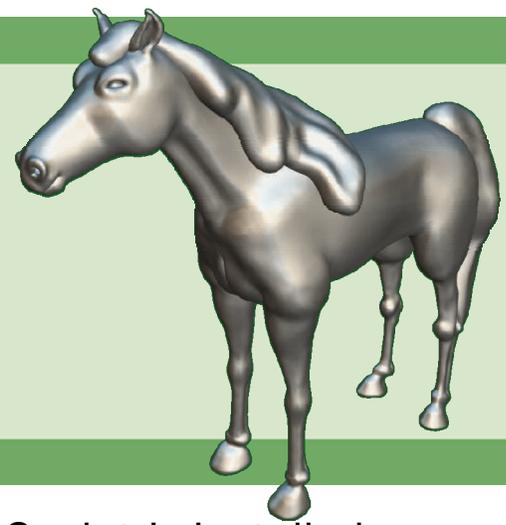




# PROJECT CARD SCULPTRIS HORSE

by Brad Lindstrom



What you'll need... A computer with Sculpttris installed.



Start with a basic sphere. You can rotate the sphere by right clicking the dark background and dragging the view around. Tap SHIFT to lock to one of the six angles. The angle will be displayed at the bottom of the screen when you lock it in. Move it now to lock in the left angle.

Now click on the GRAB tool on the left side. When you move the mouse over the sphere it will show you how big the brush is. Resize the brush by holding down SHIFT and scrolling the MOUSE WHEEL. Make the brush just slightly smaller than the sphere. Move the ring to the left side of the sphere so that the top of the ring aligns with the top of the sphere and the bottom arches down the back side of the sphere. Look at the picture as a reference.



Now, pull the sphere to the left, elongating it to a sort of cone shape. You don't want it to be pulled so much that it becomes pointy, but it should taper to a soft point. The sphere will be the chest and this elongated part is the torso leading back to the rear end. Double check your work by right clicking the dark background and rotating around the object to ensure the object tapered appropriately. If it didn't, tap CTRL+Z until you are back to the sphere and try again.

To make the neck, lock back to the left view again and move the ring to the front of the sphere. You are going to line it up with the bottom part of the ring on the center of the front part of the sphere. You will then pull it up to make the neck. Again, verify it worked by rotating around the object to make sure it's appropriate.





Next, pull the legs out from the front and rear portions of the shape. You can still do this from the left locked position, but you can move it around and do what's most comfortable for you. You will need to resize the ring to something smaller by holding shift and rolling the mouse wheel again.

This might start looking like some horrific semblance of a four-legged freak, but don't worry, it'll get better! You will want to tweak some of the parts here to make sure things are easier as we move along. You will likely need to continue to take time to do this between many of the steps from here on out. It's fine to go back with CTRL+Z (Check Tips!) or to rework the model using the tools at hand.



It's time to make the head. You will continue to use the GRAB tool and pull a face forward from the end of the neck. I find it easiest to start this from the left or right locked positions. You will very likely need to beef up the face a bit using the DRAW or INFLATE tools after pulling the face out. You can also pull out some stubs for the ears using the INFLATE tool.

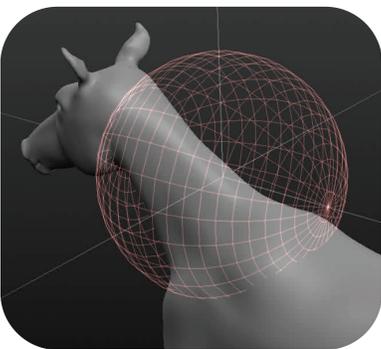
Now begin on the details of the face. This part may be a bit difficult and will take a bit of time. Just keep playing around with the three tools, GRAB, DRAW, and INFLATE until you begin to form something that pleases you. Don't be too much of a perfectionist. The ear came out like a cone, but you can use the DRAW and INFLATE tools to push in the cups and ear canal. You can do this by holding SHIFT while drawing on the model. Holding SHIFT will cause most of the tools to do the opposite of what they do normally. You can push in the sockets and holes for the nostrils, mouth, and eyes as well. The face can be narrowed or expanded this way as well. It's easiest to do wide areas by raising or lowering the strength of the DRAW tool and widening the size enough to gradually build the area. It's also important to note the SCALE and ROTATE tools that can be used to resize parts like the ears, nostrils, or eyes. This can save a lot of time instead of trying to use the DRAW or INFLATE tools to do so.





The next step is to create the legs. You can use the GRAB tool to extend the stumps from before to a length that looks more appropriate for the updated model. You might also fine tune some of the other profile features here like the horse's undercarriage, front chest, hind quarters, etc. I usually work my way away from the body as I make edits so that I don't have to redo areas I thought I was finished with. For example, if I complete the hooves and legs first, but then go back to the chest and body, I might have to edit the legs' length again due to the other changes. Working from the middle out helps to prevent this to some extent.

You can fine tune the legs significantly here. This is a very long process as a horse's legs are quite complex. Again, working your way from the top to the bottom is your best bet. I had several images of horses open on my screen to see the many contours that their legs can have, and I should also note that varying breeds and individual horses have quite a difference in their leg details. I advise pulling some webpages up, or using a book on horses to help you through this process.



The last step for modeling is hair. Anyone with even a little familiarity with modeling can tell you that hair is extremely difficult to work with. You can try pulling a simplified tail from the rear if you wish to simply avoid this part. It is not at all advised to create individual strands for the hair, so your best bet is to create two new parts that will represent the mane and the tail of your horse. You can do this by clicking the NEW SPHERE option in the tools. **NEW SCENE will delete all your progress, so be sure to ADD OBJECT!**

Move your sphere to the location you'll be working with. You can do this by clicking the sphere and using the GRAB tool. Be sure to click the Global option box to move the entire sphere. Now for the hair. The horse itself might look fine being symmetrical, but keep in mind that hair is never symmetrical, so you'll want to turn off symmetry to finish this up. TAKE NOTE! Once symmetry is off, its hard to go back, so make sure these are your final steps. Now, stretch the spheres out along the length of its backside or its neck depending on which you're working on. You can PINCH, CREASE, and INFLATE (remember SHIFT does the opposite) until you have something that resembles a mass of flowing hair.



The very last step is, of course, to save and export your model. First, save the model as its standard SC2 format. Then, click the EXPORT option in the tools. You'll likely want to export as an OBJ format. Now you can share, 3D print, or move onto something more advanced.

# Extra Tips!

**SAVE  
OFTEN!!!**

I make this mistake all of the time! The program only maintains a handful of steps for you to be able to UNDO, and you might get too far along before realizing you really need to go back. It's best to save multiple copies of the file. Use "Save As" to give the copies descriptive names so you can go back wherever you need to in order to fix the errors.

Creases can be difficult to do in Sculptiris. There is a CREASE tool, but it doesn't always perform that crease that you really need in a particular area. One workaround is to use the SHIFT+INFLATE tool to push the entire area deep into the model. It looks odd at first, but if done right can work out well.

After creating the pocket, you want to build up the edges around where the crease will be. You can do this by inflating the sides around the crease and leaving the area where the crease is alone, or even pushing it further in if needed. You might even have to overinflate the area, and then use the SMOOTH tool to bring everything together. This will take some practice to get used to, and don't be afraid to hit that CTRL+Z and redo the work. There is always a lot of re-touching necessary when 3D Modeling.

Sometimes you might notice some unsightly overlap when using high strength, or when trying to make creases or holes. There are two tools that you can use to help alleviate these problems. I usually SMOOTH out the problem area, and then I use the REDUCE BRUSH tool to minimize the triangles in the area as I continue to make the hole or crease.

The WIREFRAME tool can be useful, especially when things get complicated or start too look lumpy and do not seem to be fixed with the SMOOTH tool. You can toggle this option on and off by selecting the tool. Also of note, the WIREFRAME tool will be automatically applied whenever you use the reduction tools. Just remember, you can always turn it off.