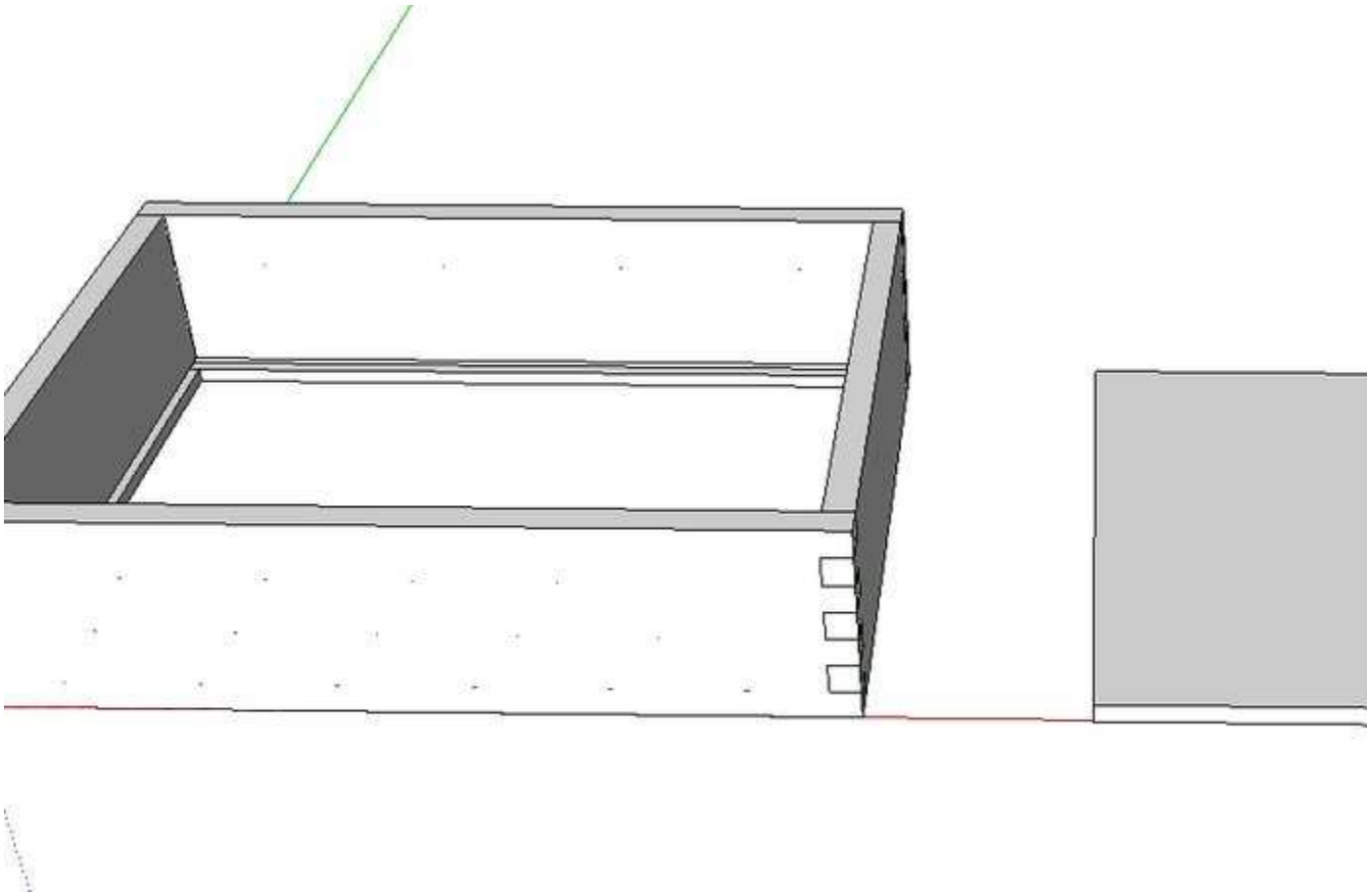
Dave

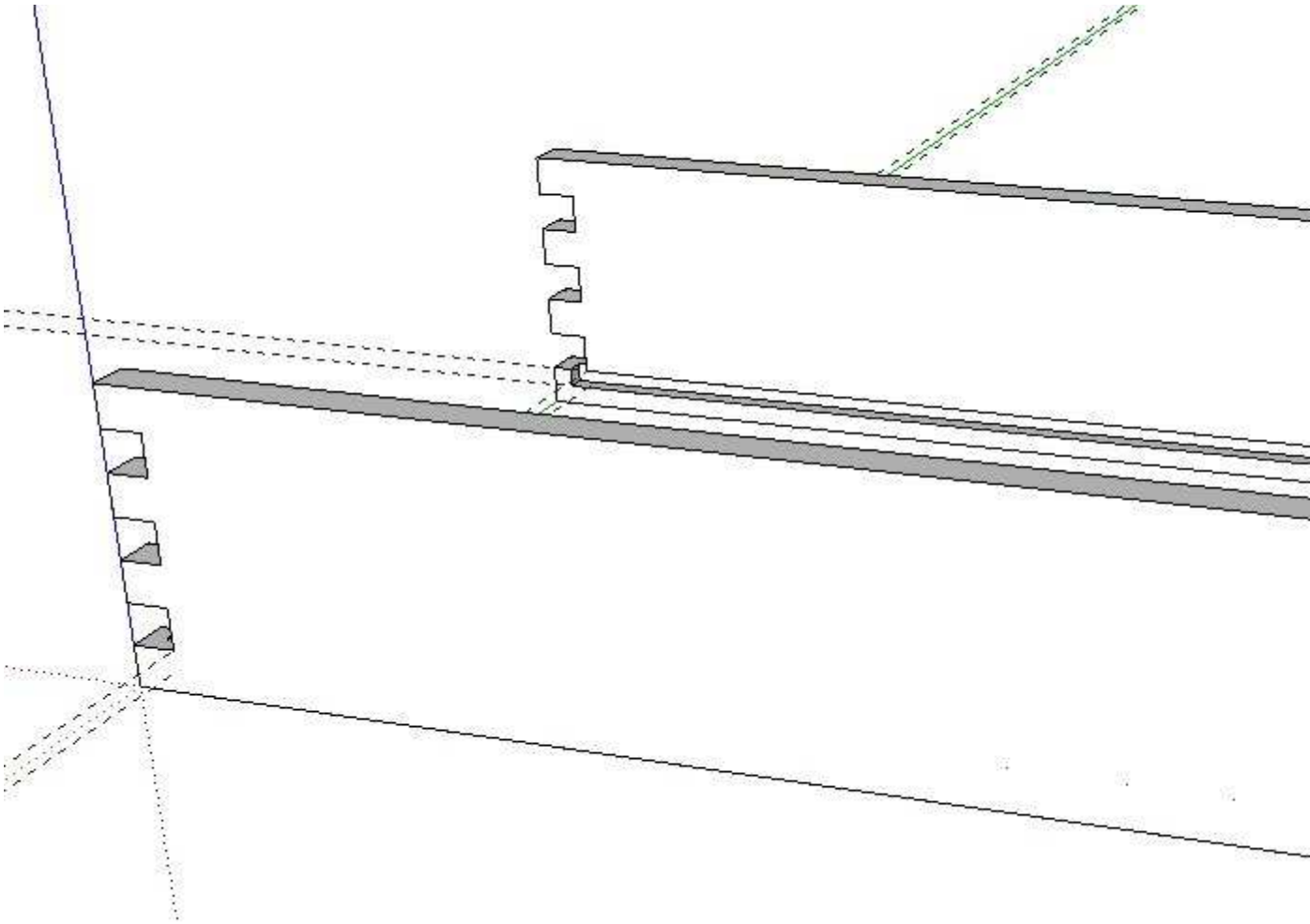
-- "Duck snored."

Part 27 of Google Sketchup - Come Along for the Ride seriesno next part

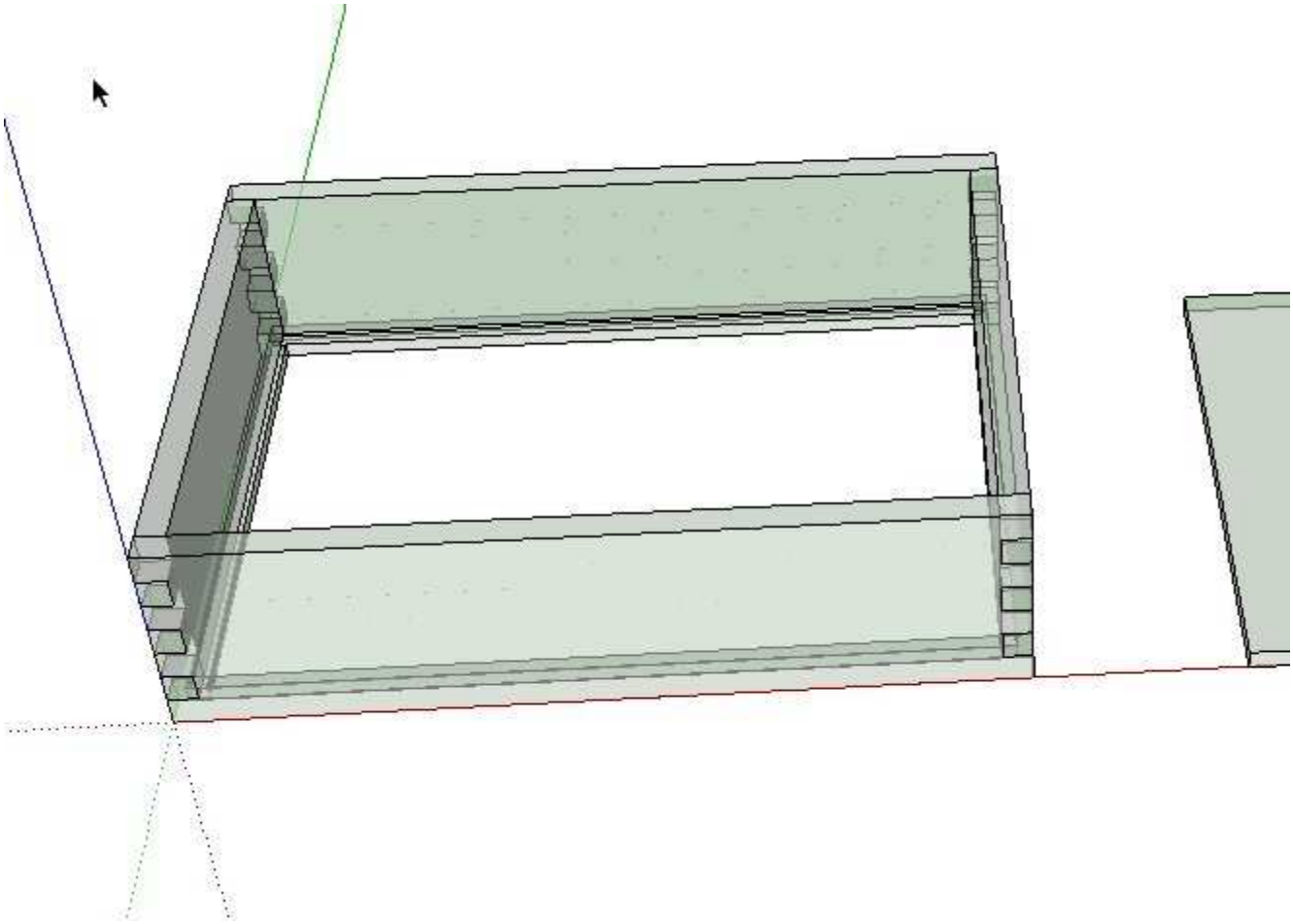
Or as done as it's going to be. So here's the finish up.

The last entry had me down to the drawers and putting in the bottom. This shot shows where I put in some guidelines to set the bottom. I hide the side so I could see where to guide the bottom.

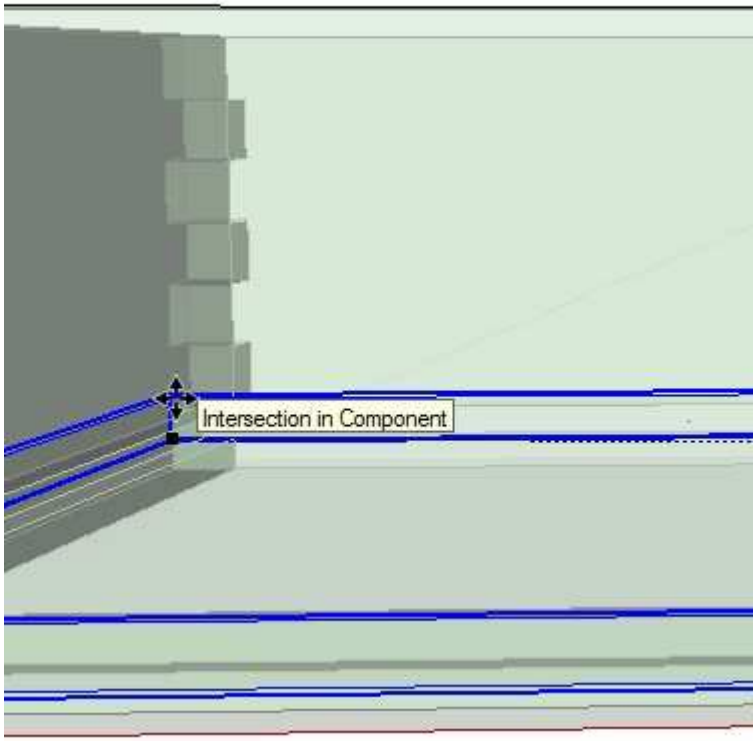




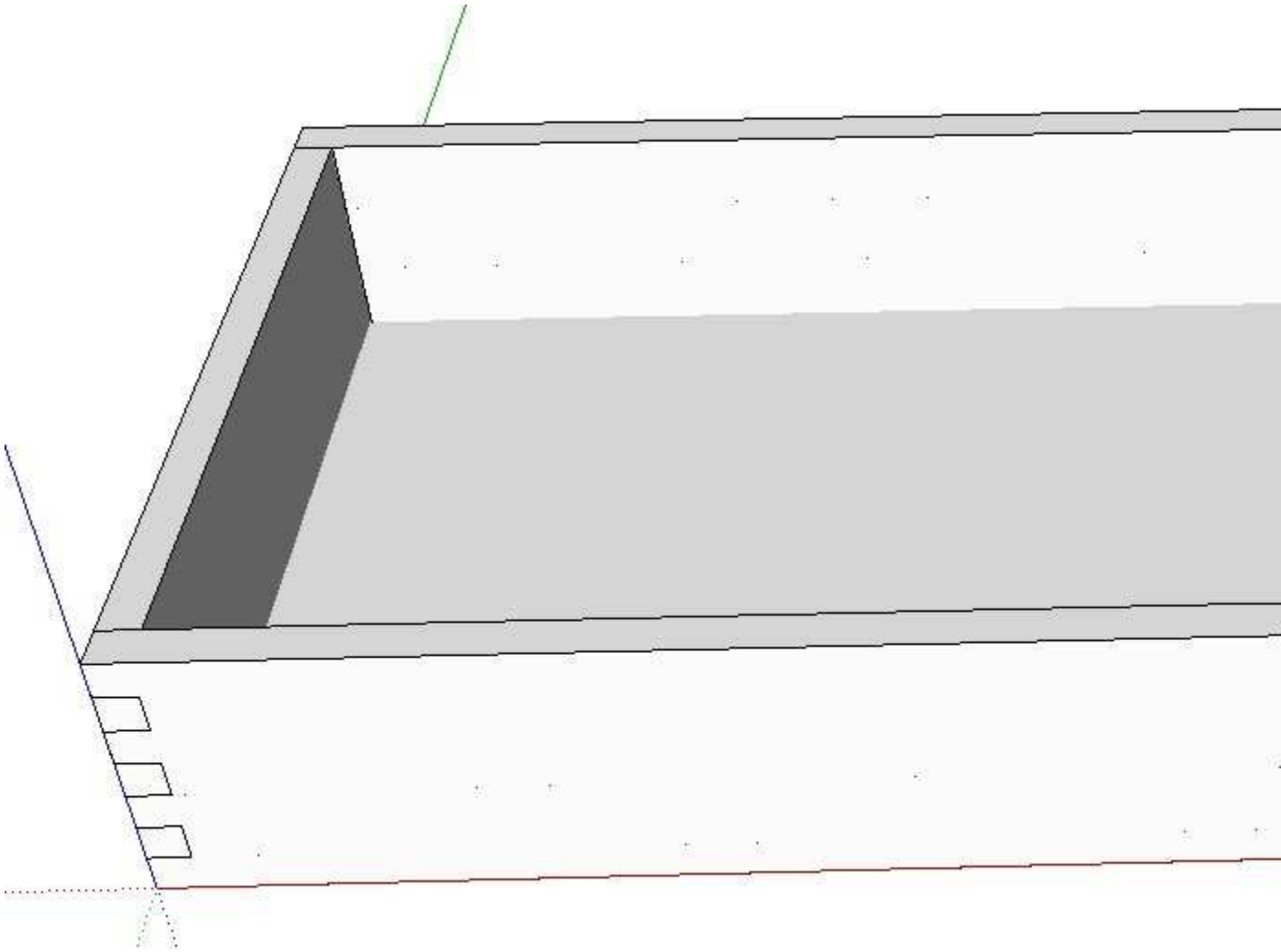
I also tried to do the move by using the x-ray function (found under view on the program's menu bar).

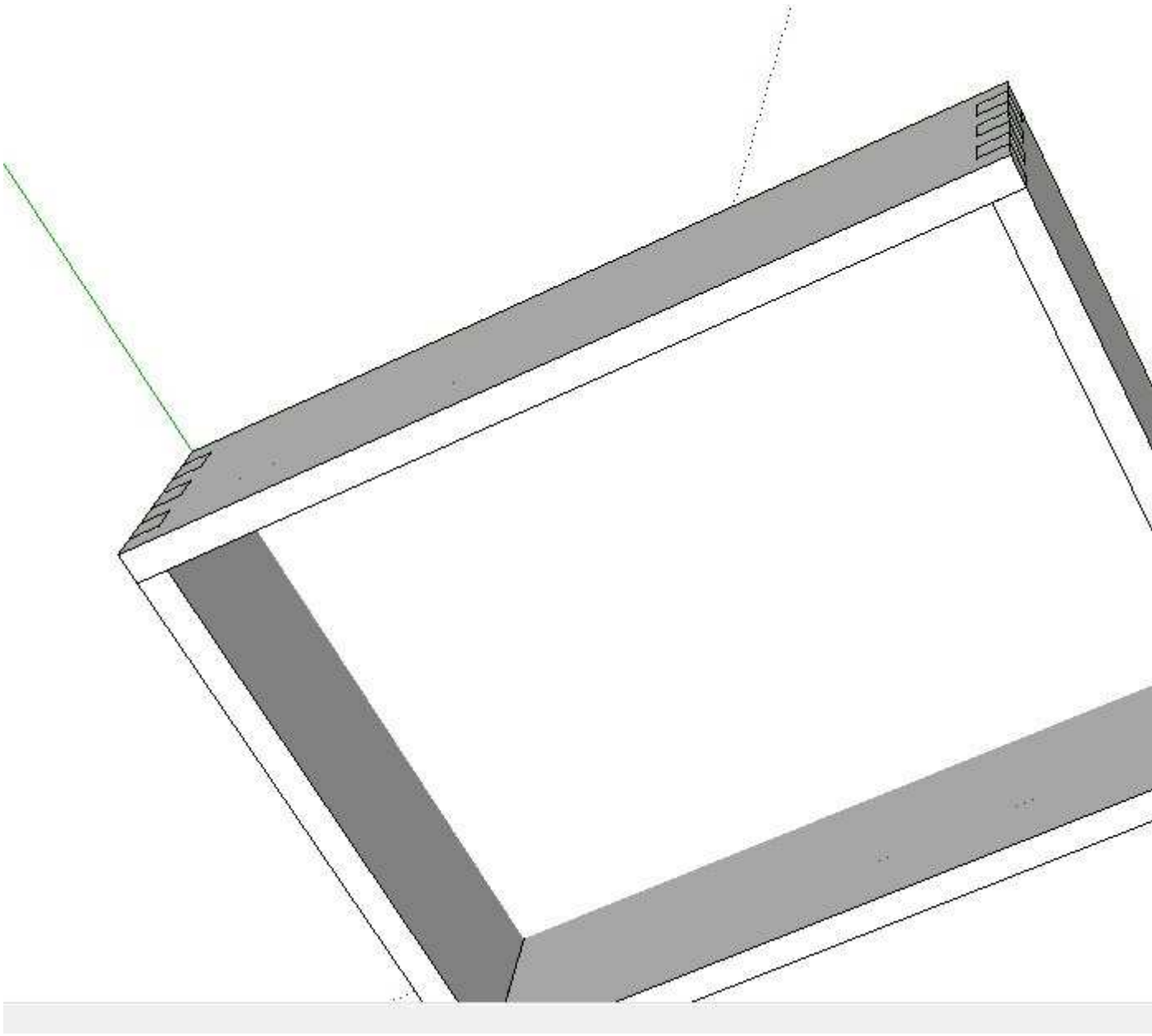


You can see here where I moved the bottom in – notice the inference dot.

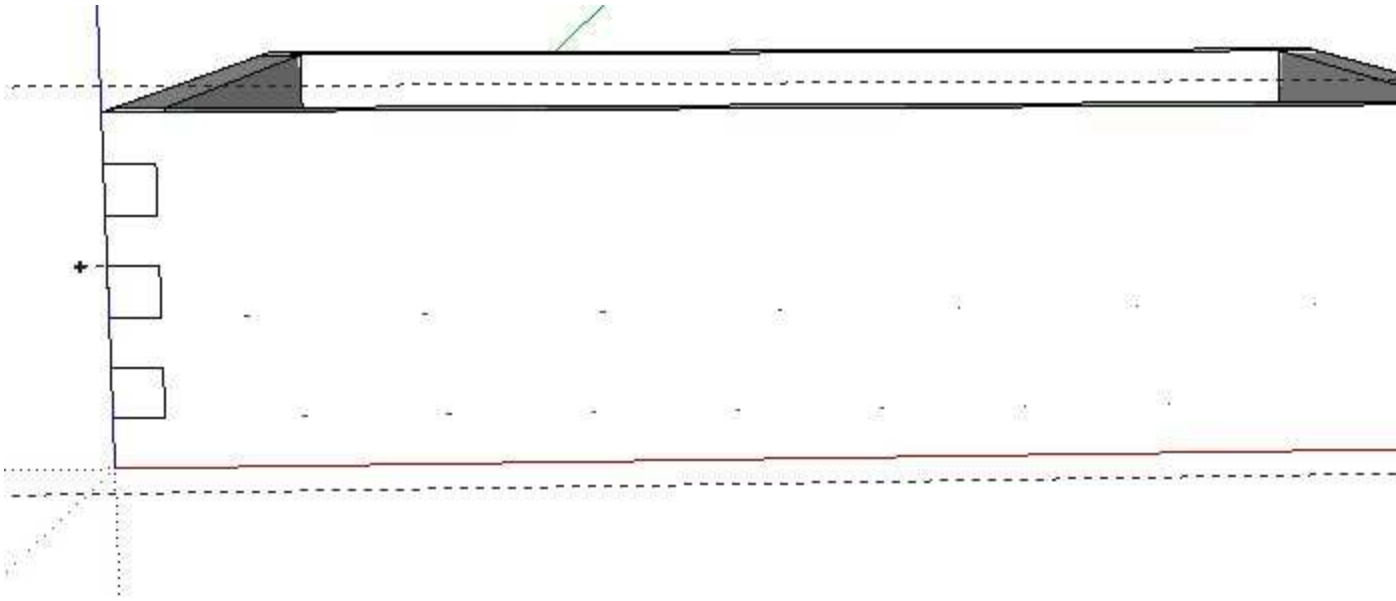


The next two shots just show that I managed to get the bottom in OK and have taken off the x-ray view.

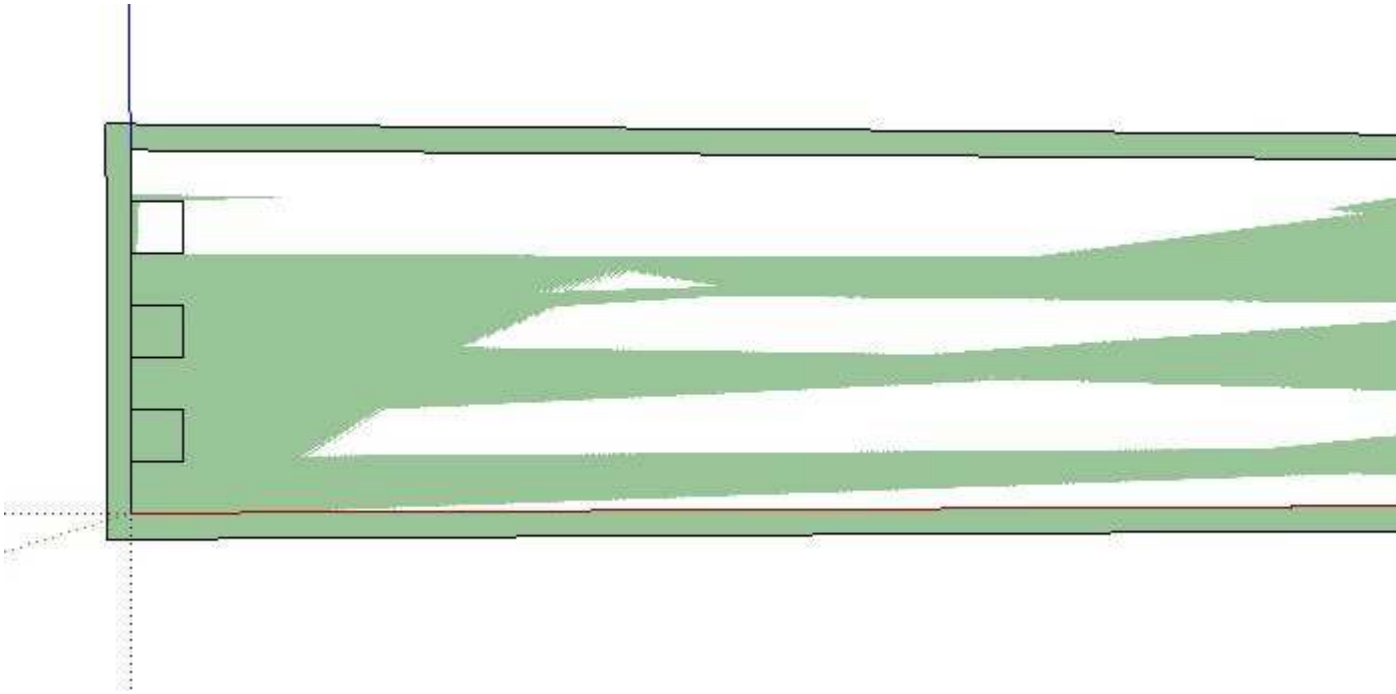




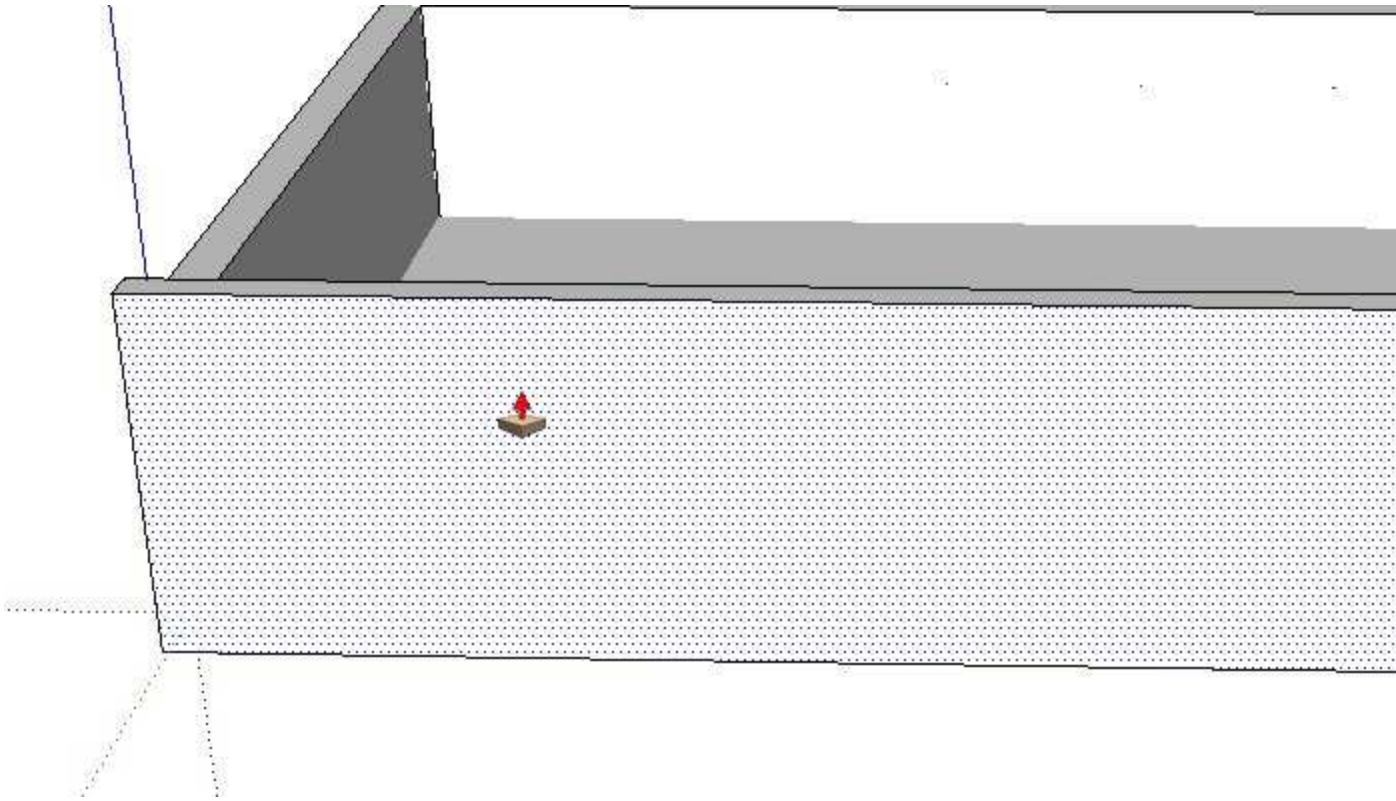
I had been wondering how I was supposed to put on the front piece, but that was one of those duh moments. I simply put in some guidelines.



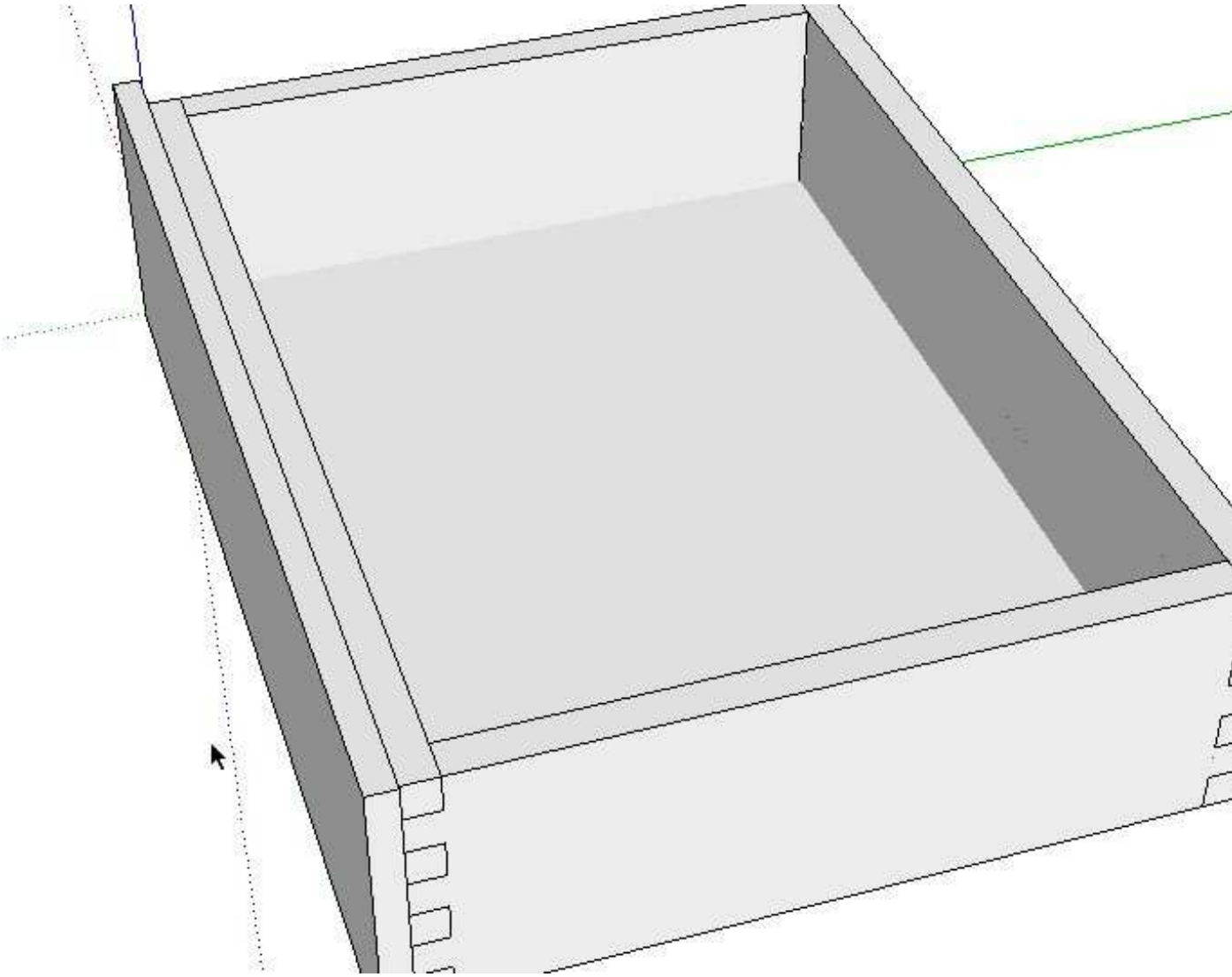
Next drew a rectangle on the front.



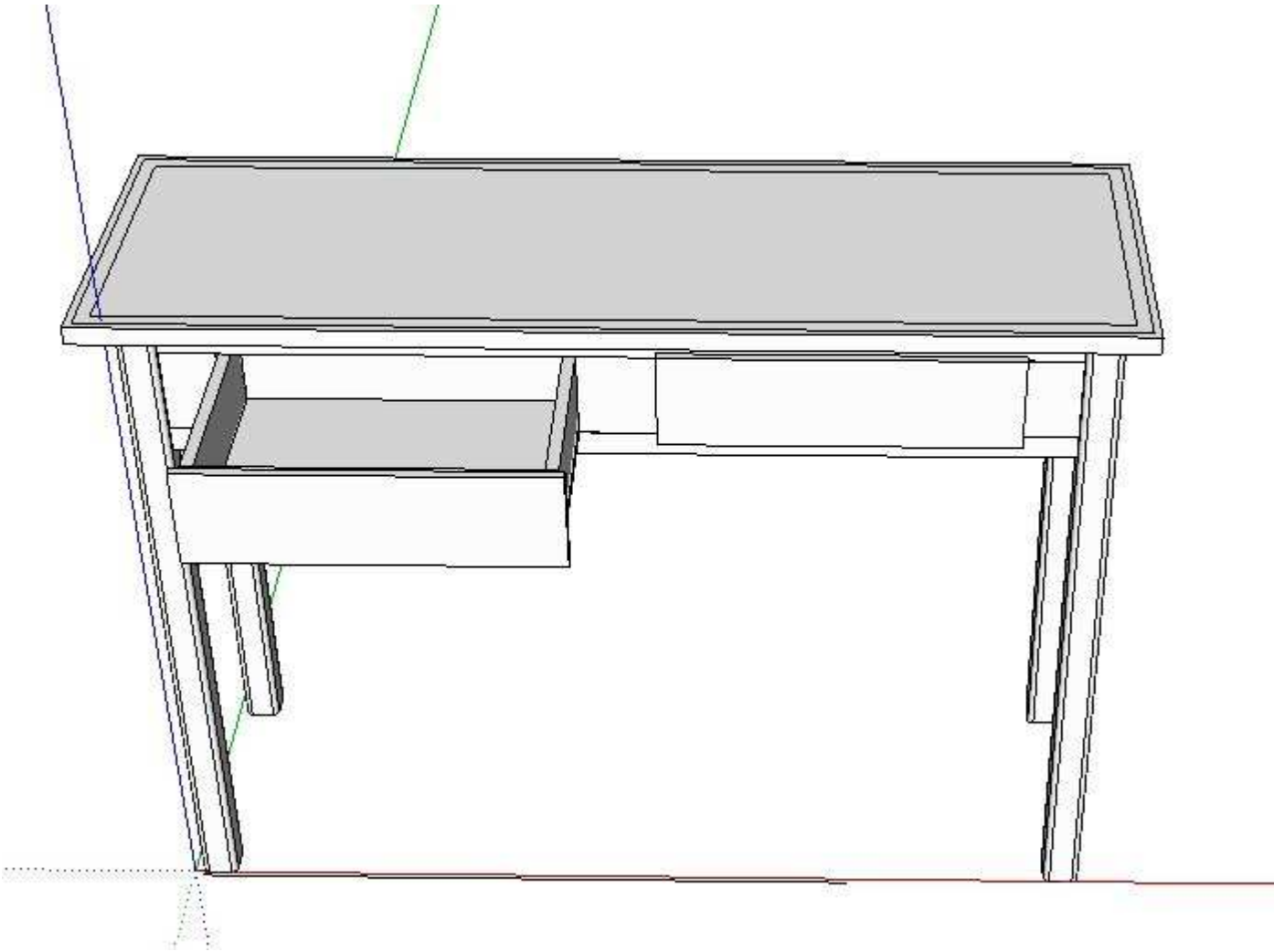
Then push/pulled to 3/8”.



Here’s the finished drawer.



The table with the drawers “installed.”



And drum roll——- here's the finished table. It's not perfect by any long shot of the imagination, but I think if I were to be going into the shop, I could build from this. I would probably break it out into dimensions and maybe install a cutlist plugin, but I could build without that stuff.

The "paint" is the cherry original.

Thanks for following my blog and all the input.

I've learned quite a lot about Sketchup through this little project. Along with that, I also learned a lot about computers in general and a little about patience and tenacity. When I started this project, I really did not think I would finish it. I surprised myself that I not only was able to learn the basics of the program but that I finished as well. I hope that some of you were able to learn a couple of things along the way also.

A special big thanks to DaveR who has patiently, through this blog and through private e-mail, tutored me through the process. THANKS DAVE!

-- Betsy - GO BUCKS!

Betsy, you did a great job and you've come a long way. Practice will make it all easier and faster. Lew, I'm glad you got something out of it, too.

One lesson or at least an alternative method you might find helpful. This is regarding the drawer front. Instead of drawing the guidelines, you could draw a rectangle on the front of the drawer from outside corner to outside corner, pull it to thickness and then go around and pull the edges out the required distance. It's just another way to accomplish it and you might find some applications where this is faster.

Suppose you draw the drawer front in its opening. Rather than figuring out the dimensions after subtracting two times the gap from the length and height of the opening and using those numbers and some guidelines to get the drawer front centered, just draw a rectangle that fills the opening. Push it to thickness and then go around and push the edges in by the clearance distance.

For an overlay drawer front it is the same except you'd pull the drawer front out and pull the edges out to the overlay distance.

Keep up the great work.

Dave