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3D & MOTION GRAPHICS > MODELING

Female Character Modeling in Blender: Part 4

by [Soni Kumari](#) 7 May 2014

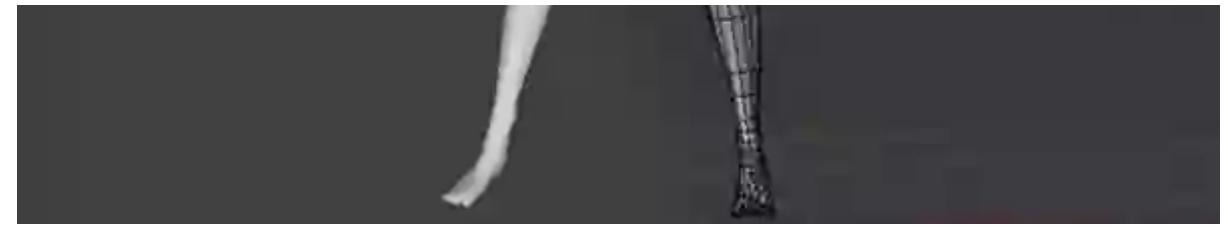
Difficulty: Intermediate Length: Medium Languages: English ▾

Modeling

3D

Blender





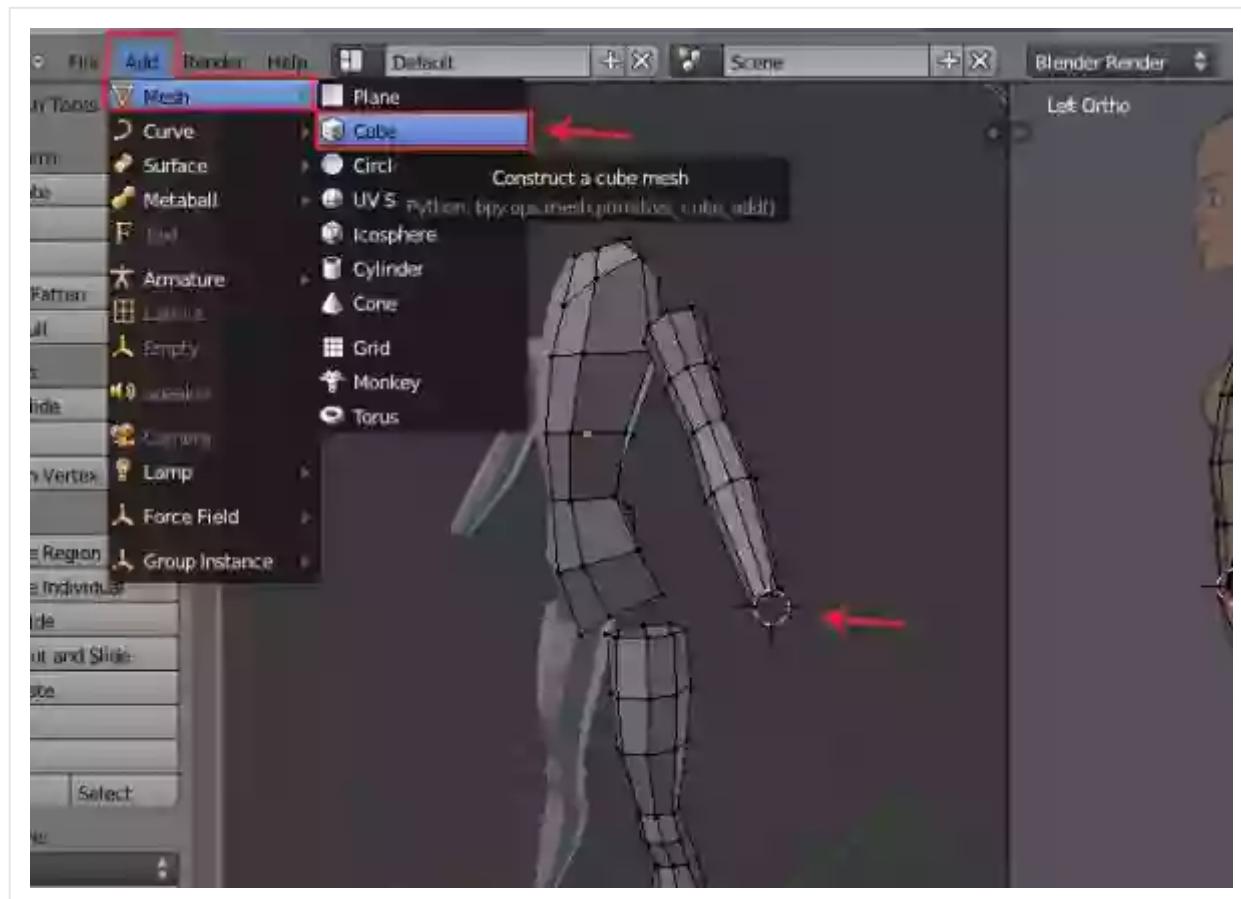
What You'll Be Creating

In the fourth part of the series, we will continue working on our character's body by modeling the hands and legs, and finally combining all the parts together.

1. Blocking the Palms

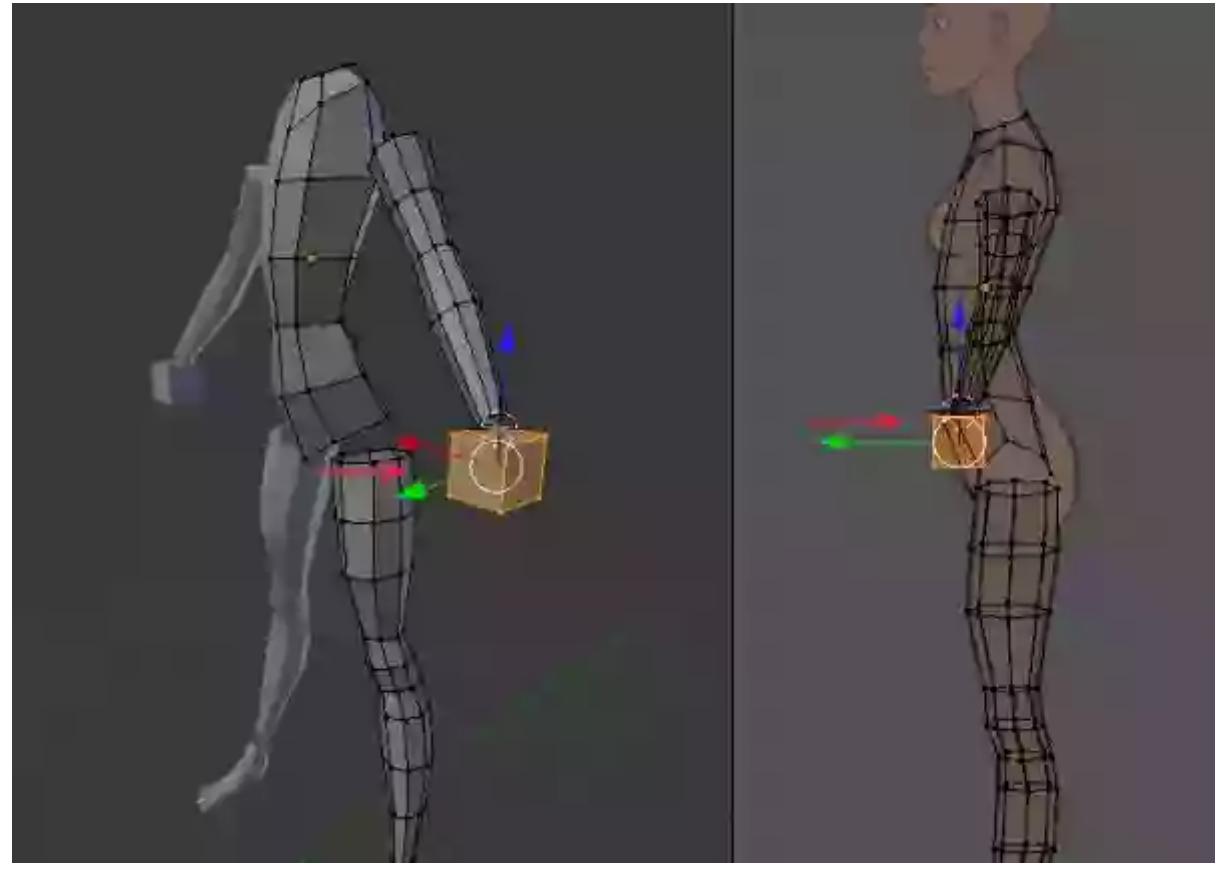
Step 1

Now we will create the palm of the character. Go to **Add > Mesh > Cube** to create a cube.



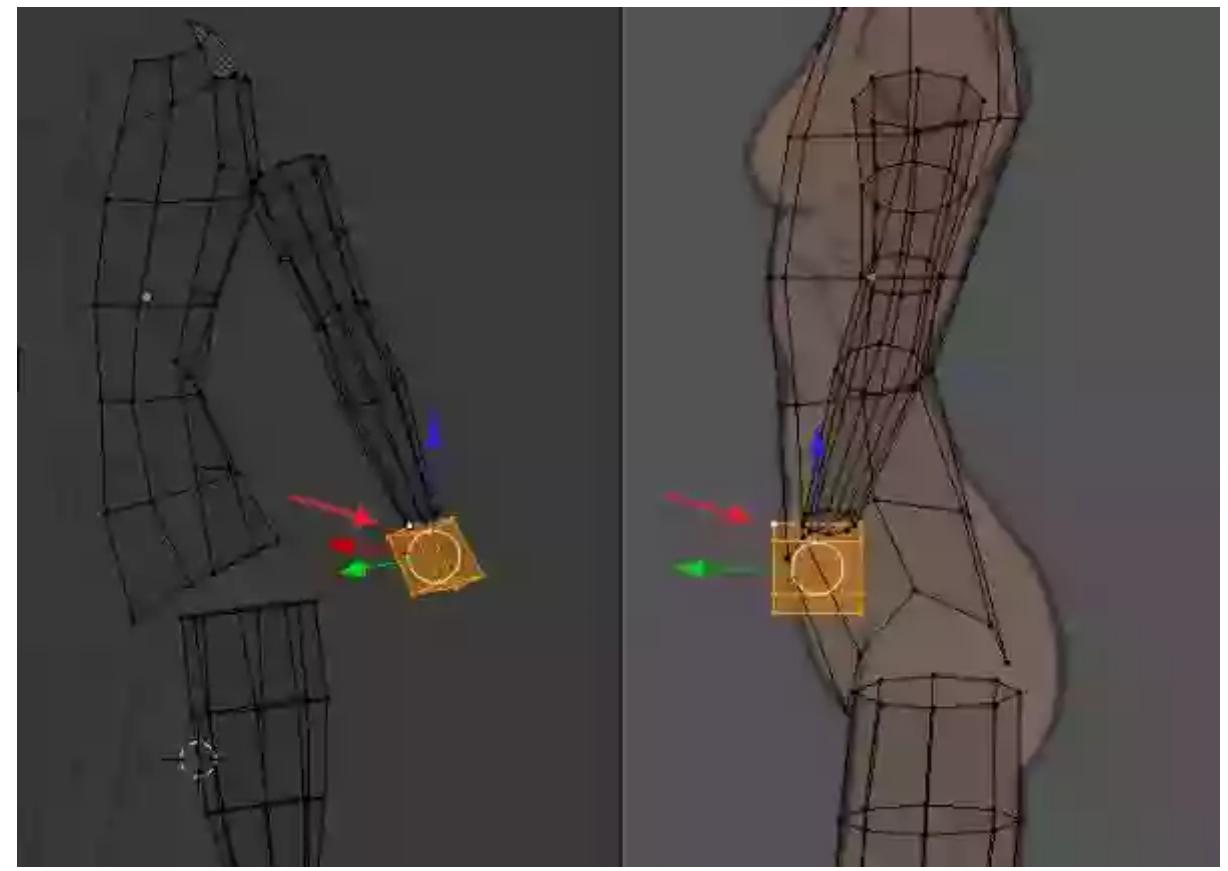
Step 2

With the **Cube** selected, **Scale** it down and place it in position according to the reference images in both the front and side views.



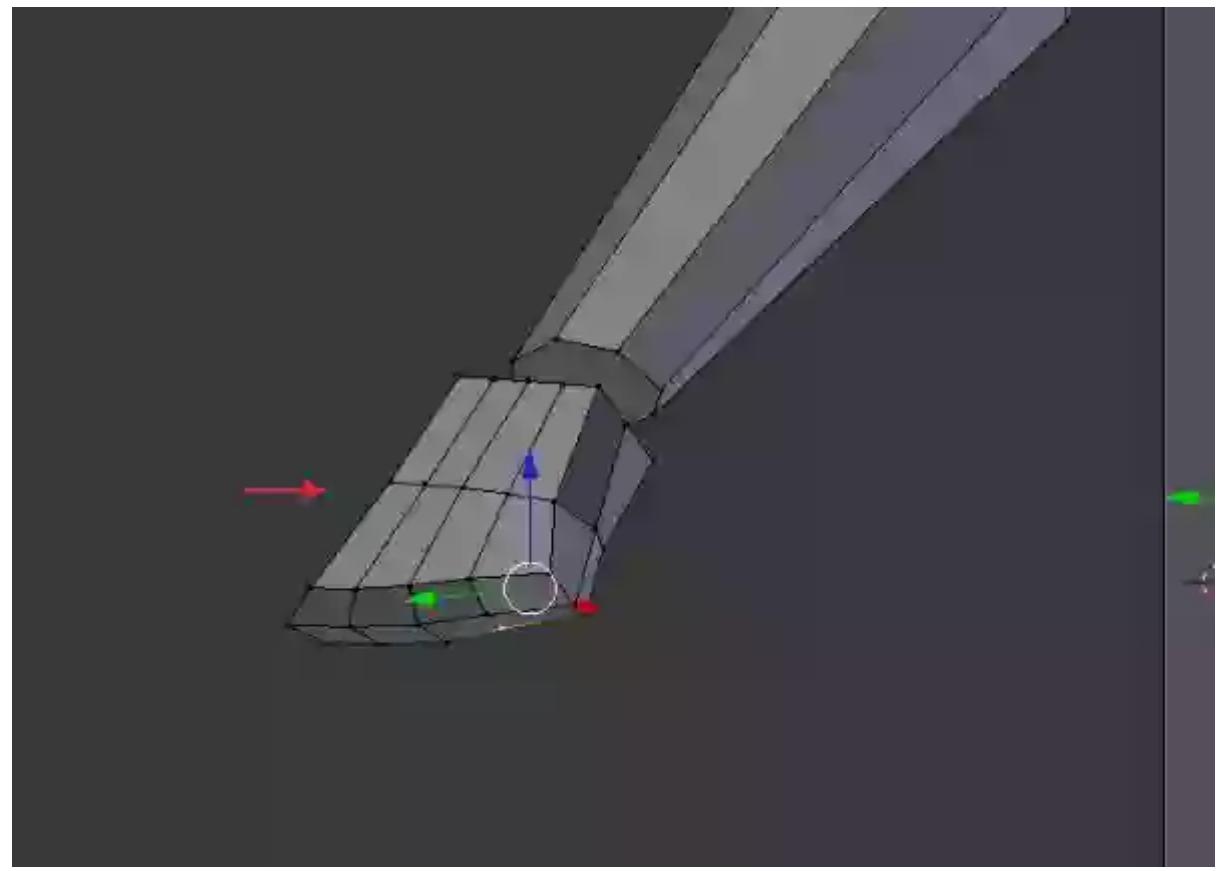
Step 3

In **Vertex** selection mode, reshape the cube to match the palm's shape.



Step 4

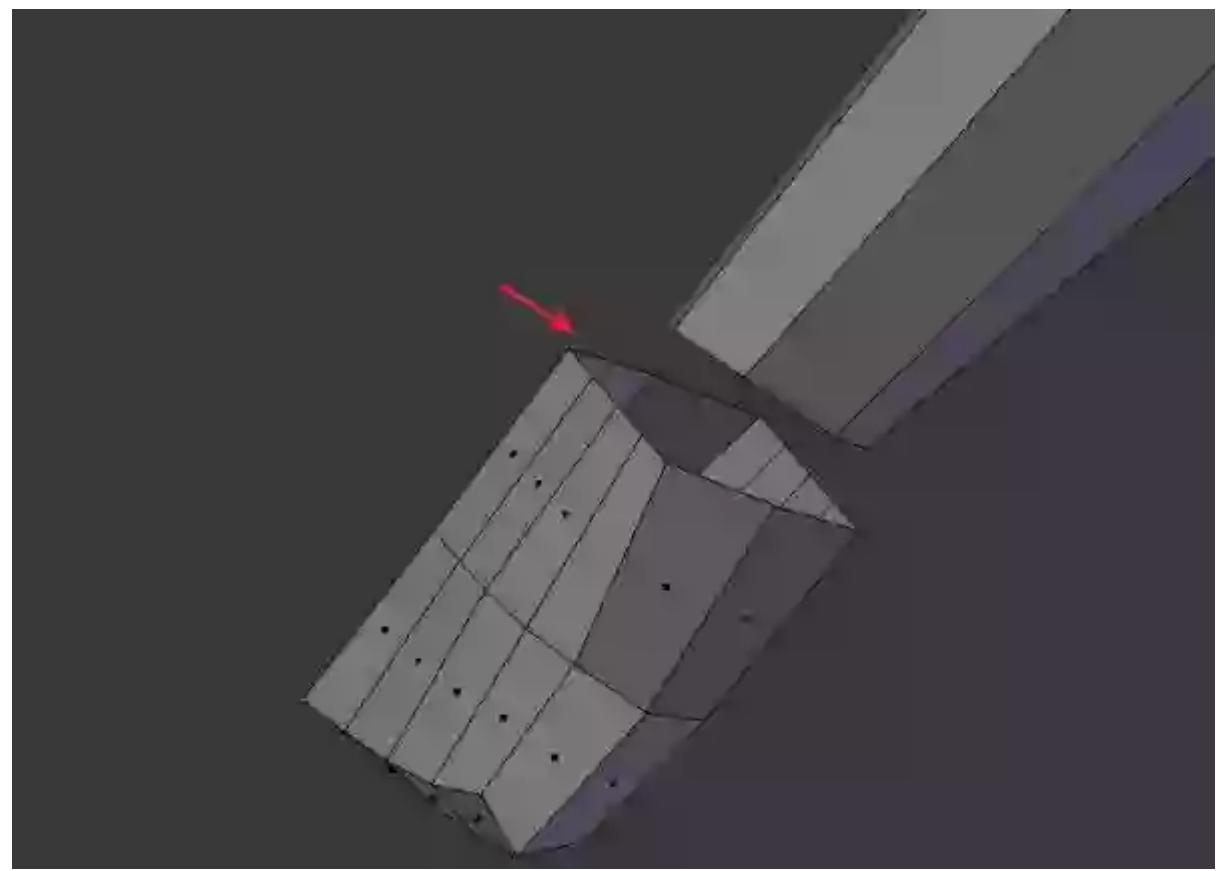
Subdivided the **Cube** by adding **three** new edge loops, and then adjust the mesh to better form the palm's shape.



Advertisement

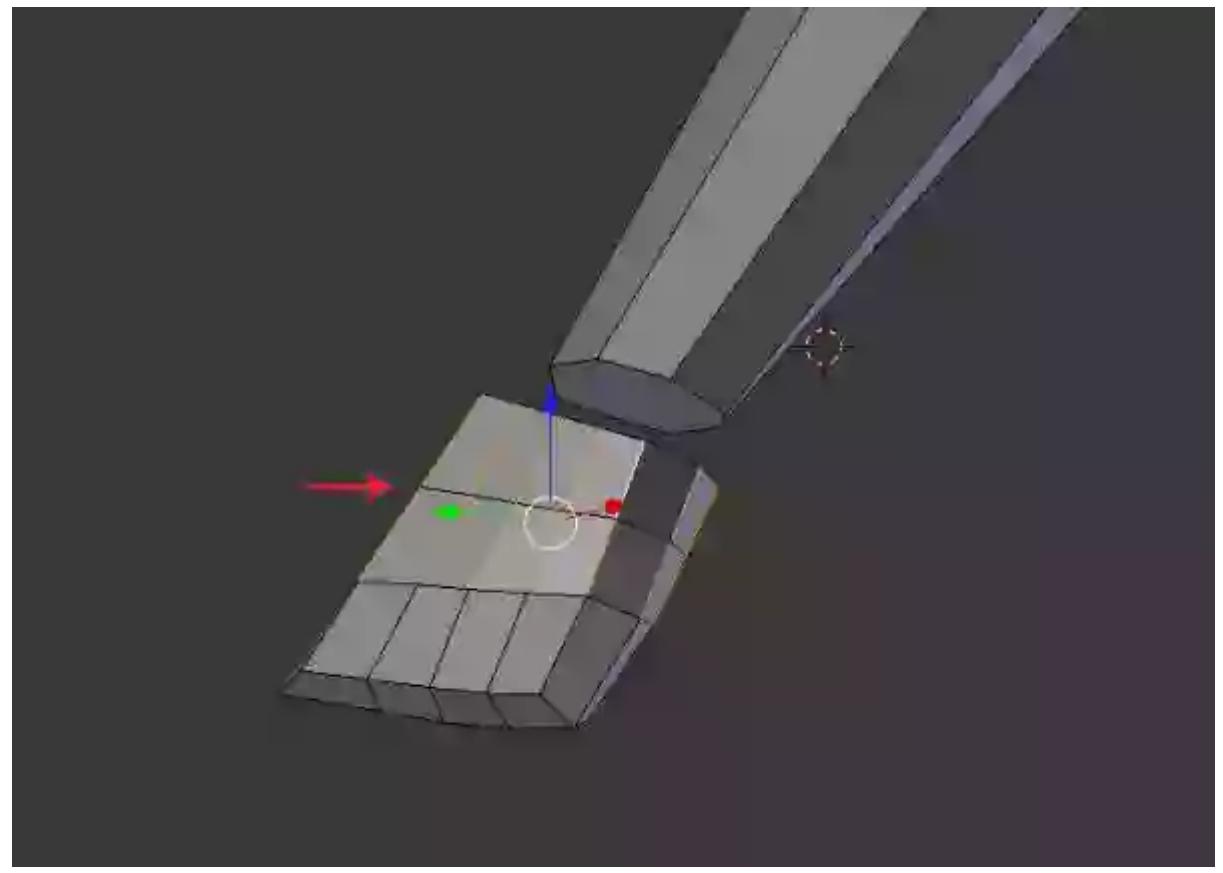
Step 5

Now arrange the vertices according to the cylindrical shape of the wrist.



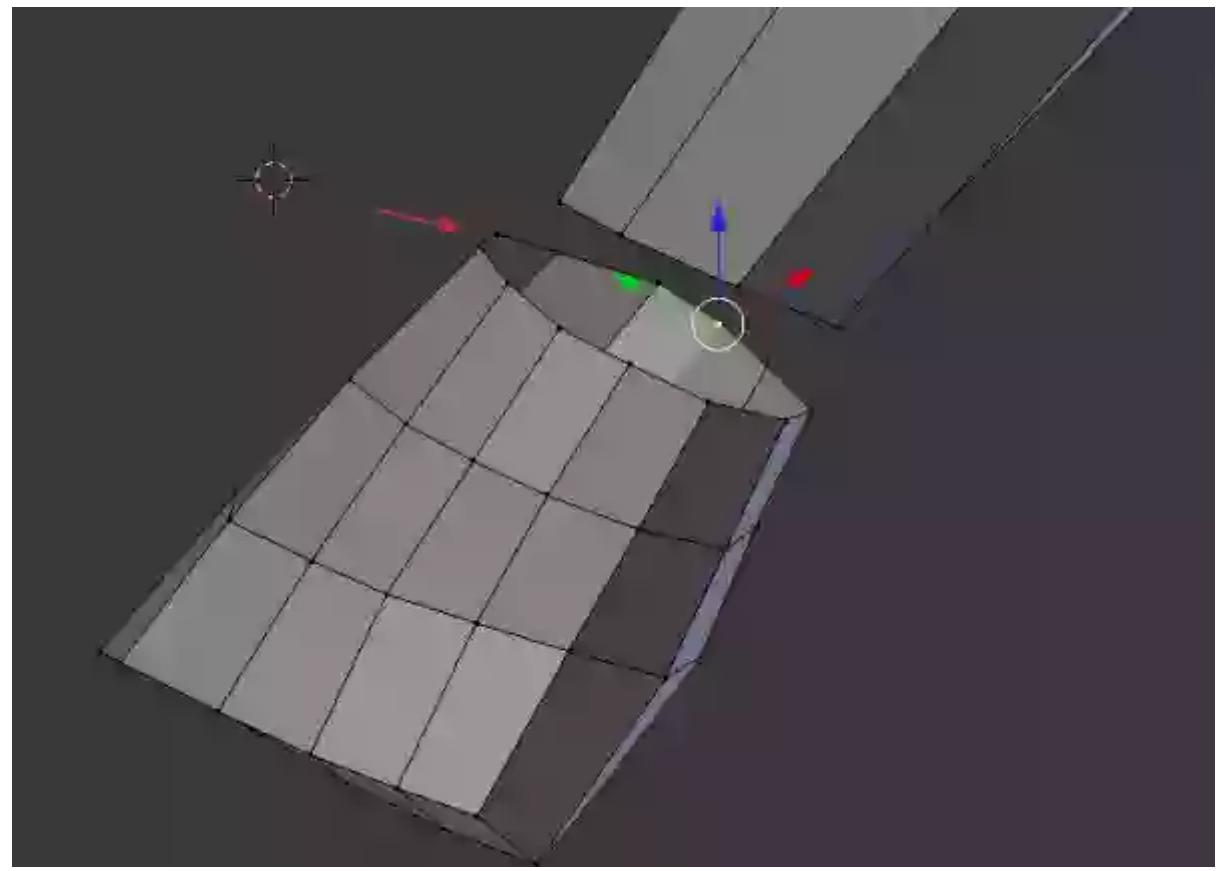
Step 6

Now we will make some space for the fingers. So subdivide the edge ring selection as shown.



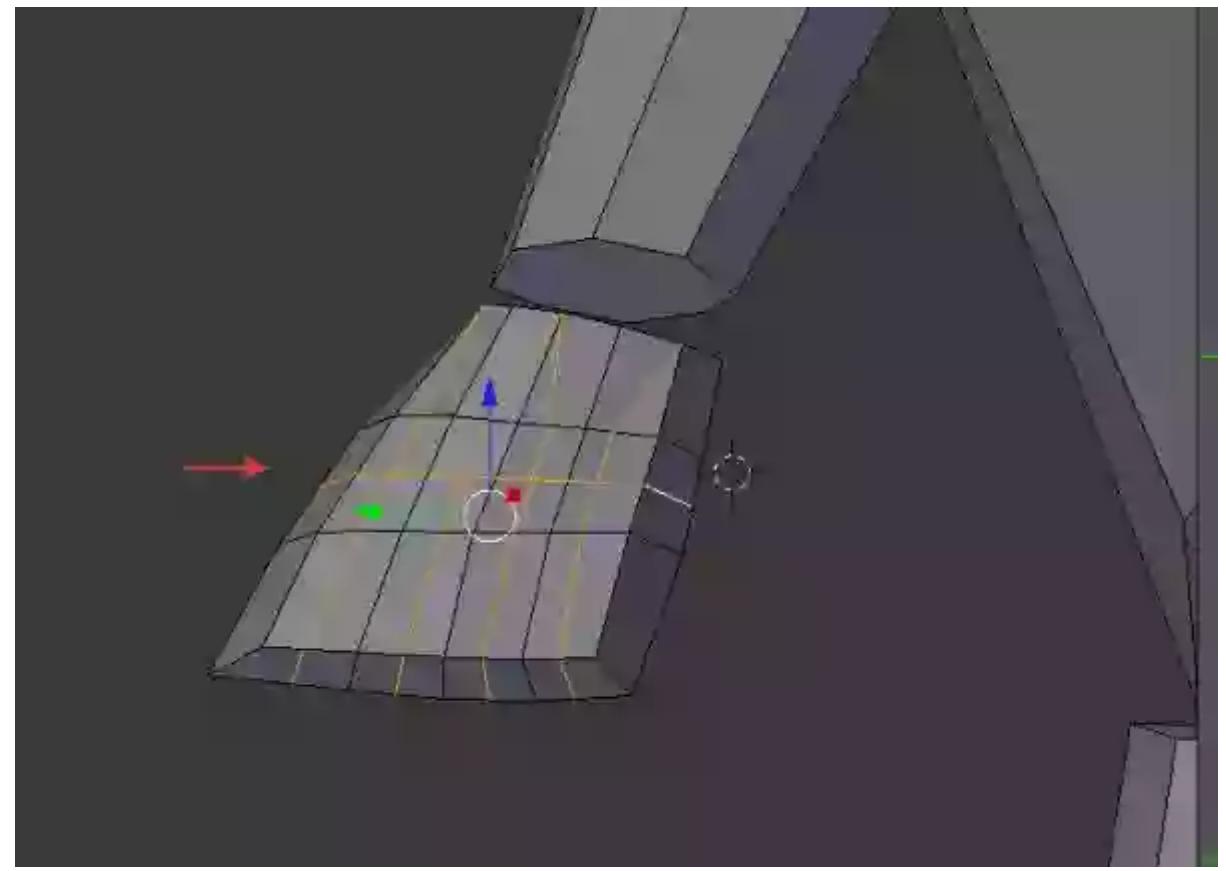
Step 7

Adjust the palm mesh vertices again according to the wrist joint.



Step 8

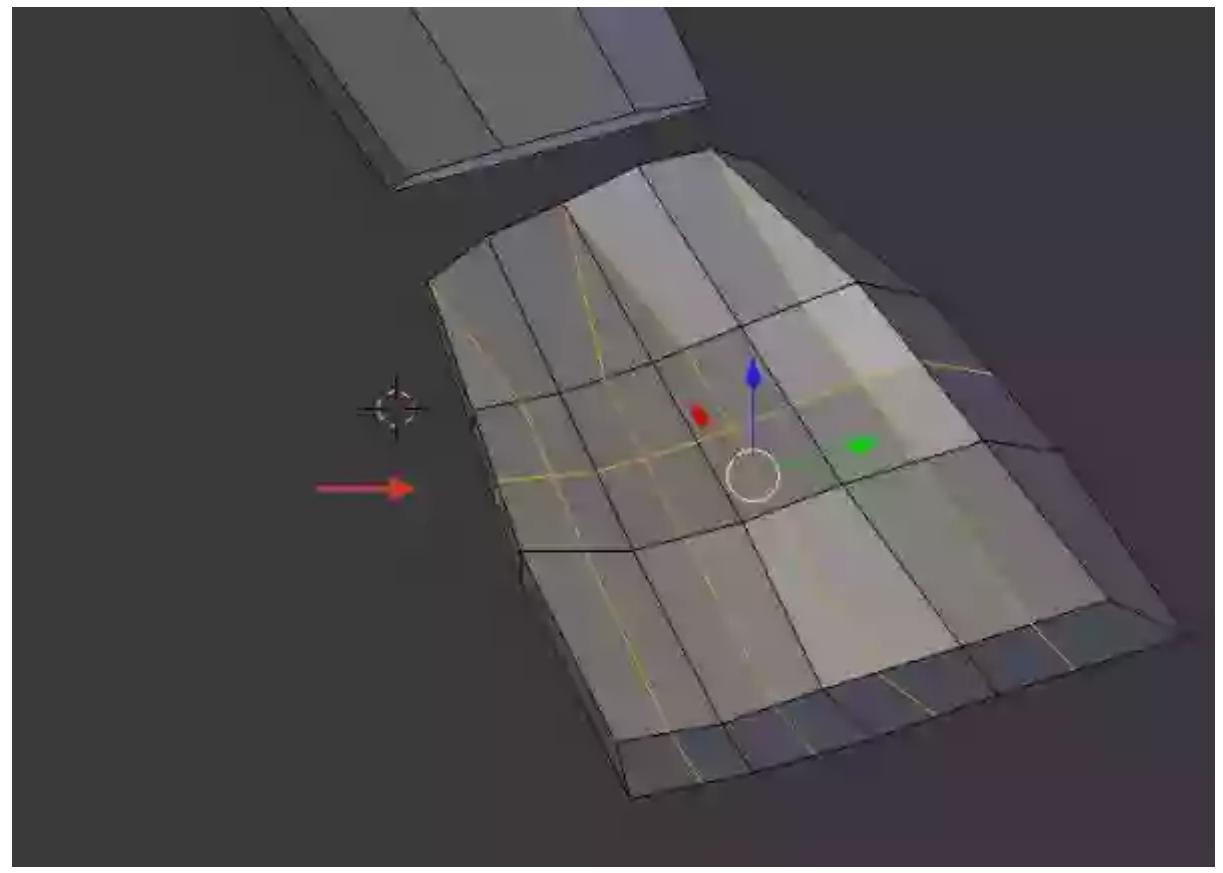
Now split the edges in between the fingers using the **Knife** tool as shown in the following image.



Step 9

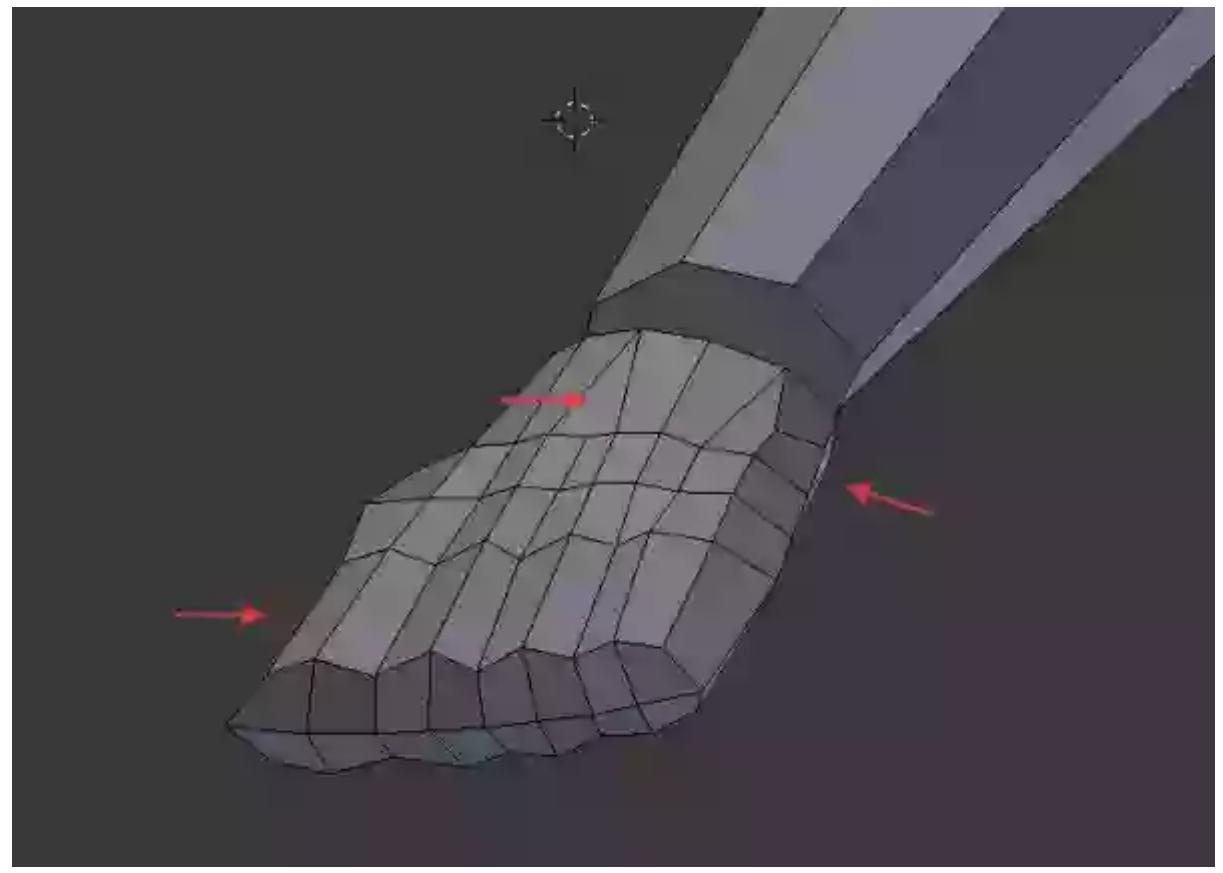
Also perform the same operation on the bottom side of the palm.

It should now look like this.



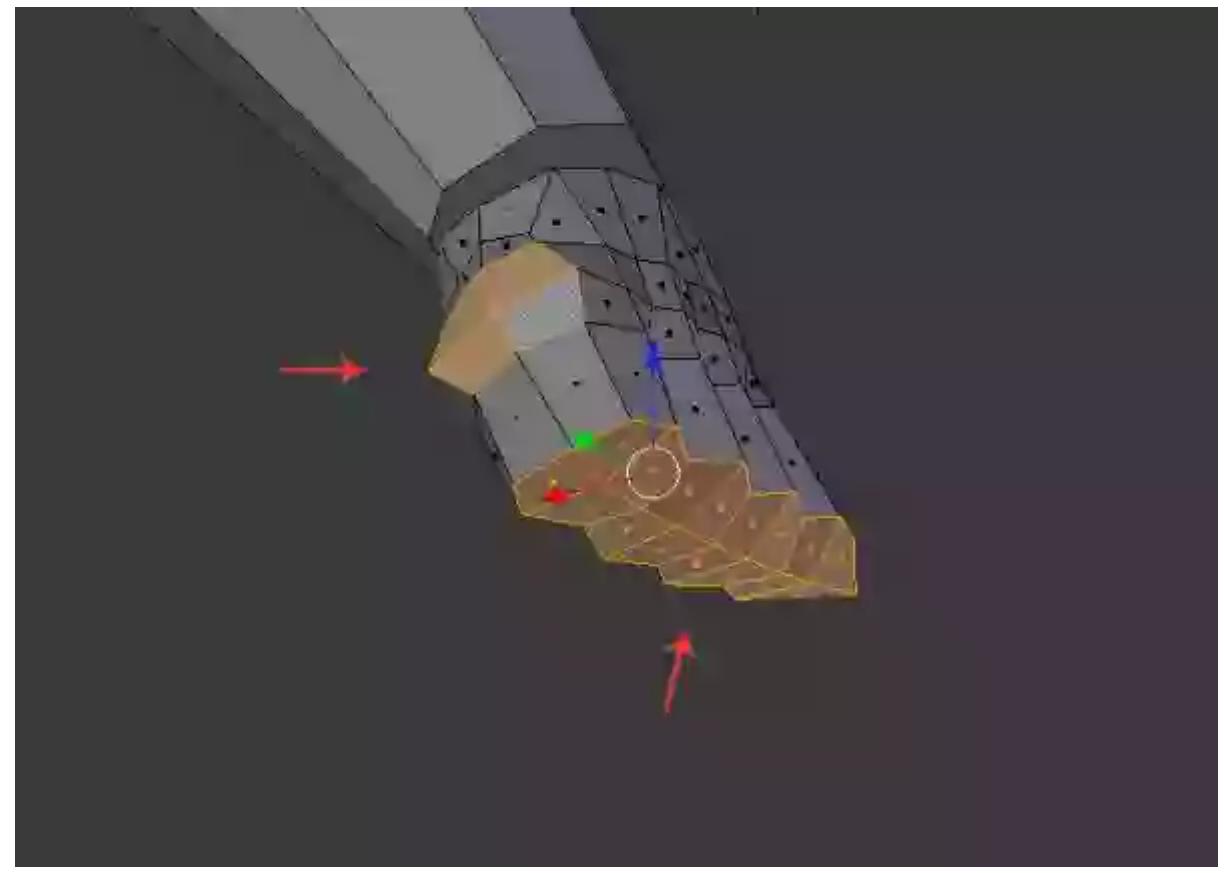
Step 10

Delete the tri edges and adjust the mesh for the fingers joints.



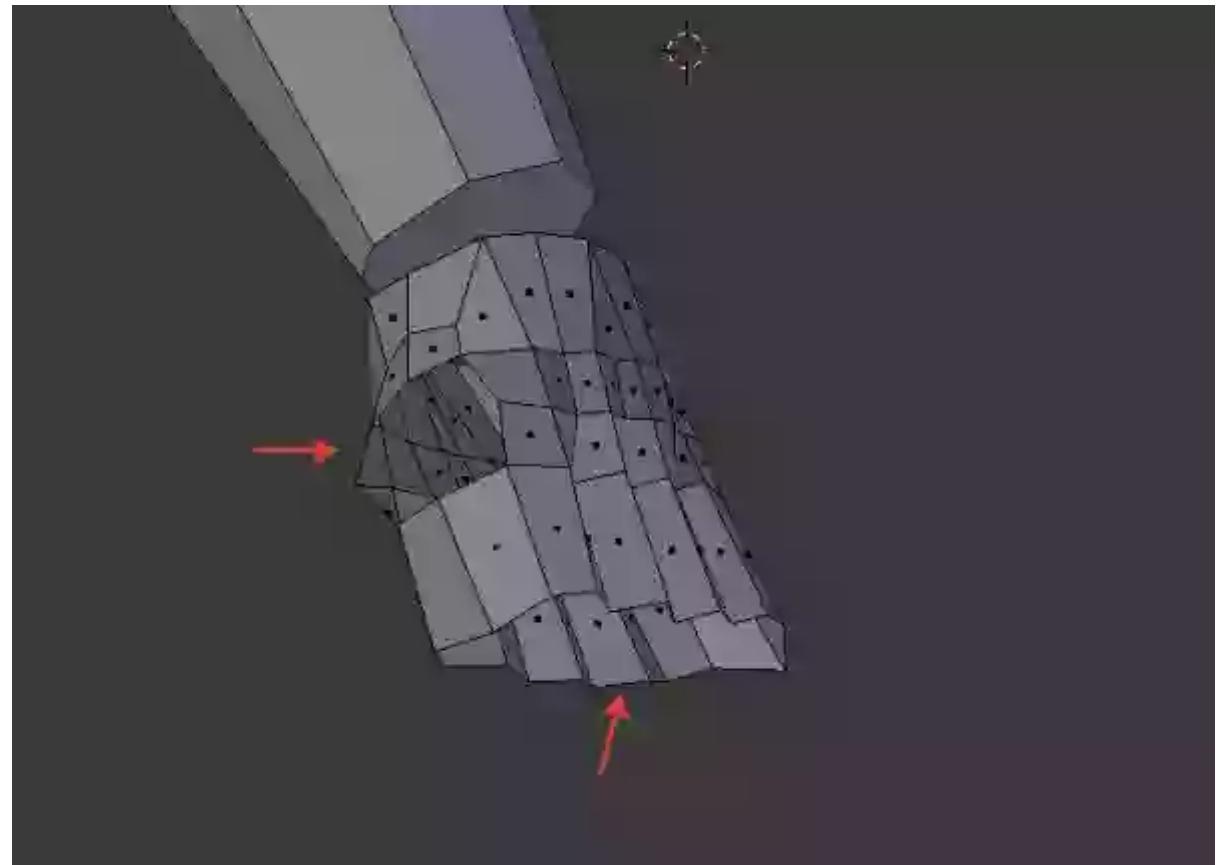
Step 11

Select the cap faces of the fingers and delete them.



Step 12

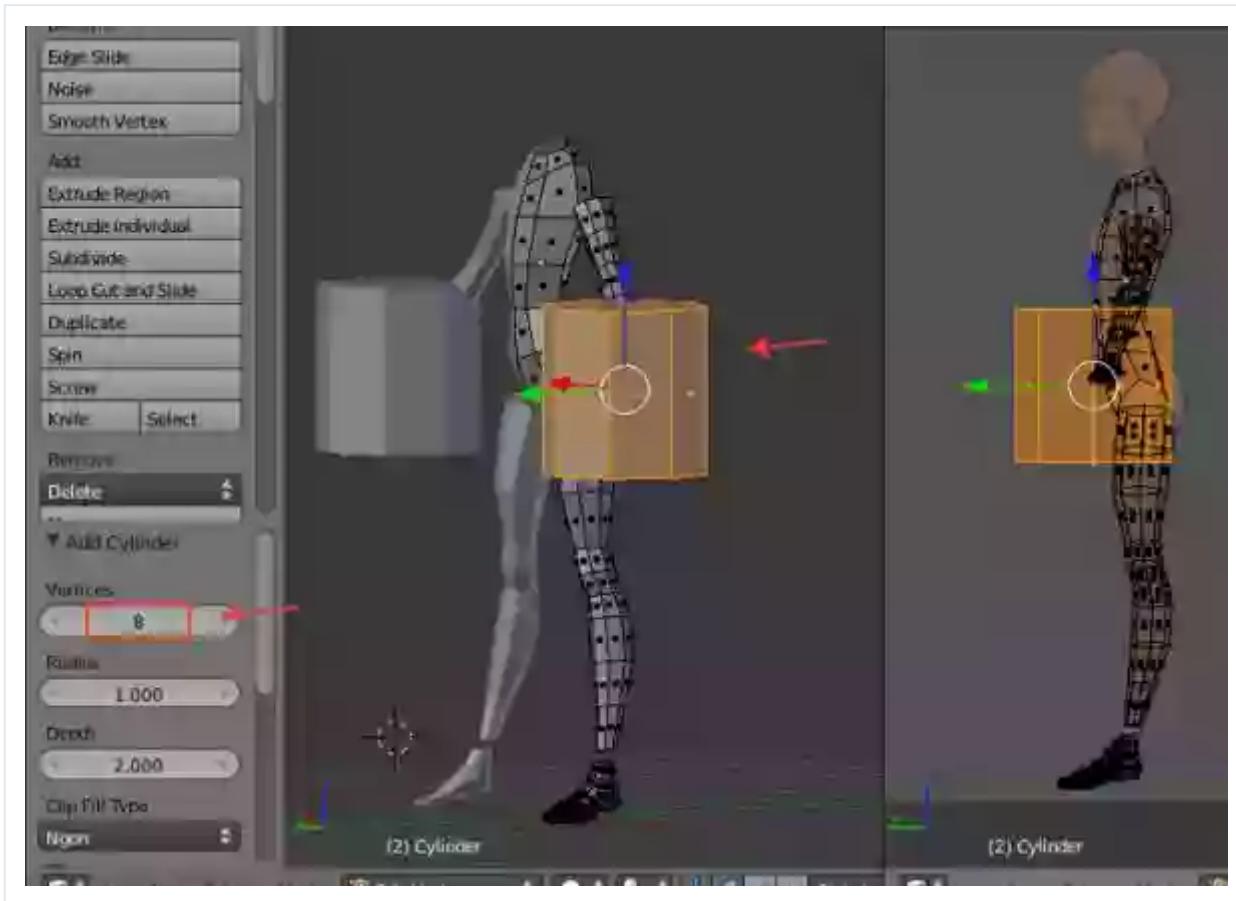
Once done, the mesh should look like this.



2. Blocking the Fingers

Step 1

Now we will create the fingers. So create a new **Cylinder** mesh with **8 Vertices**.



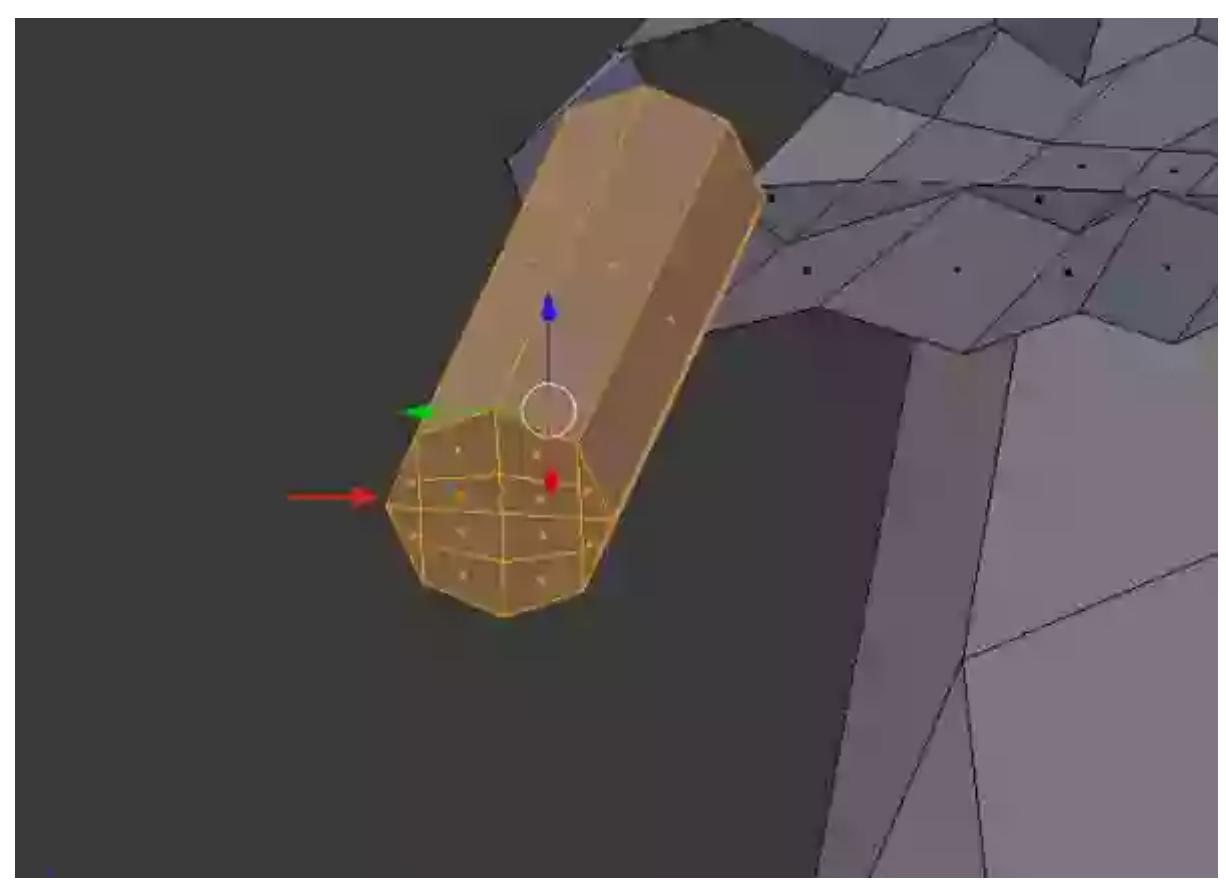
Step 2

Scale it down and then position it at the index finger location as shown.



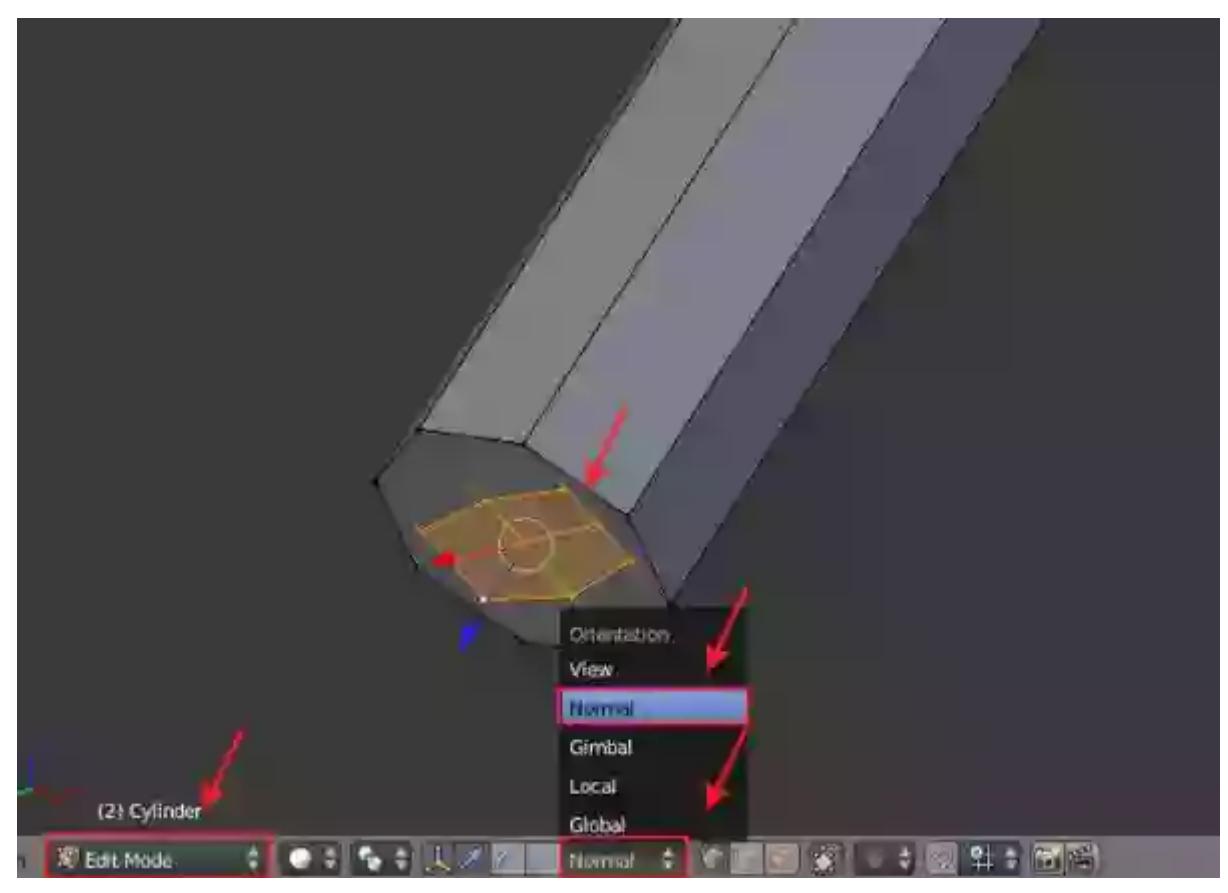
Step 3

Subdivide the tip of the finger mesh as shown using the **Knife** tool.



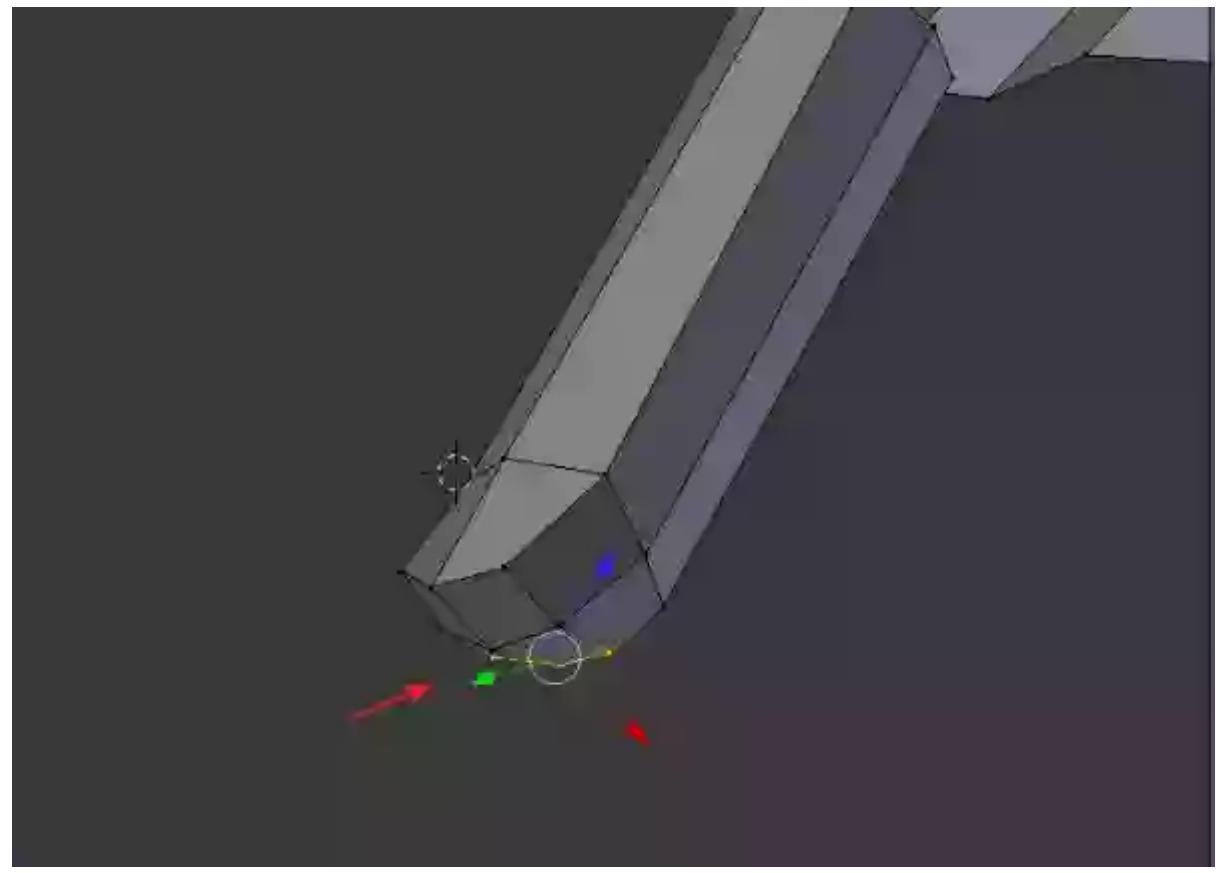
Step 4

While in **Edit Mode** and **Normal mode**, select all the *centre* vertices of the finger's cap faces.



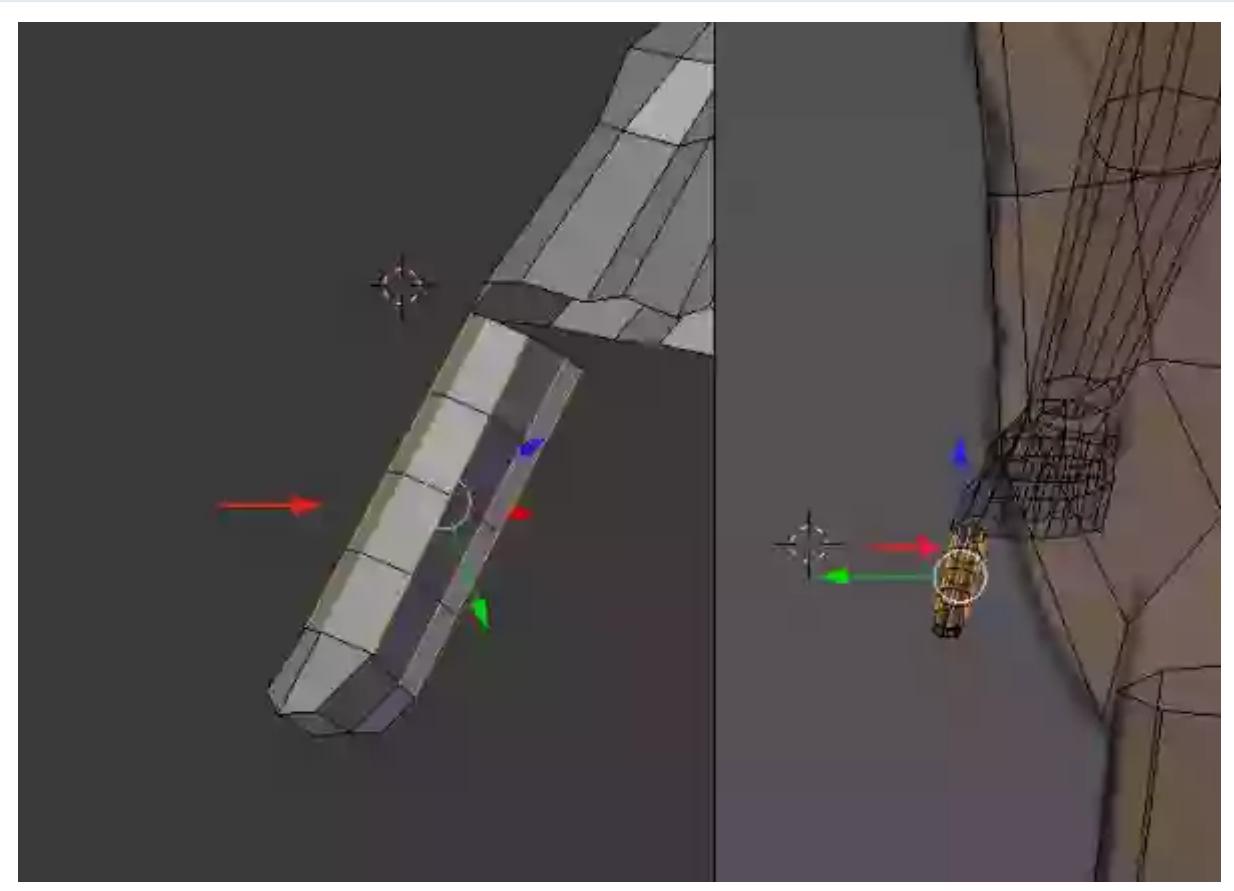
Step 5

Then edit the vertices to create something similar to what's shown below.



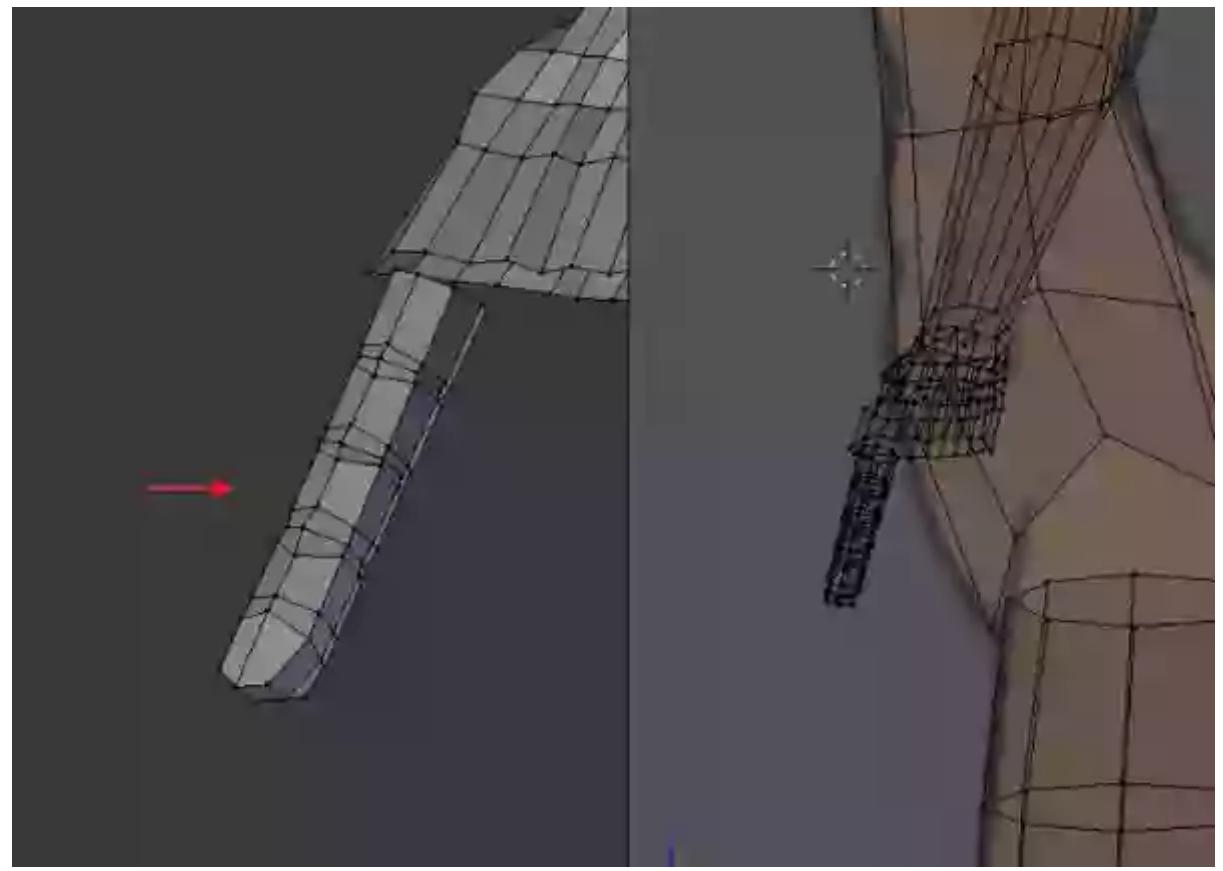
Step 6

To add more detail to the finger, we need to subdivide the mesh.
So insert **three** new edge loops.



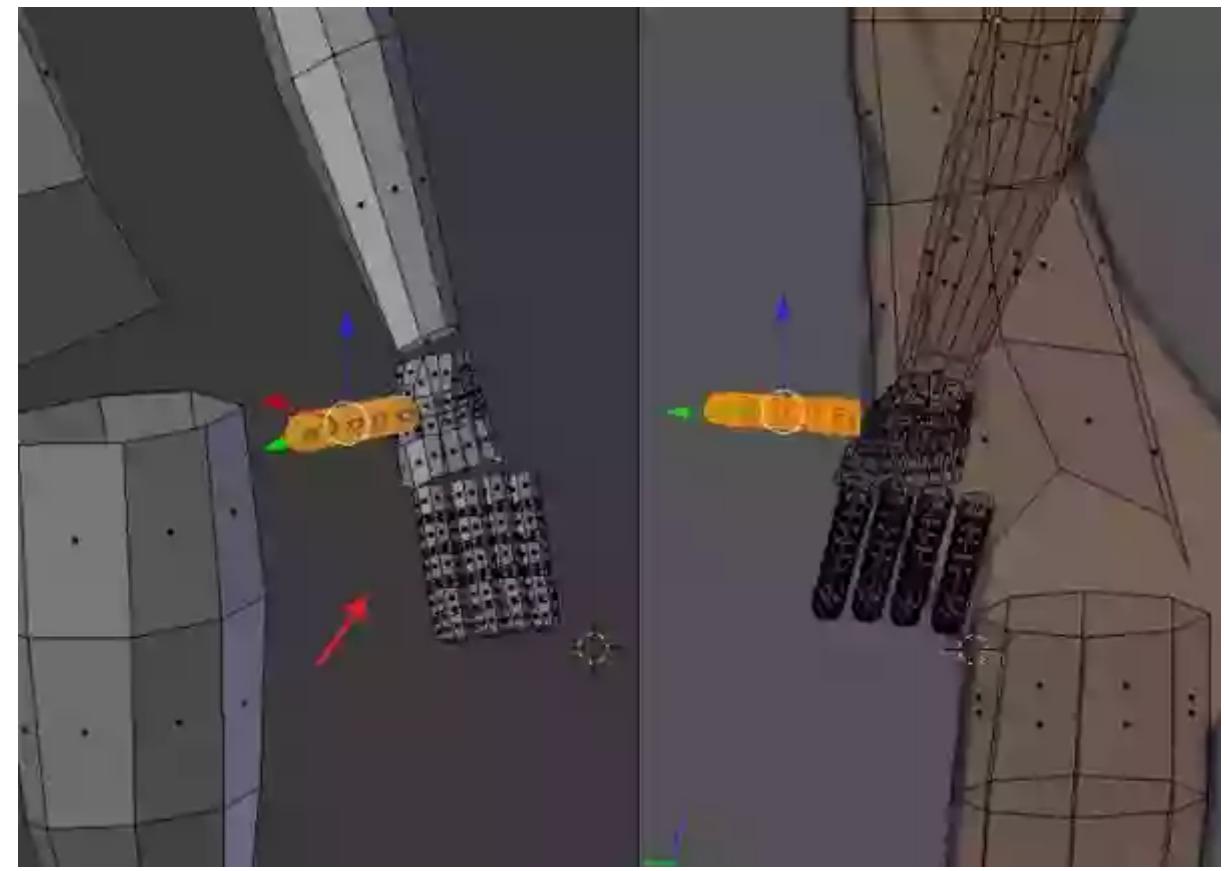
Step 7

Further subdivide offset edges for each fold of the finger as shown in the following image.



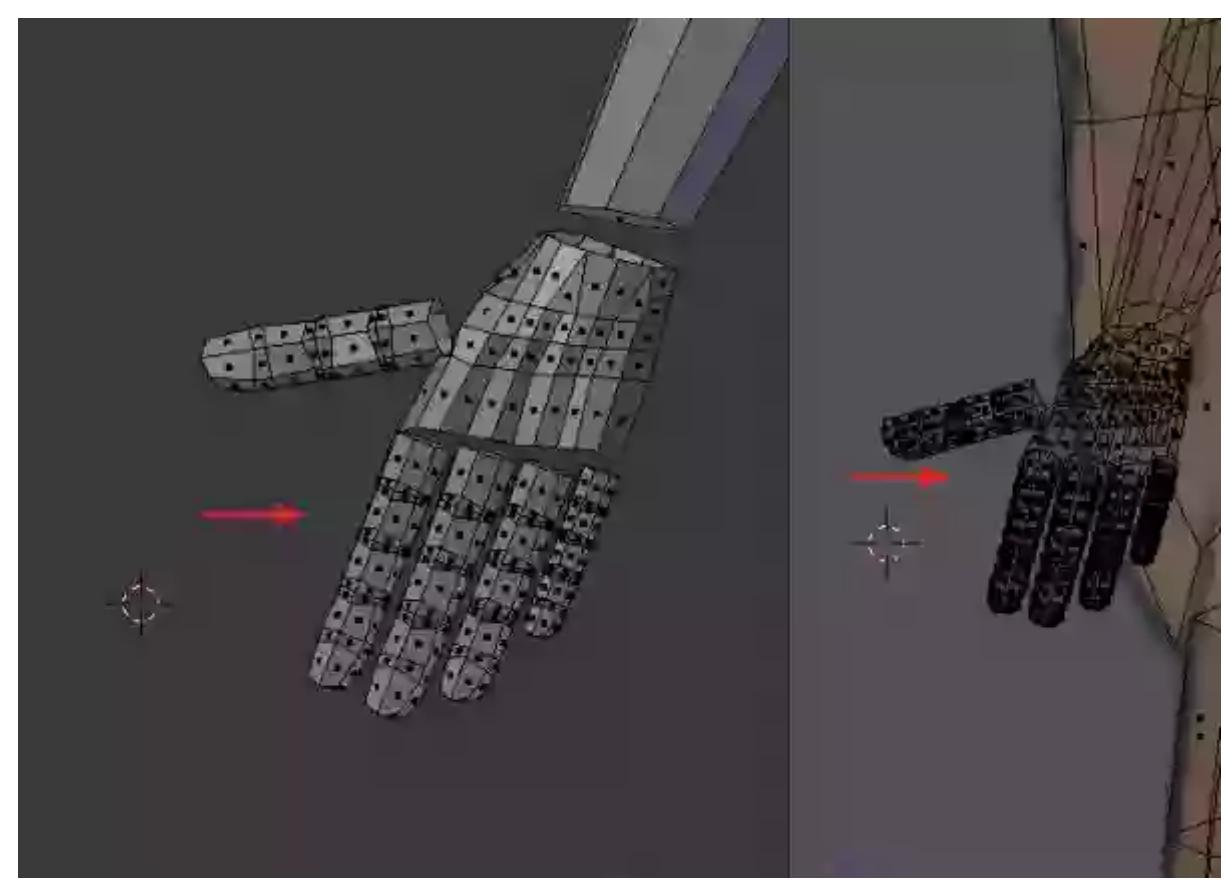
Step 8

Make **four** copies of the finger mesh, and position a copy to correspond with the location of each remaining finger.



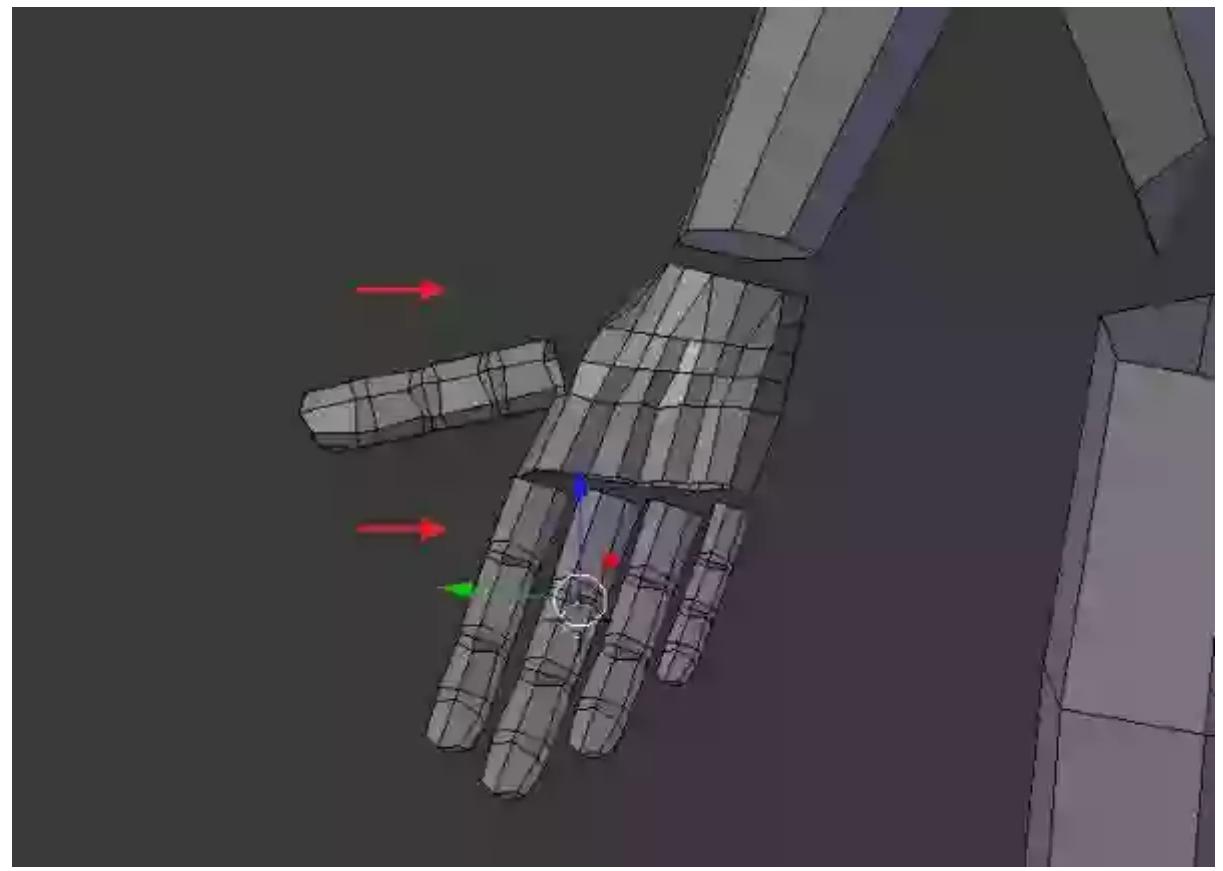
Step 9

Scale down each finger according to its nature and position. Once done, it should now look like this.



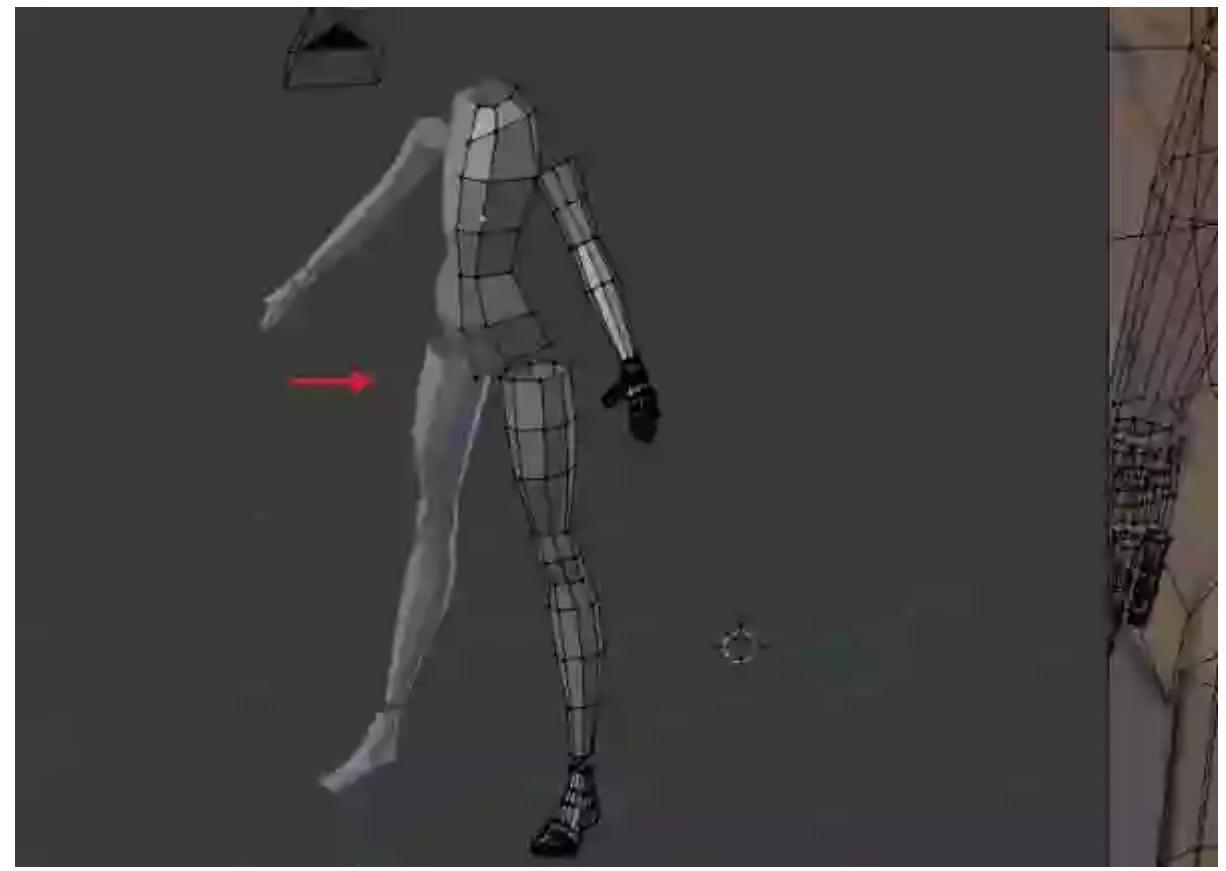
Step 10

Through this process we have now completed the blocking for our palm and fingers. Now we will combine all the parts together to form the basic and complete character mesh.



Step 11

All parts of the body are ready to be combined.

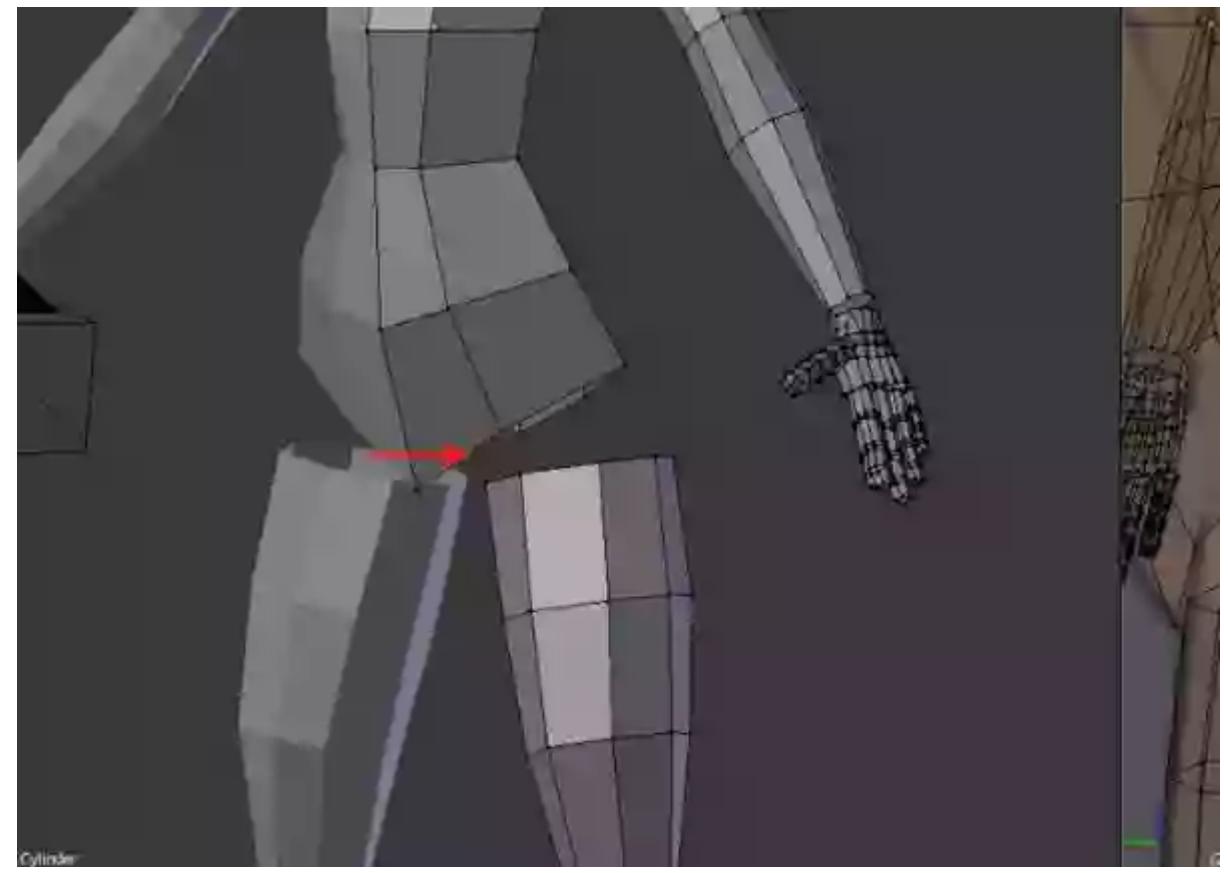


3. Combining the Legs & Torso

Step 1

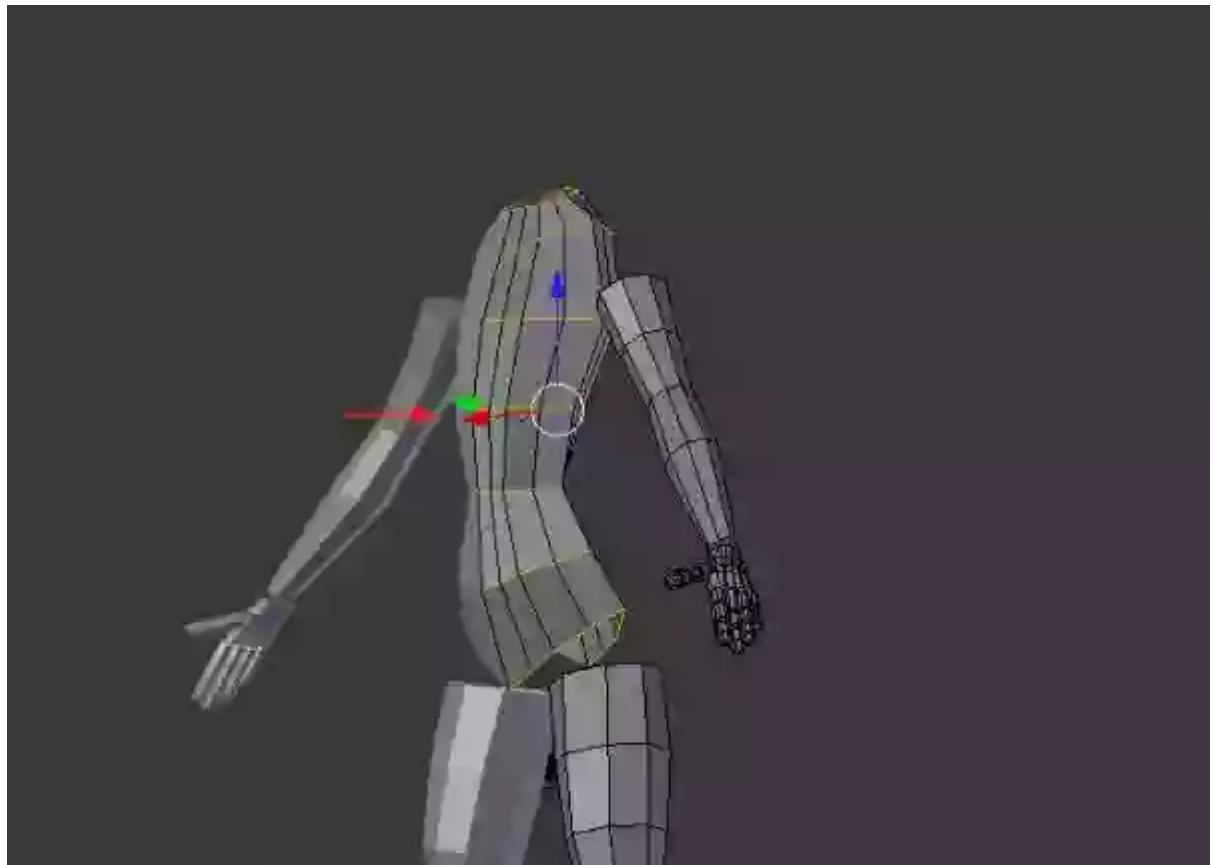
Before we connect the leg and torso parts together, let's count the border vertices so we will have an equal and parallel connection.

Here we have to subdivide the torso to increase the amount of edges so we can merge the vertices together.



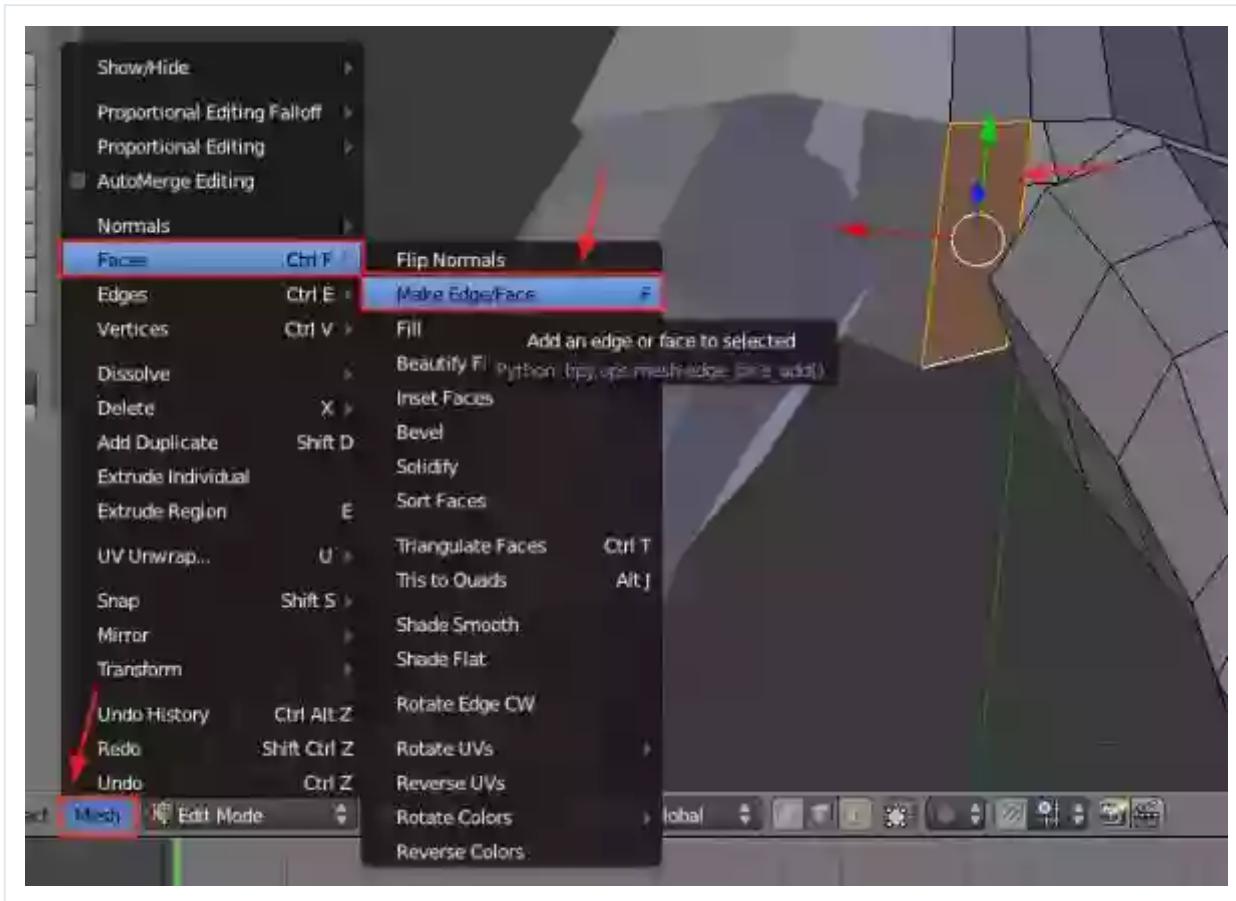
Step 2

With the torso edges selected vertically, subdivide them **once**.



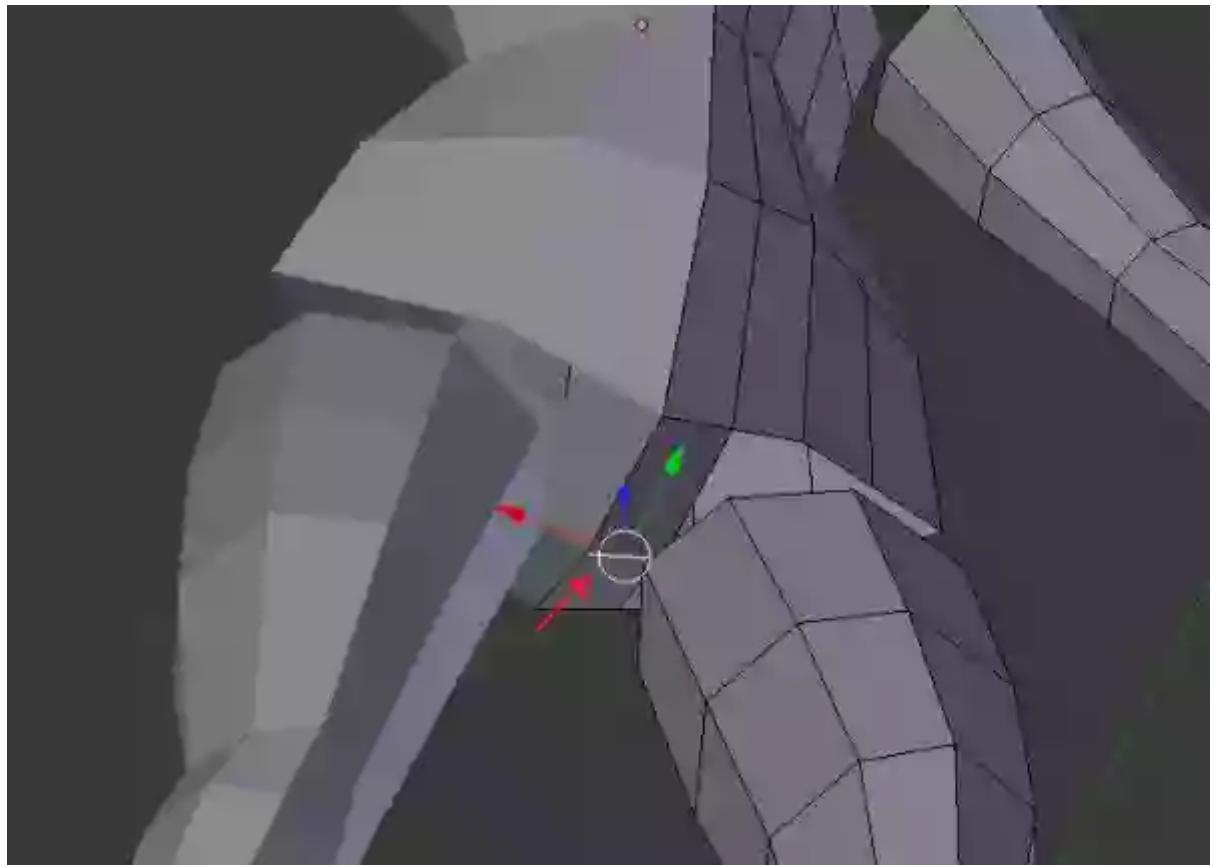
Step 3

In **Edge** selection mode, select the two parallel edges at the bottom of the torso mesh. With the edges selected, go to **Mesh > Faces > Make Edge/Face** (or press the **F** key) to create a bridged face.



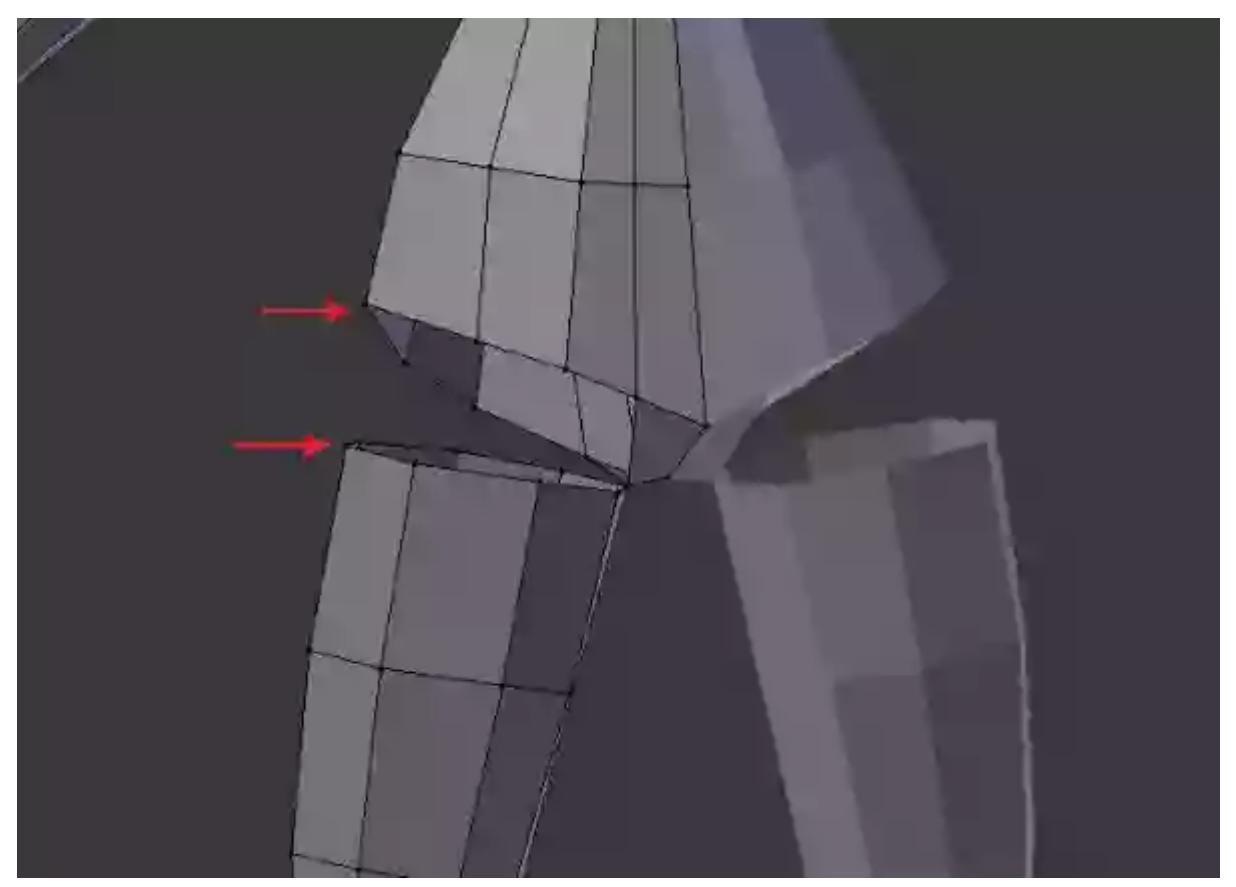
Step 4

Split the new face across the middle to create a subdivision.



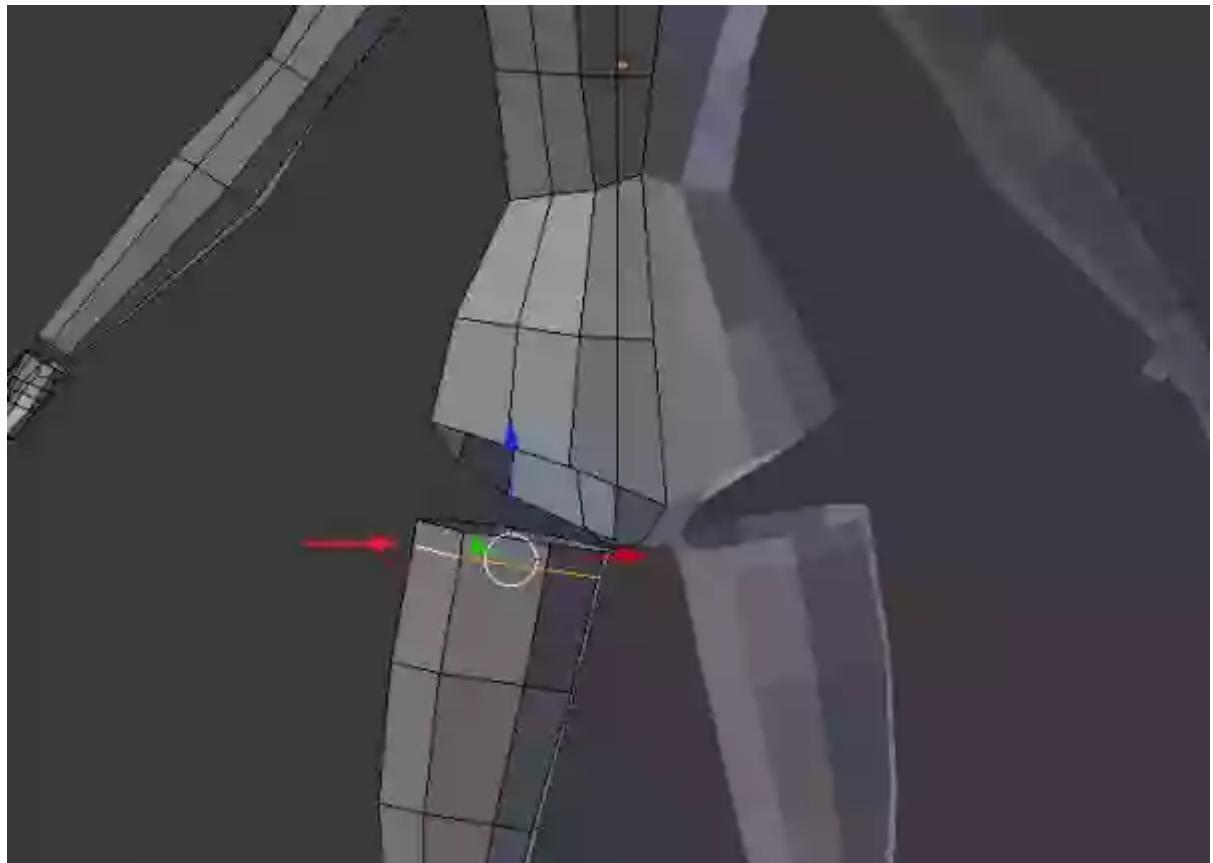
Step 5

The torso and leg meshes now have the same amount of parallel, equal vertices. So we can merge the vertices together easily.



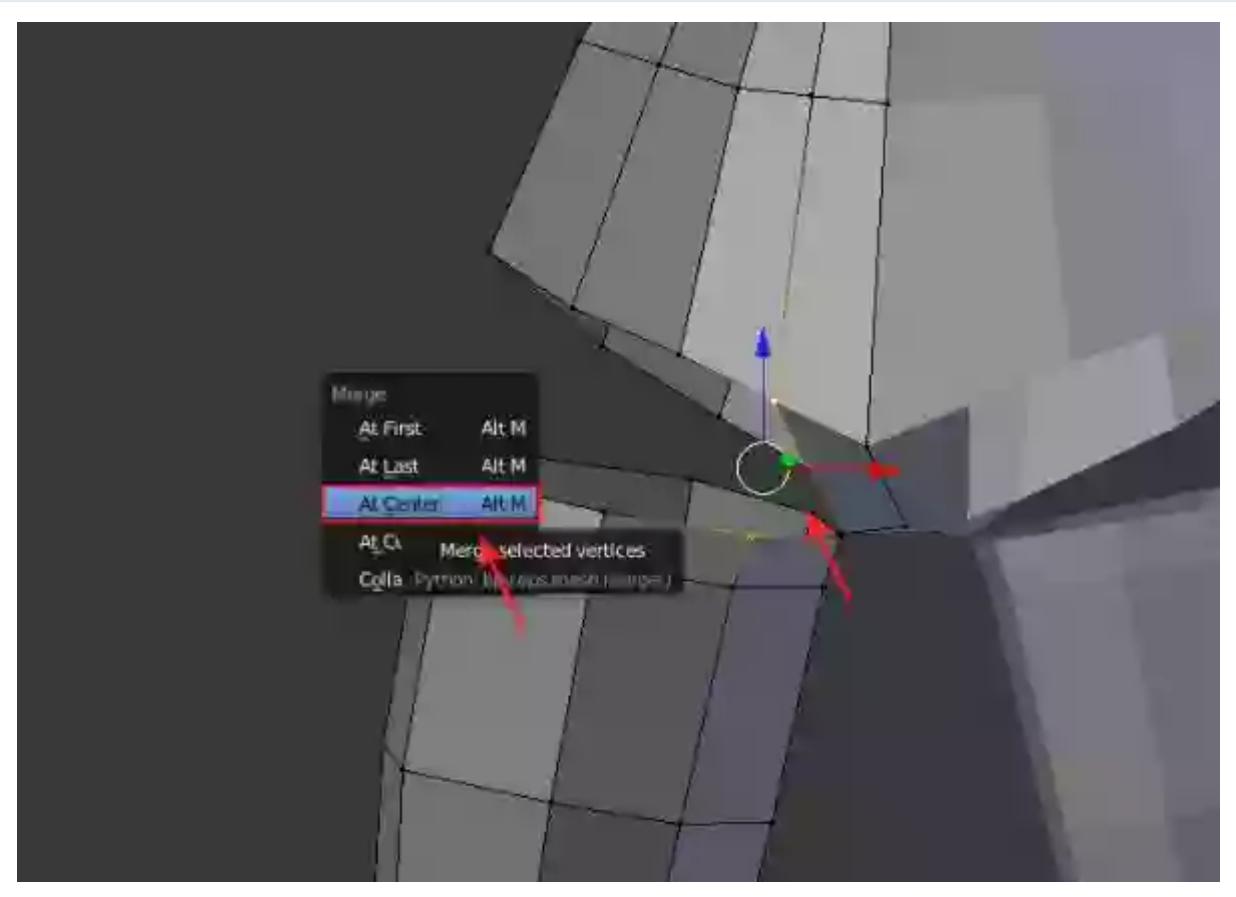
Step 6

Insert a supporting edge loop around the the upper leg as shown..



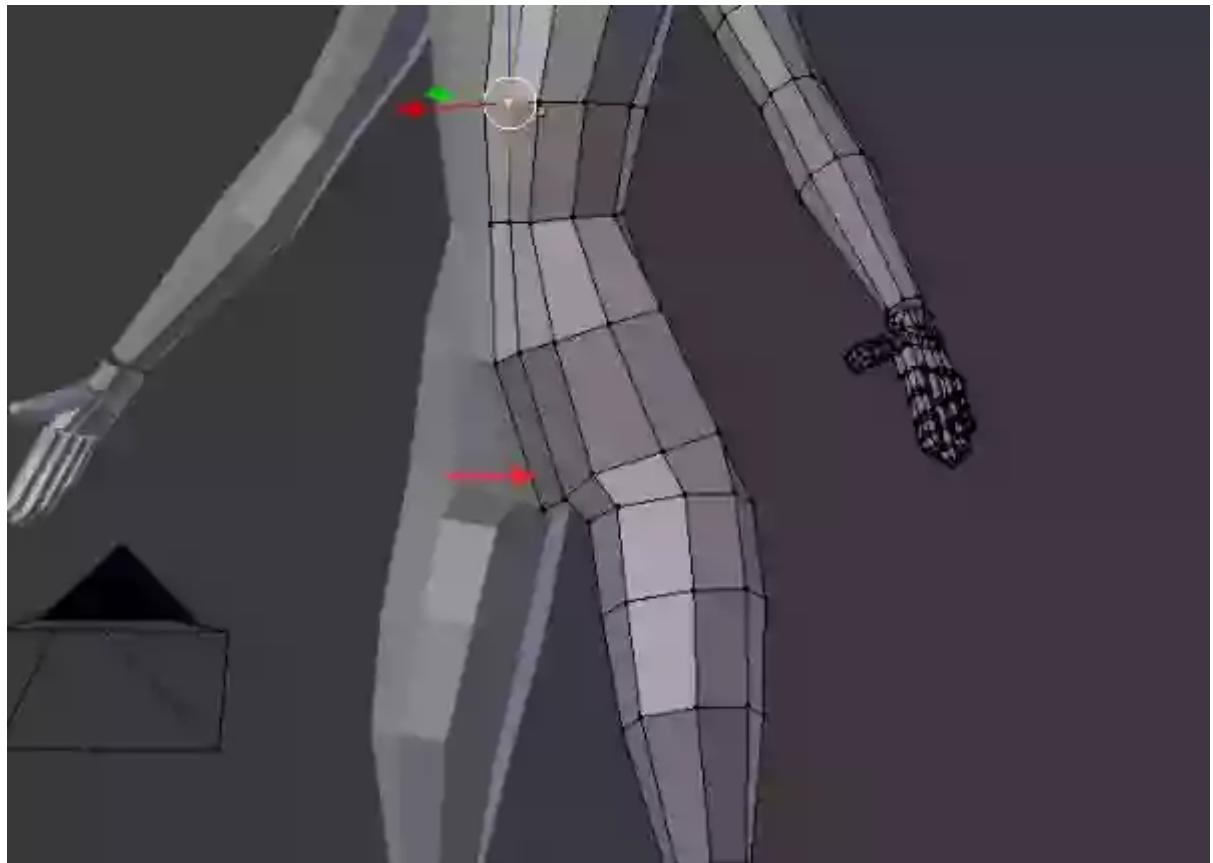
Step 7

Now with the two parallel and corresponding vertices selected on both the torso and leg meshes, press **Alt-M** and select the **At Center** option to merge them together.



Step 8

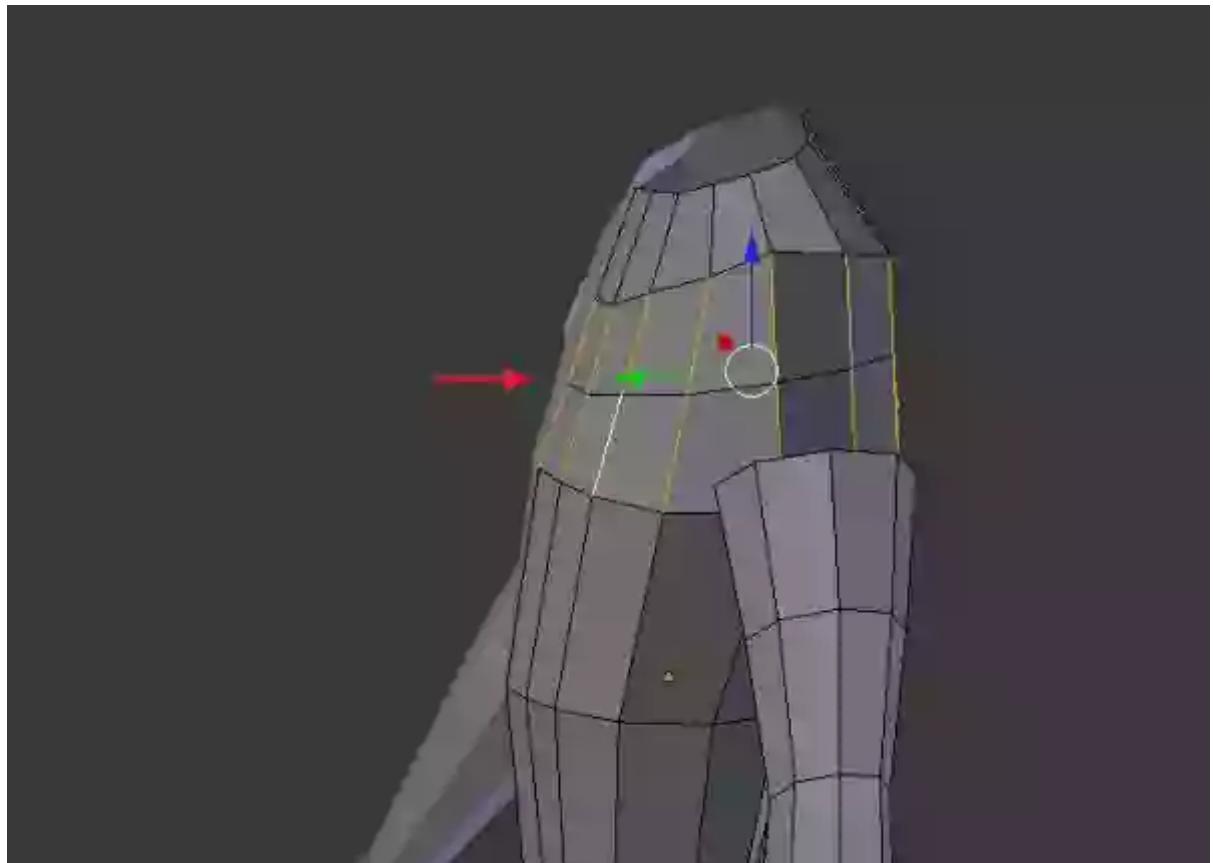
Following the same procedure. Merge all the corresponding, parallel vertices together one by one until the entire leg is attached to the torso.



4. Creating the Shoulder & Combining it with the Arm

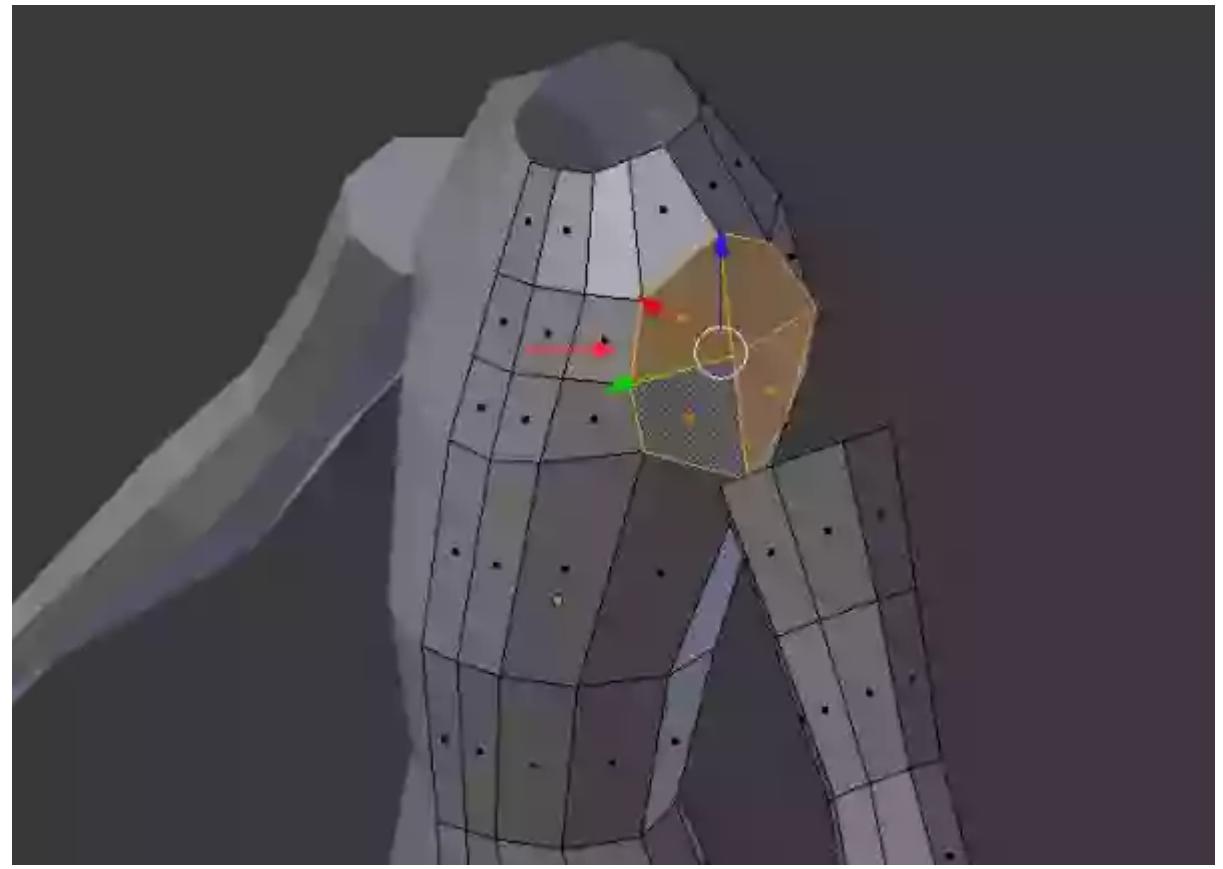
Step 1

Now let's work on the shoulder. Select the ring of edges around the shoulder and then subdivide them **once**.



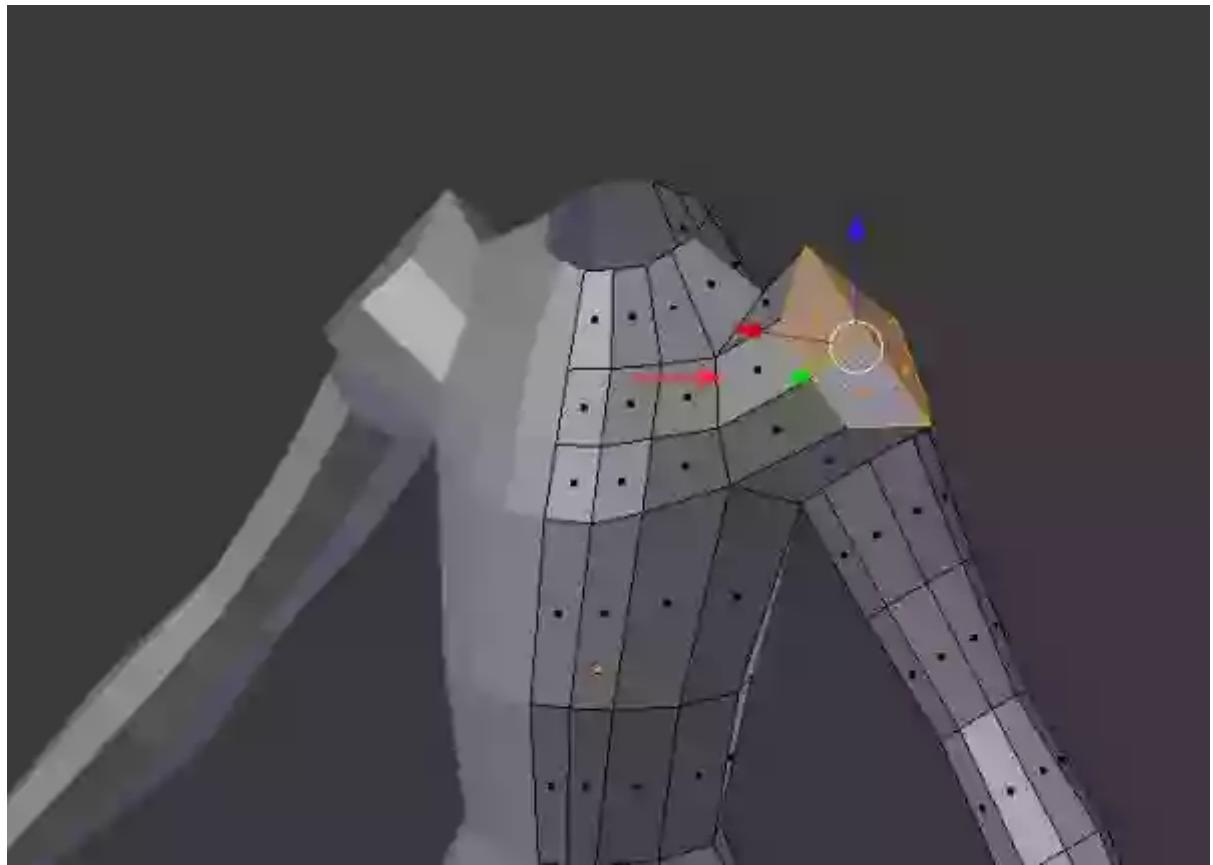
Step 2

Select the indicated outer faces and edit them to create a round shape.



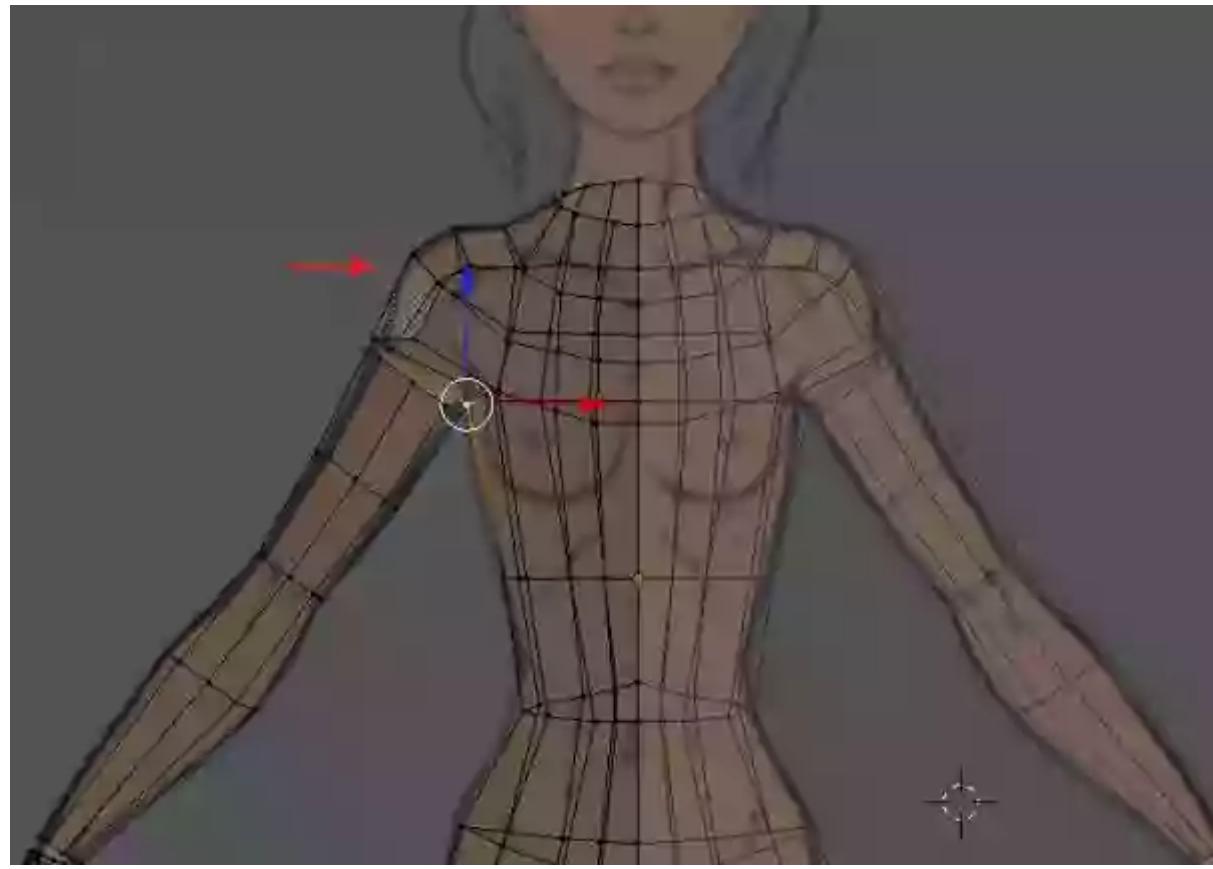
Step 3

With the faces still selected, press the **E** key to **Extrude** and then drag the faces outward a bit to form the shoulder's shape.



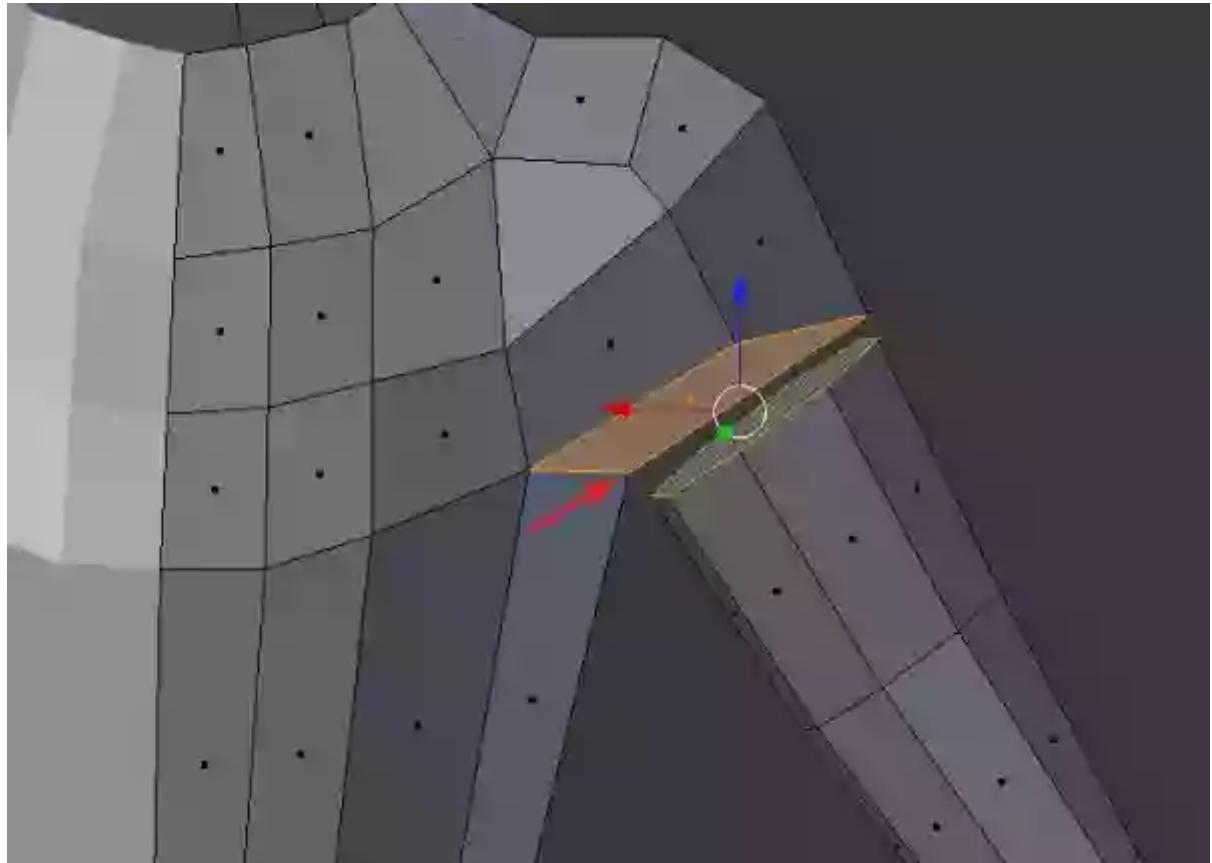
Step 4

Jump into the **Front** view and adjust the shoulder vertices to match up with the reference image in the background.



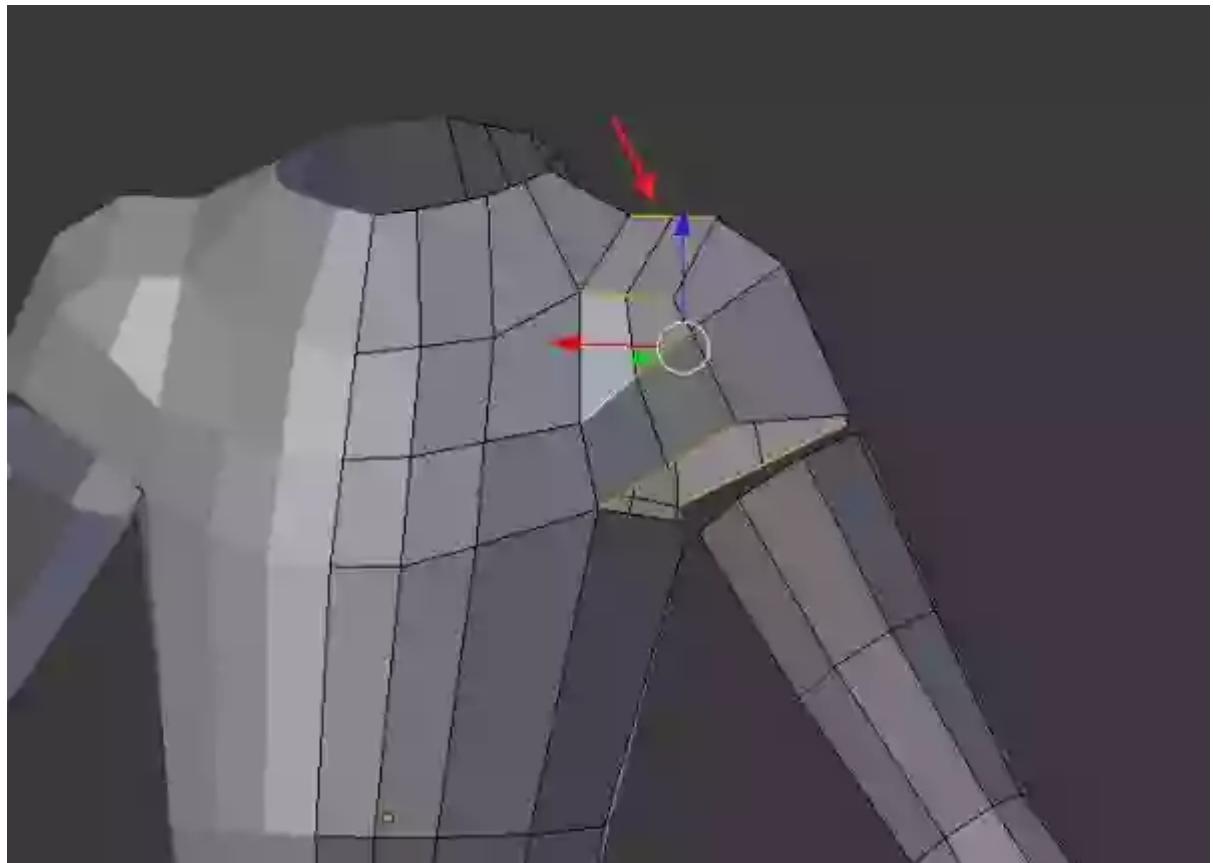
Step 5

Now select and delete the cap faces on both the arm and the shoulder meshes.



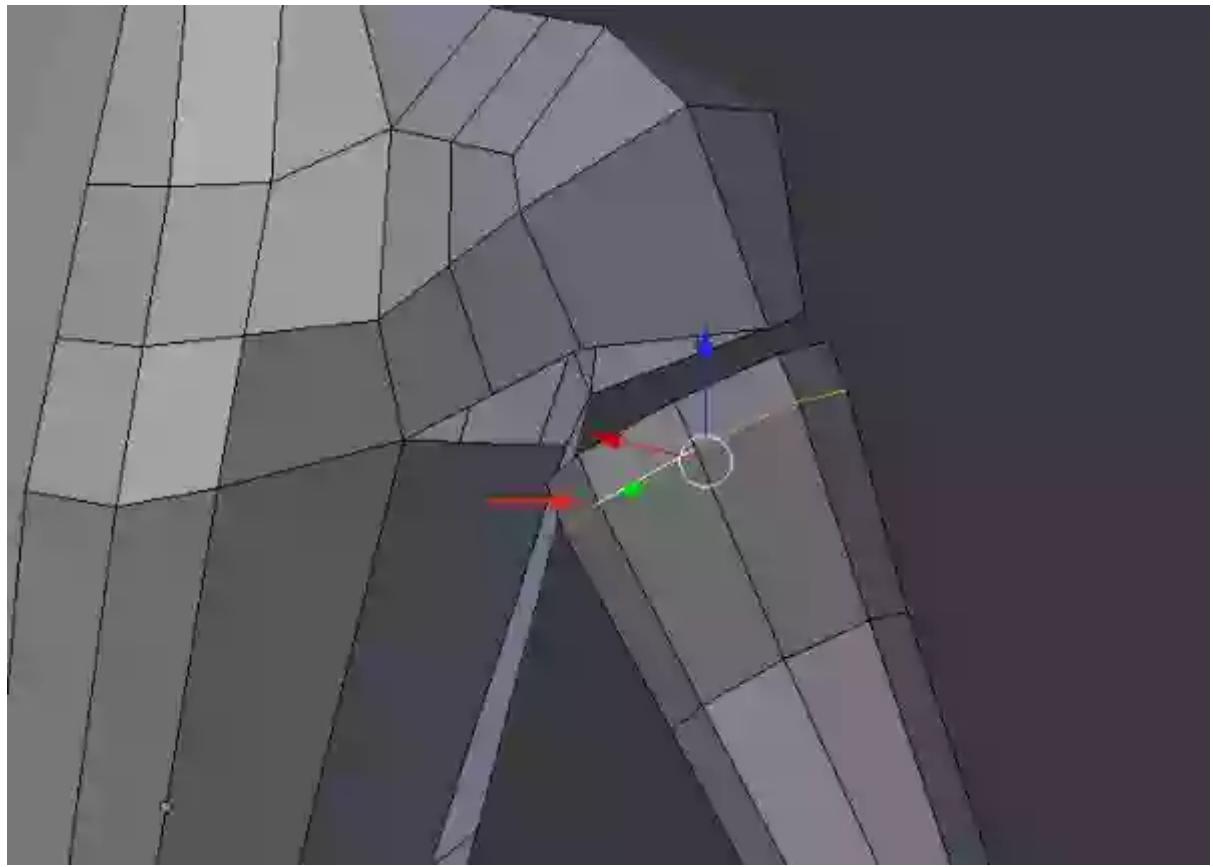
Step 6

We have to increase the number of vertices along the shoulder's border to make them equal to the arm's border vertices. So with the indicated ring of edges selected, subdivide them **once**.



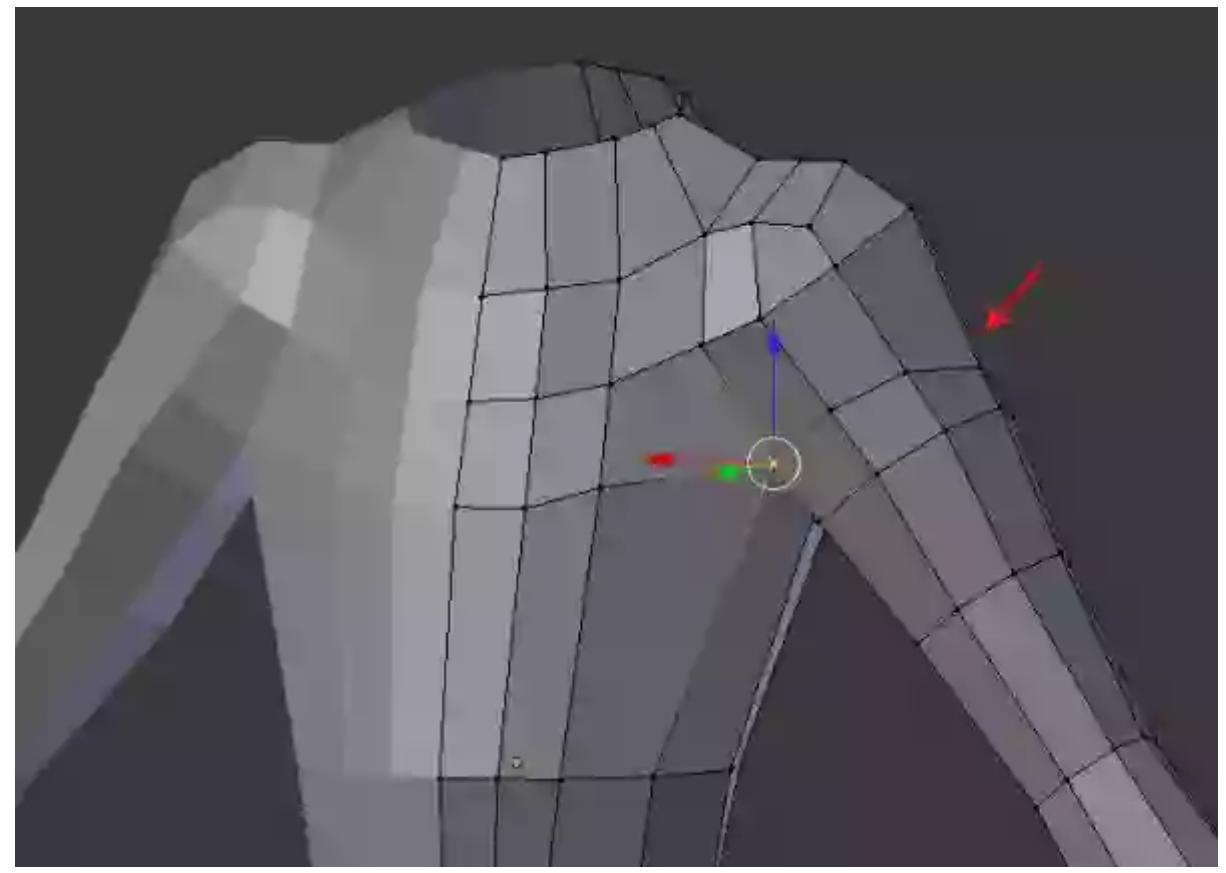
Step 7

Insert a supporting edge loop around the upper area of the arm mesh, as shown.



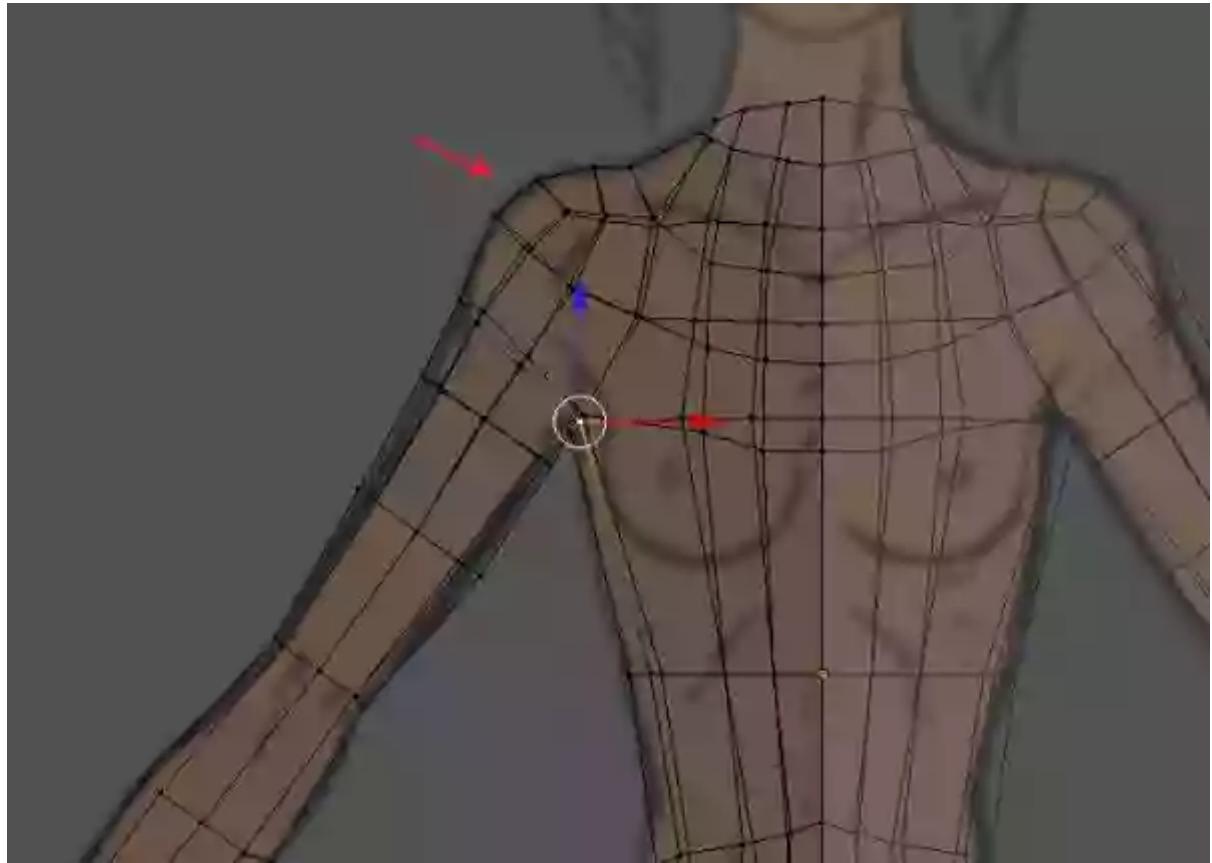
Step 8

Just like we did with the torso and leg meshes, merge the parallel, corresponding vertices together on both the shoulder and arm meshes.



Step 9

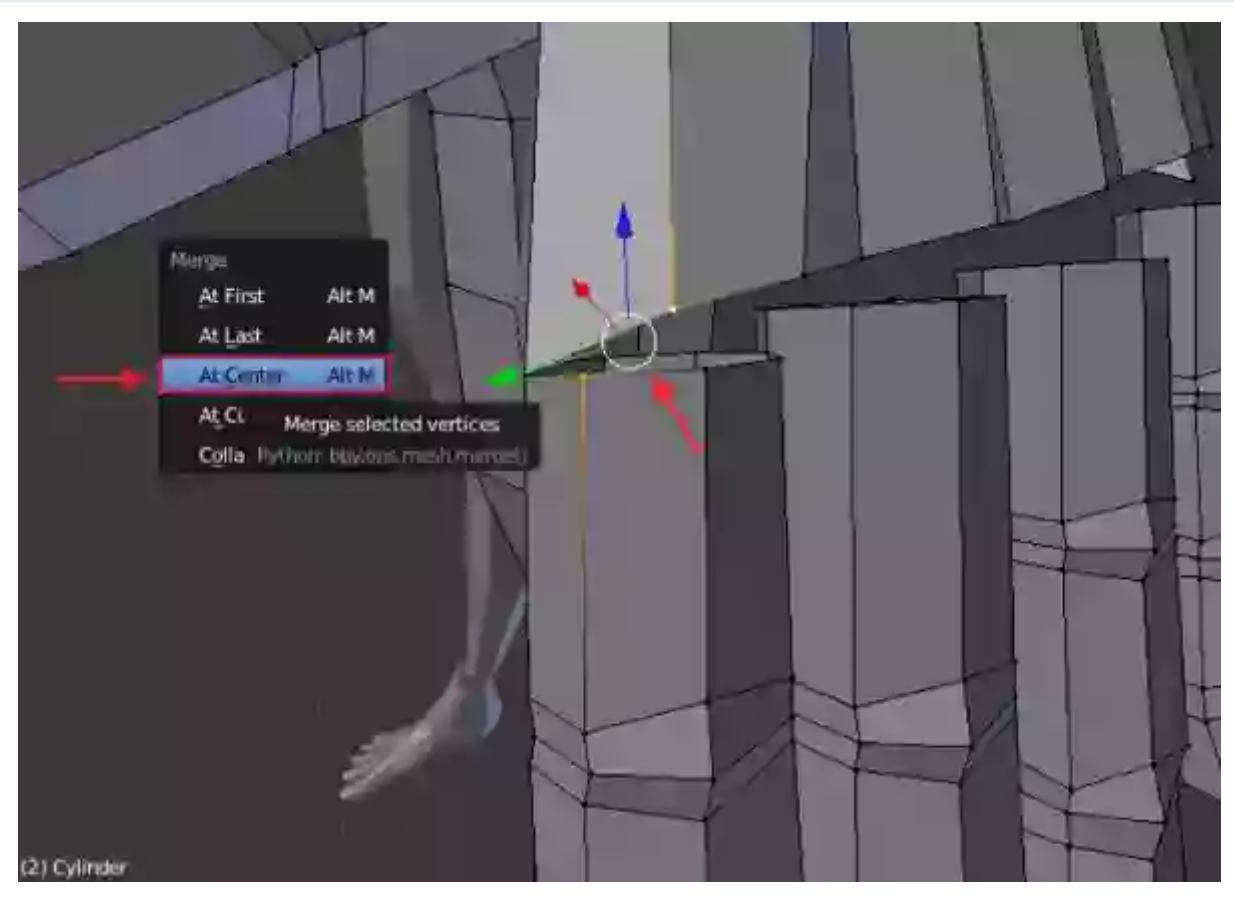
Now jump into the **Front** view and adjust the shoulder and arm vertices to match up with the reference image.



5. Combining the Fingers & Palm

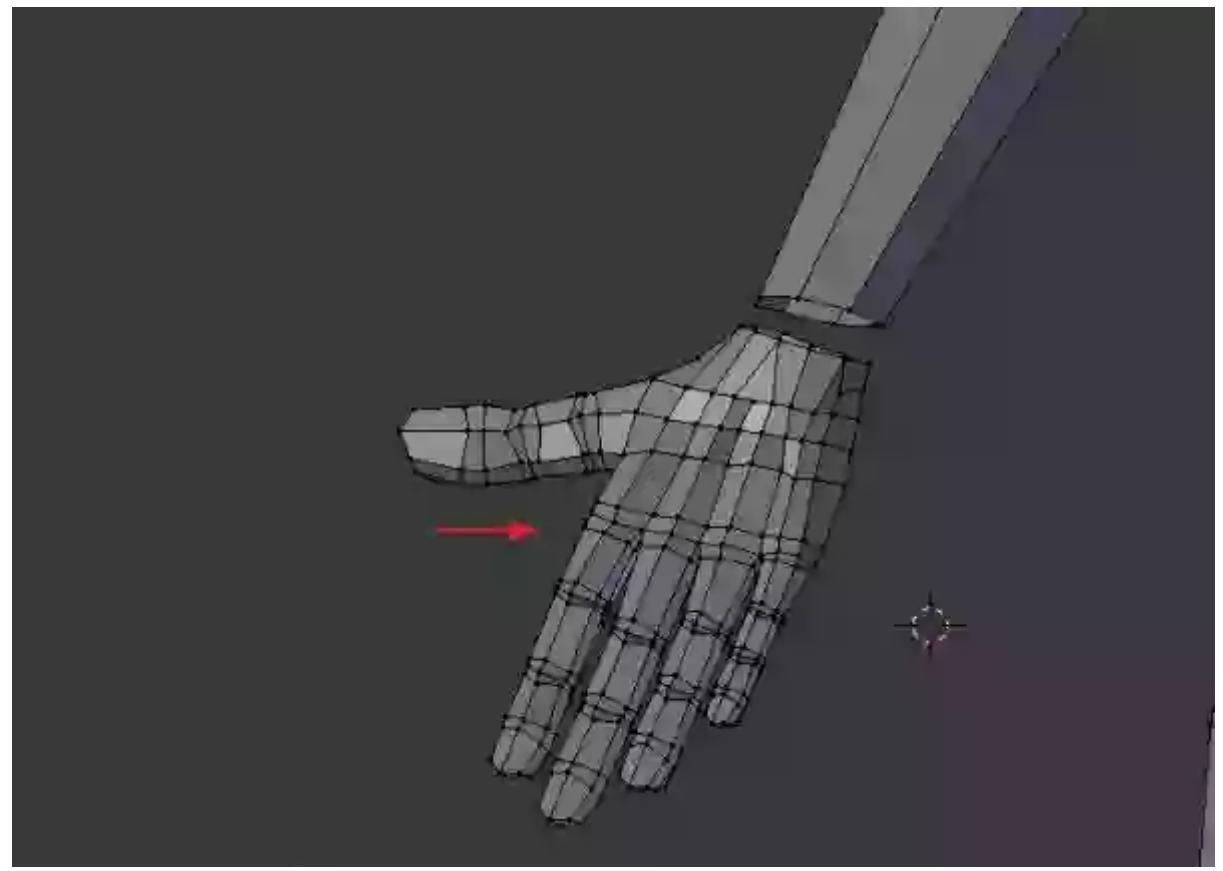
Step 1

Now we will merge the fingers with the palm mesh. With the parallel and corresponding vertices of the index finger and palm selected, press **Alt-M** and select the **At Center** command. This will merge the two vertices together.



Step 2

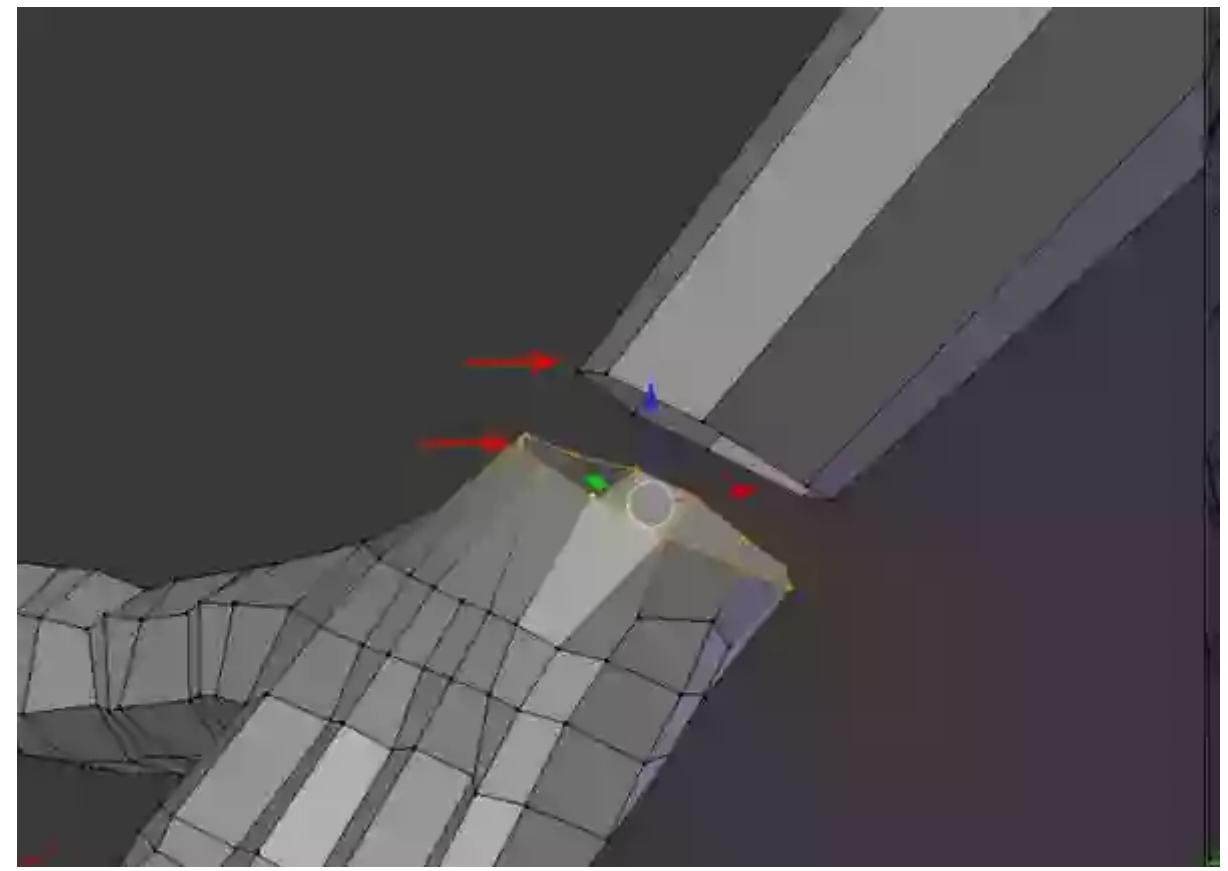
Following the same procedure for each pair of vertices, merge all the fingers with the palm one by one.



6. Combining the Wrist & Hand

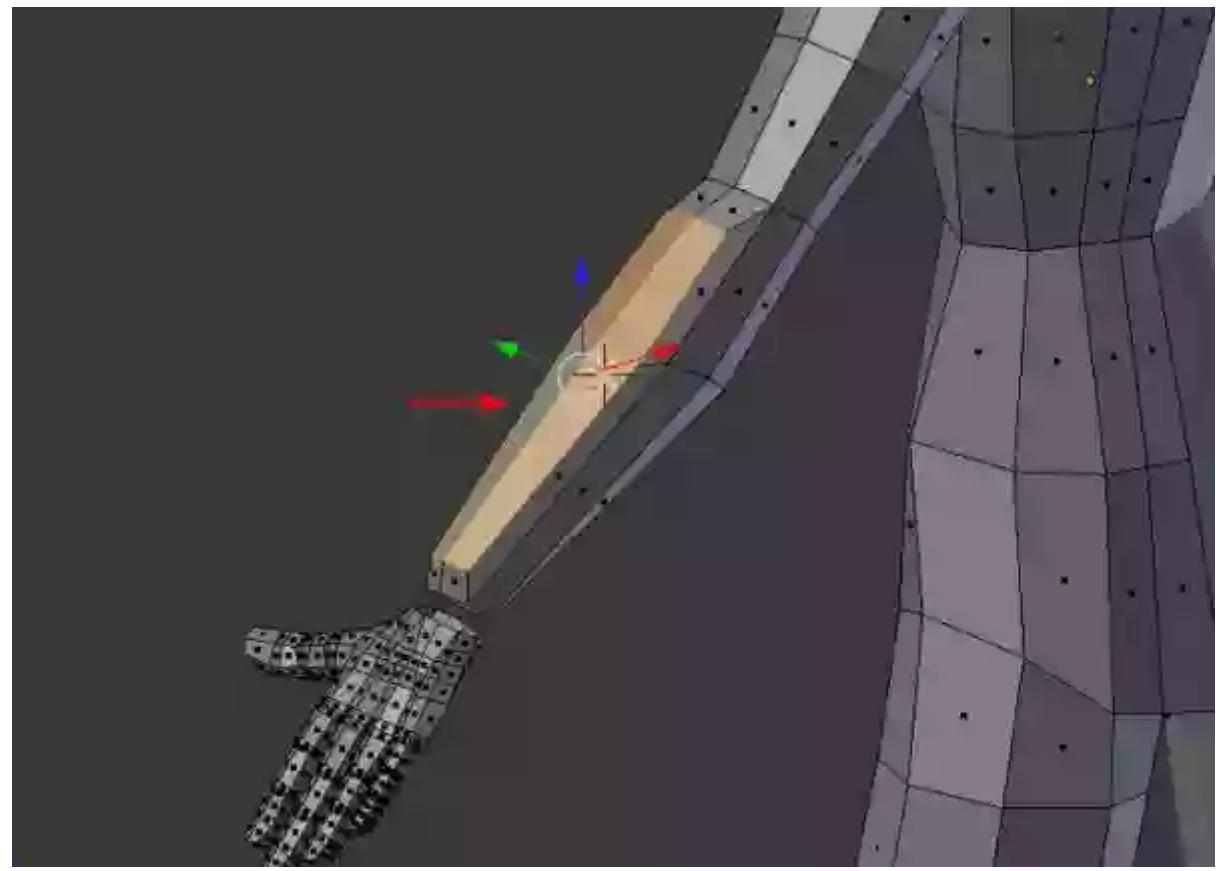
Step 1

Now we will merge the wrist with the hand. We have to increase the number of vertices along the wrist's border to make them equal to the hand's border vertices.



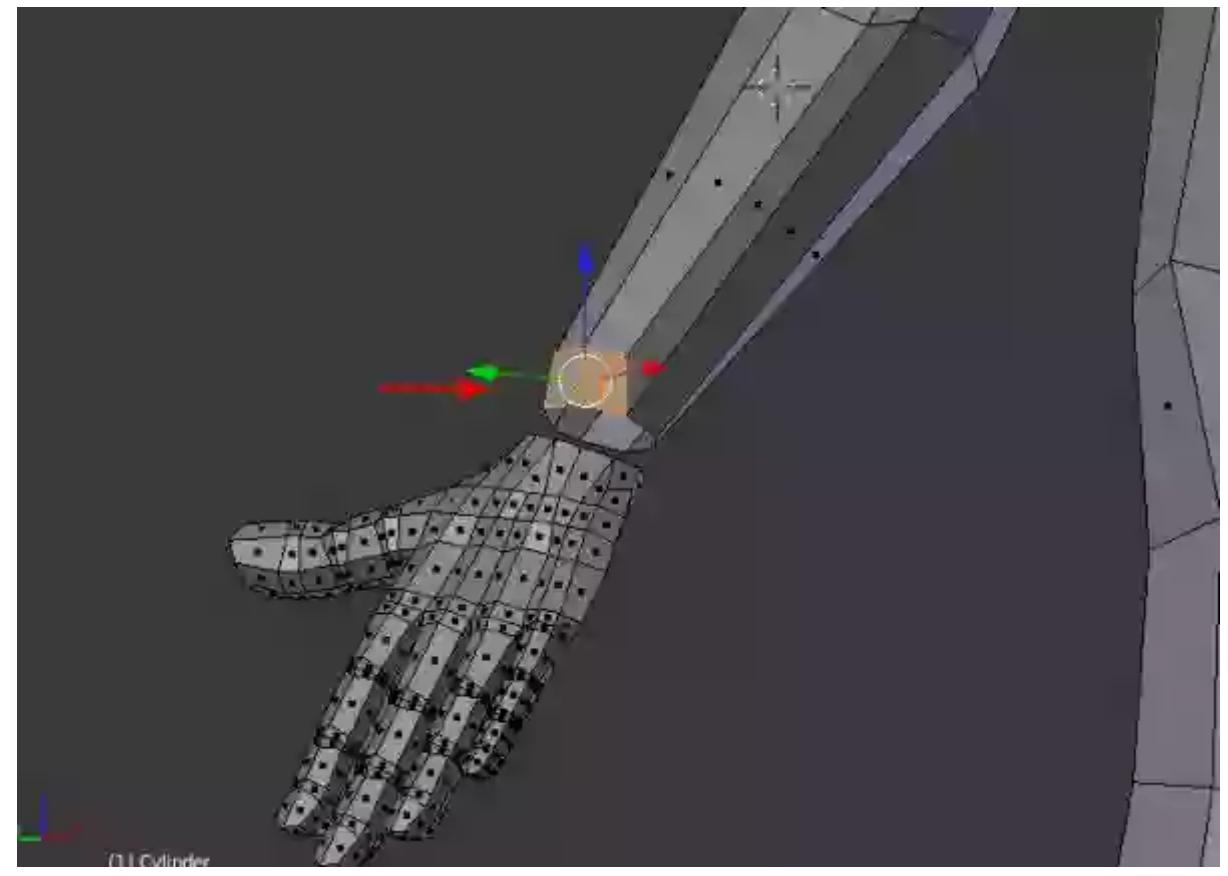
Step 2

So, while in **Face** selection mode, select the **four** faces indicated below on the arm. Press the **E** key to **Extrude** and then **Scale** them down a bit as shown.



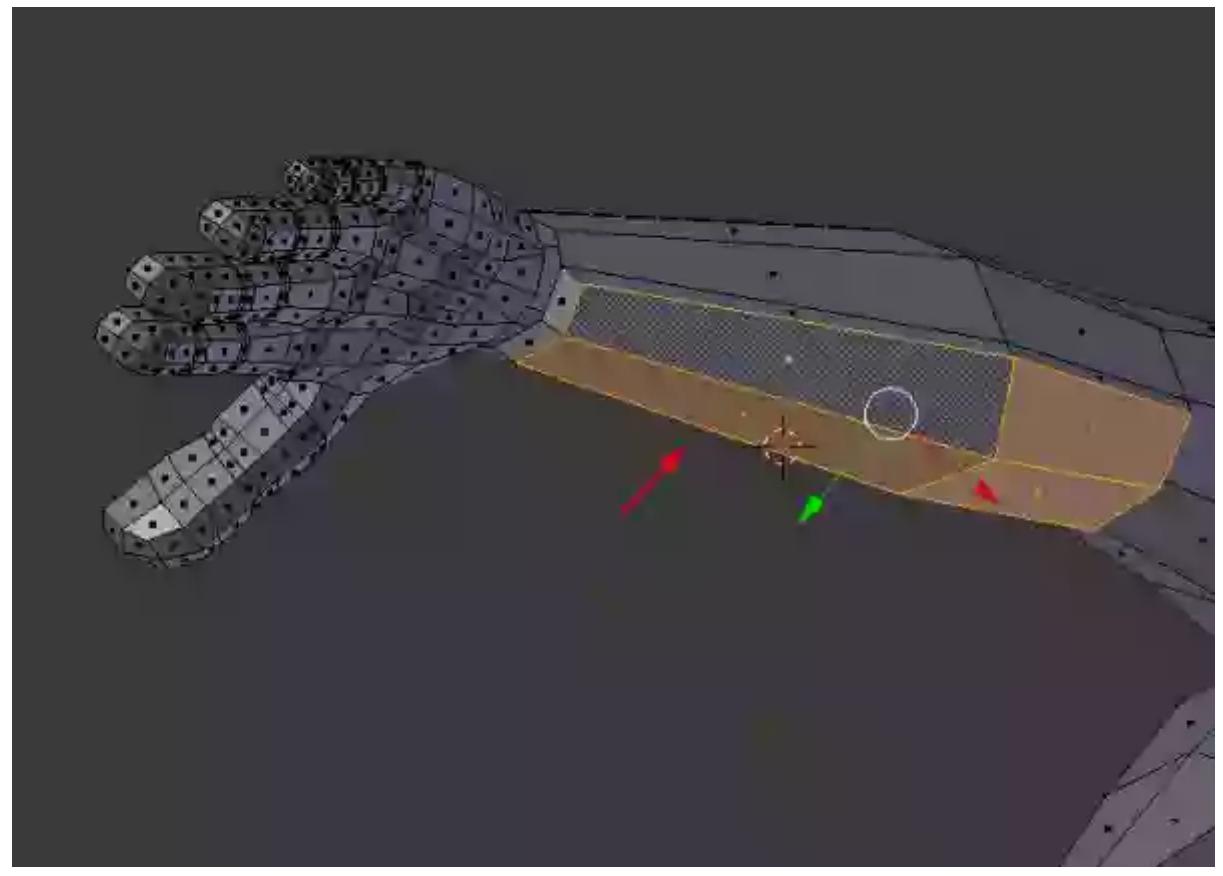
Step 3

Now select the indicated faces and **Delete** them. This will get rid of the unwanted faces.



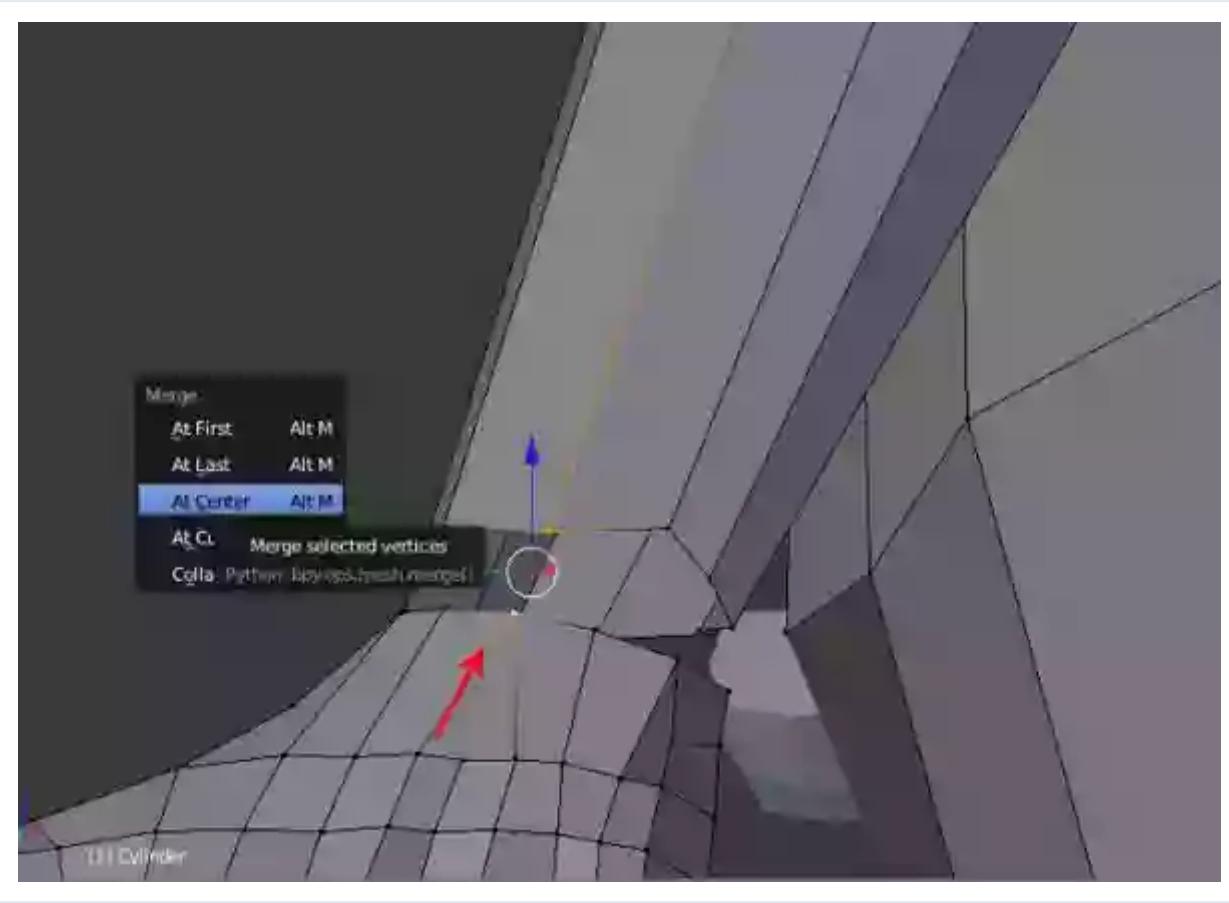
Step 4

Following the same process, also **Extrude** the inner arm faces also as shown.



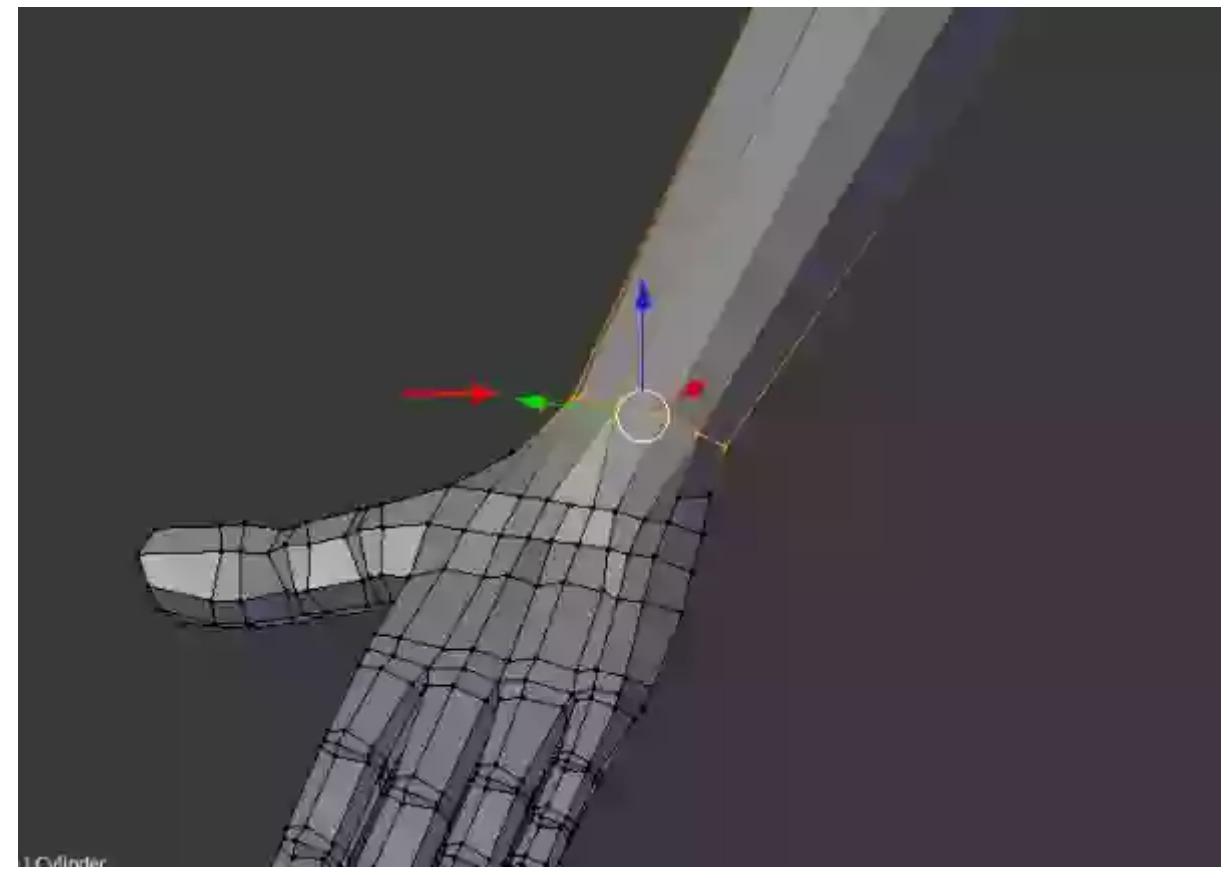
Step 5

Now both meshes have the same amount border vertices. So again with the parallel, corresponding vertices selected, use **Alt-M** to merge them together.



Step 6

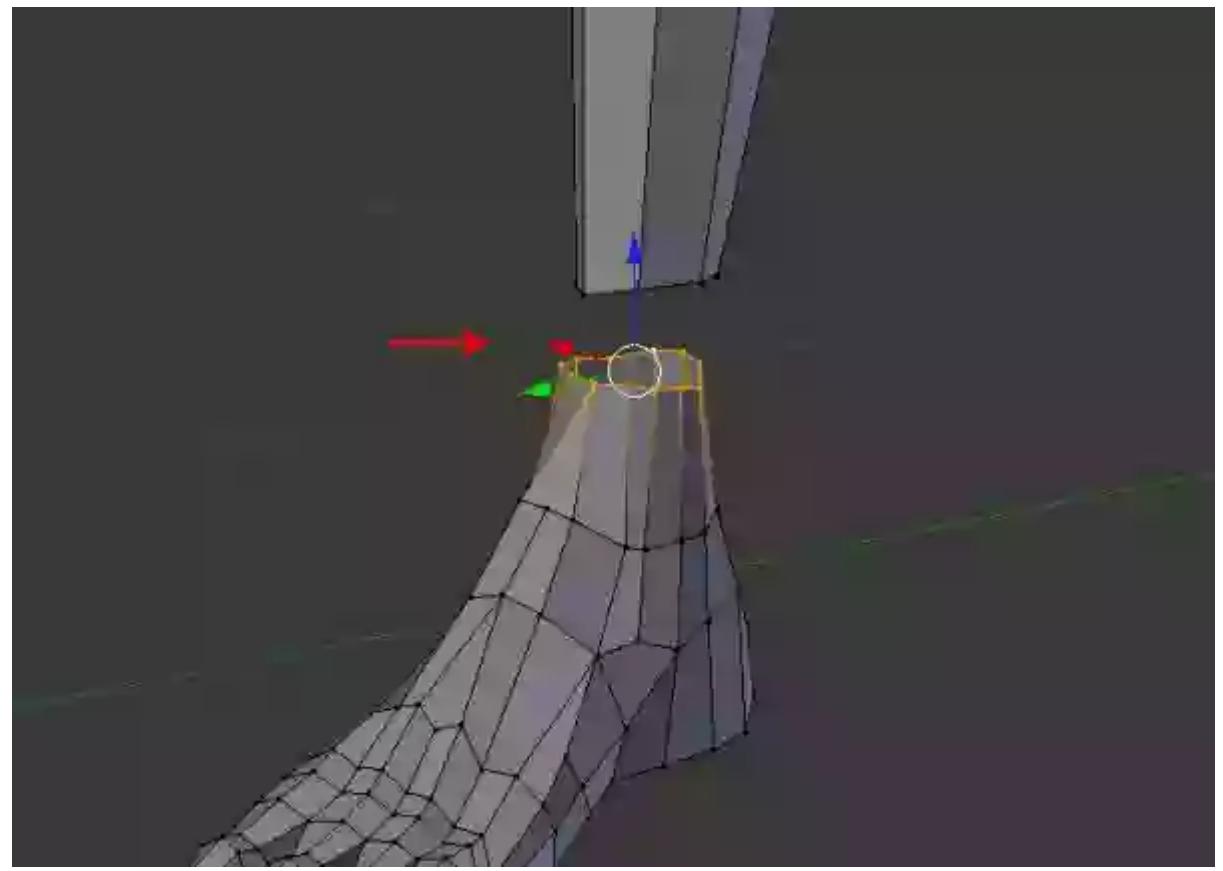
Using the same technique, merge all the wrist vertices with the hand.



7. Combining the Foot & Leg

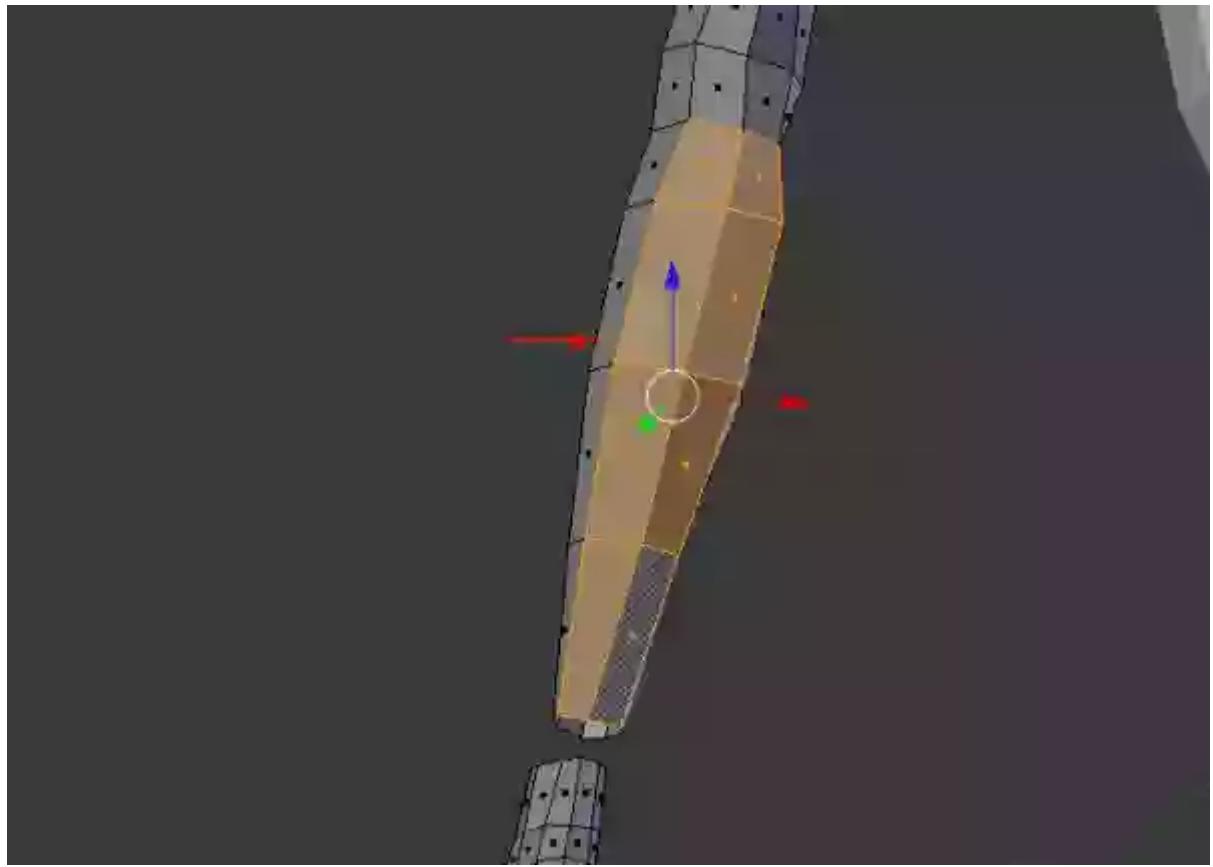
Step 1

Now let's combine the foot and leg meshes. In **Perspective** view, count the number of vertices around the foot and the leg borders.



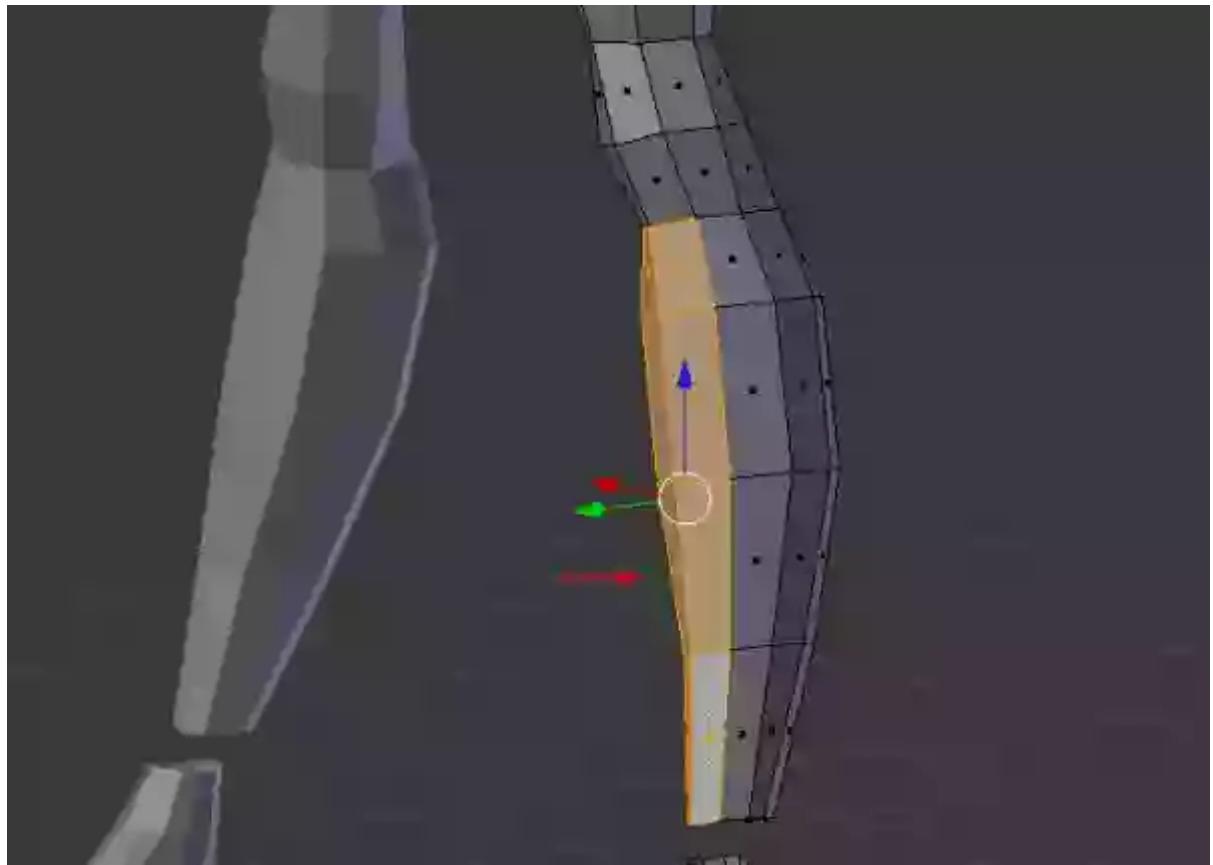
Step 2

As you can see, we need to add some vertices to the leg border to make it equal to the foot boarder. So in **Face** selection mode, select the calf faces and press the **E** key to **Extrude** the faces **once** and then **Scale** them down it a little bit.



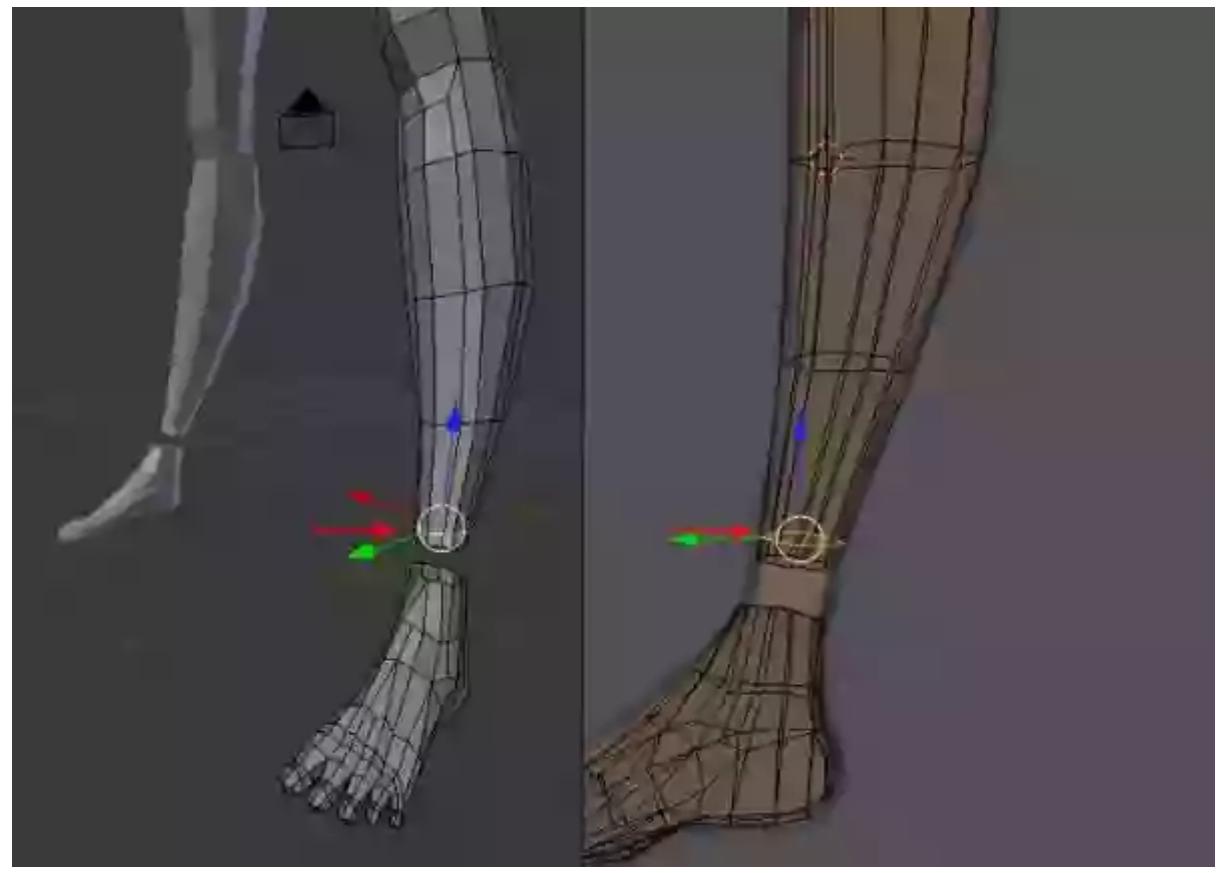
Step 3

Follow the same process with the front faces of the leg.



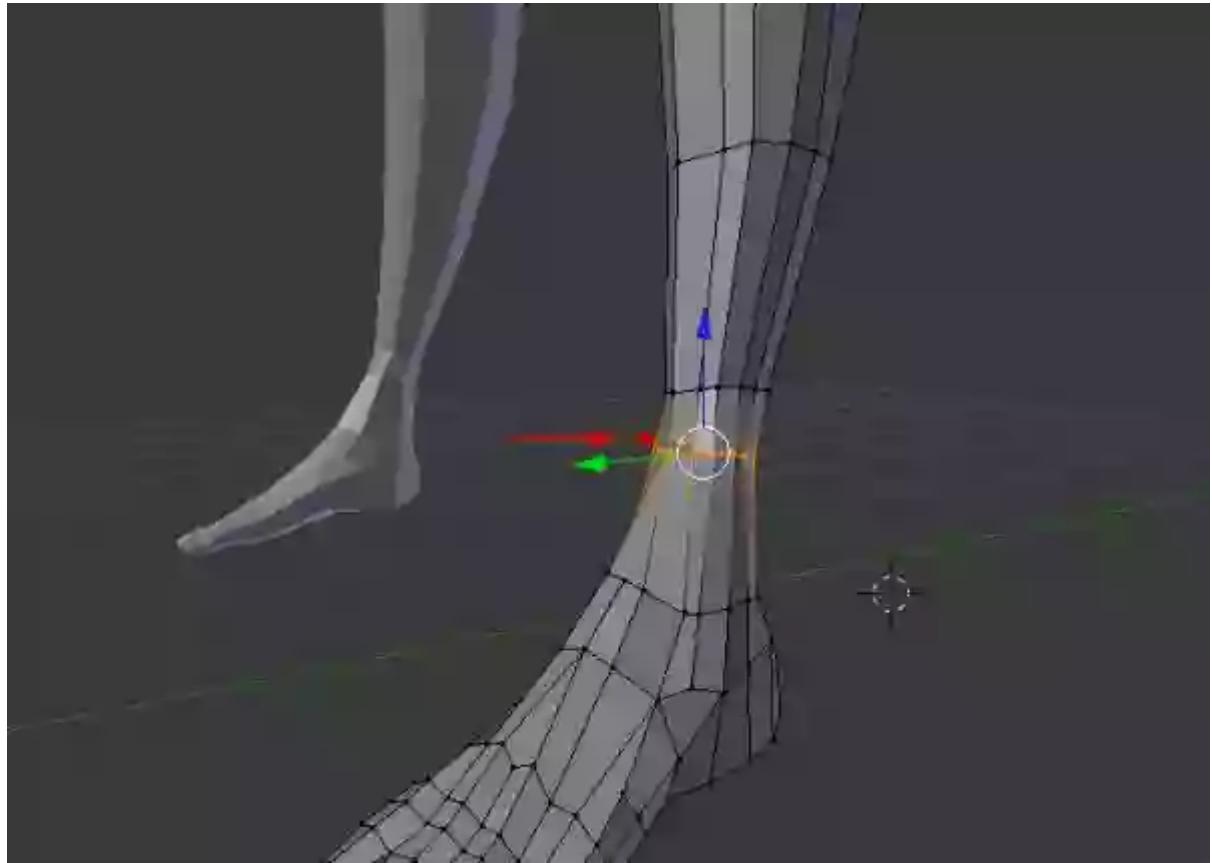
Step 4

Next insert a supporting edge loop around the lower leg as shown.



Step 5

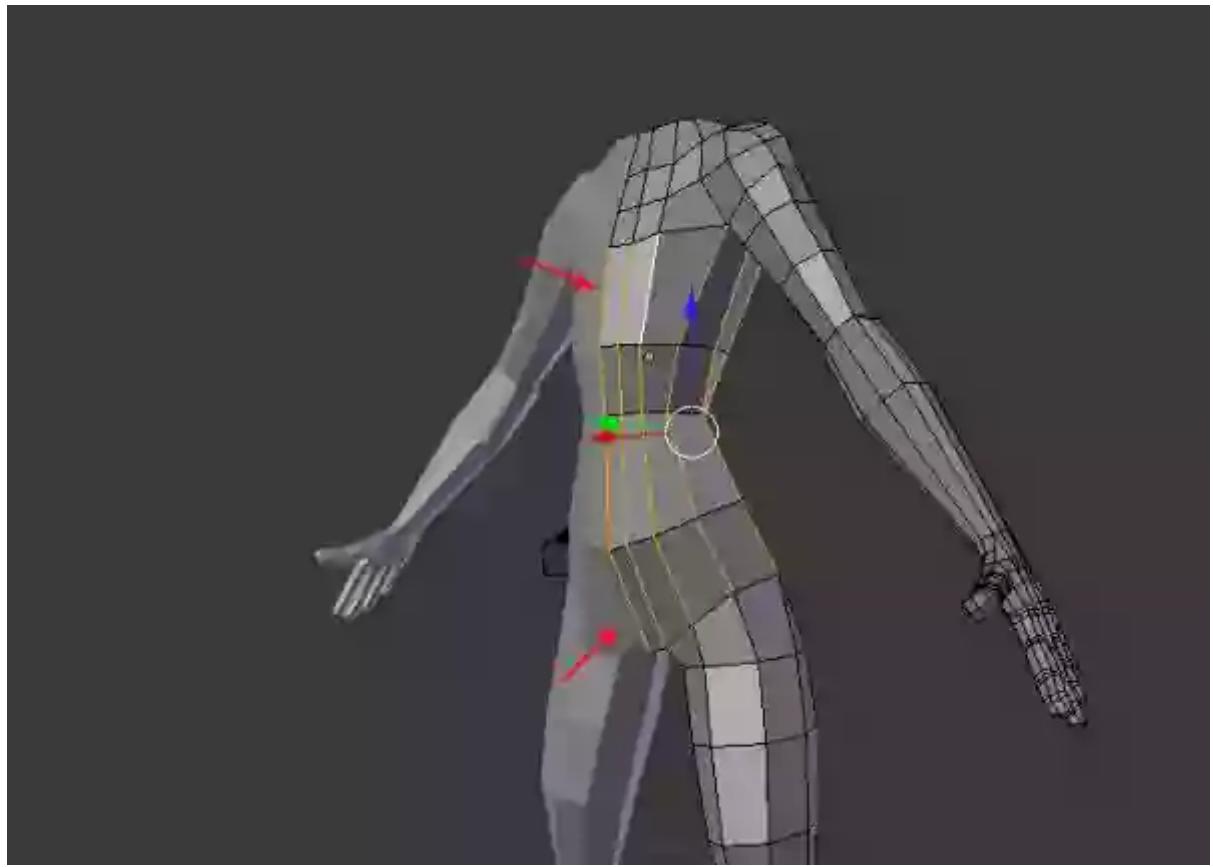
Now following the same procedure we used to combine the other meshes, merge the leg and foot meshes together.



8. Adding Details To The Torso

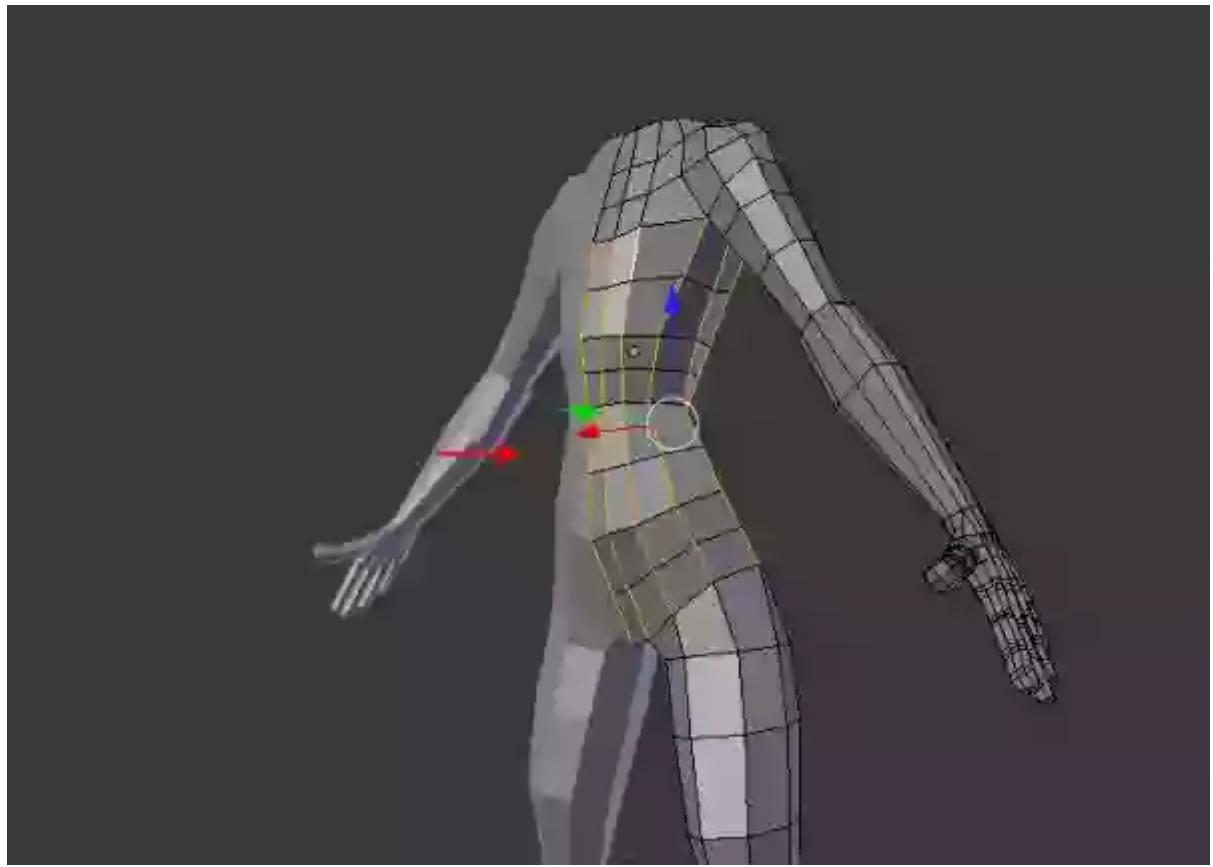
Step 1

Now we need to add some essential details to the character's belly, chest and buttocks. Let's start by subdividing the torso so we can add detail. Select the indicated ring of edges around the belly.



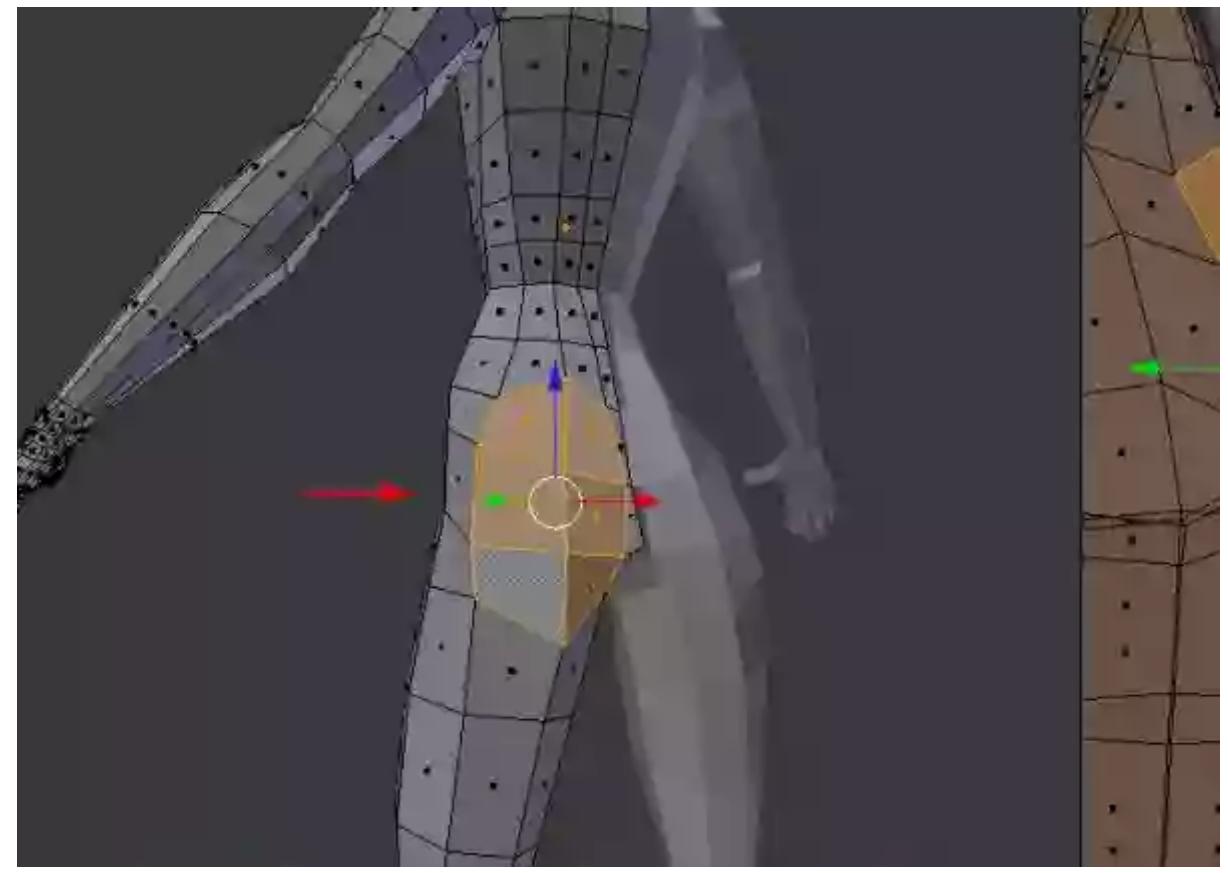
Step 2

Then subdivide it **once** to get some additional edges around the torso.



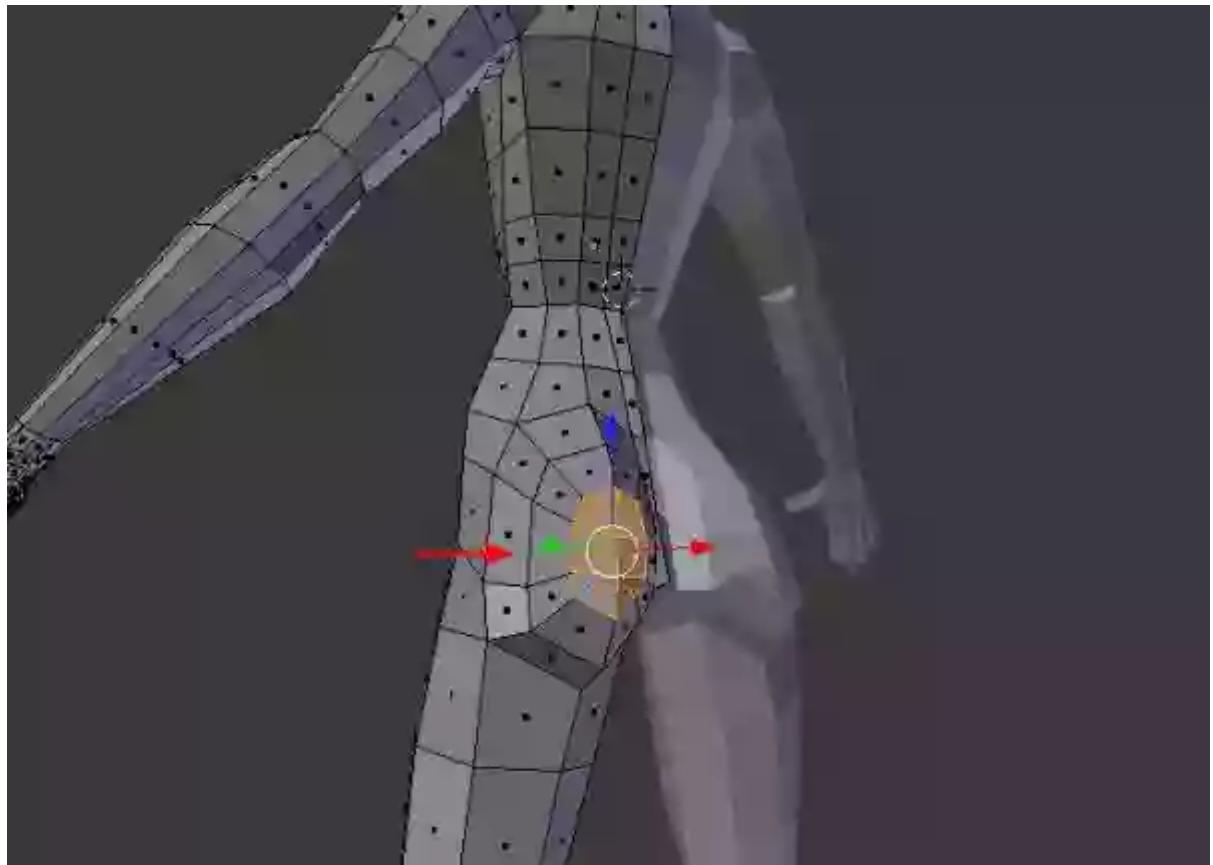
Step 3

In **Face** selection mode, select the **six** faces around the hip area as shown in the following image.



Step 4

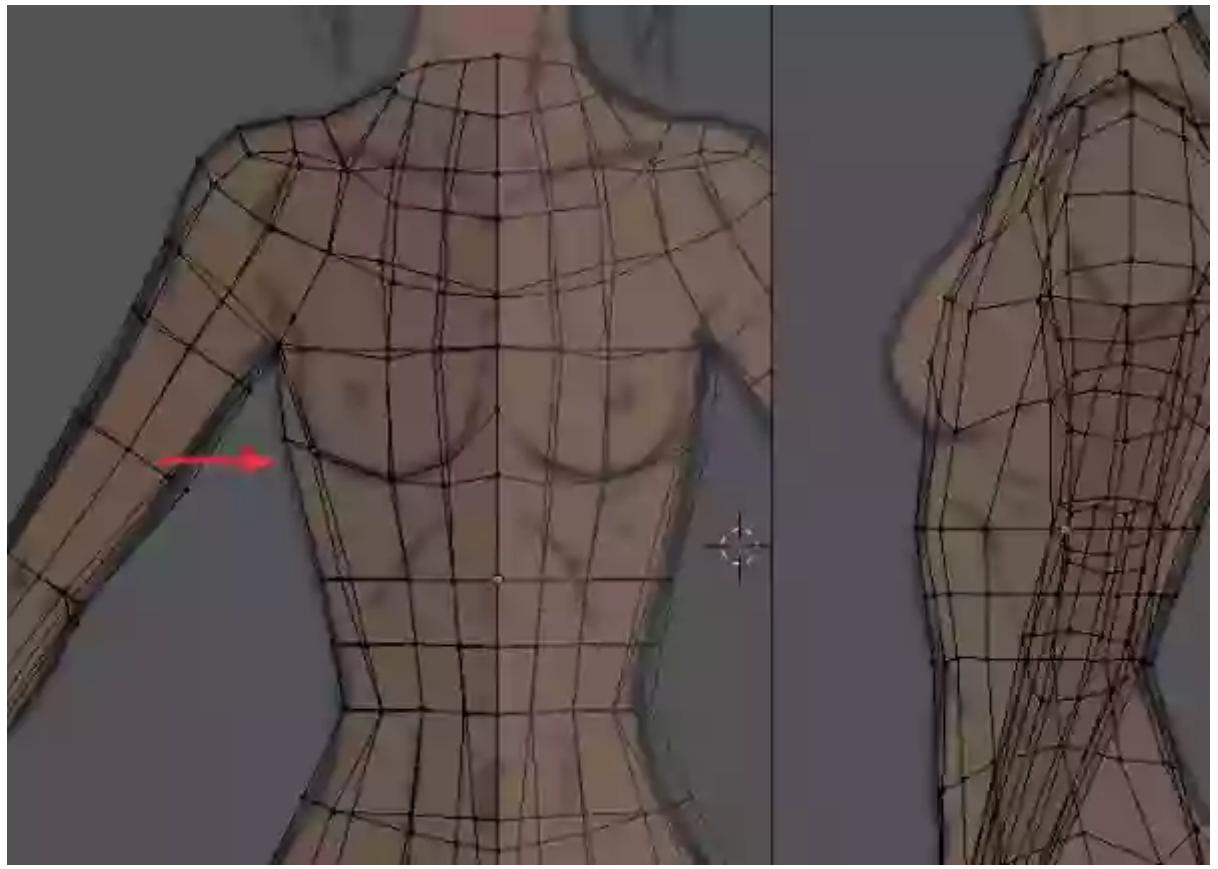
Press the **E** key and **Extrude** the selected faces **three** times, then
Scale the faces down to form the shape of the buttocks.



9. Creating the Breast

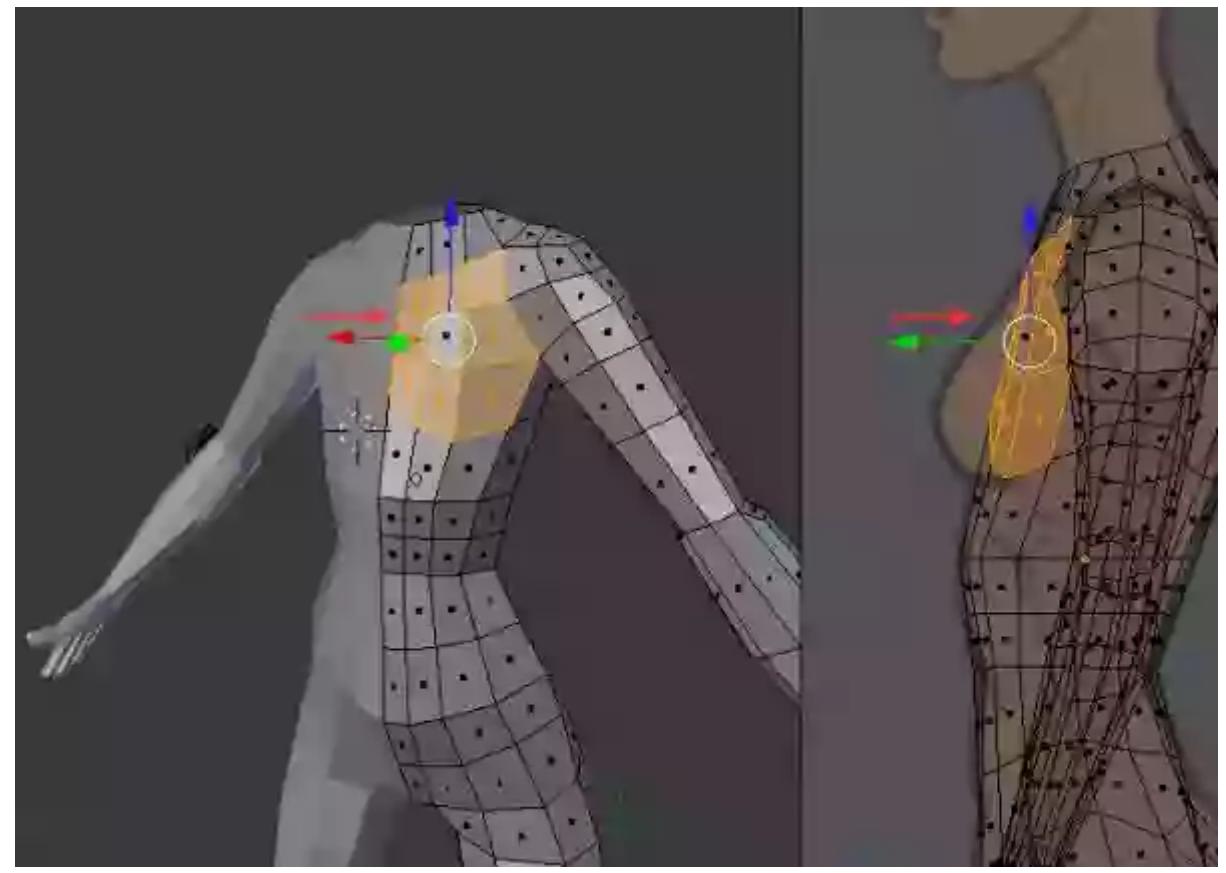
Step 1

To make the shape of the breast, first arrange the chest vertices properly in both in the front and side views.



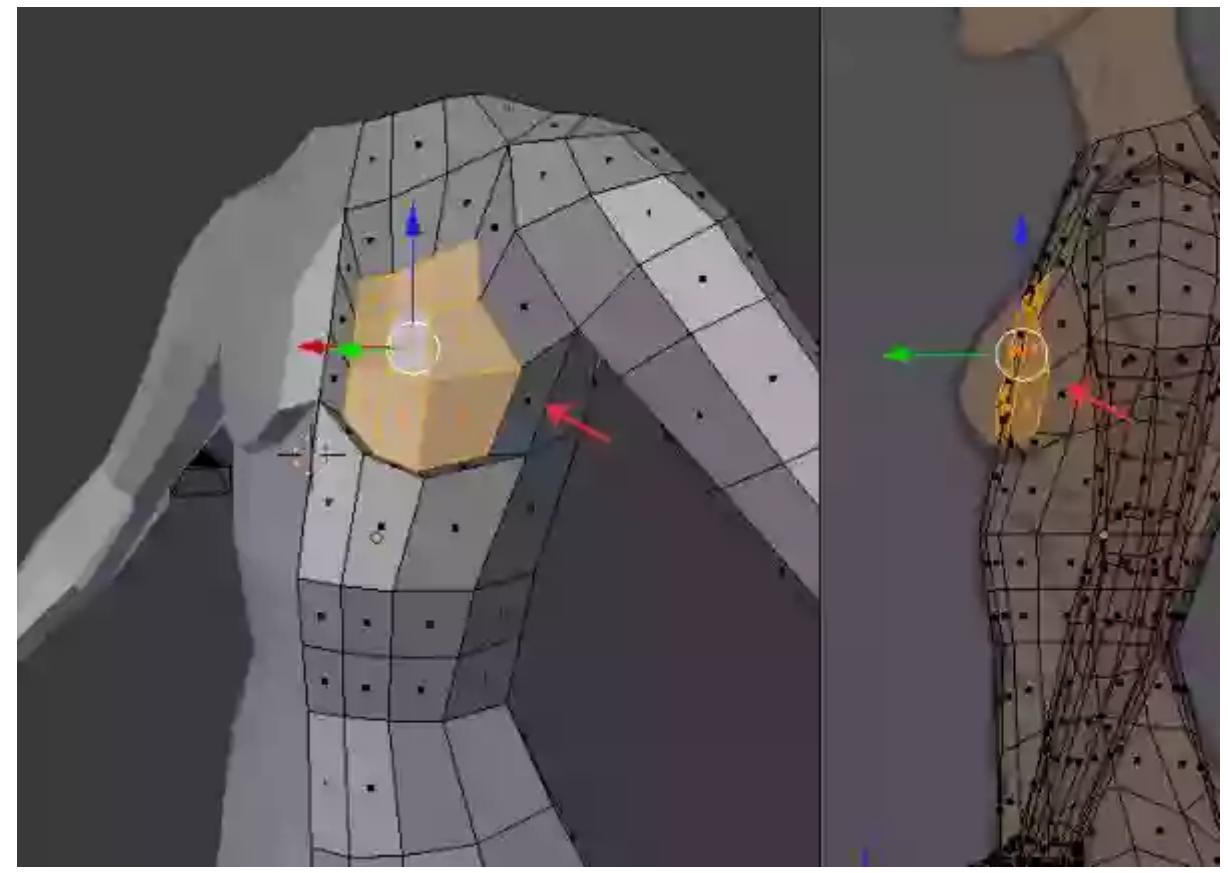
Step 2

And then select the **nine** faces indicated below around the chest.



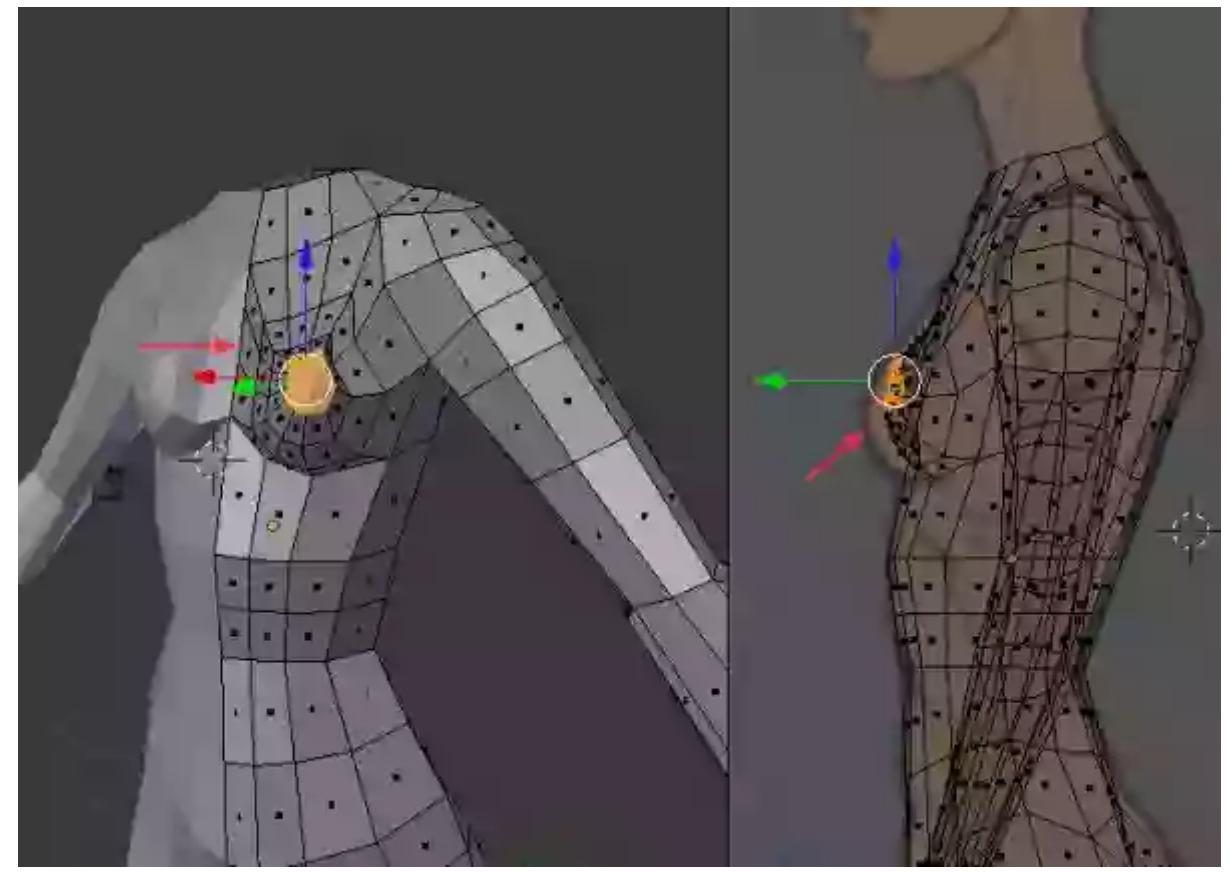
Step 3

With the faces selected, press the **E** key to **Extrude once** and then **Scale** them down as shown.



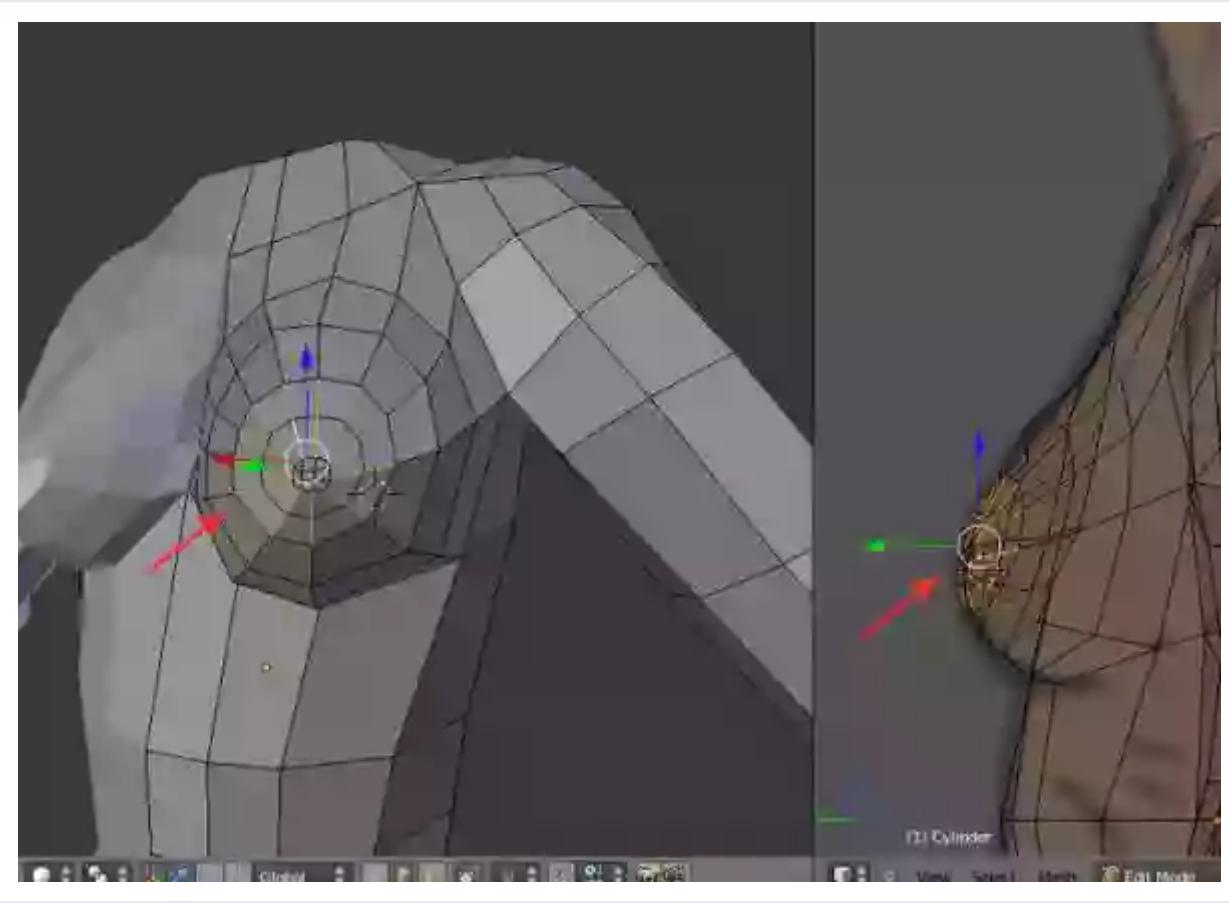
Step 4

Just like this, keep extruding and scaling the faces down a couple of more times.



Step 5

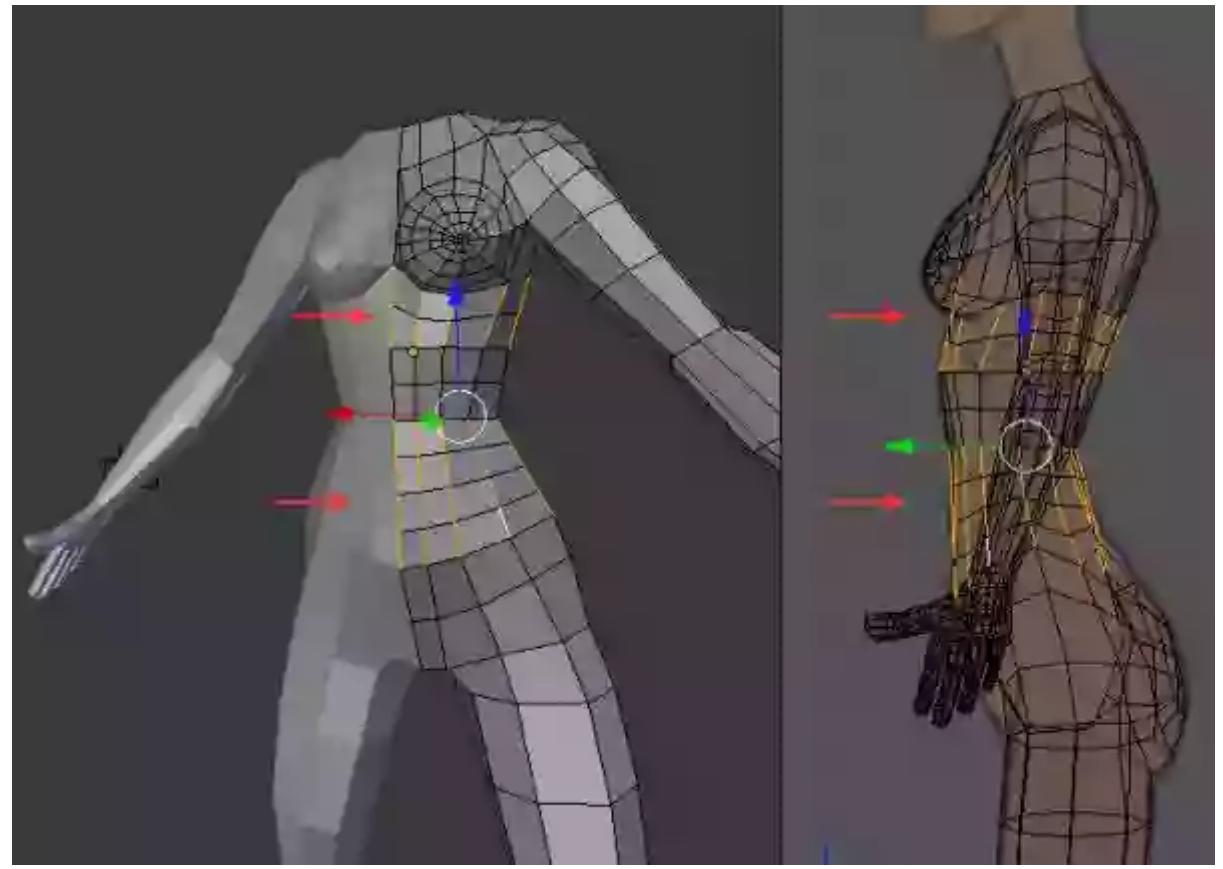
Adjust the vertices to form the round shape of the breast.



10. Adding Detail to the Belly

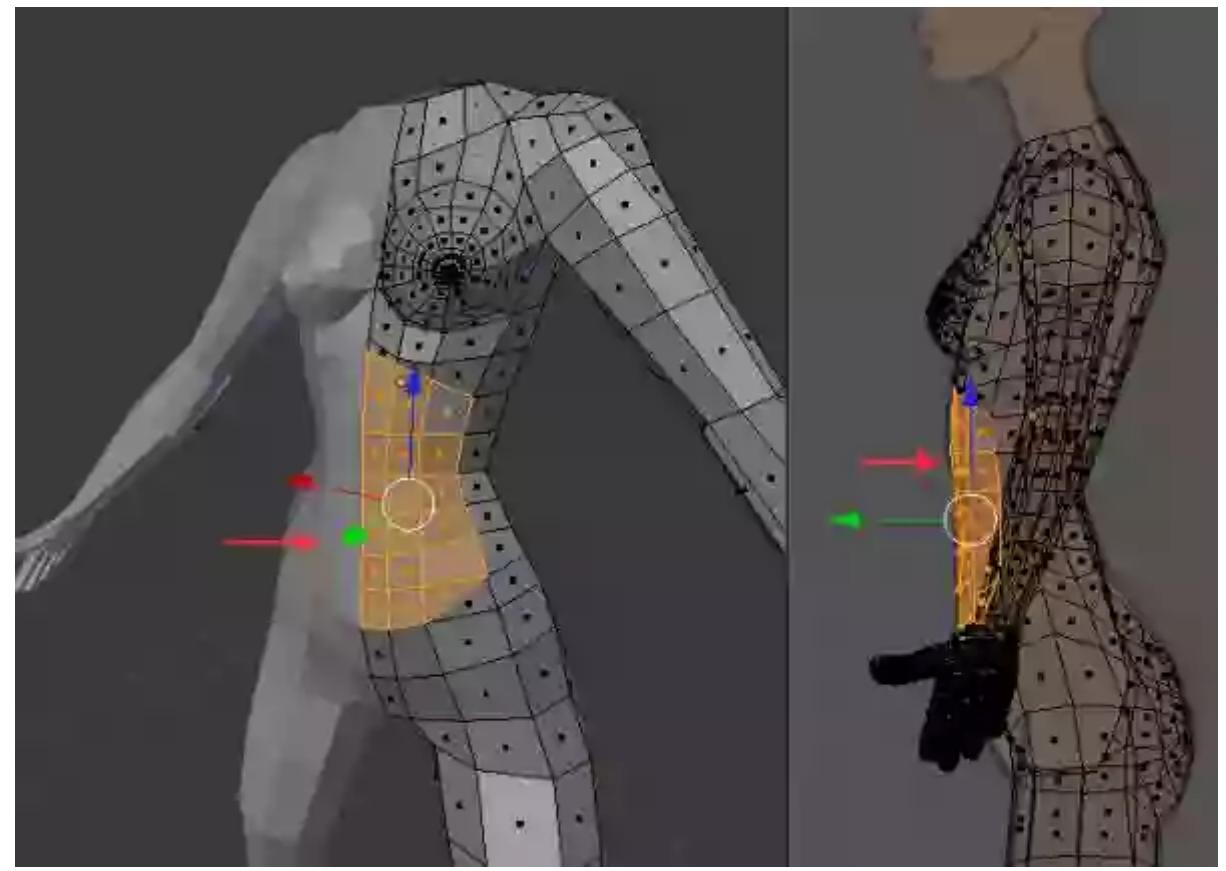
Step 1

Now let's work on the belly. To start, subdivide the faces as shown.



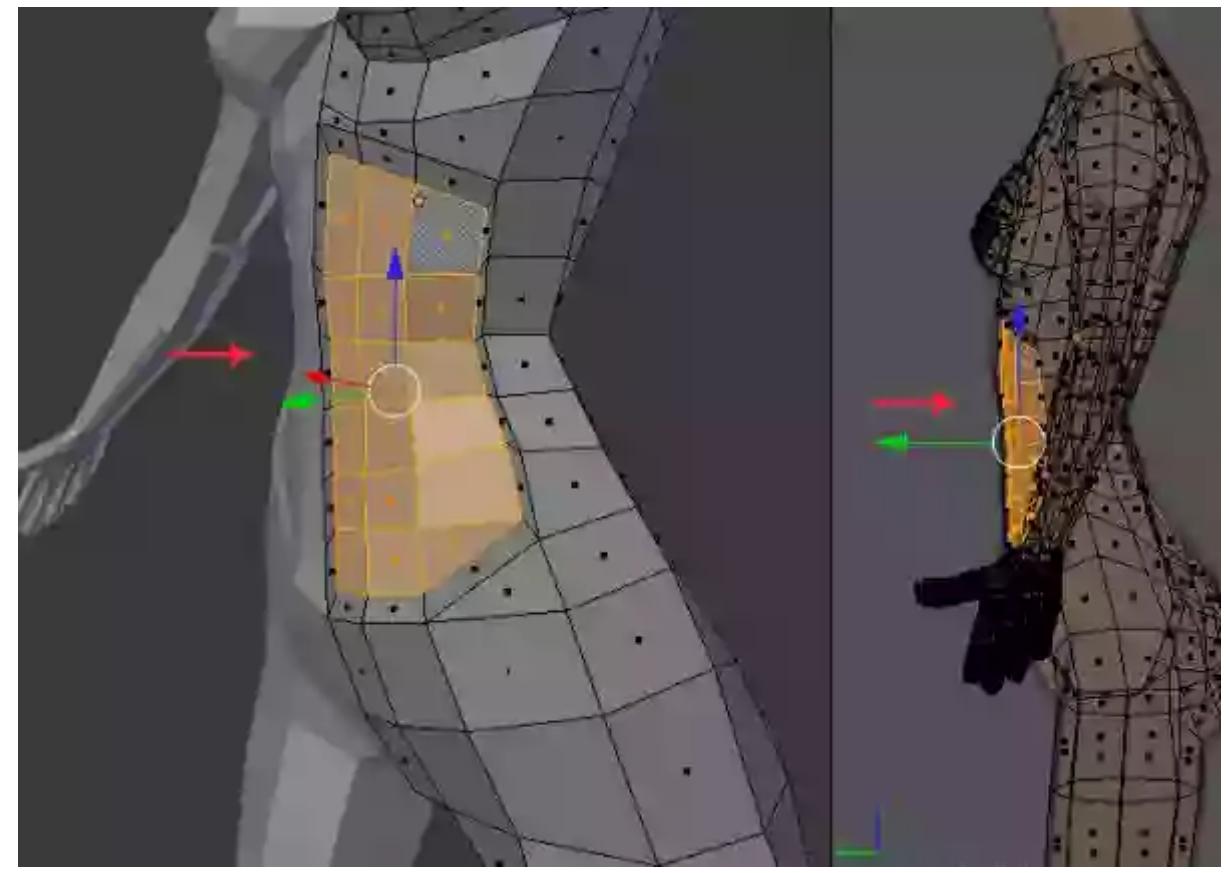
Step 2

In **Face** selection mode, select the faces indicated around the belly.



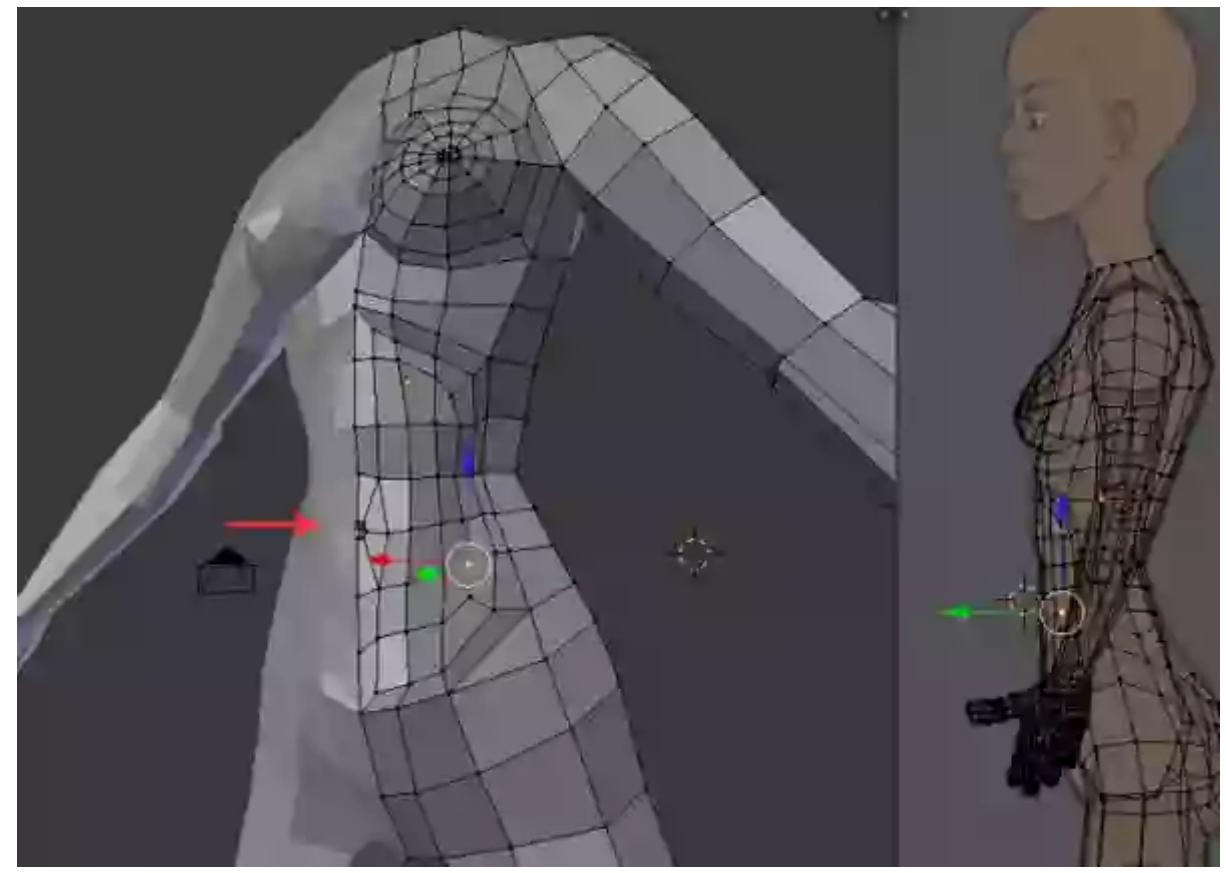
Step 3

With the faces selected, press **E** to **Extrude** them **once** and then **Scale** them down as shown.



Step 4

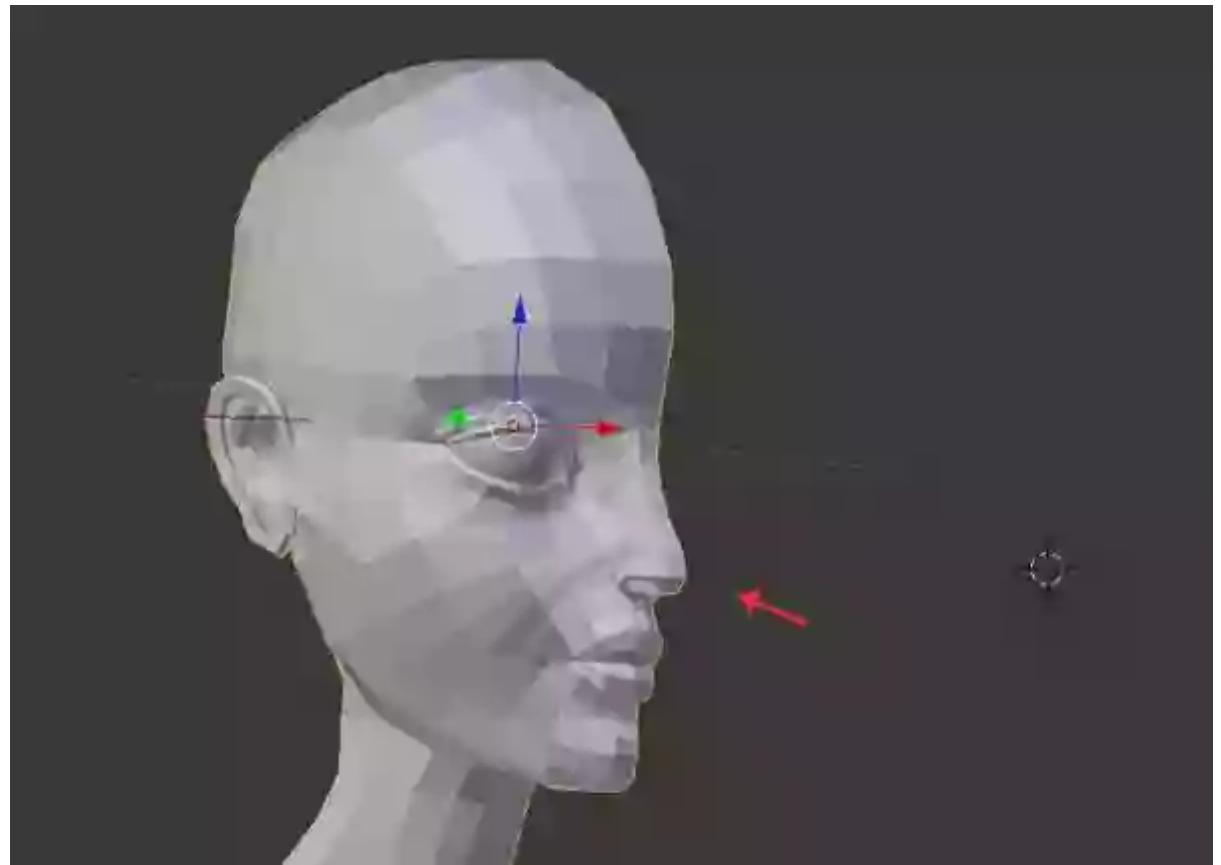
Extrude and Scale the same faces down **once** more and then adjust the vertices to follow the abdominal anatomy, as shown in the following image.



11. Combining the Head & Body

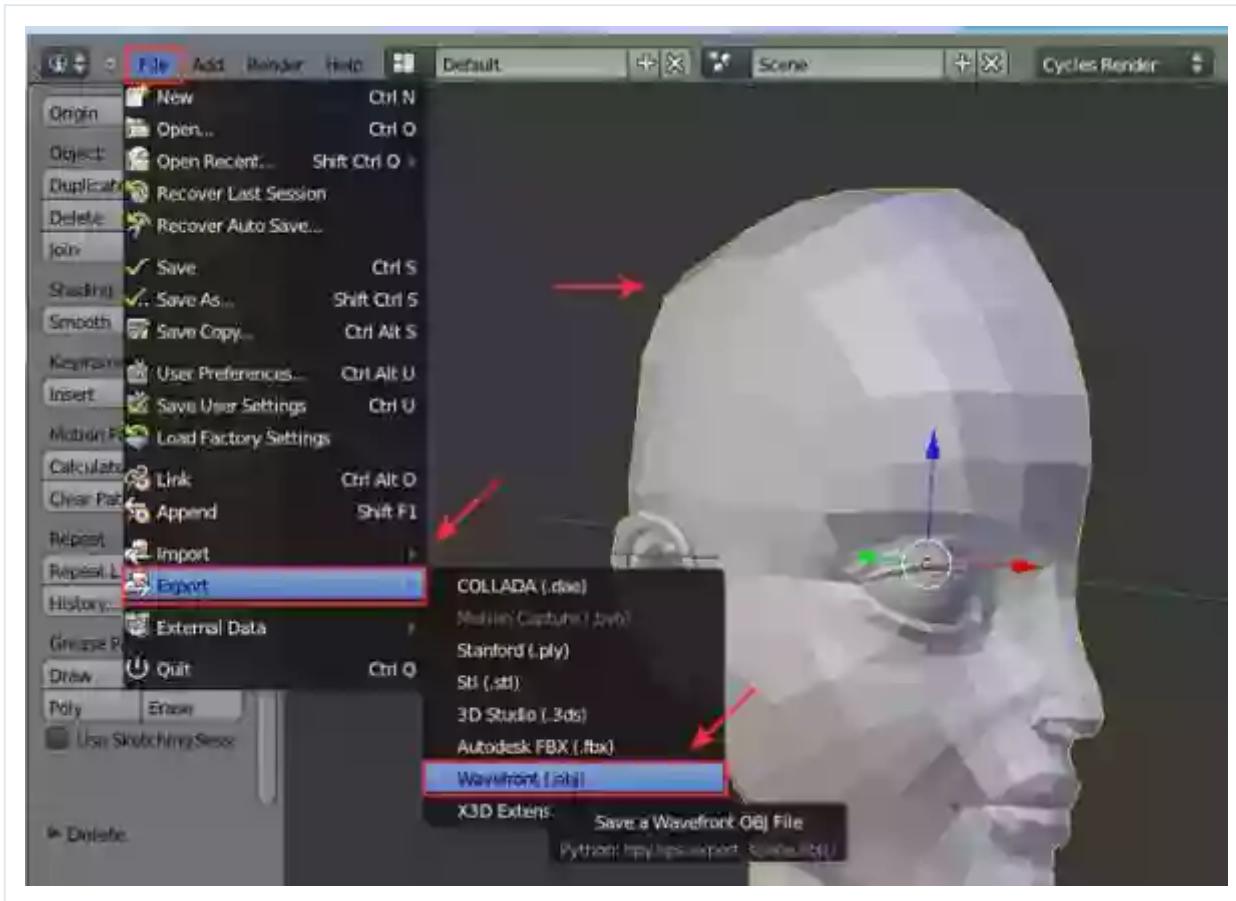
Step 1

Now it's time to attach the head mesh to the body. So open the head model file and turn *off* **Mirror** mode.



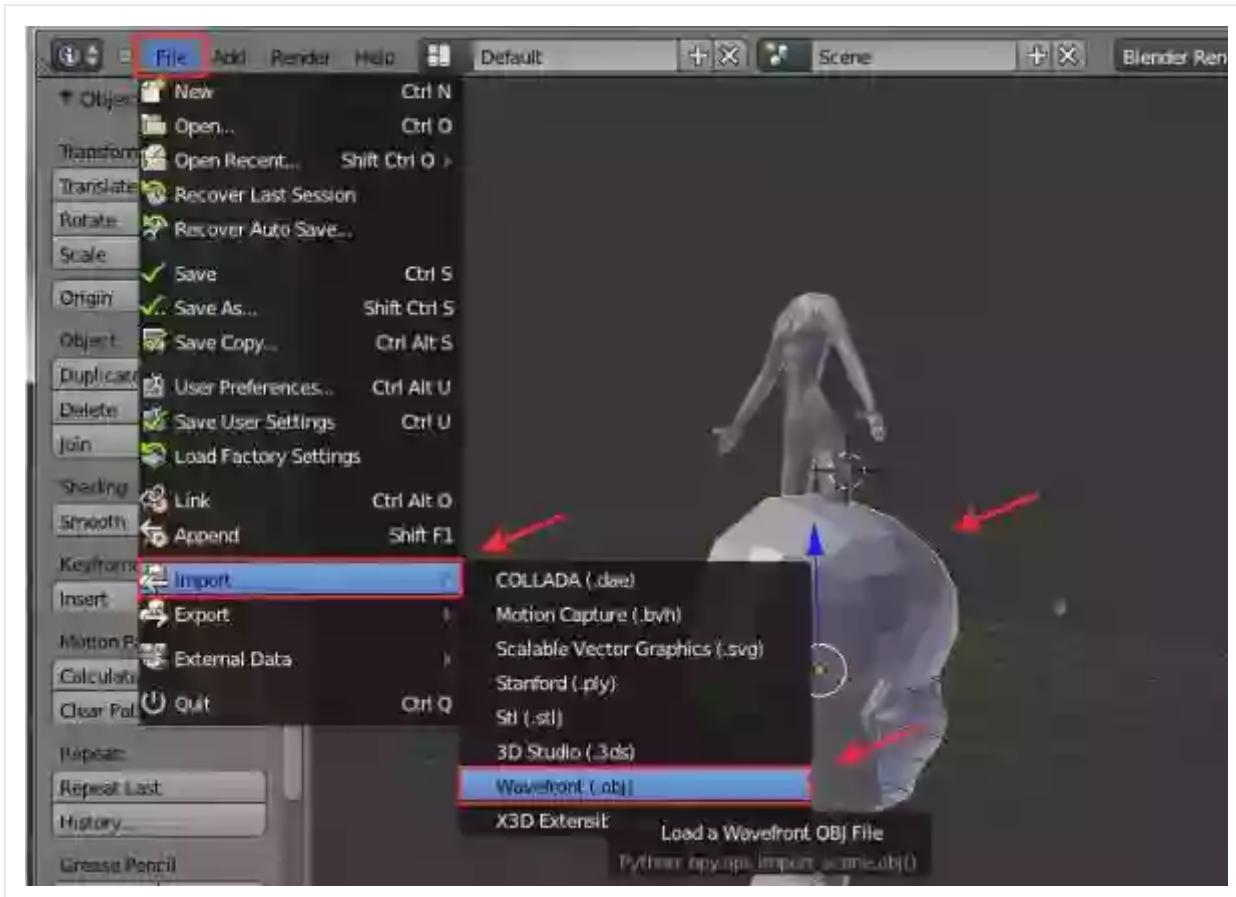
Step 2

With the half head mesh selected, go to **File > Export > Wavefront (.obj)** to export the selected mesh file as **Head Mesh.obj**.



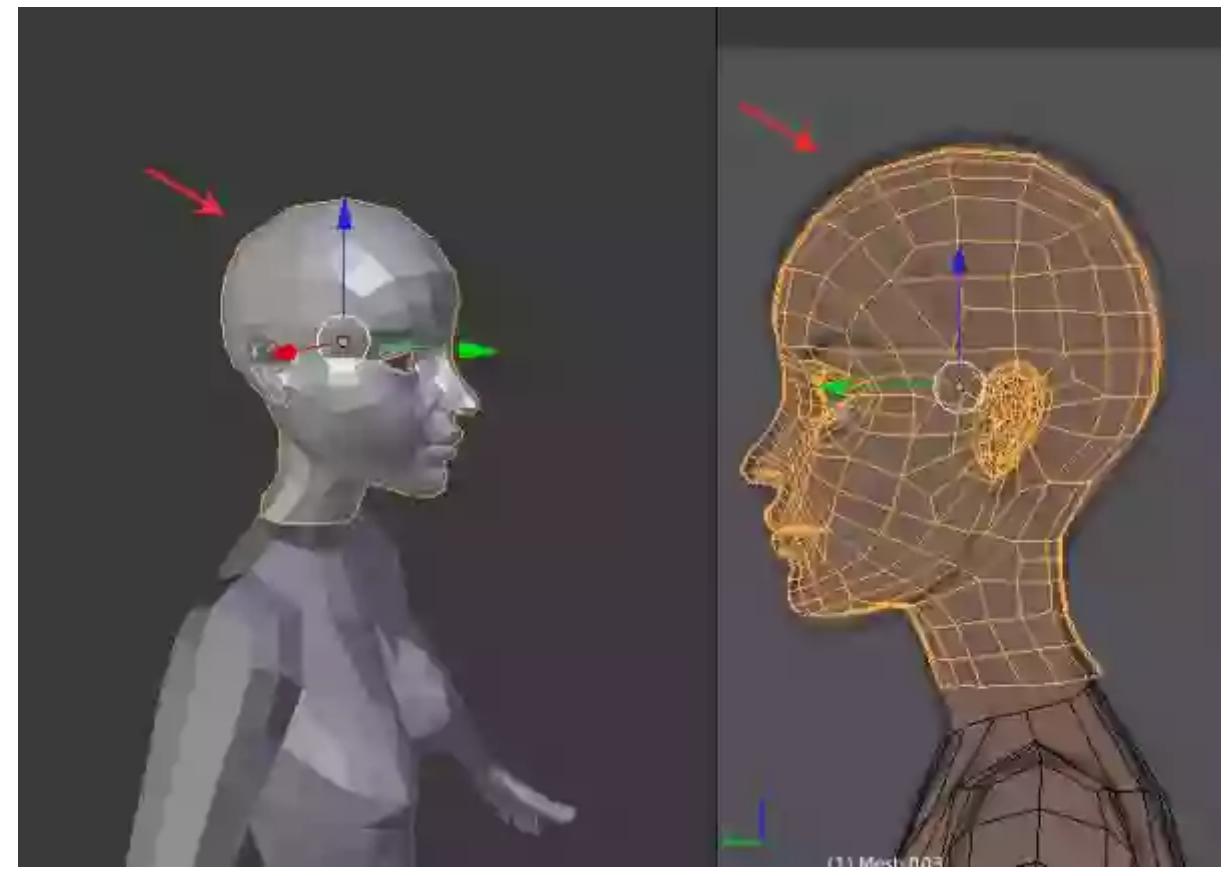
Step 3

Now open the main body file. Go to **File > Import > Wavefront (.obj)** and import the **Head Mesh.obj** file.



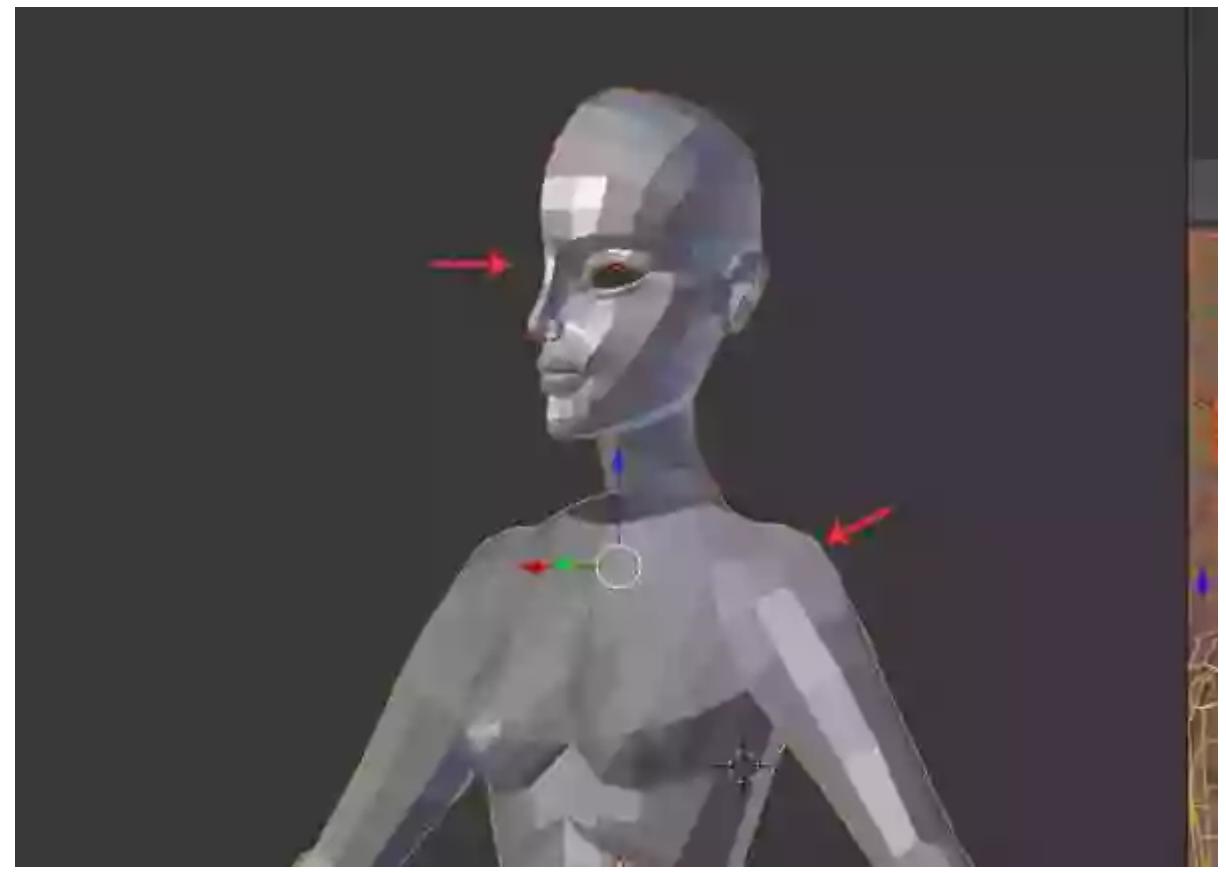
Step 4

After importing the head mesh, **Scale** it down to match up with the reference images.



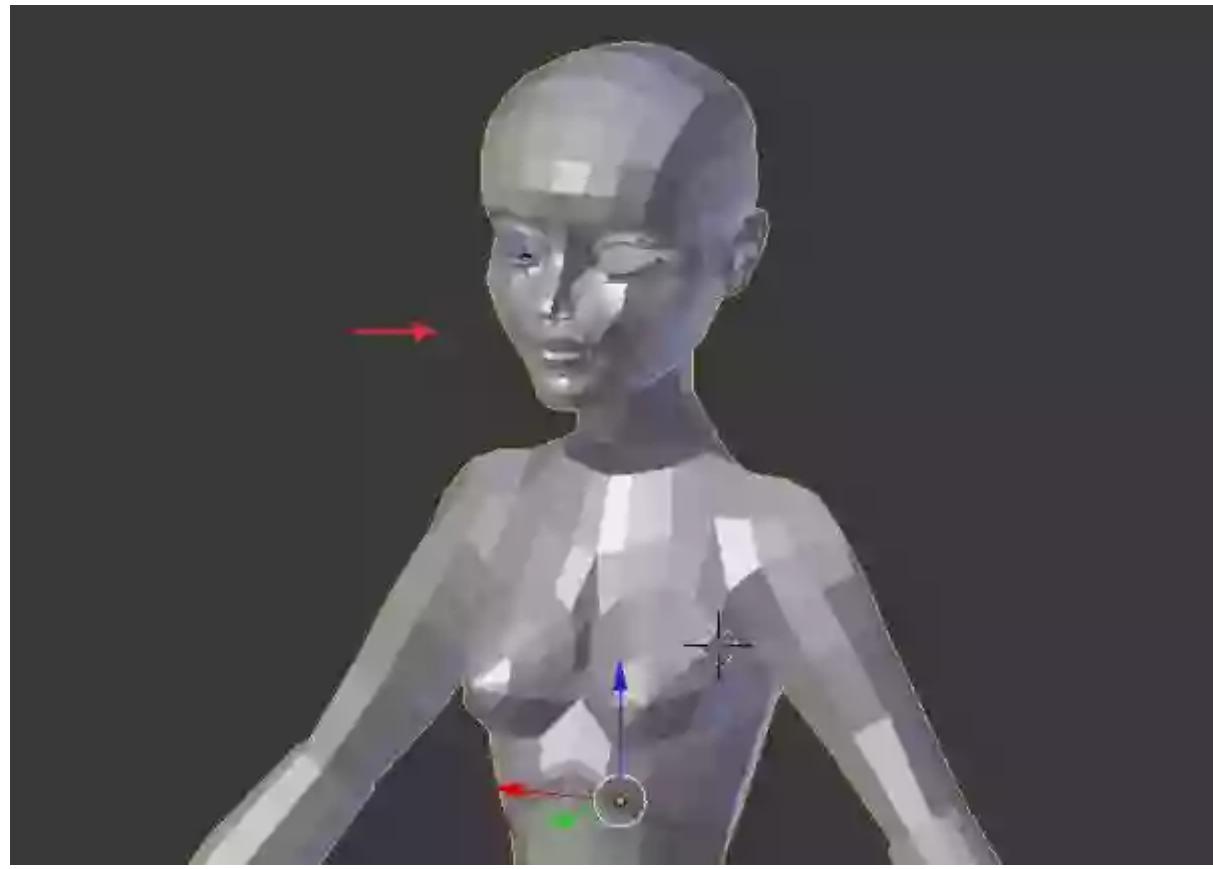
Step 5

In **Object** mode, select both the head and the body mesh by using **Shift** key.



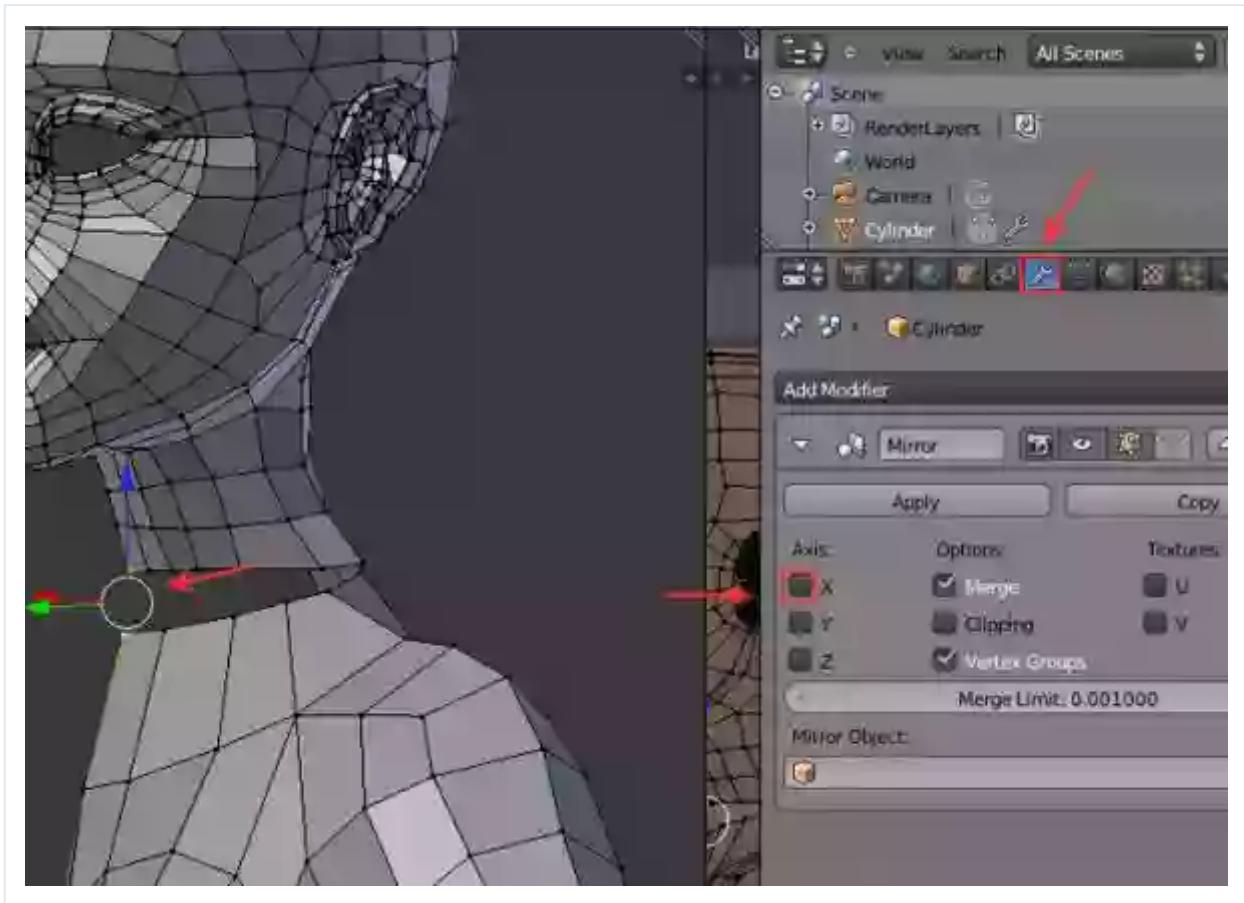
Step 6

Then press **Ctrl + J** to join the selected meshes into one.



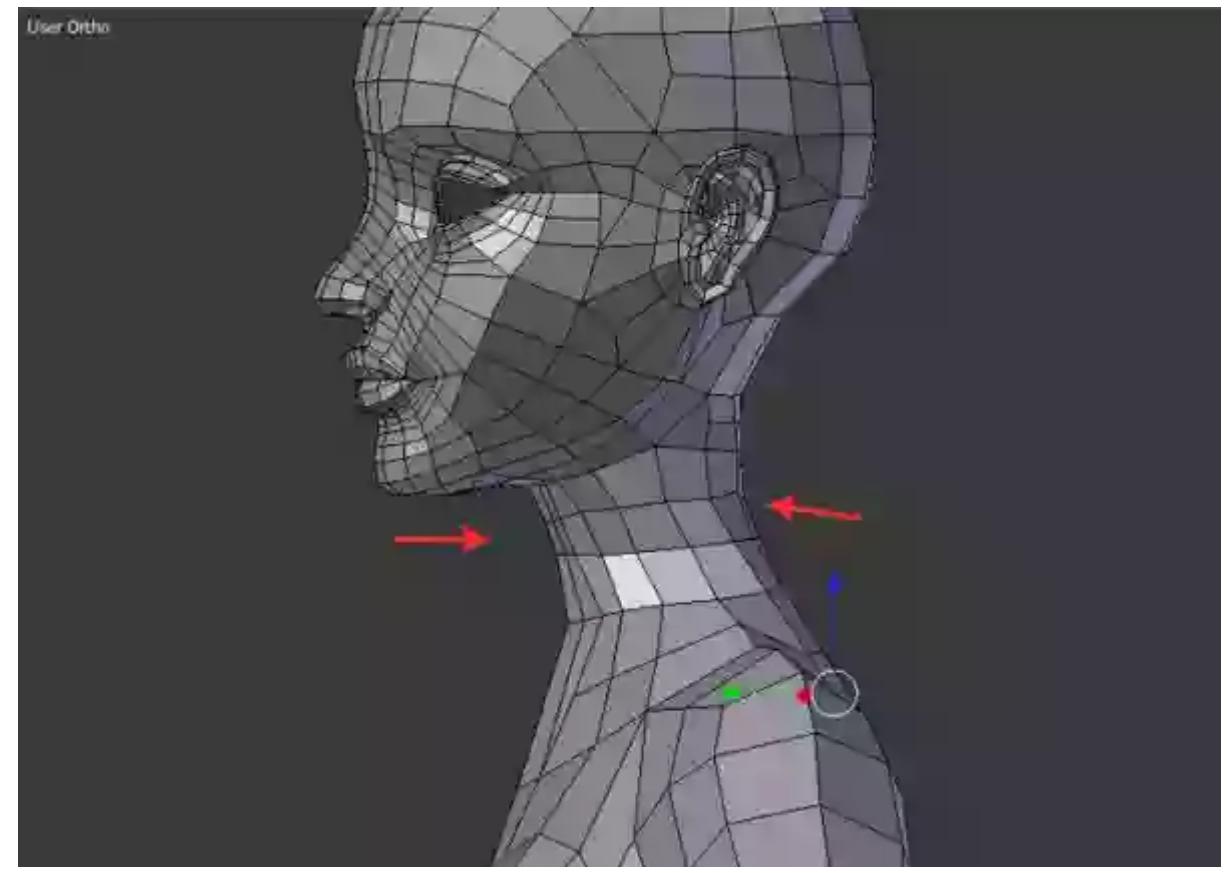
Step 7

In **Vertex** selection mode, go to the **Modifier** panel and then turn off the **X** axis.



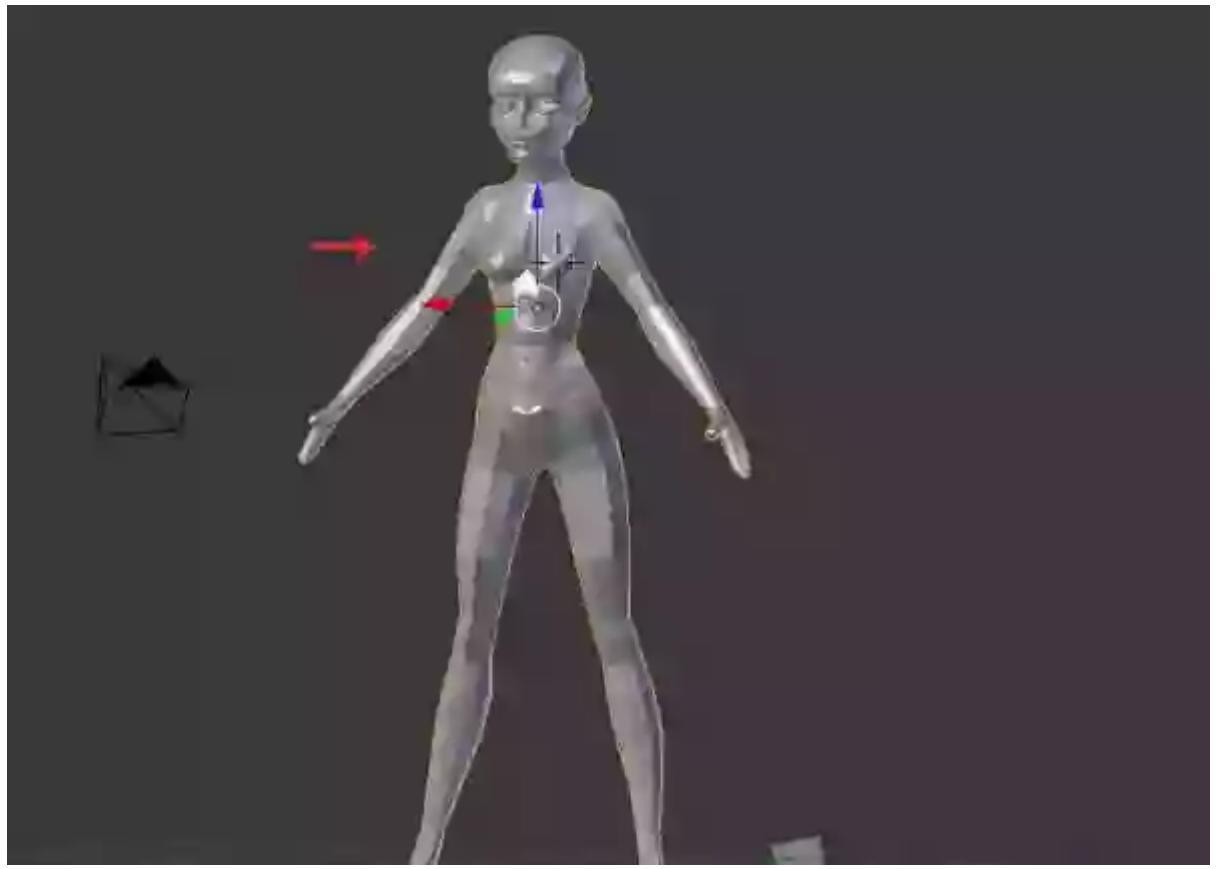
Step 8

Now it's the time to merge the head and body vertices together. Following the method explained in the previous steps, merge the parallel and corresponding vertices together to complete the mesh.



Conclusion

We have now completed the blocking of our character. In the next part of the series, we will continue working on adding detail and creating hair for the character.



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Soni Kumari

My name is Soni and I am a CG artist from India.

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Name



Alejandra Salinas

4 years ago



HELLO WONDERFUL TUTORIAL! I HAVE ONE QUESTION, WHEN YOU IMPORT THE MESH OF THE HEAD ITS ON THE LEFT HAND SIDE AND WHEN YOU ATTACH IT TO THE BODY IS ON THE RIGHT HAND SIDE, COULD YOU EXPLAIN ME HOW DID YOU DO IT PLEASE?

Reply



Reginald Side ➔ Alejandra Salinas

2 years ago



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One of the many tweaks the text doesn't cover. Presumably you made a mirrored copy and imported that.

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