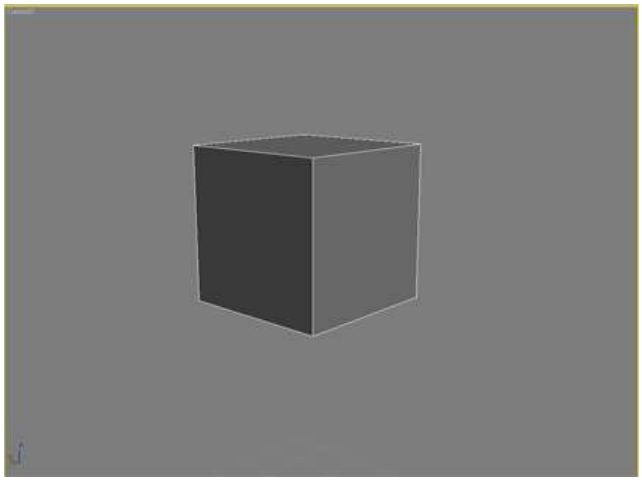
low poly character modelling

by Neil'Of Doom' McDonald

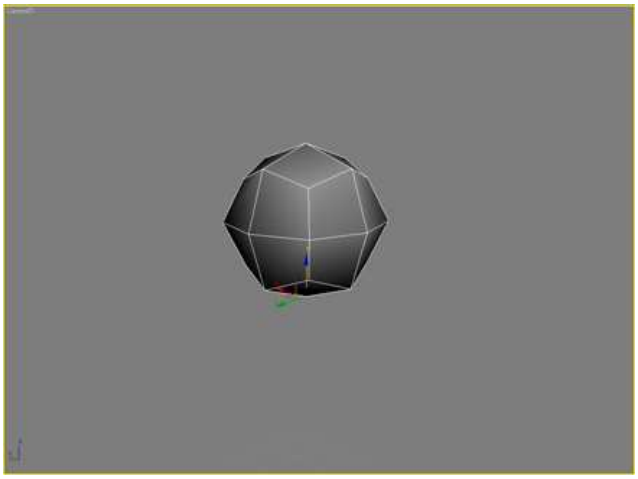
Hey guys, today we are going to go though a basic step by step look at character modelling, for those of you that have not done any character modelling this tute should give you a really good head start and hopfully helps you get your head around the process of modelling more complex shape and form. For those of you that have done a bit of character modelling before this should be used more to just refine and speed up your modelling work flow! Remeber if at first somthing is not clear you can go back up to the steps before often revealing the solution to what you have missed.

So lets get started!

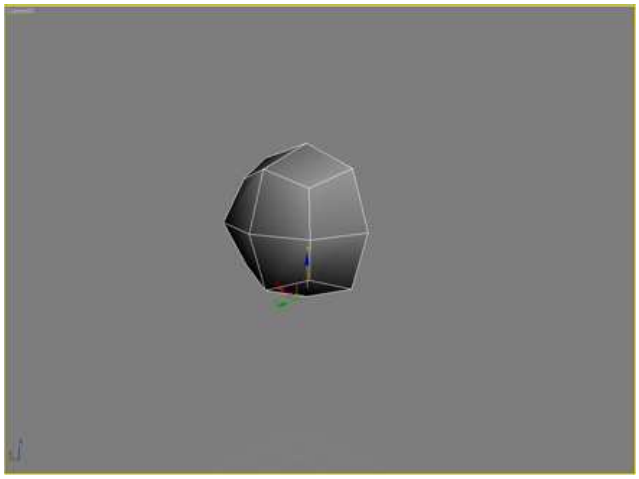
- First create a box with 1x1x1 segments and 20cm x 20cm x 20cm



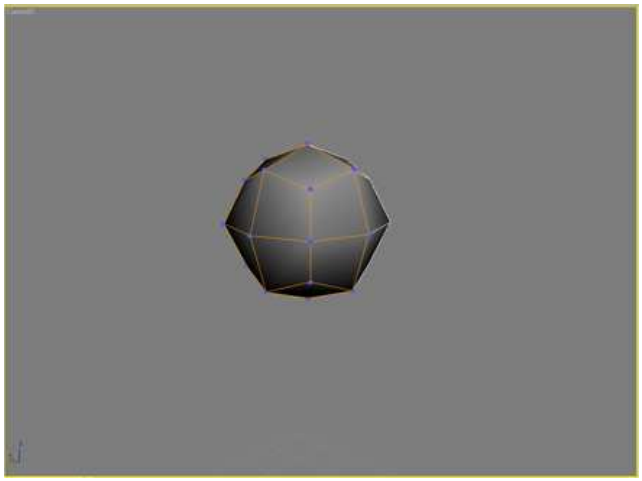
- Next go to modifiy use the modifier list and select a turbosmooth.



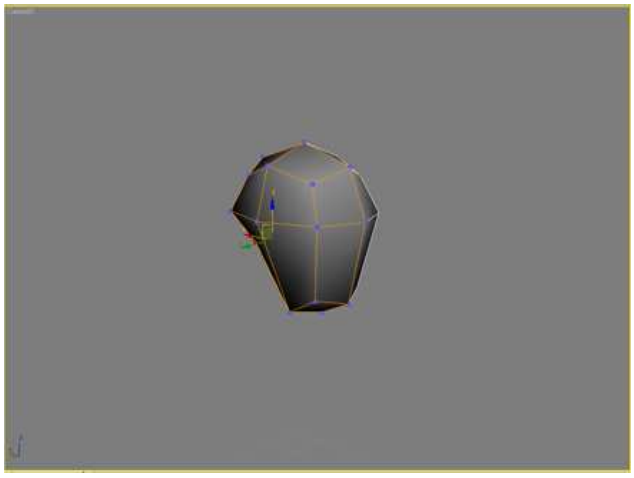
- Next add an edit poly modifier select half of the box and delete it



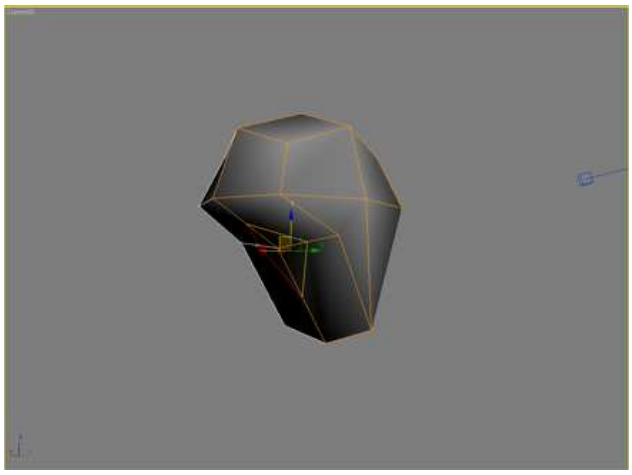
- Now collapes your stack and make sure that your object is an editable poly than add a symetry modifier on top of you modifier stack playing with the axis untill your model is mirrored, this will stay on top for the remainder of the modelling and will be visible if ou hit the show end result button under your stack. Now not only is our model mirrored but all changes on the original side will be copied on to the other side halving the time needed to get form of your model.



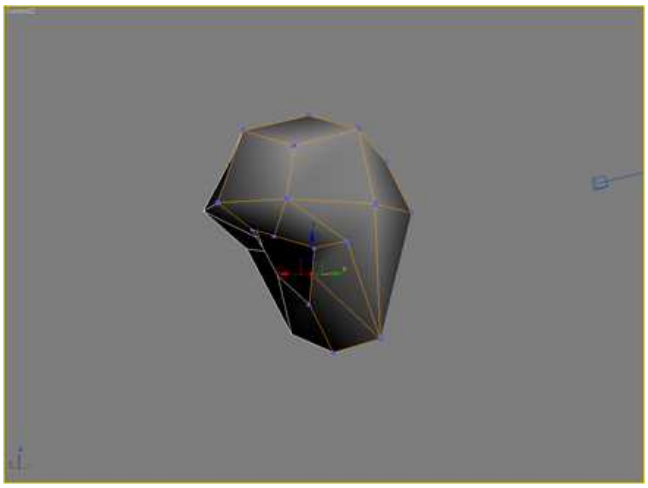
- Now it is time to start moving the verts to shape up the head making sure to push the under side at the back into a nape as shown in the image bellow. If you have modelling referance in you viewport make sure to copy the image a close as possible.



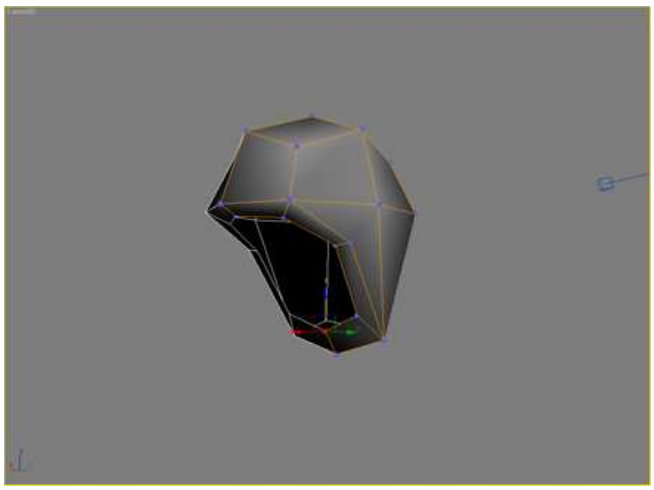
- Next we are going to select the 3 edges in the nape of the head and hit the connect button, this will create a new set of edges exactly though the middle of the selected edges.



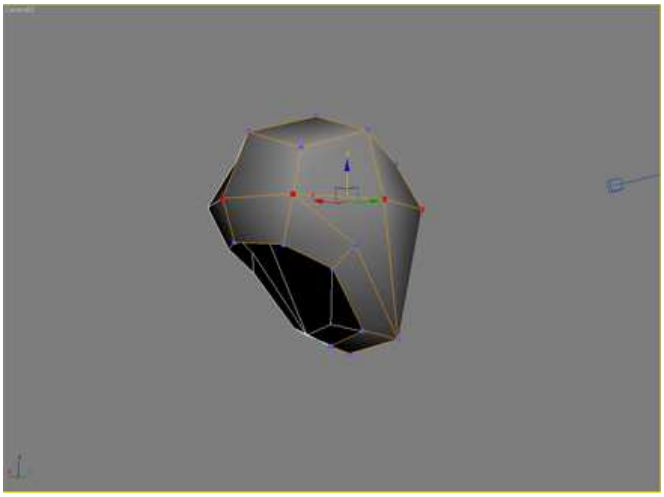
- Next select the polys that in the center of where the neck should be and delete them, then using the cut tool make a cut from the centers of each edge on the neck hole to the outer corners of the head (definitly look at the image bellow before making any cuts).



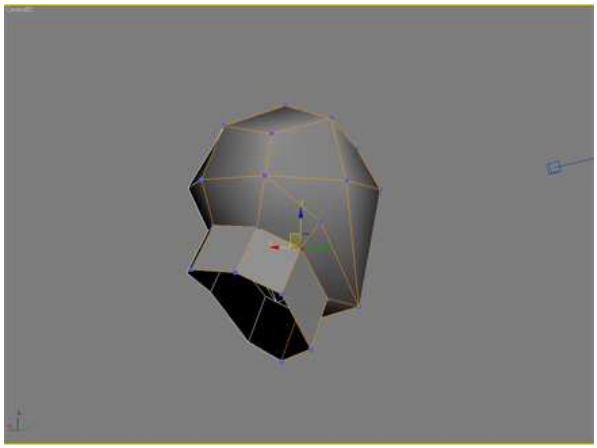
- Under edit geometry in edit poly there is a constraint drop down menu, click on the menu and choose ‘edge’ this means any subobject selection you make can only be moved along visible edges on the mesh. With this in mind we are going to select the verts around the neck hole and one by one move the out to create a larger and more to the point round hole in the base of the head.

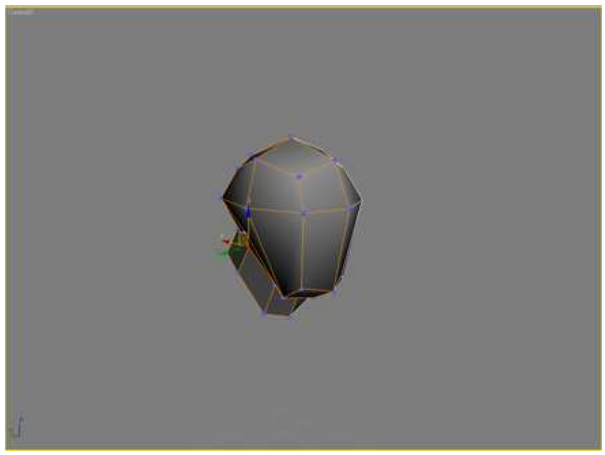


- Now making sure to turn off the constrain to edges we can peel out or move those verts at the base of the head to give it a more round shape and setup the head for the neck to be extruded out of the base of the head.

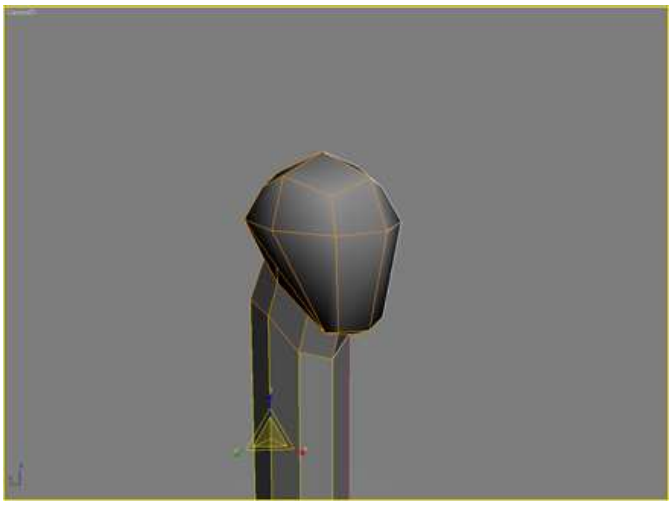


- Select all the edges around the neck hole and holding the shift key move copy the edges out to create the polys for the neck. This is called edge extrution.

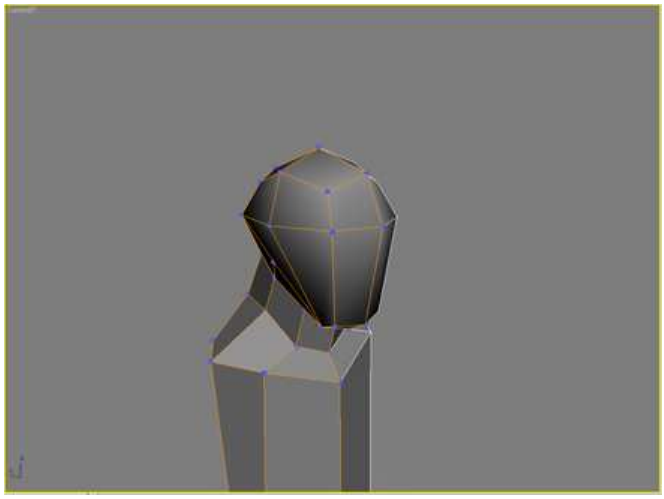




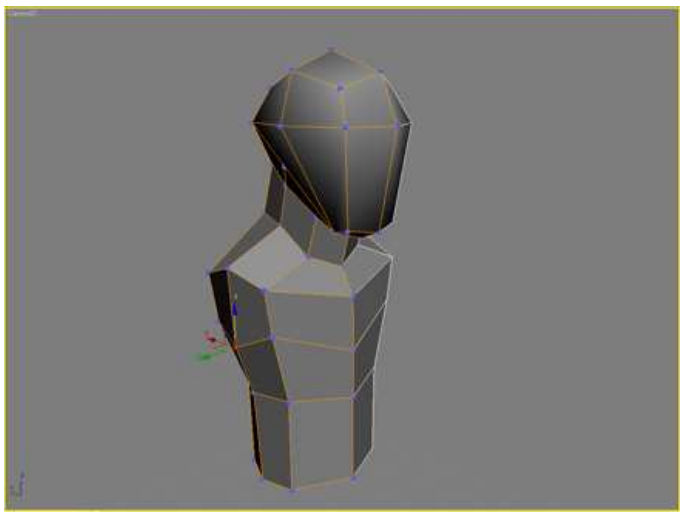
- Now that you have the neck extruded out, extrude down a column to about where the waist should start.



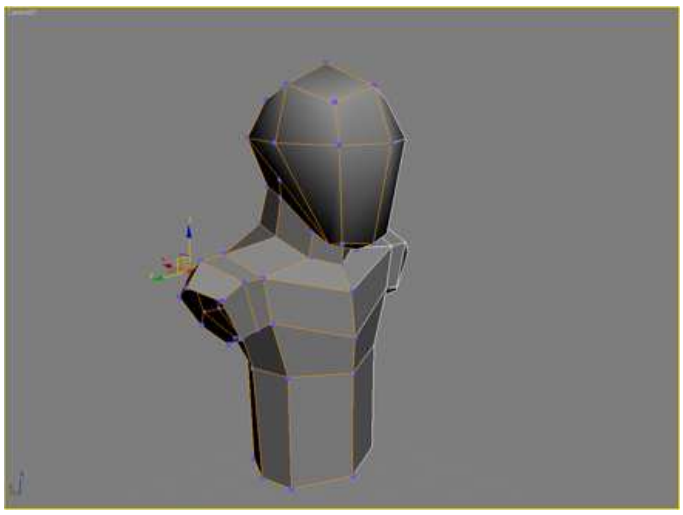
- Using the edge ring function of edit poly select the edges all the way round the column and hit connect, with the new row of verts selected move them up and pull them out to shape the shoulder and make the waist wider while you are at it. You should have somthing that looks like the image bellow.



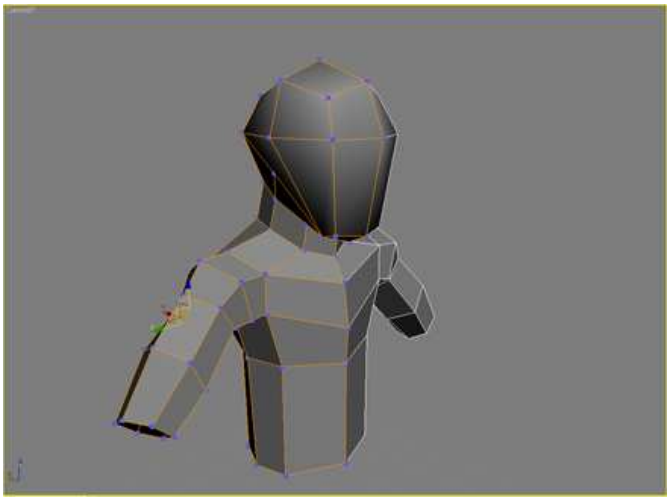
- Now use the same edge ring and connect technique you use to make the shoulders to make a row of verts for under the arm i used this opportunity to add another row to shape the waist more as well. Also i used the extra vert rows to shape an arm hole



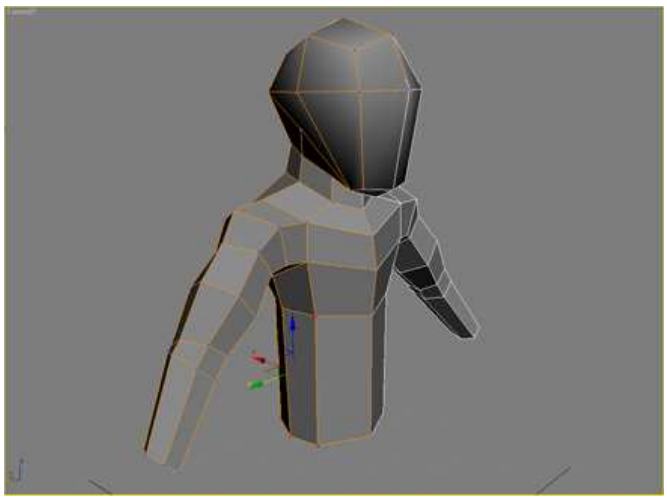
- Next i delete the polys that are on my are hole and extrude the edges a couple of times to shape the shoulder part of the arm.



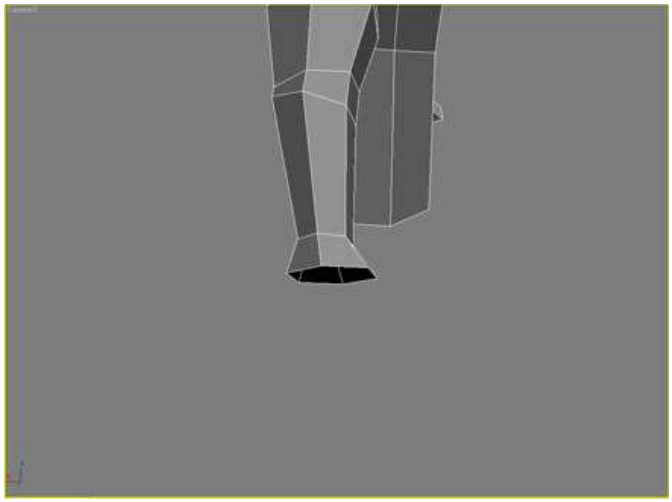
- Now it is time for the upper arm i usually make one extrution then useing the edge select ring and connect technique from before i create basic muscle form.



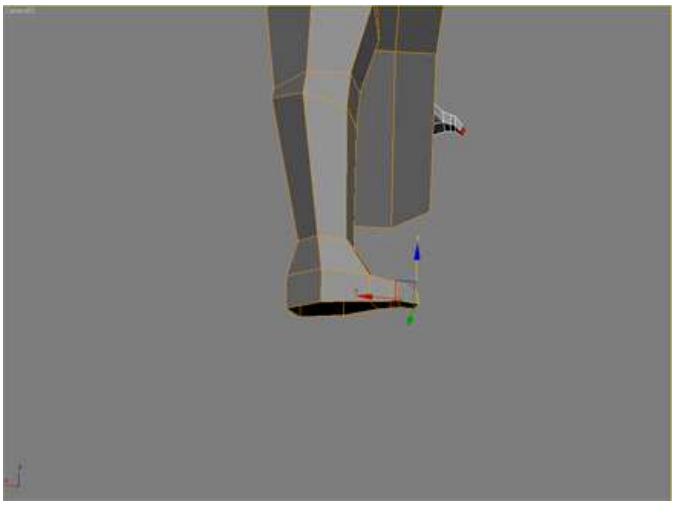
- Then we are going to make a small extrution for the elbow and a larger one for the forarm, the elbow extrution should be wedge shaped front to back with the larger side in the elbow pit as shown below.



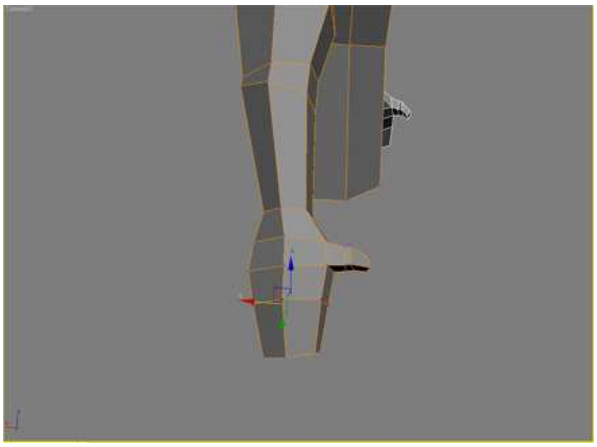
- Making a new extrution from the end of the forarm this is going to be the start of the hand, the extrution should not be very big and the verts nedd to be scaled into a more suitible shape by making it wider and flatter as shown below.

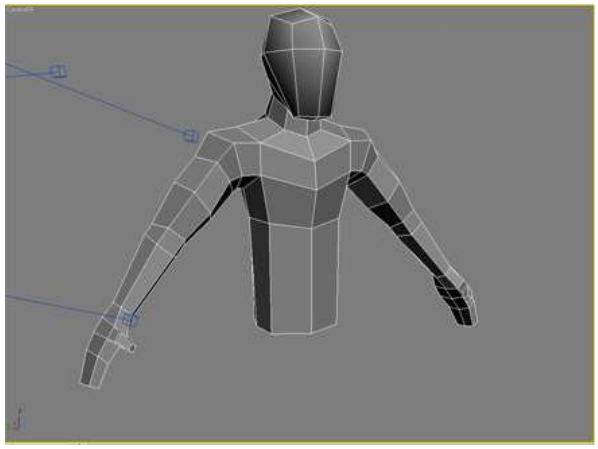


- Next i extrude down a little more to create a section for the thumb. Now i extrude the poly on the the side of my hand piece a few times moving, scaling and rotating as needed to finish of with a thumb with a deformable section in the middle.

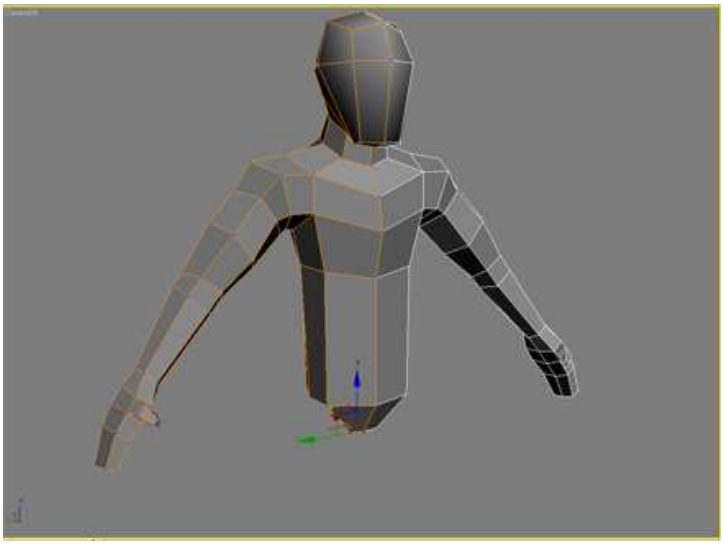


- Now we move onto the ‘flipper’ style hand this is simply a form of poly saving the is common in low poly modelling basicly the whole hand is modelled ling the it is inside an oven mit. I created mine by extruding a couple of times and scaling them into shape, next selecting the border at the end and using the cap function to seal the end to might also select the to verts at the end in the middle of the hand and hit connect so that the whole model is quads. I also ajusted the scale of the head making it smaller and brought the shoulders in as well, one of the things that you will find is that its is easier to tell the proportions better when there is more of the model finished.

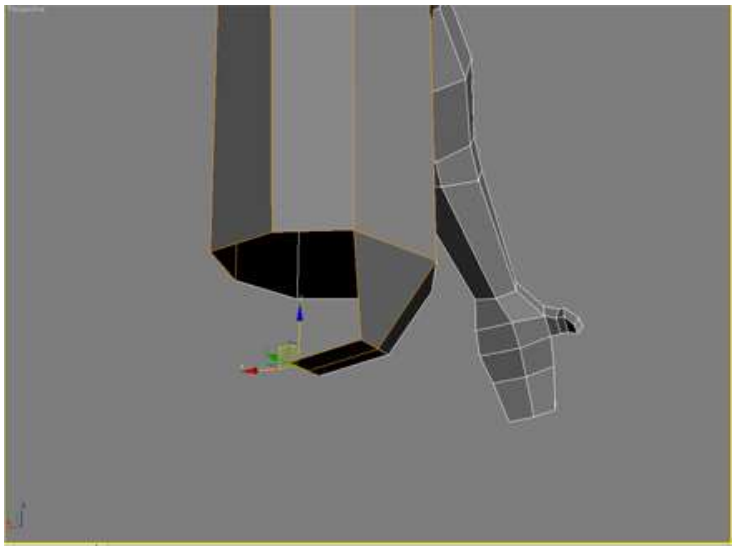




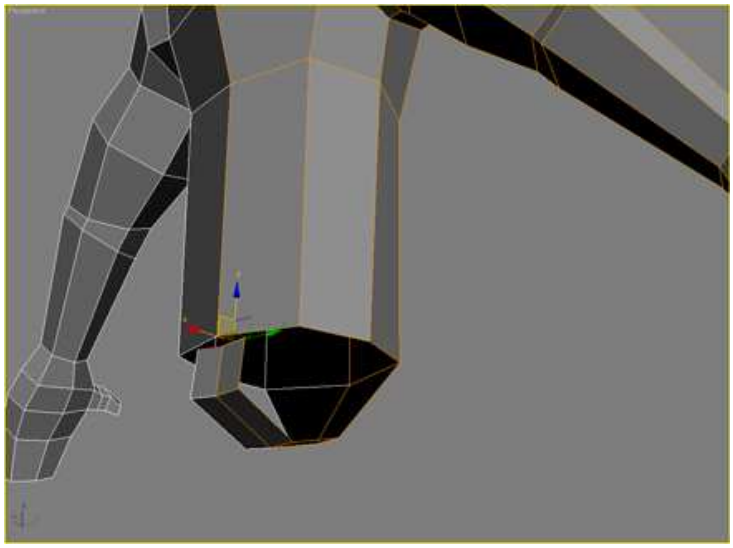
- Now i take the edge at the front of the waist and extrude it down and back moving the out side vert in to start of the crouch.



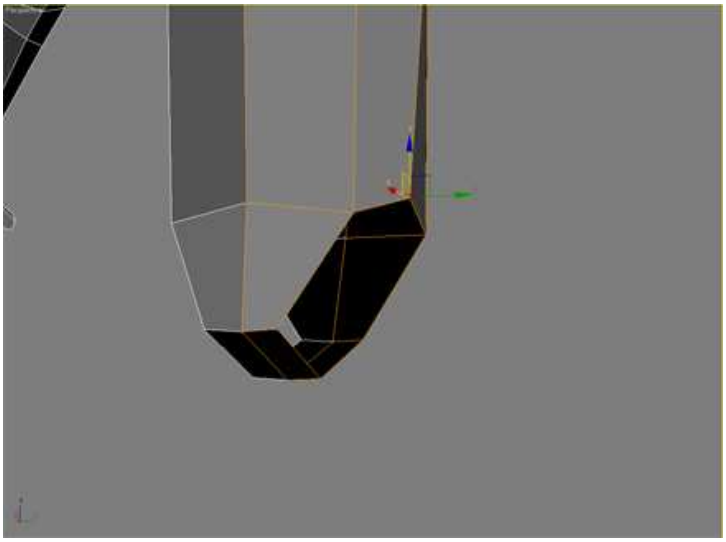
- I can now extrude back to complete the front part of the crouch.



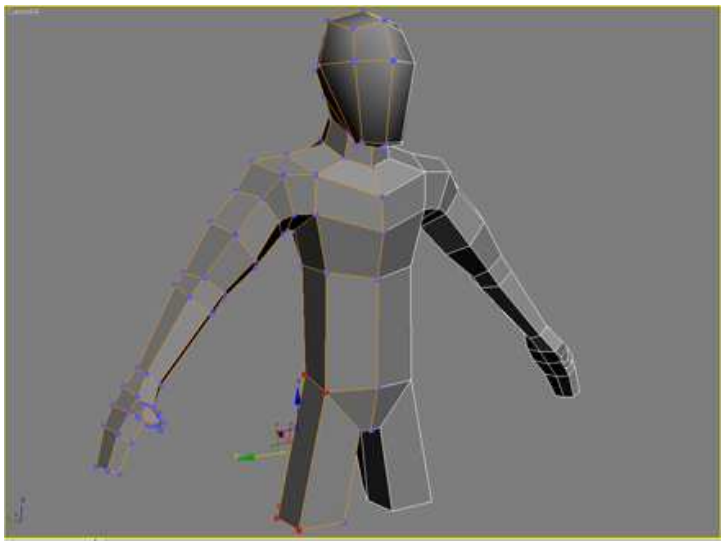
- Now i am going to extrude the edge back a couple of times to finish off the entire crouch.



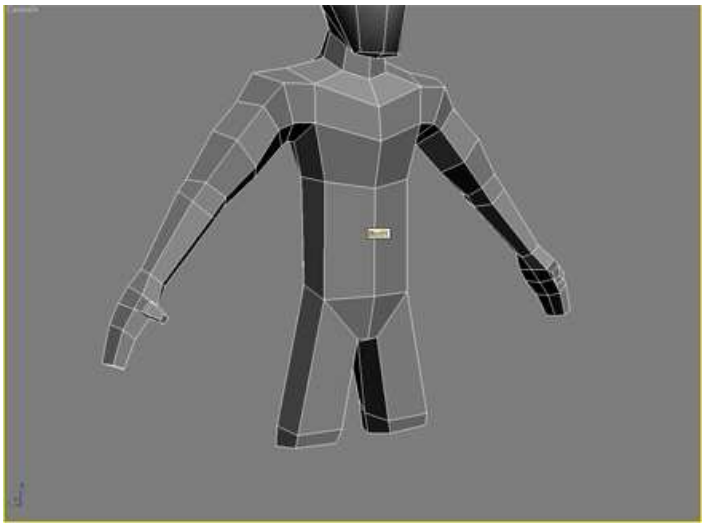
- Now just use target weld to weld them together and you have what i call the nappy.



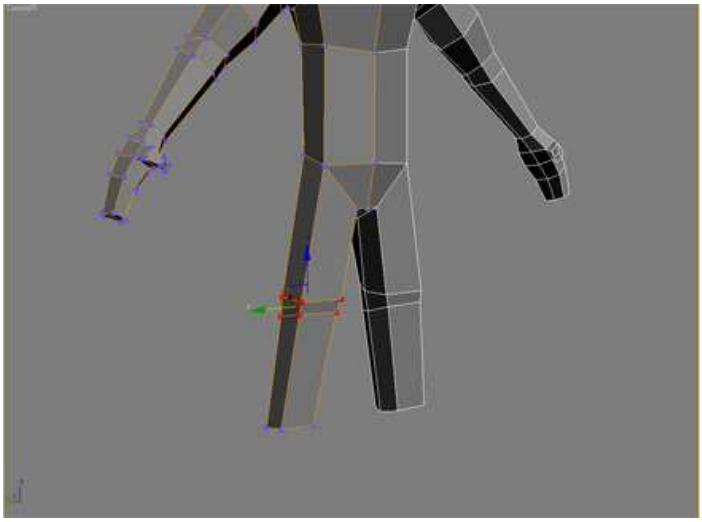
- The whole pelvis is set up for the legs to be extruded from the meshto do this select all the edges as a border and holding shift extrude out a leg as shown below.



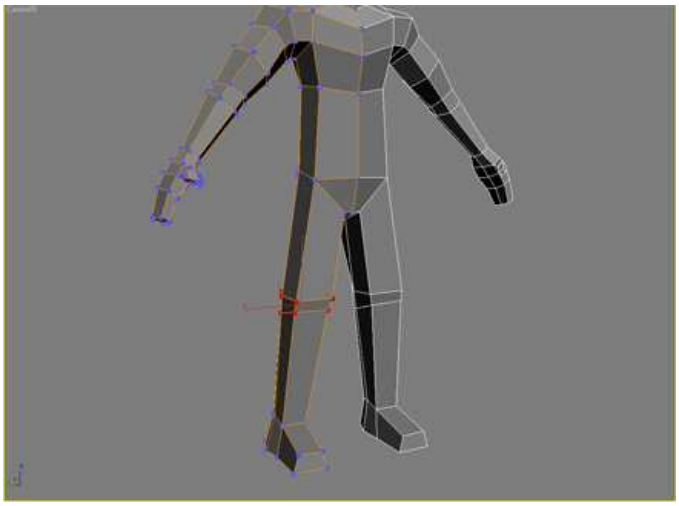
- Next we need to do a small extrution for the knee making it in the shape of a wedge as shown in the image bellow.



- Now we are in the last straight, to create the calf i simply extrude down and than scale it to the desired size.



- The absolute last step is to extrude once more down and selecting the front poly extrude forward creating the foot moving the verts to get the desired effect.



And now you are finished with this tutorial, but this is not the end of your character. You now have a base that you can add to, all the basic form is there but as far as compelling character design goes there is no detail it is just a starting base. To give you an idea of what sort of result you can get by now check the image below.