

Making A Skeleton

(Maya tutorial) by [CV] Knome aka chrisrice

This tutorial is designed as a continuation of the previous tutorial on <http://www.halomods.com/forums/viewtopic.php?p=183187&highlight=#183187>, this is for extreme dummies, so I will go over things that are pretty basic.

Things To Know:

UV maps: the map the texture is laid out on

IK Handles: a way to easily manipulate, many skeletal joints all at once.

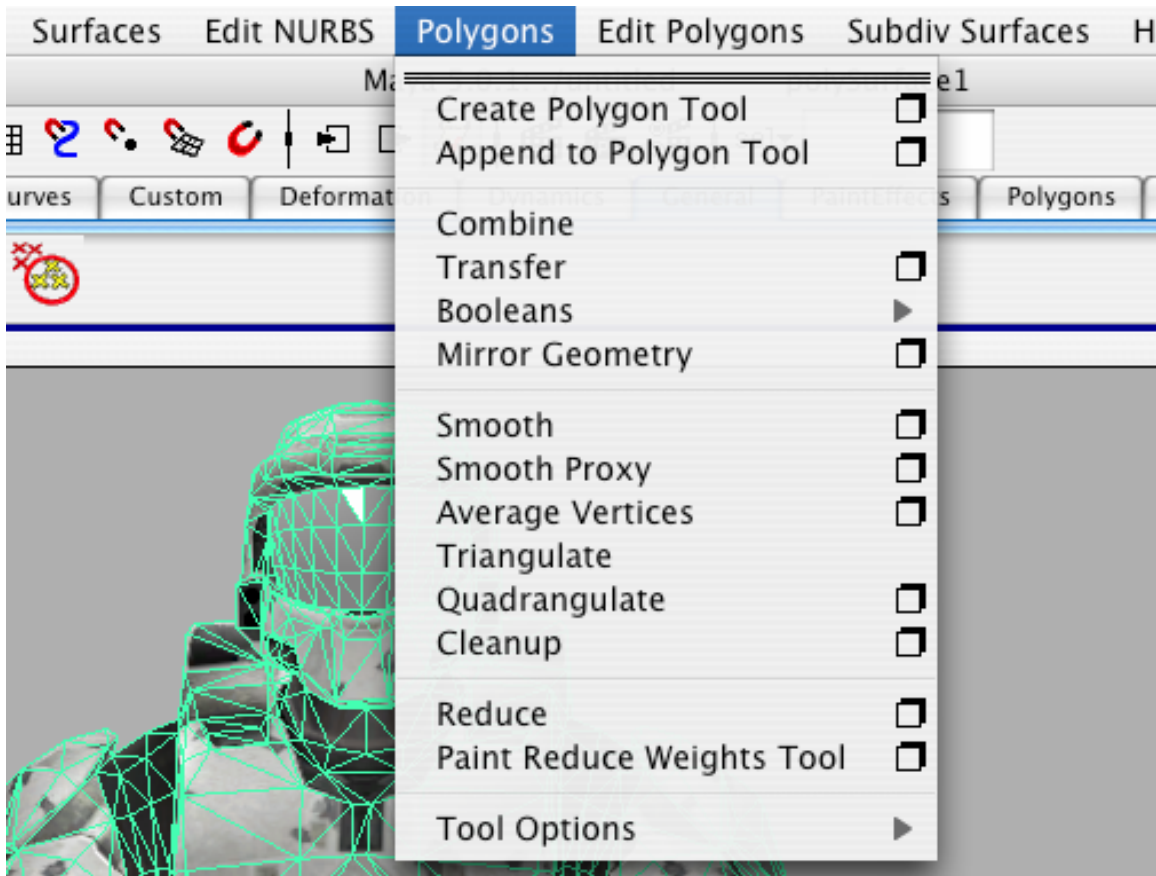
IK Spline tool: is like the IK tool, but allows for rotation and containment of joints.

Root Joint: the beginning of the skeleton, and controls all joints bellow

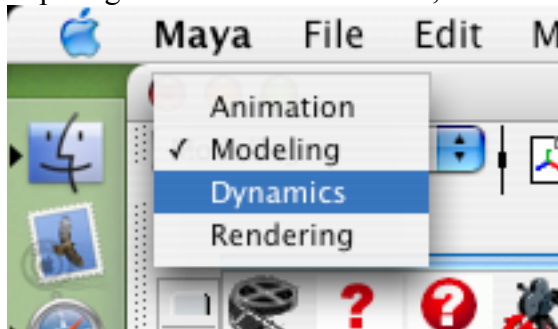
Hierarchy:

Step 1: First import the halo 2 model, and texture described in the tutorial on -----,

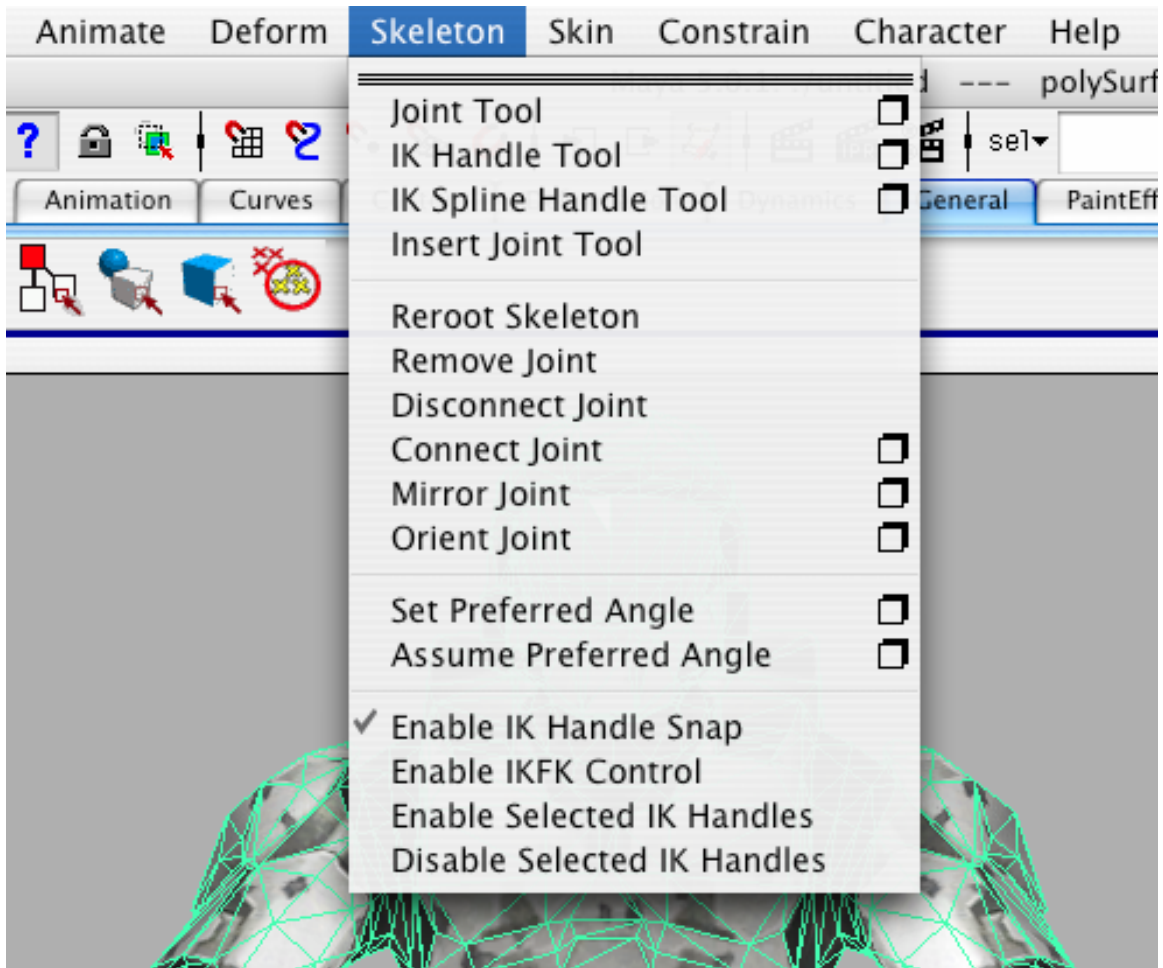
Step 2: select all of the components of masterchief and go to Polygons/ Combine, then rotate the character -90° in the X axis. (to write the character upright) Make sure it is standing vertically on the positive Y axis.



Step 3: go to the animation menu,

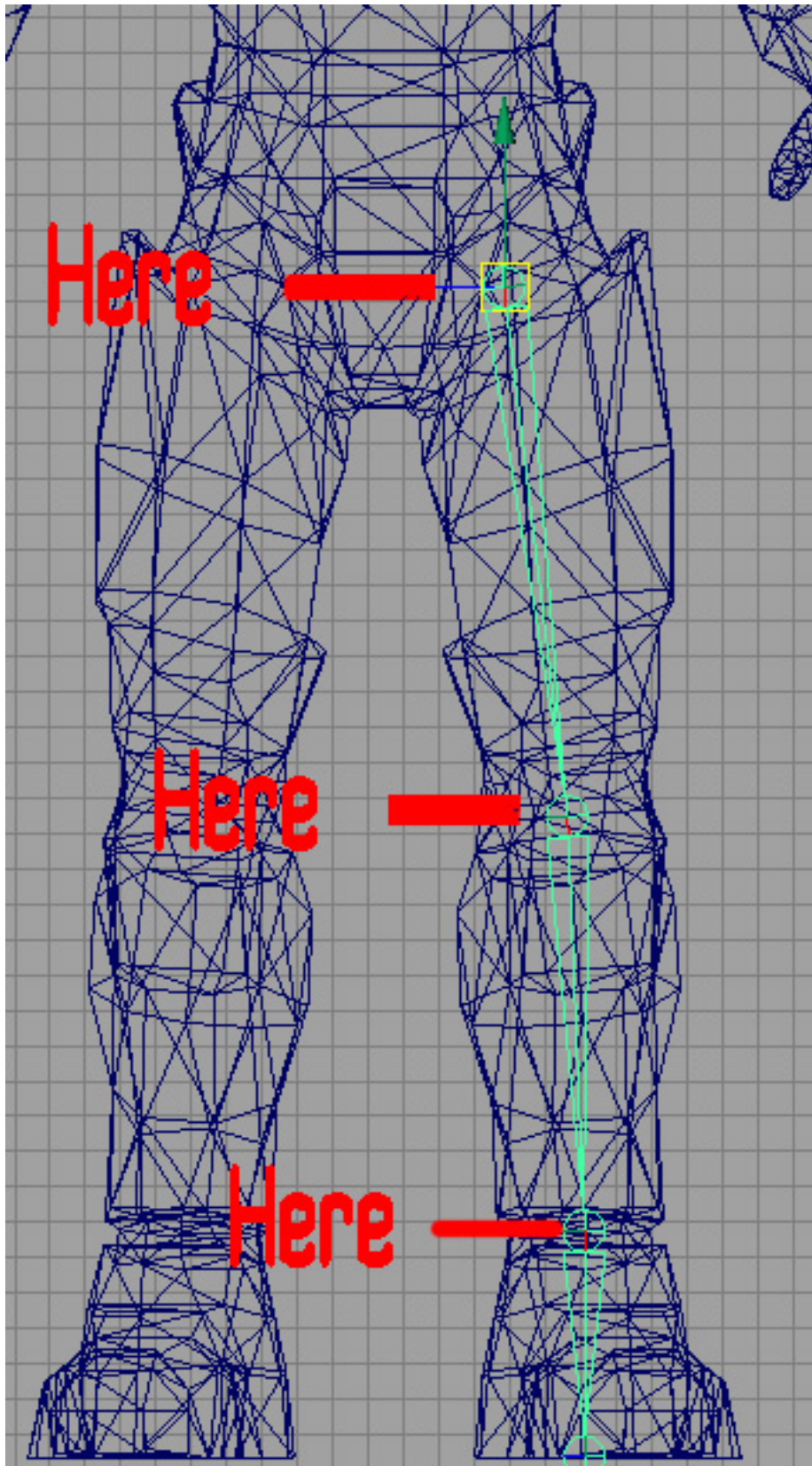


and select Skeleton/ Joint tool. And hit the space bar and go to the view that has the character facing you. Hit the A button (this will fill the window with the character)



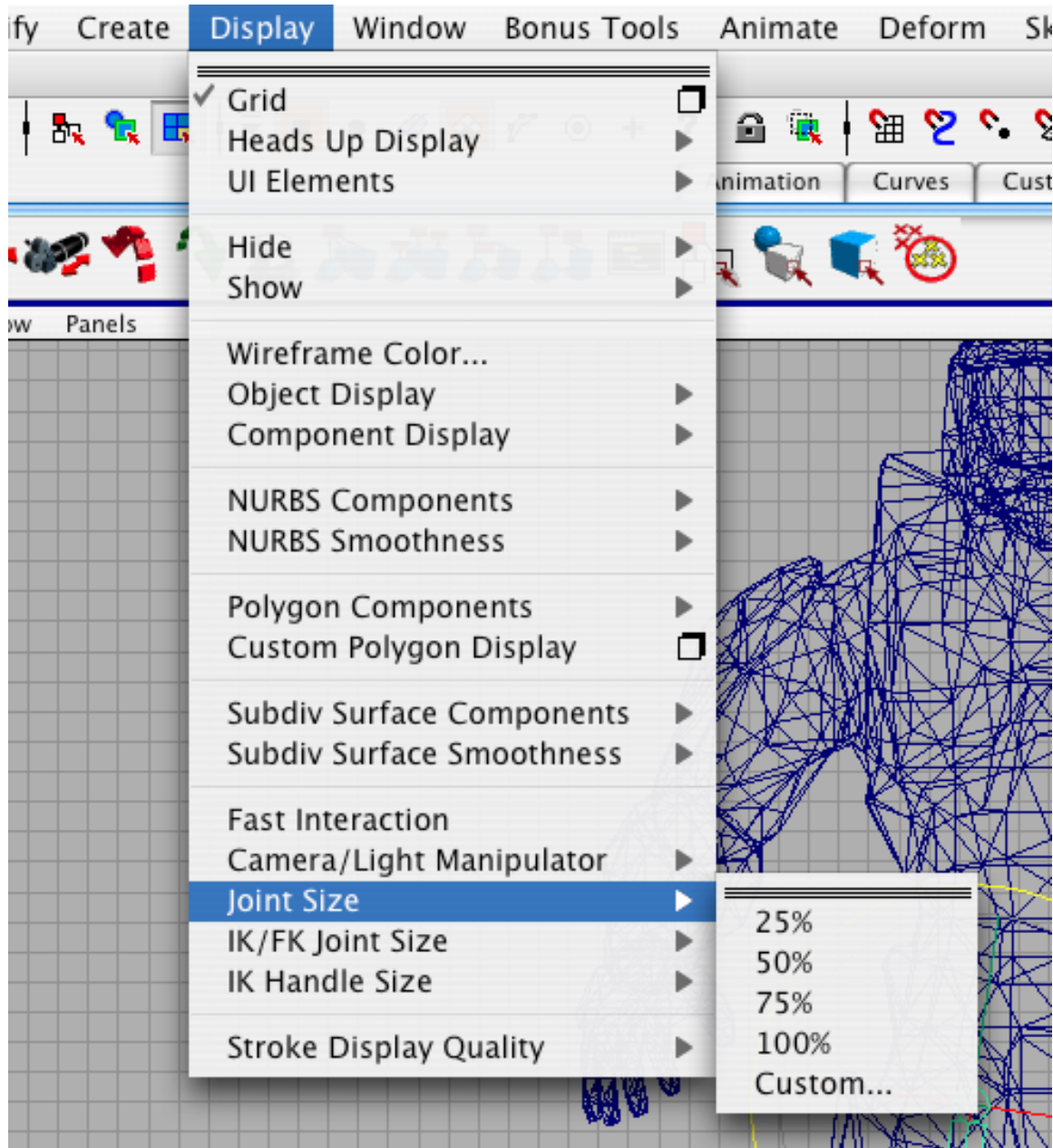
Now you will start, the skeleton process

Step 4: Now, take the joint tool and create joints like the following picture shows. You are making the joints in the same locations, that would be on a person. Hip, Knee, Ankle, AND VERY IMPORTANT ANOTHER JOINT AT THE BOTTOM OF THE FOOT.



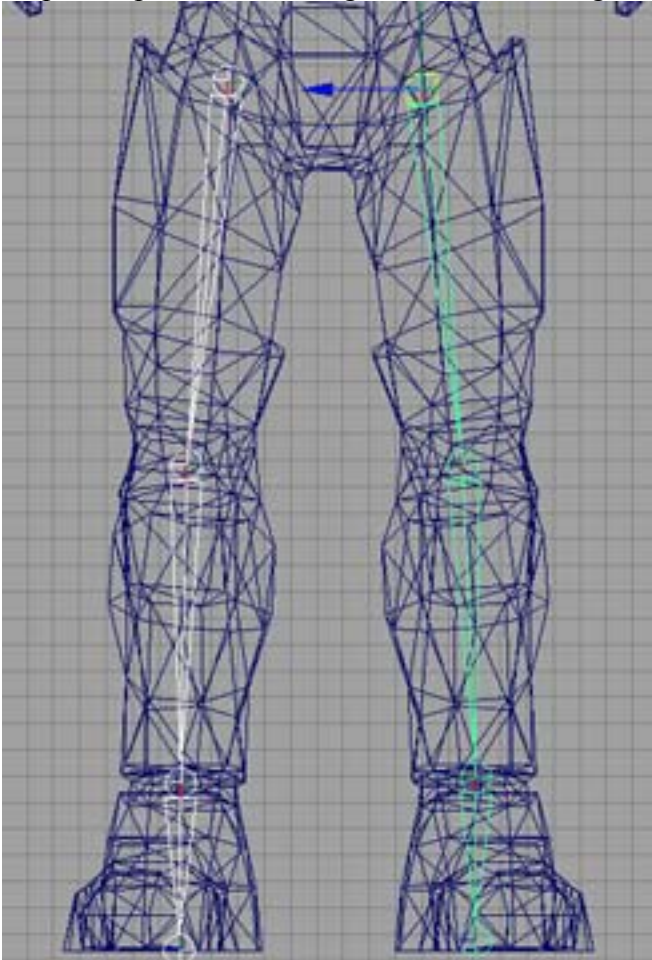
IF you are seeing HUGE versions of the skeleton joint, Go to Display/ Joint Size/ Custom, and mess with it until, it looks like the picture

above.

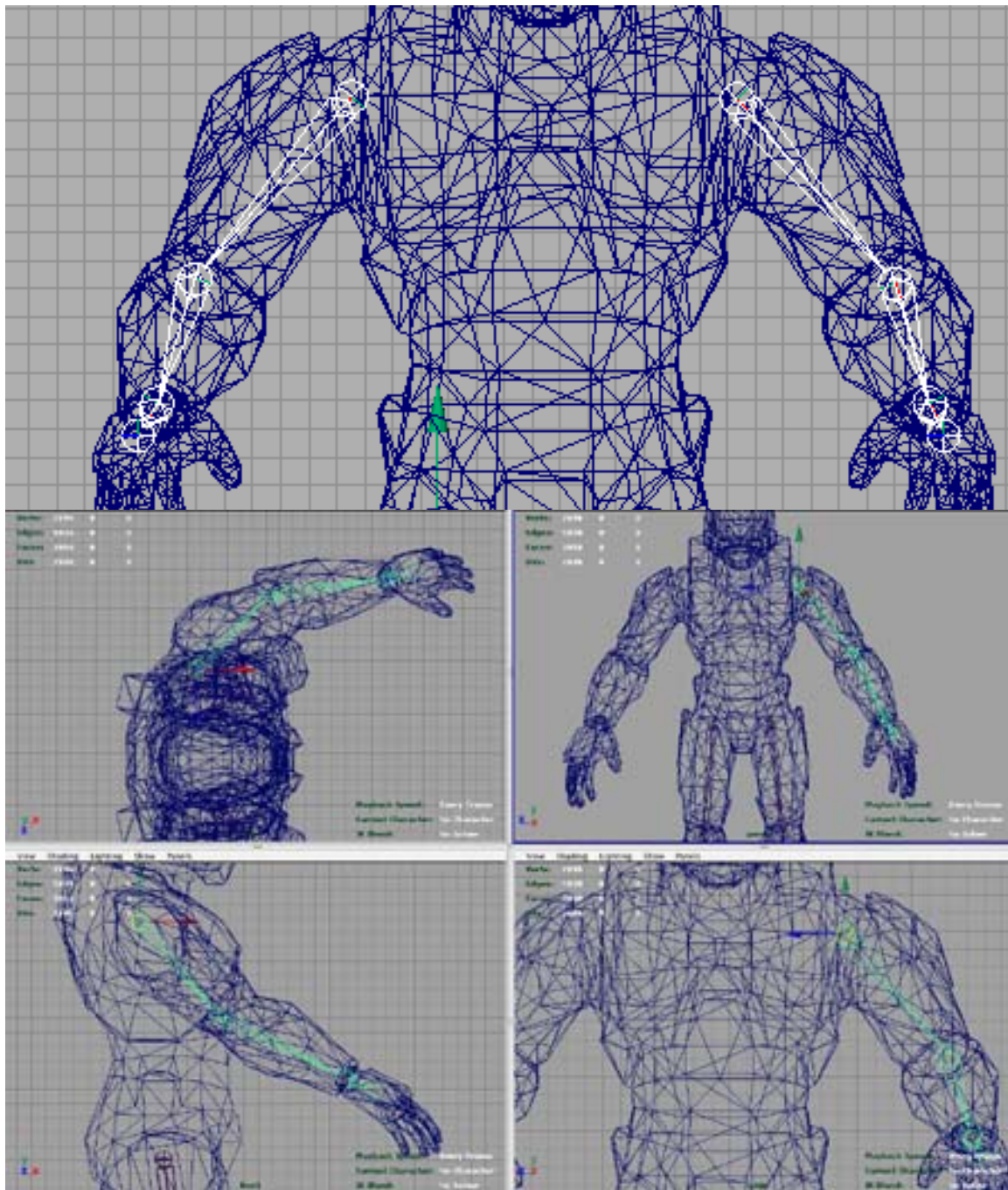


Step 5: Now hit the space bar and go to the view in which you are viewing the side of the character. You will notice that the skeleton, leg is not inside the leg itself. To correct this select the root joint, and move it to where the hip joint normally is. Then to the same to the knee joint and ankle, The End joint should be directly underneath the ankle joint.

Step 6: Repeat the 3 through 5 on the other leg. Here is a progress shot.

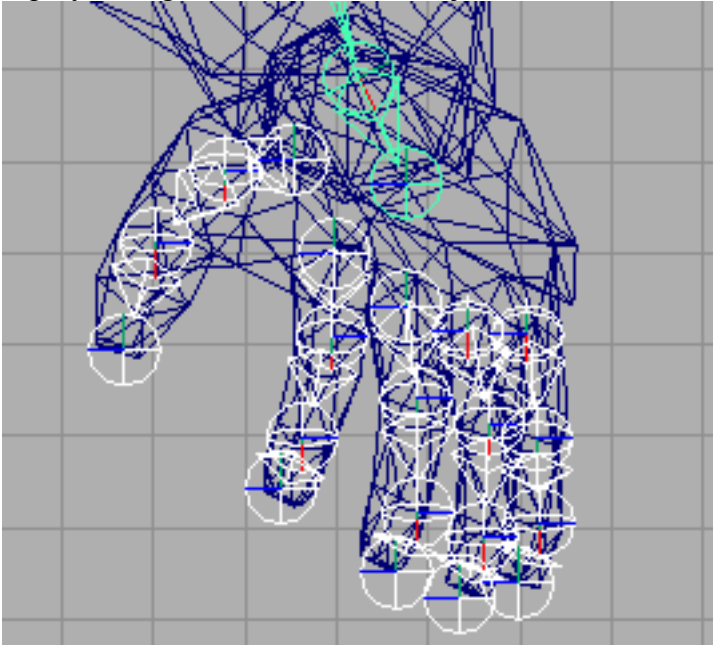


Step 7: Now do the arms with the same principles shown the previous steps. Do Not worry about the Fingers. You will create a Joint at the Shoulder, elbow, wrist, and one in the middle of the palm. Utilize the 4 view that you have to complete this. Here are some views. Do not use the perspective view because you have no sense of distance in that view.

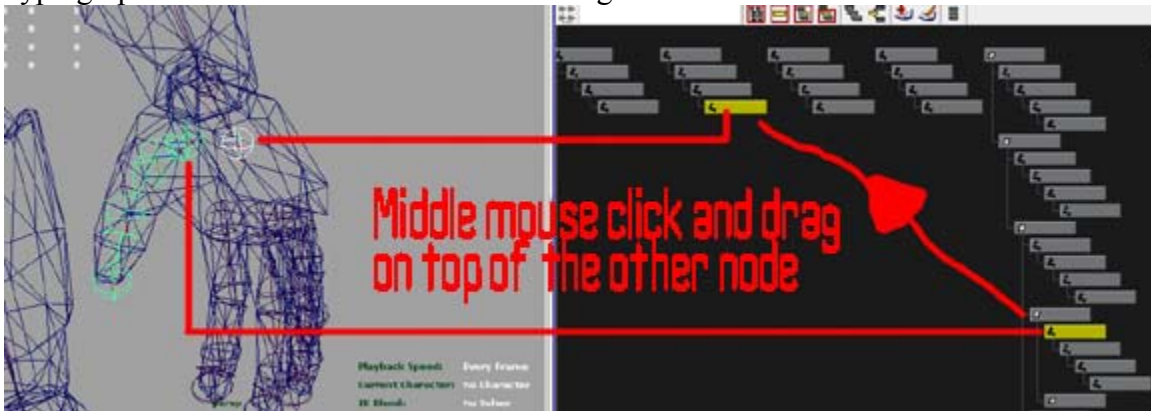


Step 8: Now you will create the hand joints. Using of course the same principals as before. Creating the root joint at the knuckles, and ending at the tips of the finger.

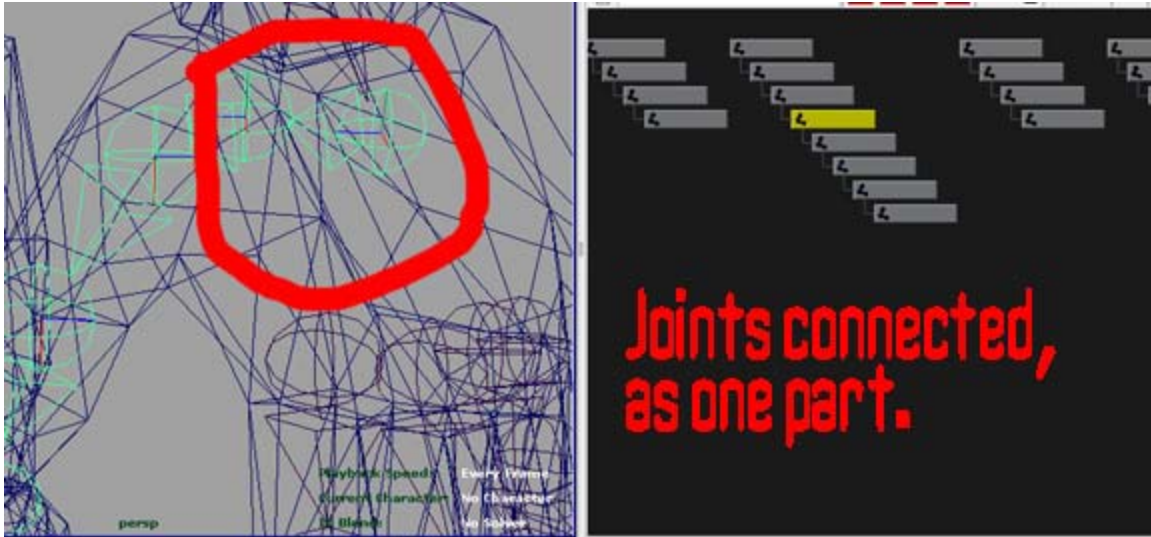
Tip: you might want to reduce the joint size even further.



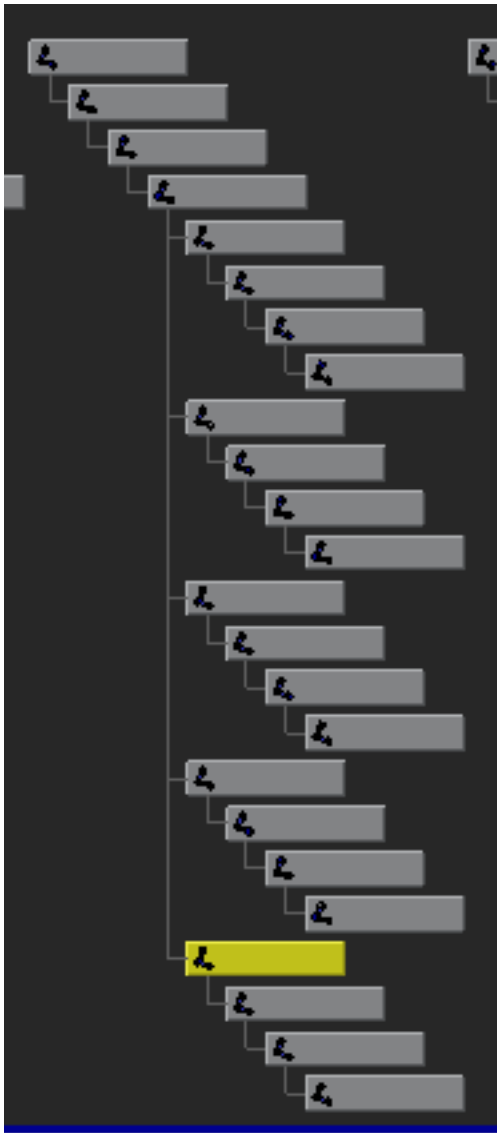
Now we will connect the fingers to the arms, to do this, open the hypergraph. Window/Hypergraph. Then select the last joint in the arm chain. (middle of the palm), then shift select the root joint of the thumb chain. Find the two yellow marked nodes in the hypergraph. Then with the middle mouse drag the thumb chain onto the arm end chain.



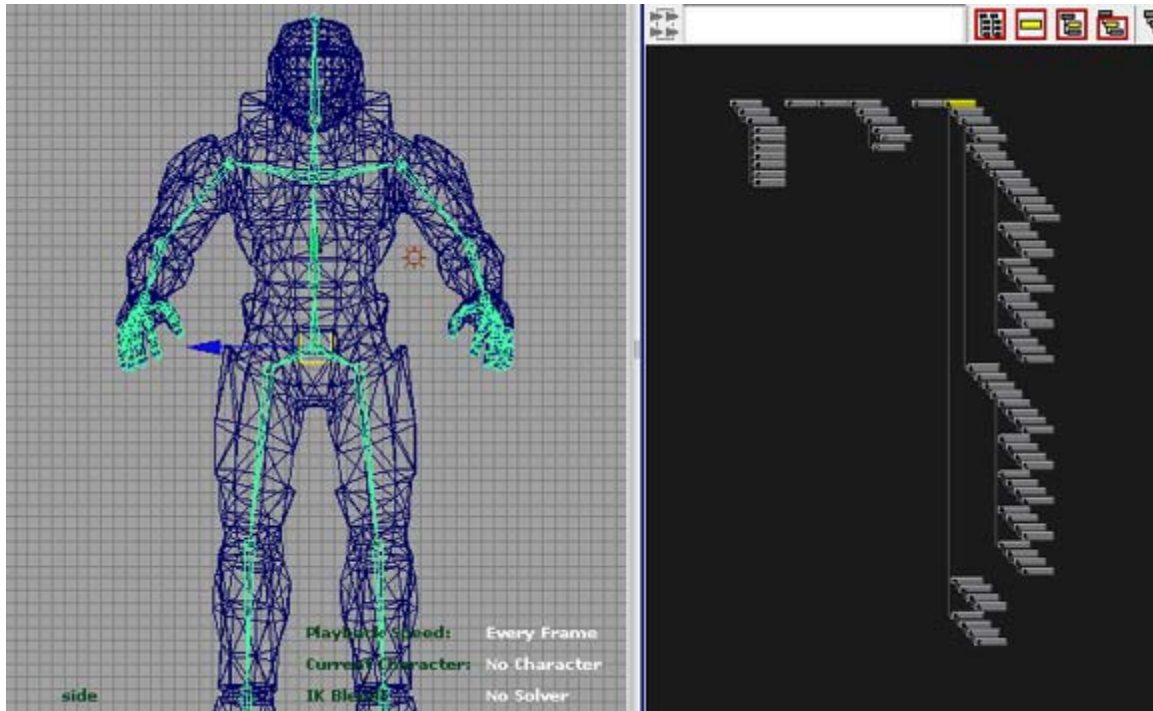
-----CREATES-----



Continue to do this until all the fingers are connected to arm's end joint. Here is what the arm looks like in the hypergraph when finished.



Step 9: now create the backbone. Start the chain in the middle of the pelvis and create 4 joints in the places shown below in the picture. And connect it to the legs to the back root joint and the arms and the third back joint. Creating a complete skeleton.



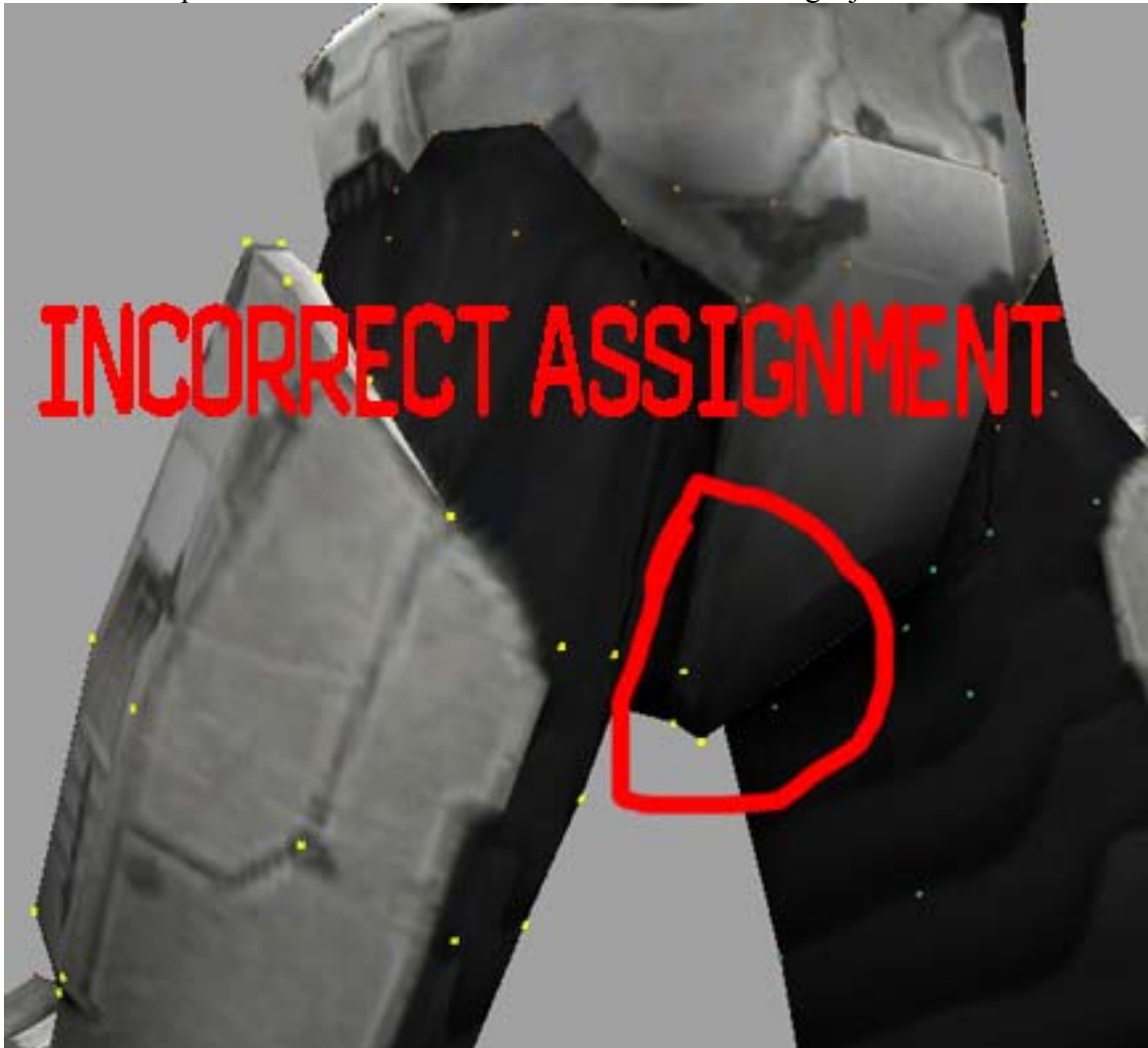
Step 10: Now we will attach the skeleton to the model.

WARNING: if you want to make adjustments to the skeleton, DO IT NOW you won't be able to do it latter without starting all over.

Select Skin/Bind Skin/ Ridged Bind. Now test out the joints of your model. Try the knee joint and rotate it. You will notice that the leg promptly freaks out. The problem is that certain points are not assigned to the joints.

Step 11: fixing the verticie joint assignments. First rotate the joint you want to fix it's membership and rotate it. Then Select the Deform/ Edit Membership Tool. Switch to wire frame view The selected joint will be in blue and the points assigned will be in yellow. All you need to do is start shift selecting points that you think should be assigned to the joint selected and it will immediately move to the assigned position.

To unselect a point hold down the control button when selecting a joint.



Here it is

corrected.



NOW REMEMBER the point you have unassigned has to be assigned to another joint. Continue this until you have assigned all the points to the correct joints. CONGRADULATIONS you have completed your skeleton. Feel free to make him dance.