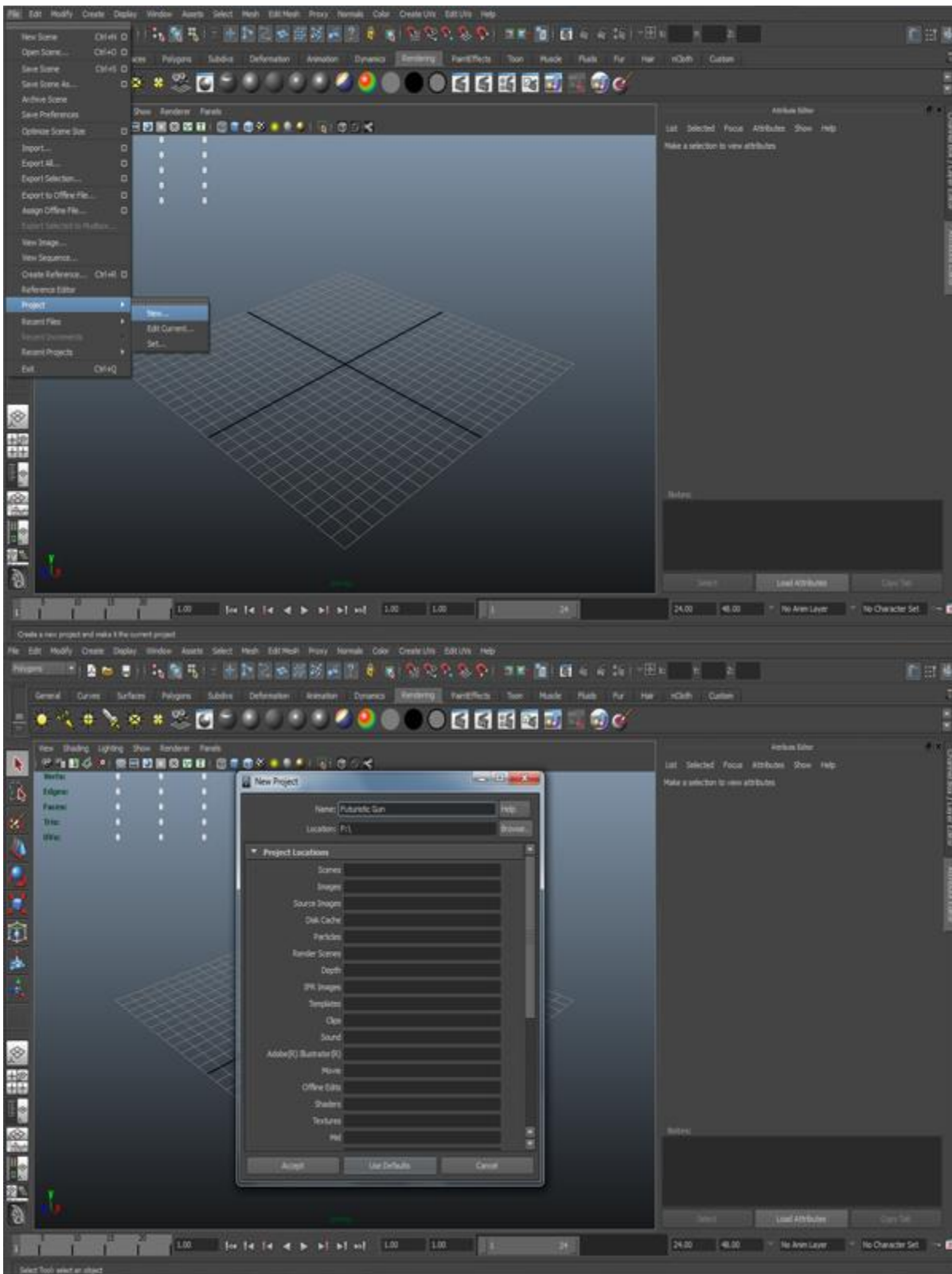


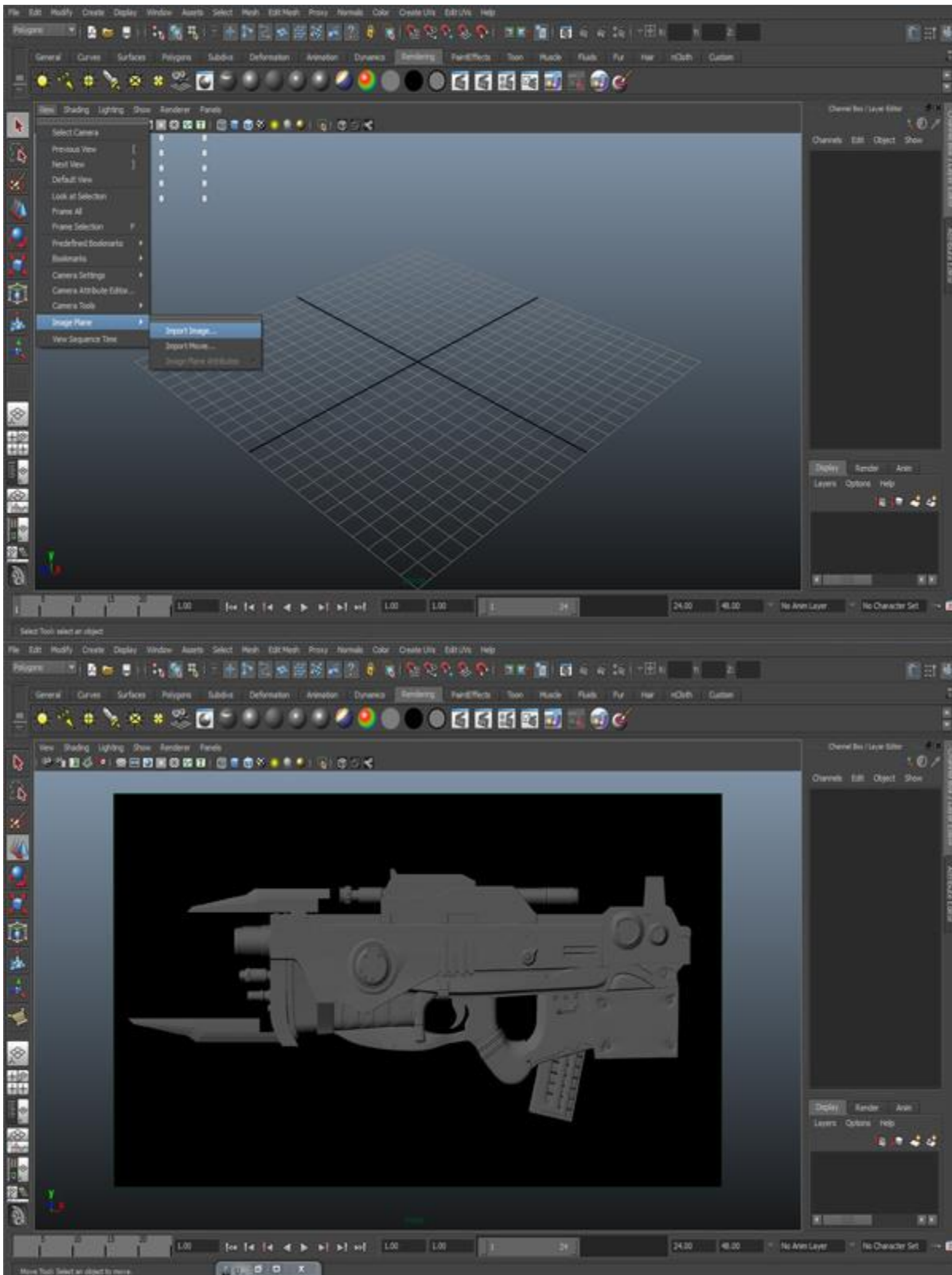
Step 1

Open Maya and set the proper project folder for your project. Go to *File>Project Window>New* and write down the name of the project and location, then click on “Accept”.



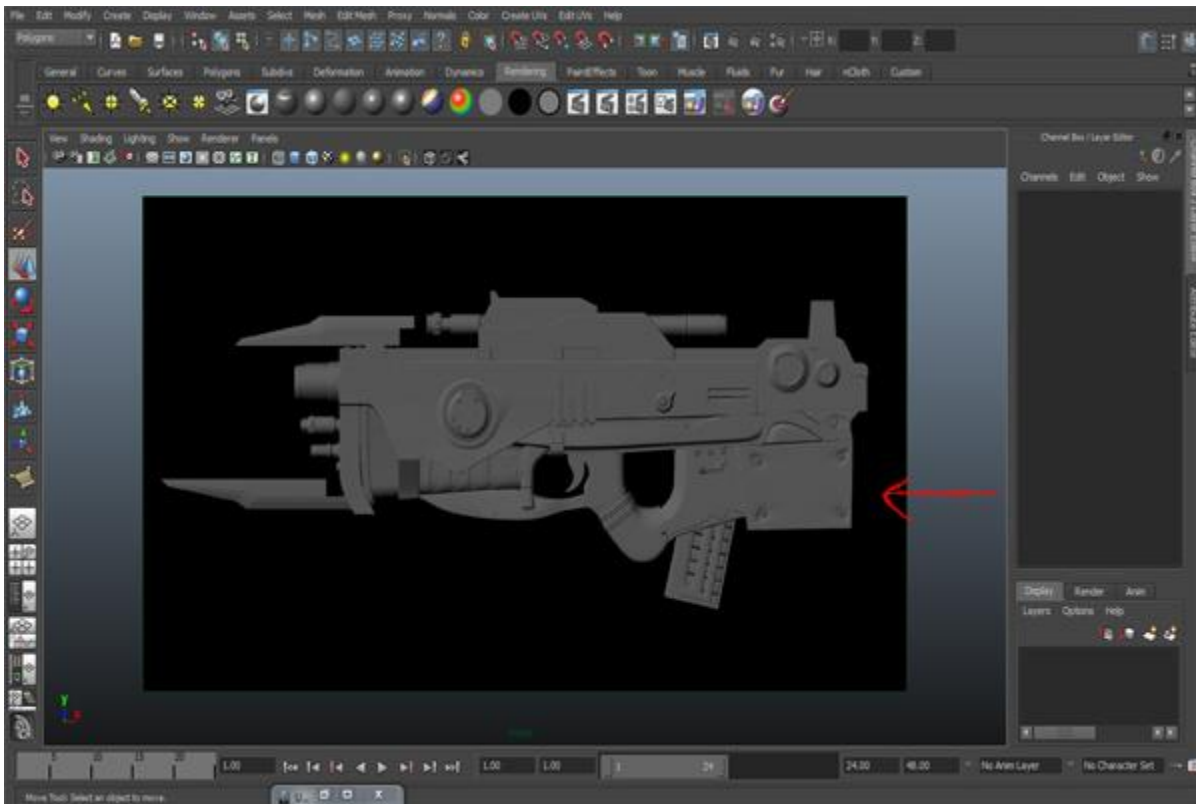
Step 2

Now let's bring the reference image into the viewport. Hit the Space Bar to go to Front View. Click *View>Image Plane>Import Image* and open the image.



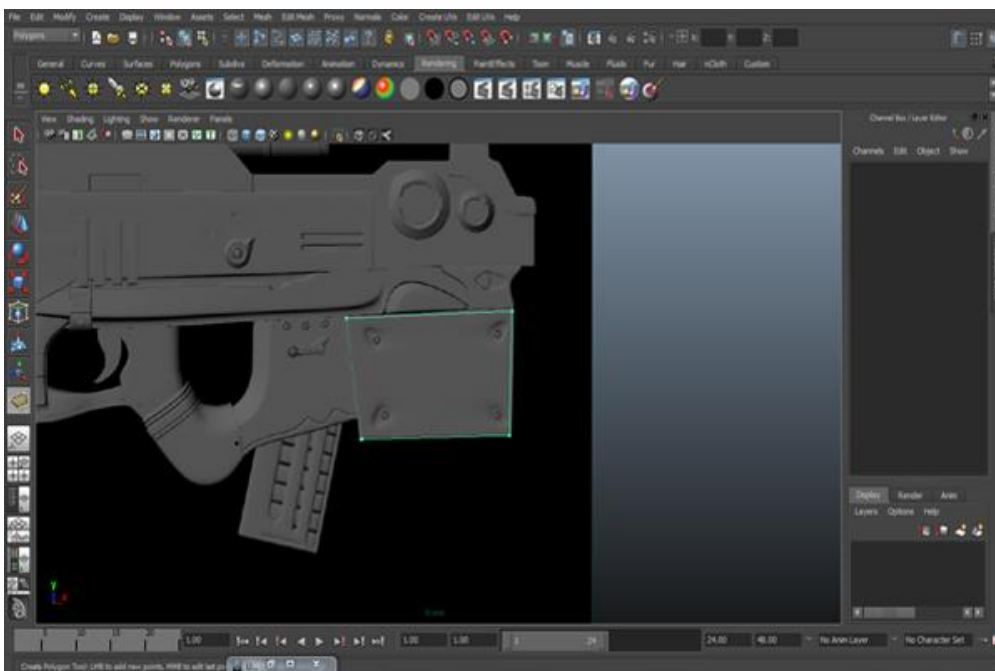
Step 3

Now let's start modeling. As you can see the whole gun has a flat surface. So we will start with the easiest and lowest poly part of the gun. The red arrow denotes the part.



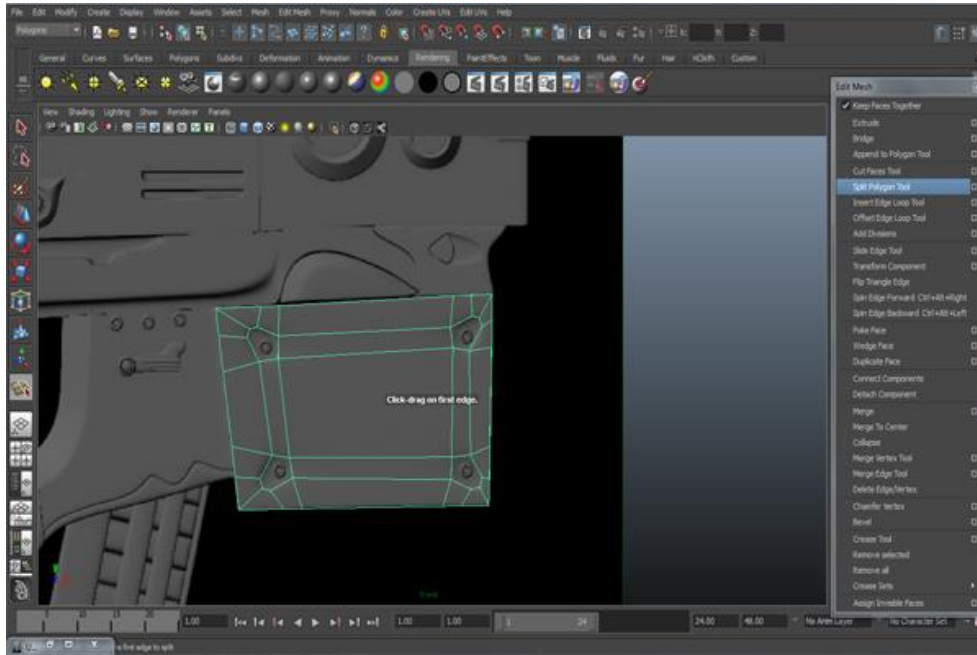
Step 4

Go to *Mesh Tools*>*Create Polygon Tool* and create the necessary shape according to the part.



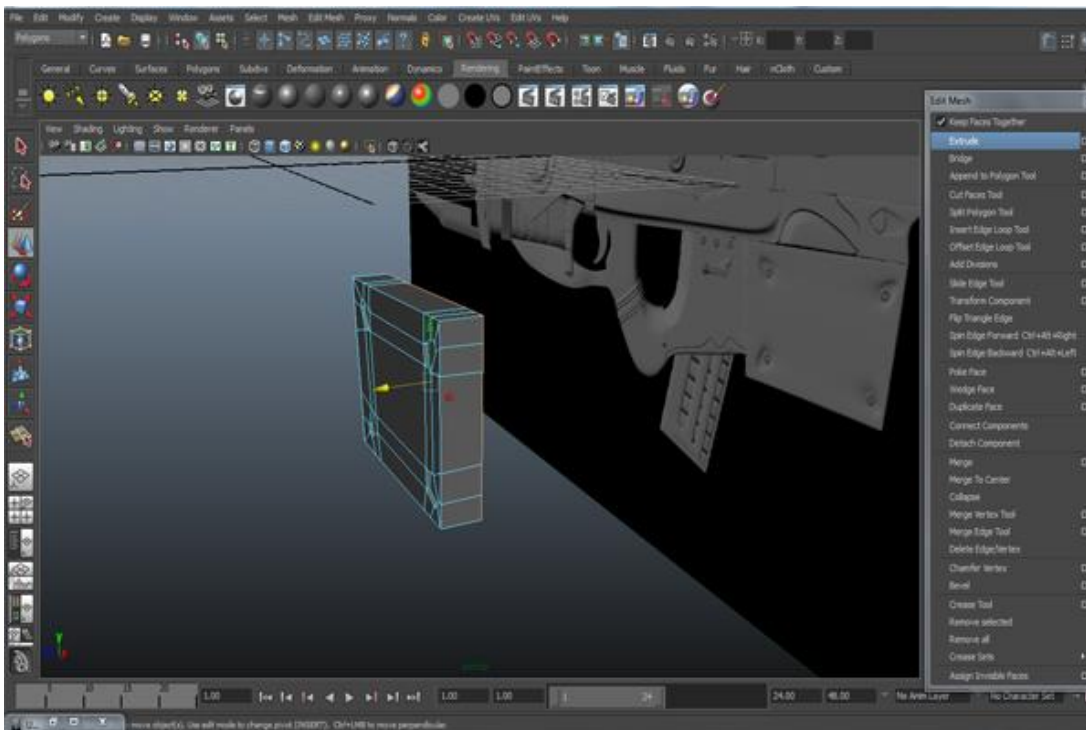
Step 5

Now use the Cut Polygon Tool to make the basic lines, then go to *the MEL bar at the bottom left and type SplitPolygonTool* and hit Enter on the keypad. Then draw depth edges for the screws as shown. Use the Vertex Selection(F9) Mode and Translate tool to refine the points.



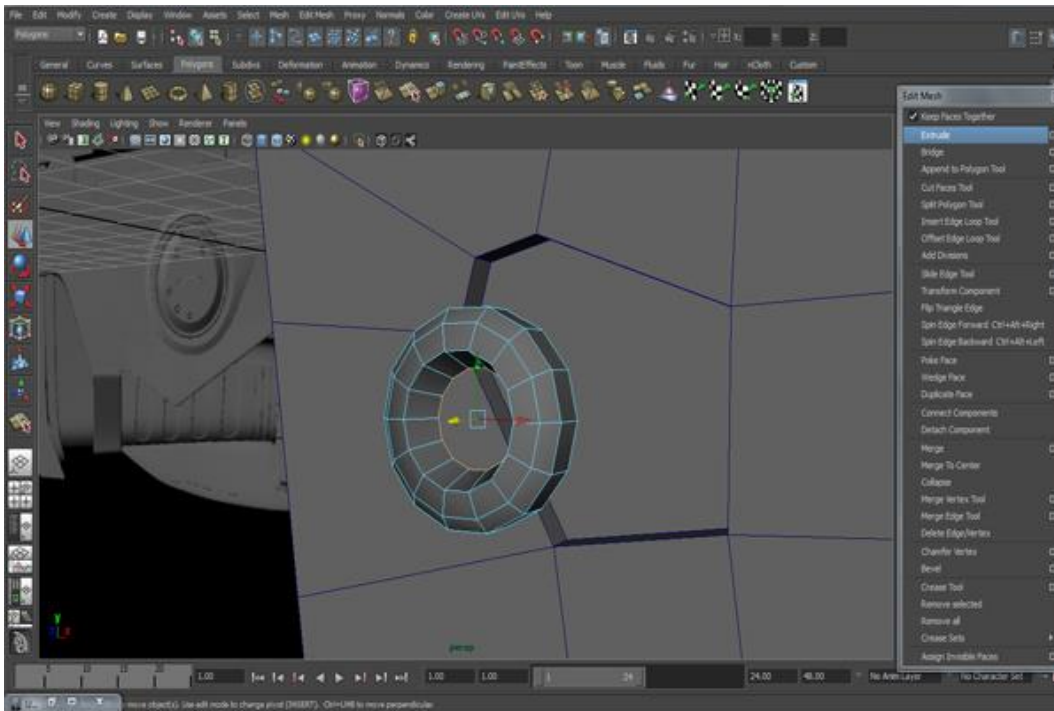
Step 6

Now go to the Perspective view and extrude the border edges to create depth. To extrude go to Object Selection(F8) Mode then *Edit Mesh>(Edge) Extrude*.



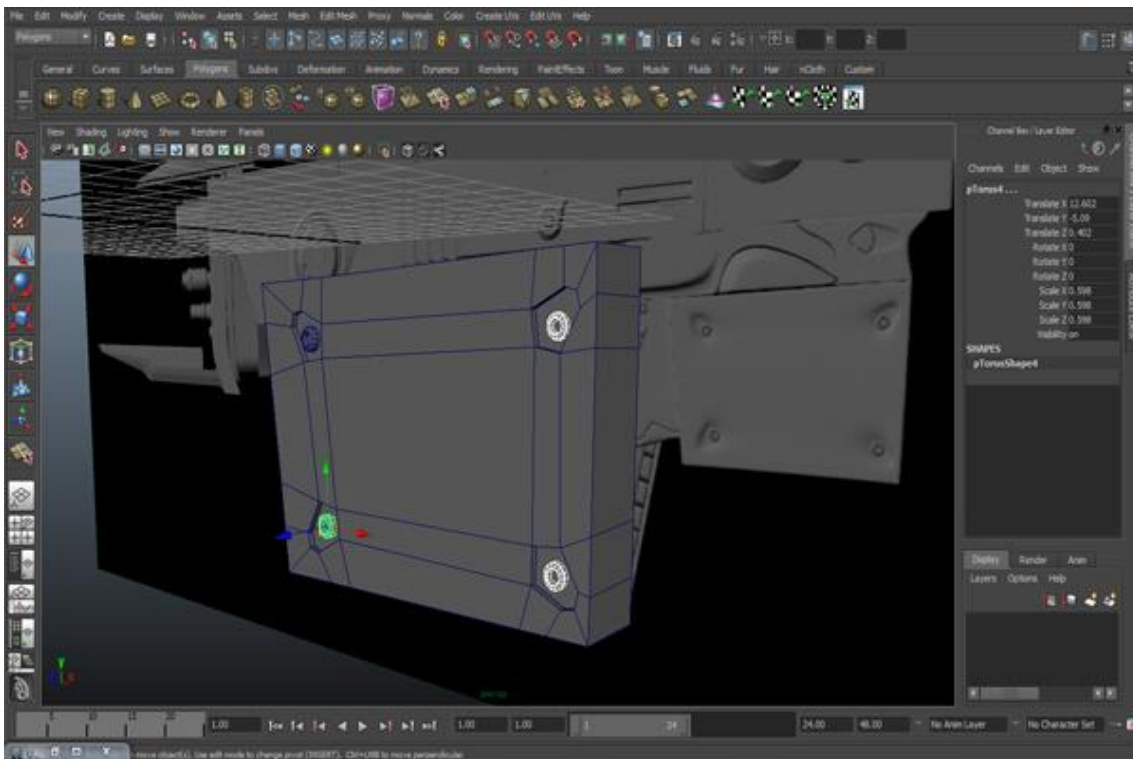
Step 7

Now create a Cylinder to form a screw. Modify it, delete the center face of the cylinder and extrude it from the center border edges. Turn on Wireframe: go to Shading>Wireframe on Shaded



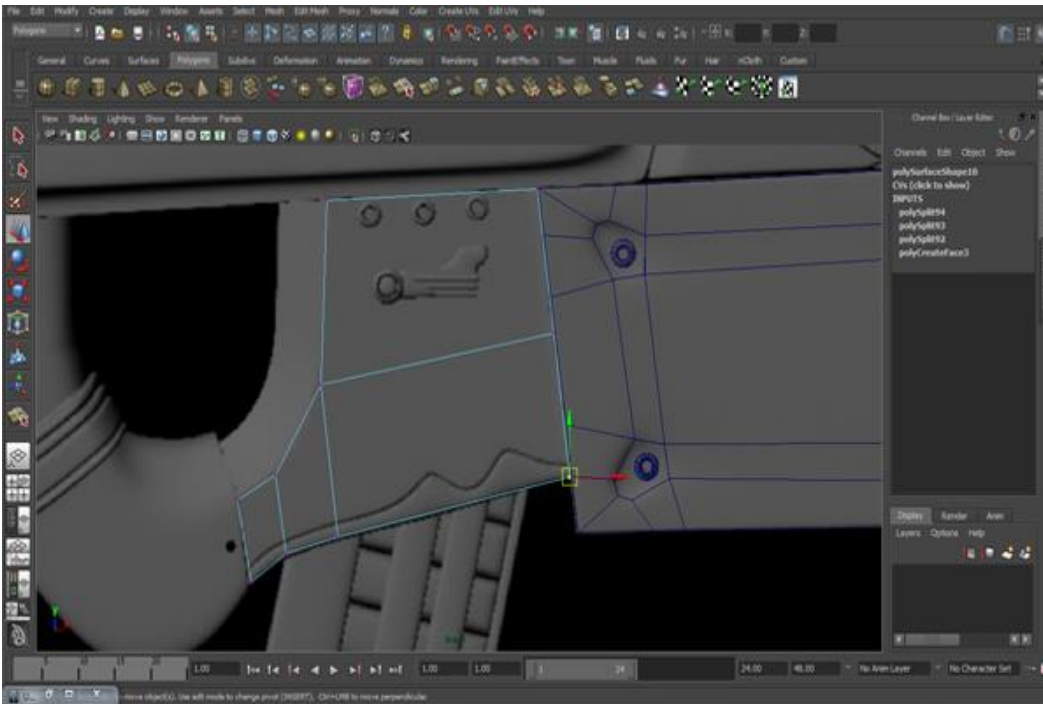
Step 8

Now put the screw in it's place, and go to *Ctrl+D* to create the other screws as well.



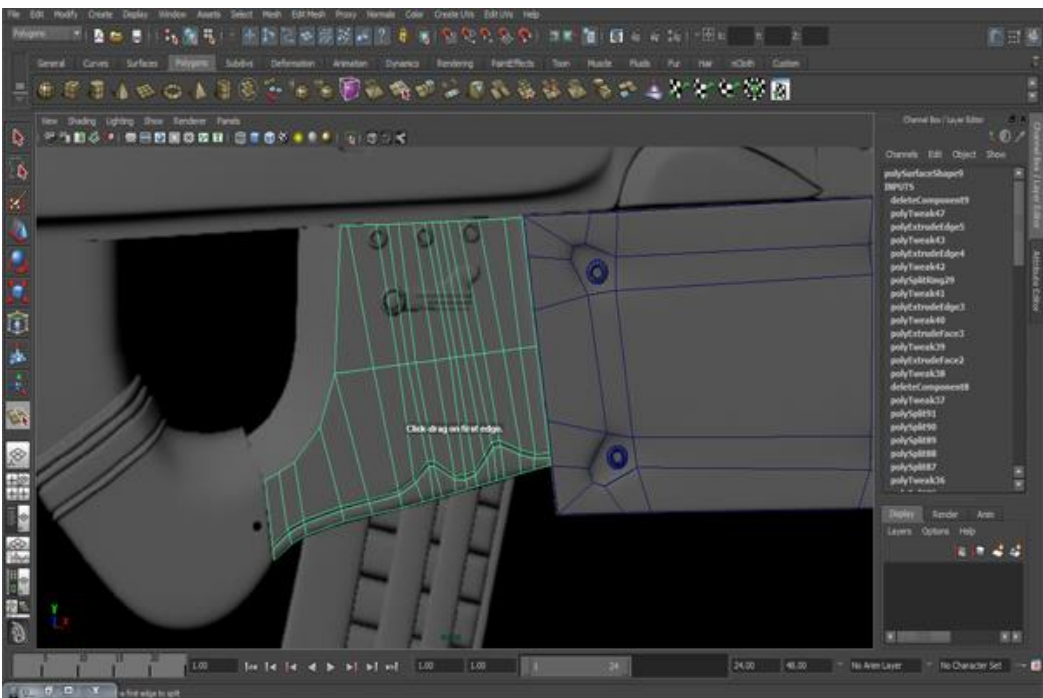
Step 9

Now we will create the next part of the gun. Switch to Side View, and again go to *Mesh>Create Polygon Tool*, and create the shape using proper loops of edges as shown in the image below.



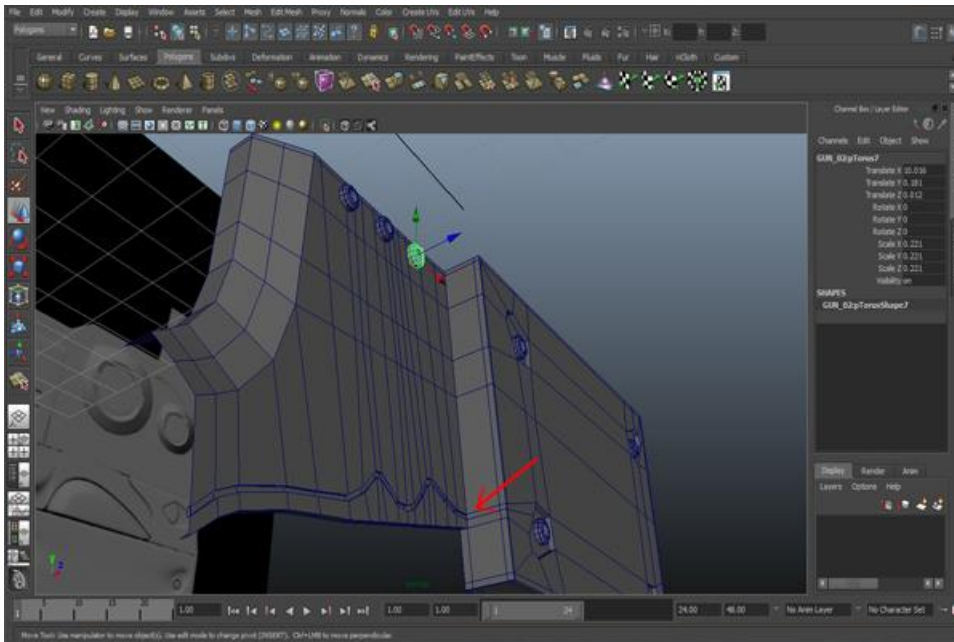
Step 10

As you can see here, there is a depth line on the gun. We make this with the help of the Split Polygon Tool and create the curves of the lines we will make proper loops.



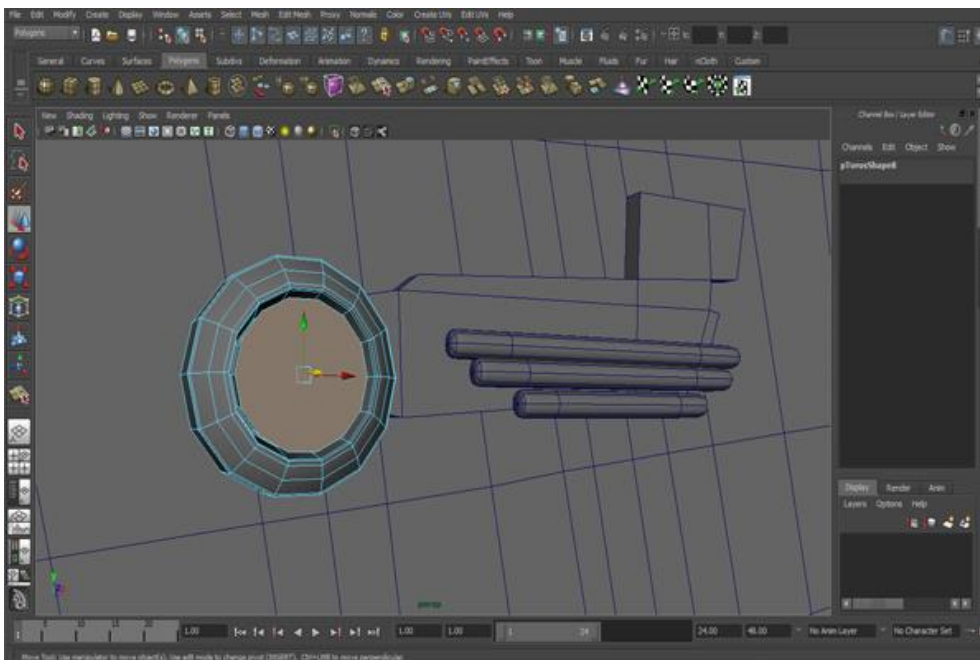
Step 11

Then extrude from the front, also extrude the line faces a negative amount. Look at the far end of the extruded line that the arrow is showing, this line will not go forward from here. Once it is done, we will combine both the meshes together. So go to *Mesh>Combine*. And then place the screws here too which were created in the previous steps.



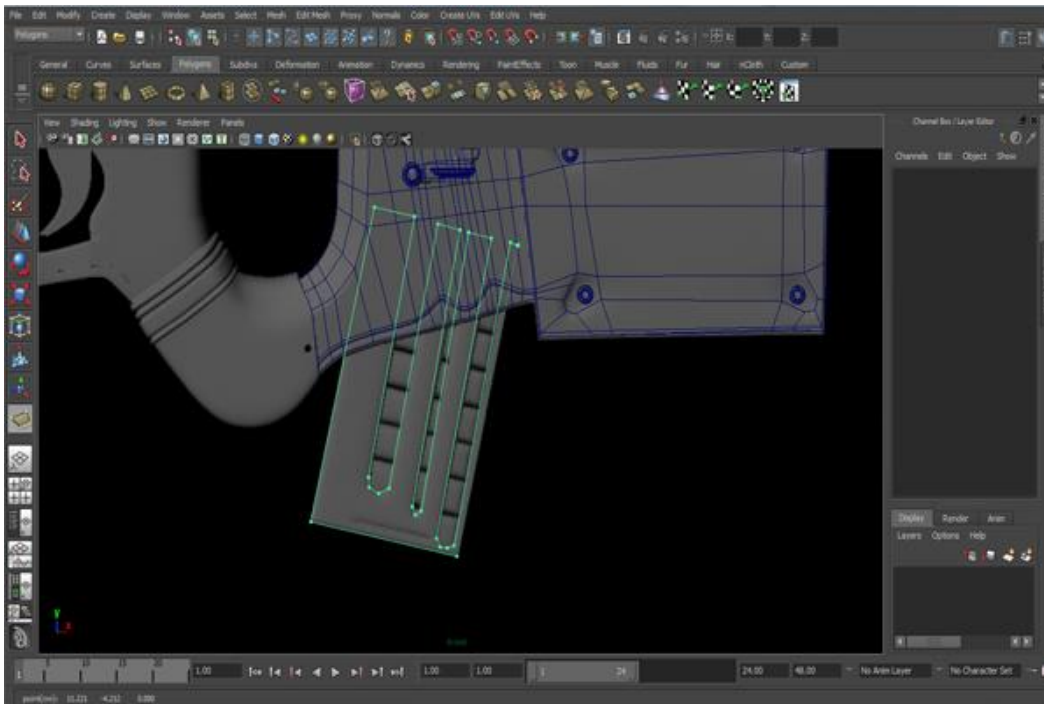
Step 12

Now let's create the metal design with the help of the Create Polygon Tool. First create the back plane of the metal design and then add three cylinders there. Take a copy of a screw (scale it if needed) and fill the center hole. For that, double click on the Centrex border edges, go to *Mesh>Fill Hole* and then extrude it outward.



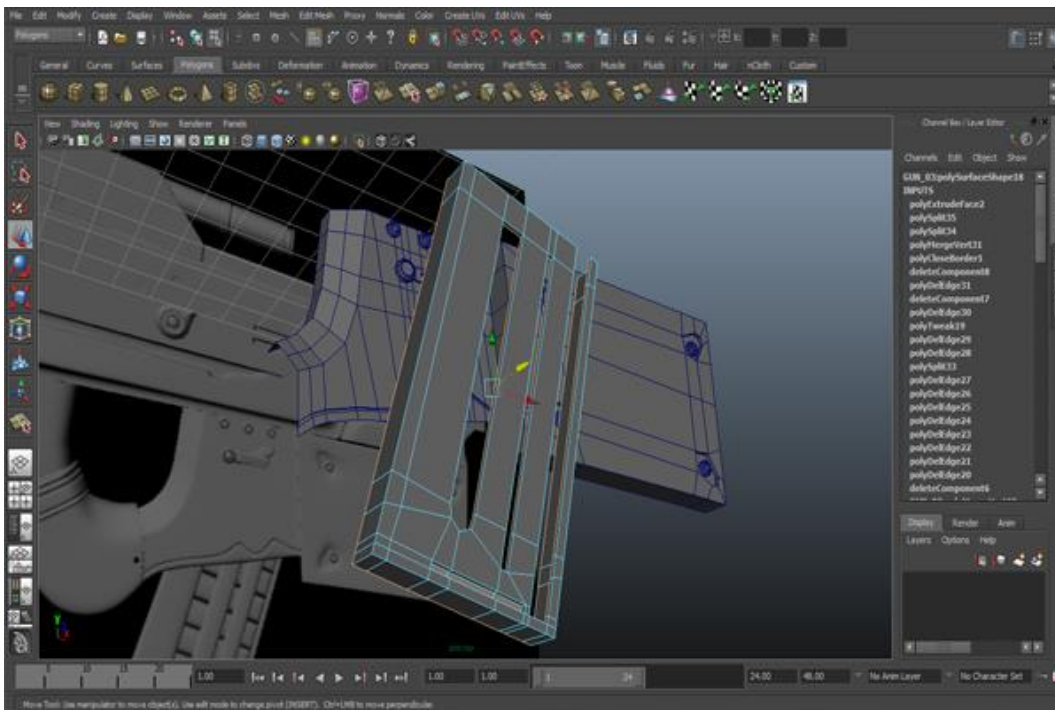
Step 13

Now we will create the bullet refill. The create polygon tool is an amazing tool if you know how to use it according to your model. In the front viewport, create a polygon for the bullet refill with the help of create polygon tool.



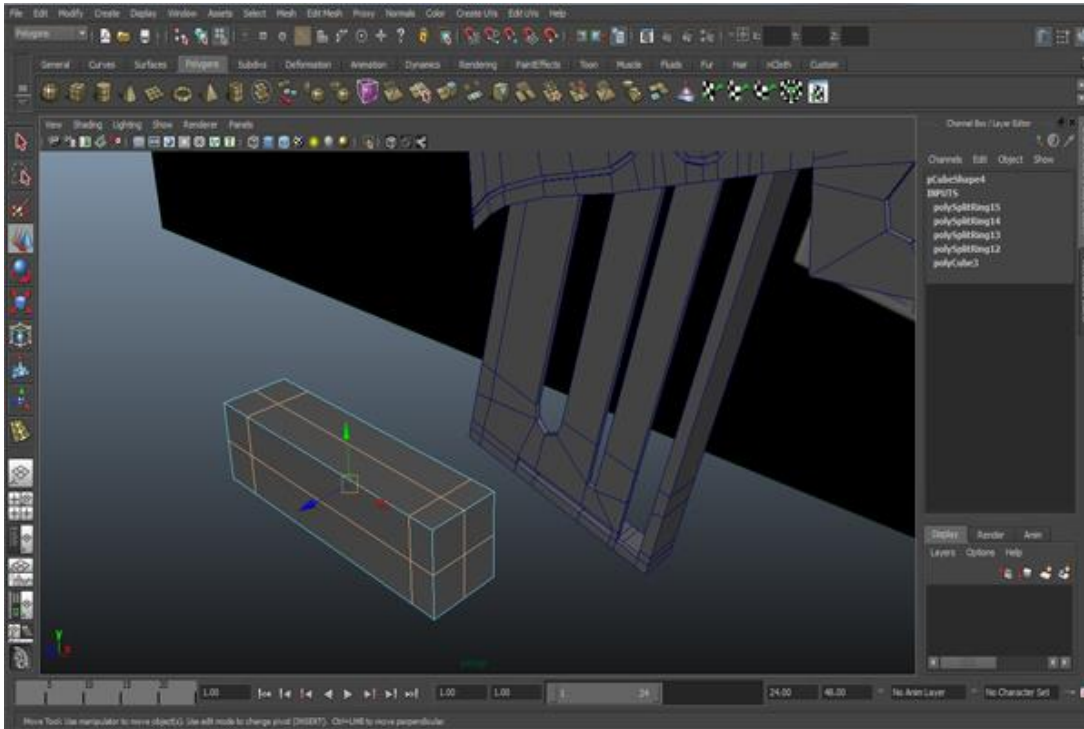
Step 14

Now complete the loops and extrude the border edges and some faces as shown in the figure below.



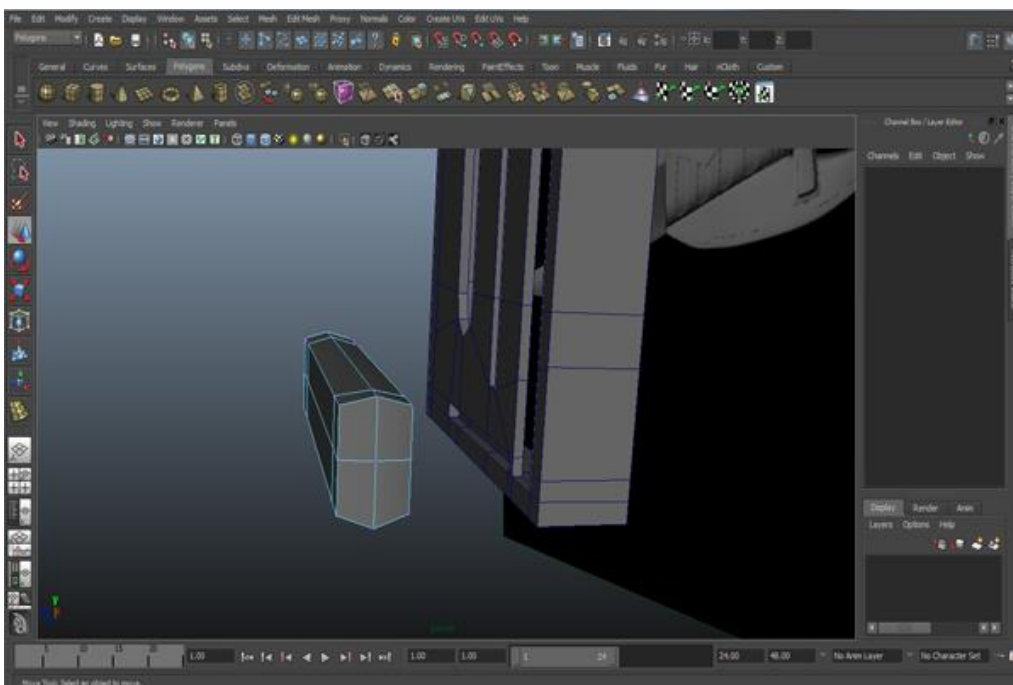
Step 15

Now create a box to make the bullets. Insert edge loops, one in the center from the top and front of the box, and two edge loops on both sides of the box as you can see in the image. To insert edge loops, go to *Mesh Tools>Insert Edge Loop Tool* and drag the pointer on edge.



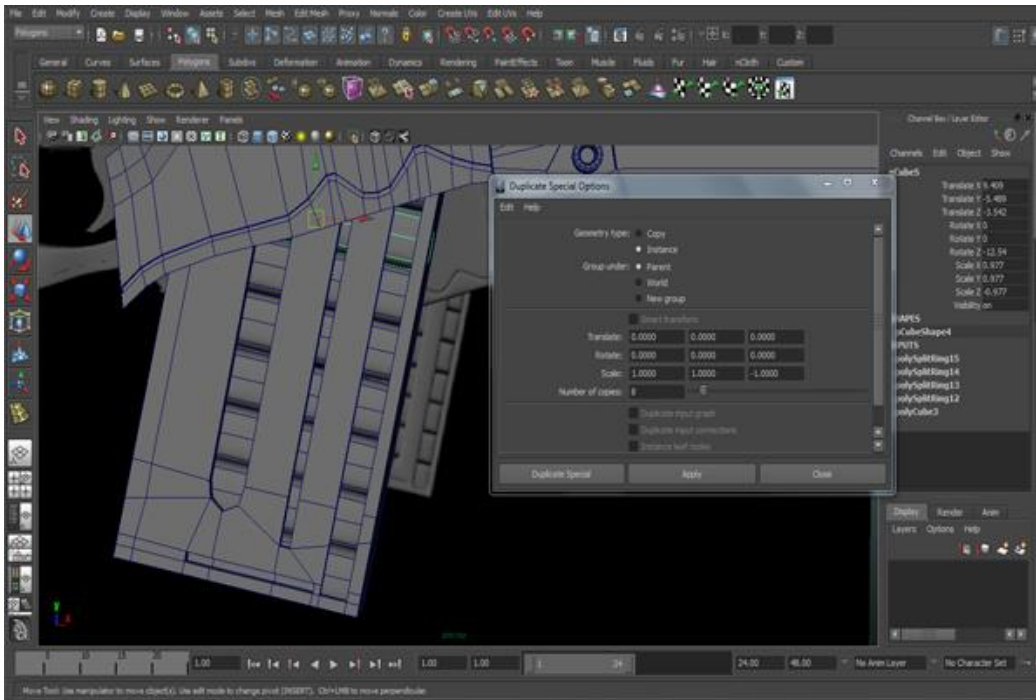
Step 16

Now go to vertex mode and transform the box as shown in the figure below.



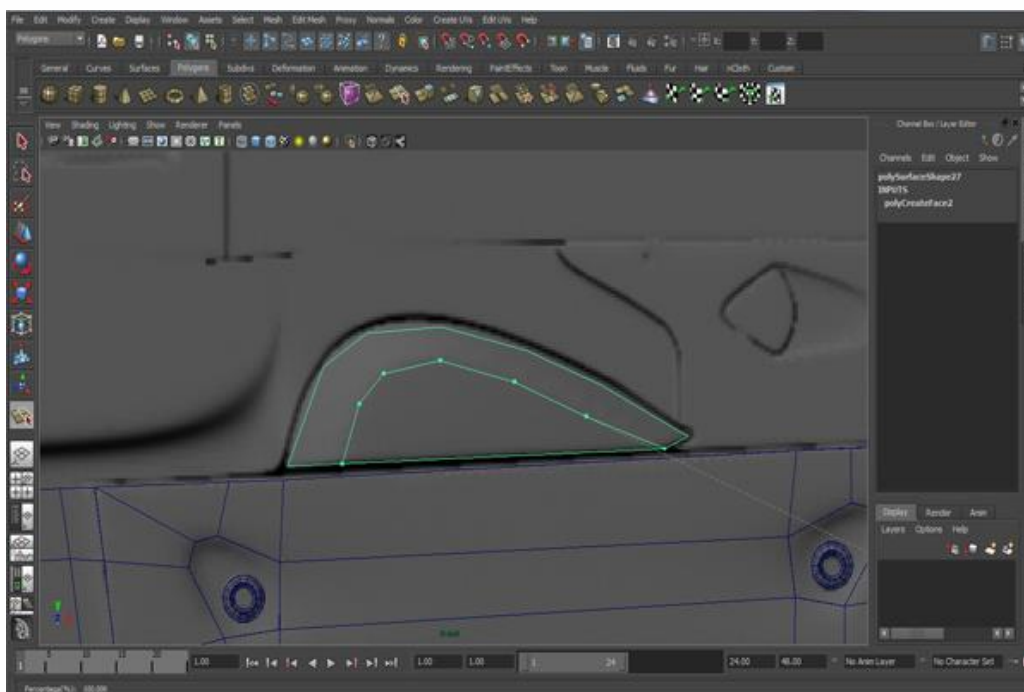
Step 17

Now move the bullet inside the bullet refill and go to *Edit>Duplicate Special* (click on the box). Select the Instance option and write the desired number of bullets in the copy box and be sure to change the y and z translate option.



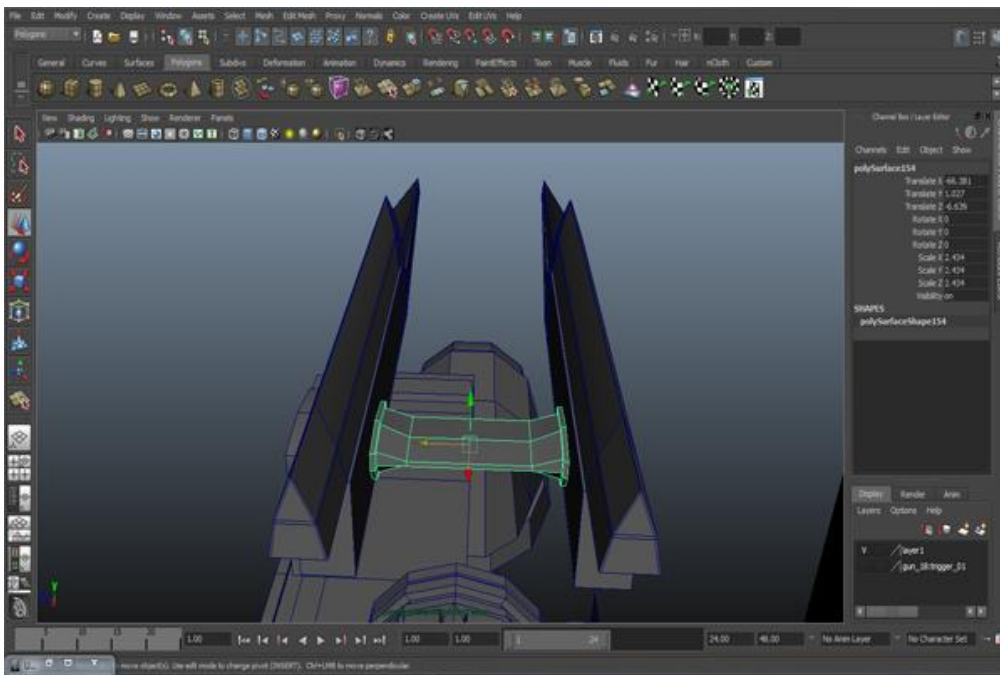
Step 18

Now let's make a small embossed design. Go to *Mesh>Create Polygon Tool* and create a polygon as you can see in the figure below, and draw an edge on it using the Split Polygon Tool. Then Extrude as before. Or Extrude and Resize the face to look as below.



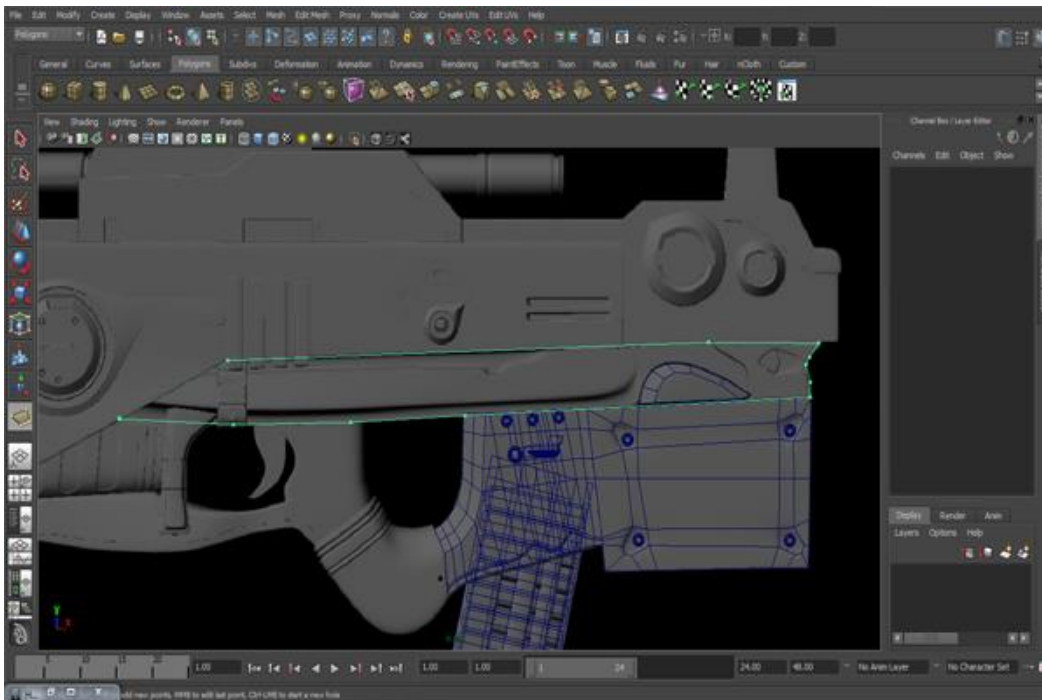
Step 19

First select the edge loop1 and move it outside as shown in the figure below. I have mentioned the name in the figure so you can easily understand. Then select the last edge and extrude it behind.



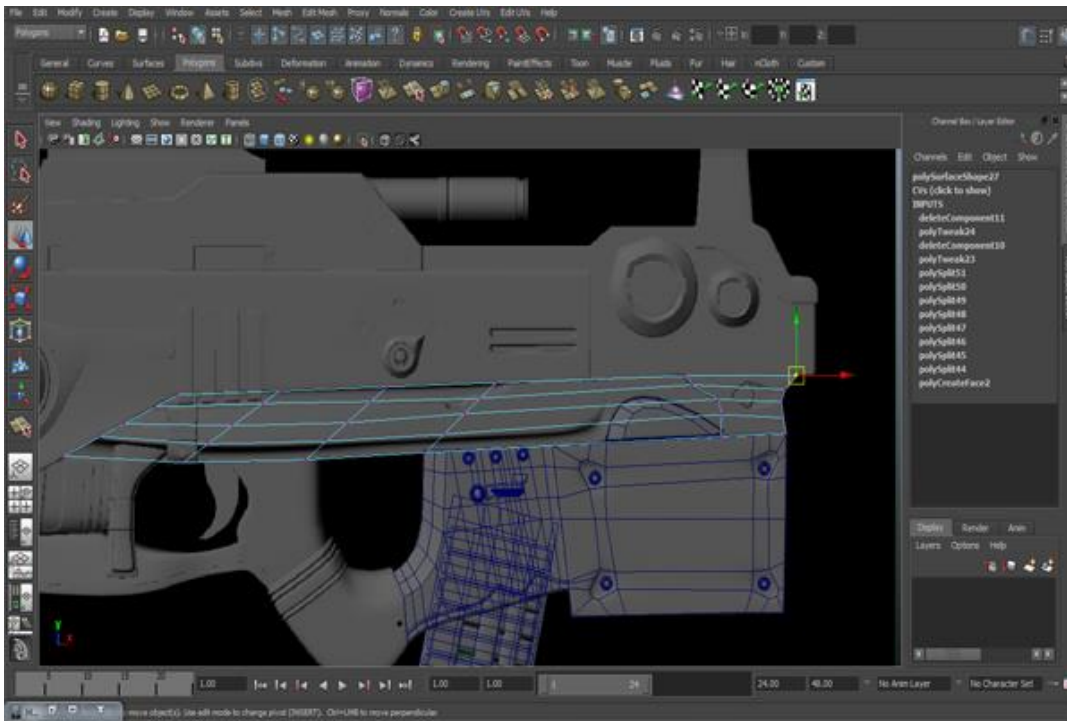
Step 20

Again using the create polygon tool, create a polygon as you can see in image shown below. Go to *Mesh>Create Polygon Tool* to select the tool.



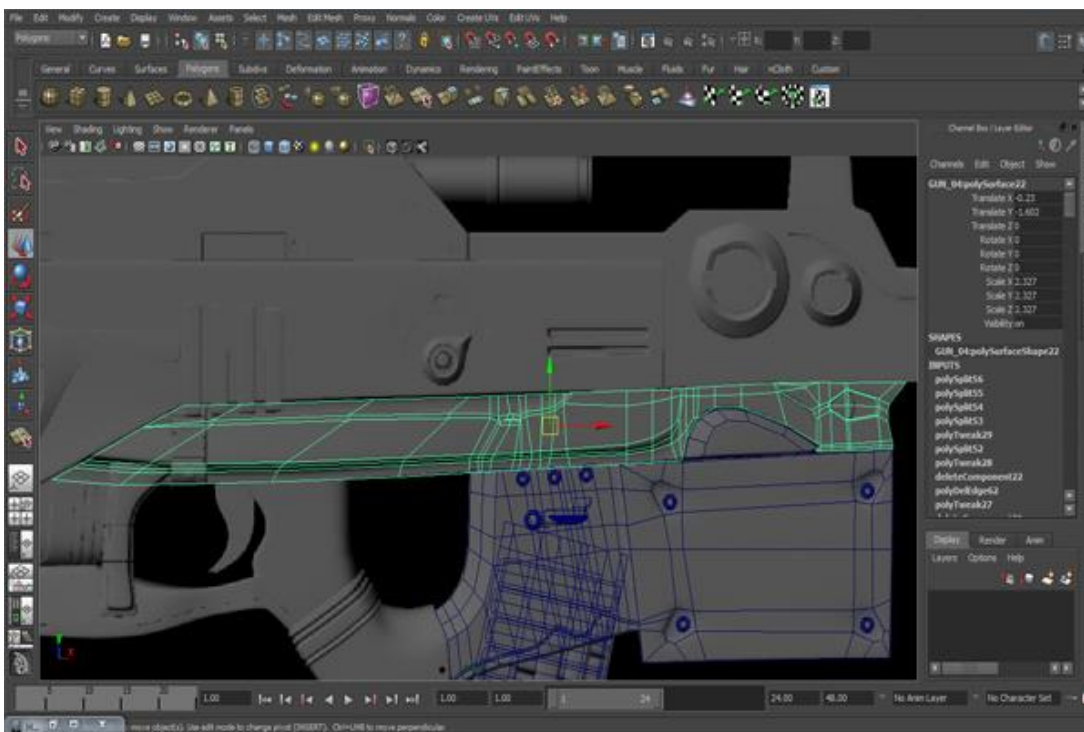
Step 21

With the help of the Split Polygon Tool, complete the loops where you can see vertices. For the Split Polygon Tool, go to *Edit Mesh>Split Polygon Tool*.



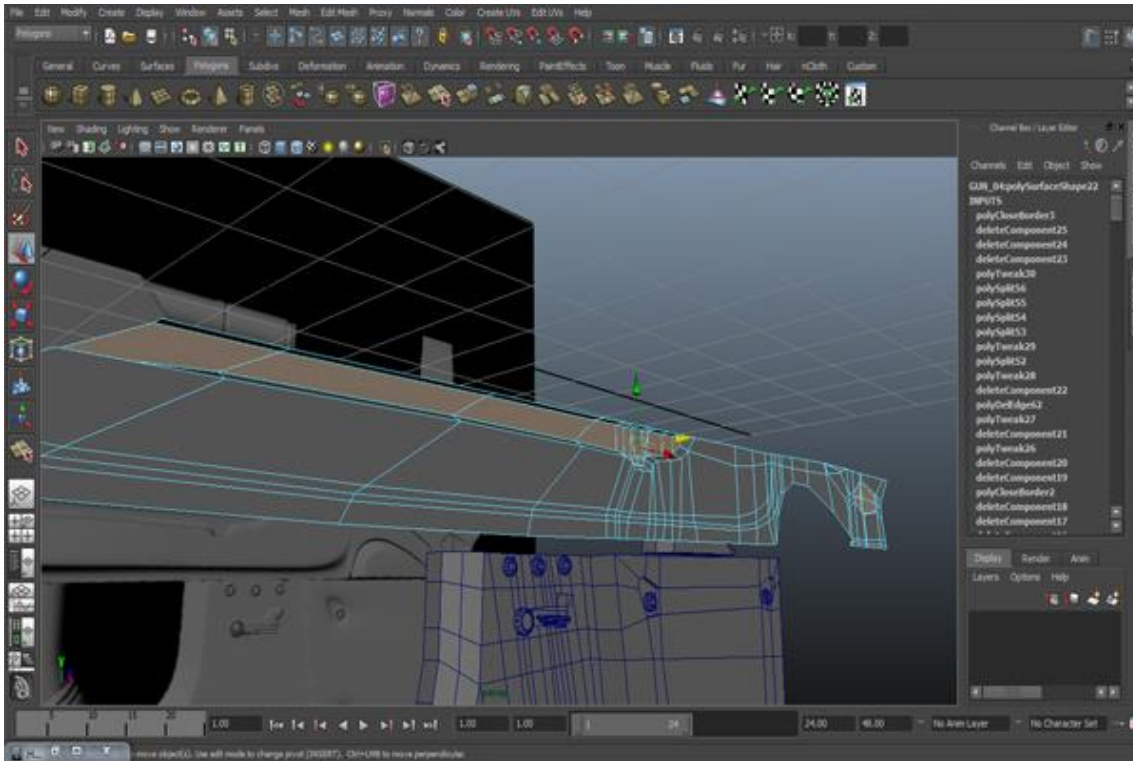
Step 22

Now create and adjust the mesh according to the reference image or model as you can see in the figure.



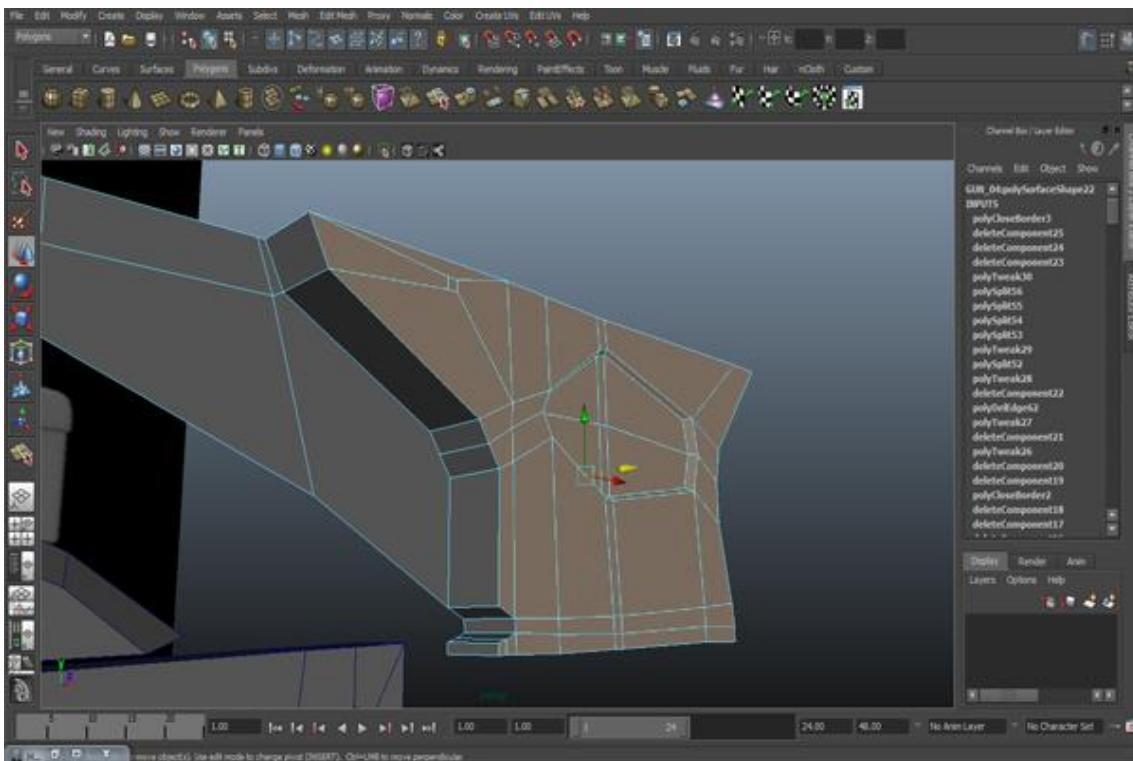
Step 23

Now this is the time to do some detailing. Go to the Perspective view, select some faces and extrude them backward. For extrude go to *Edit Mesh>Extrude*.



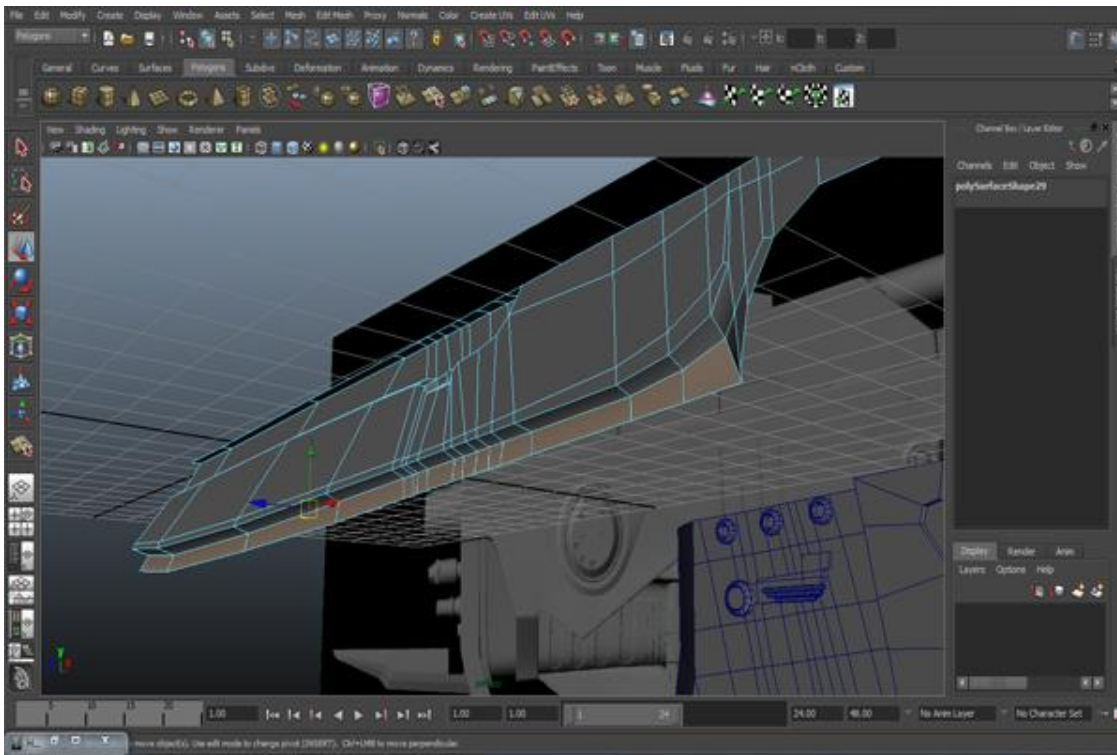
Step 24

Again extrude the last faces outward.



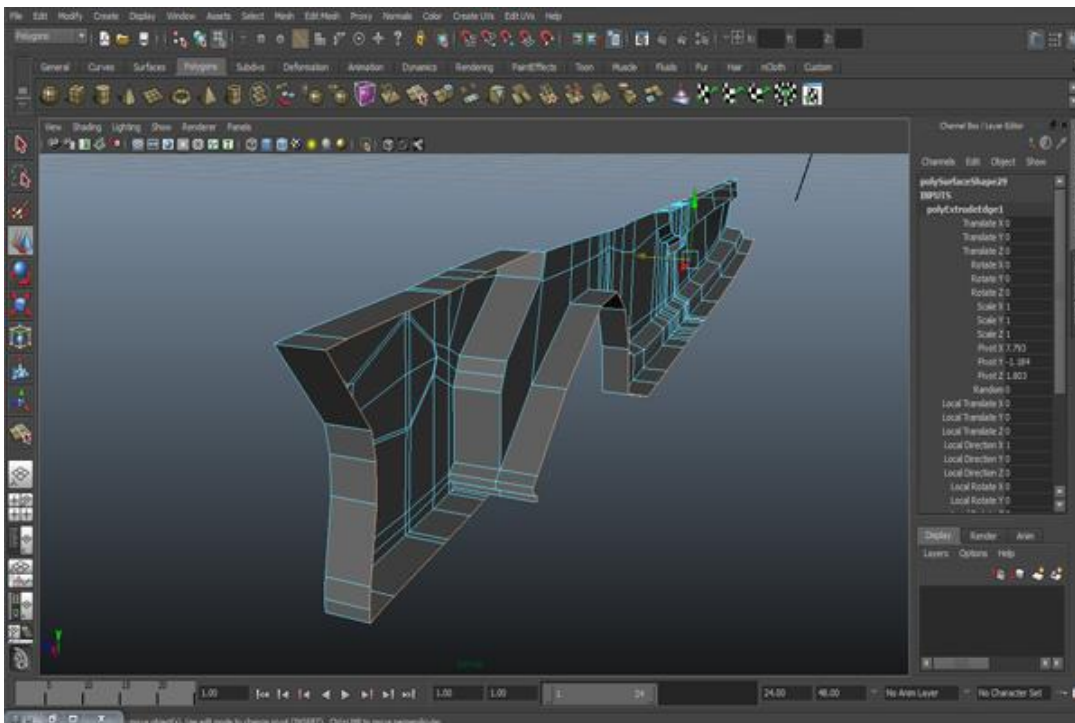
Step 25

Select the faces below and move them backward.



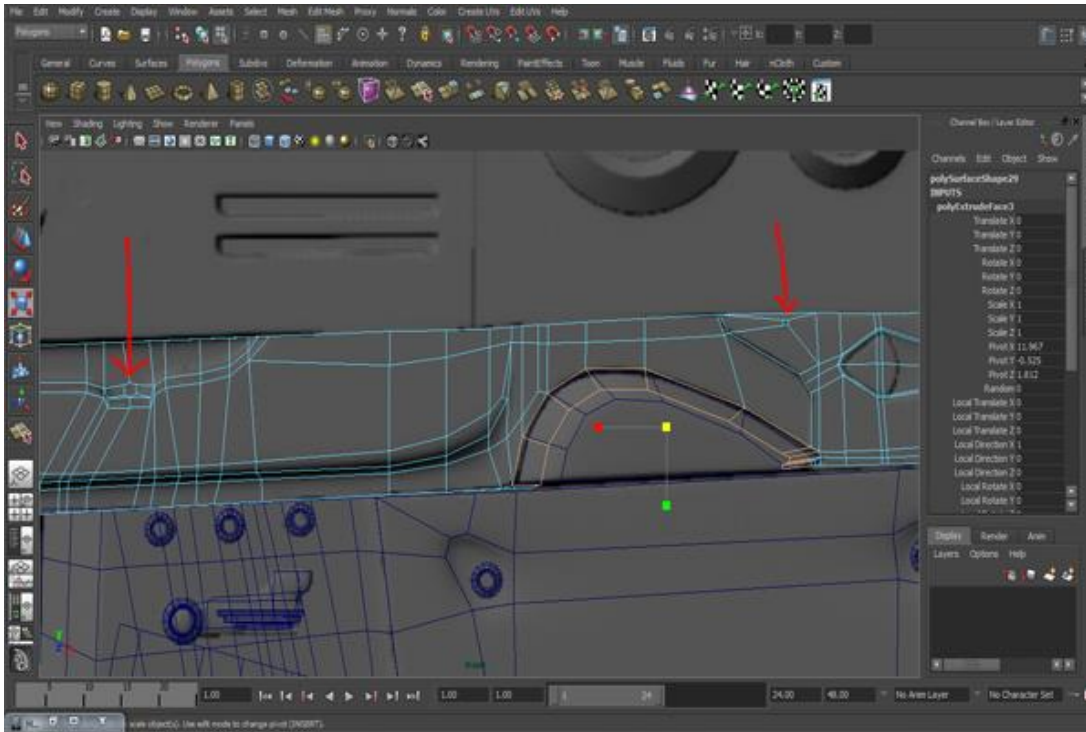
Step 26

Select some of the border edges and extrude them back as you can see in the figure. I'm showing you from behind just so you understand how many edges we need to select.



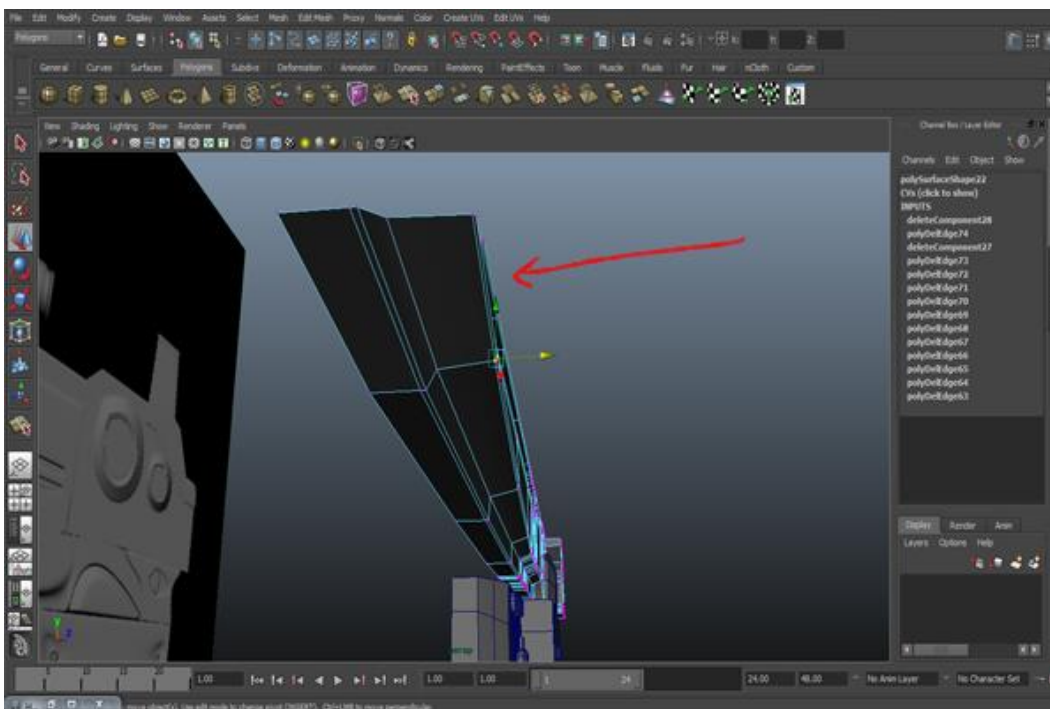
Step 27

Scale the faces from center as you can see in the figure, and also extrude the faces where we have to put screws. The arrows are showing the faces.



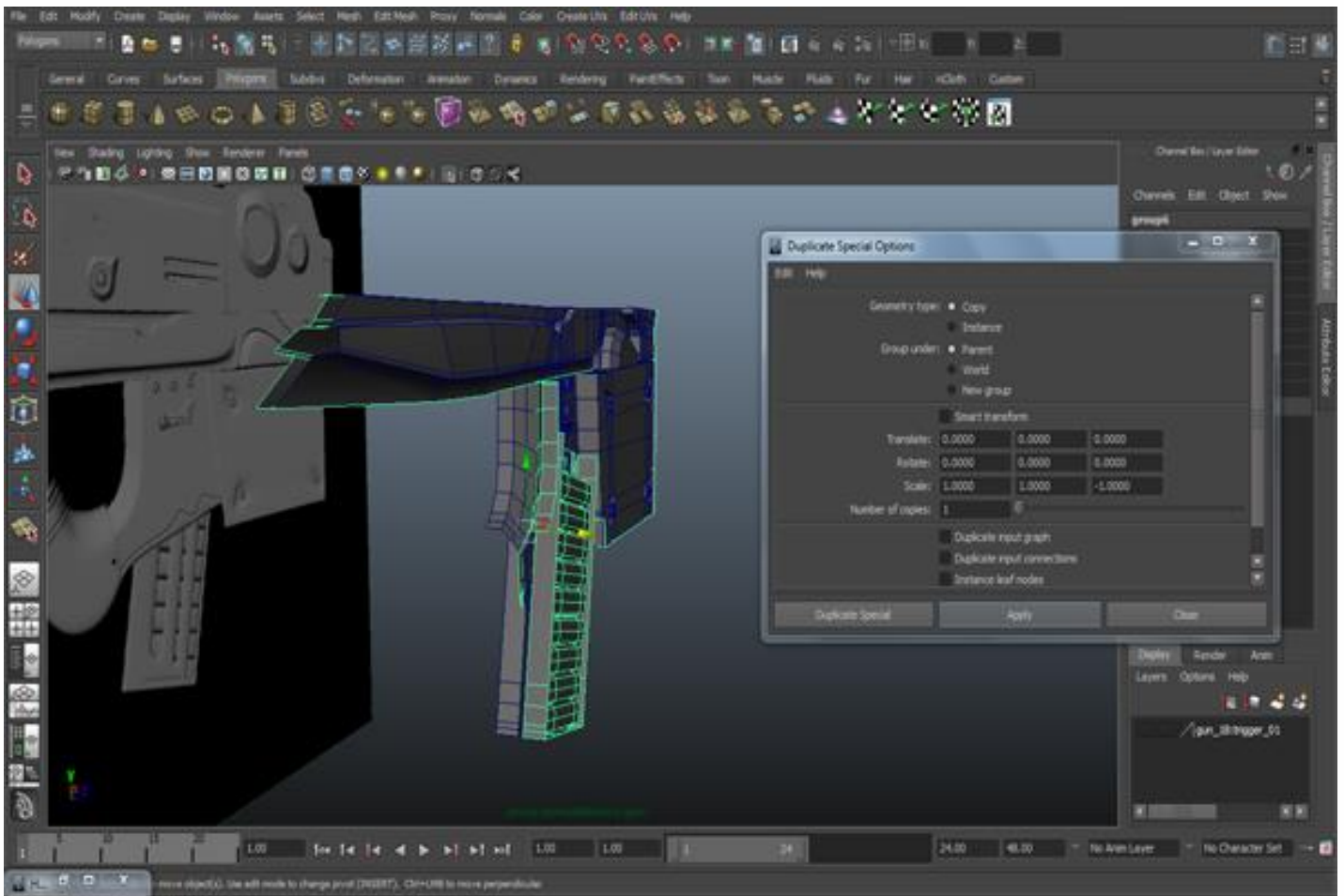
Step 28

And give it a narrow shape where the arrows are showing.



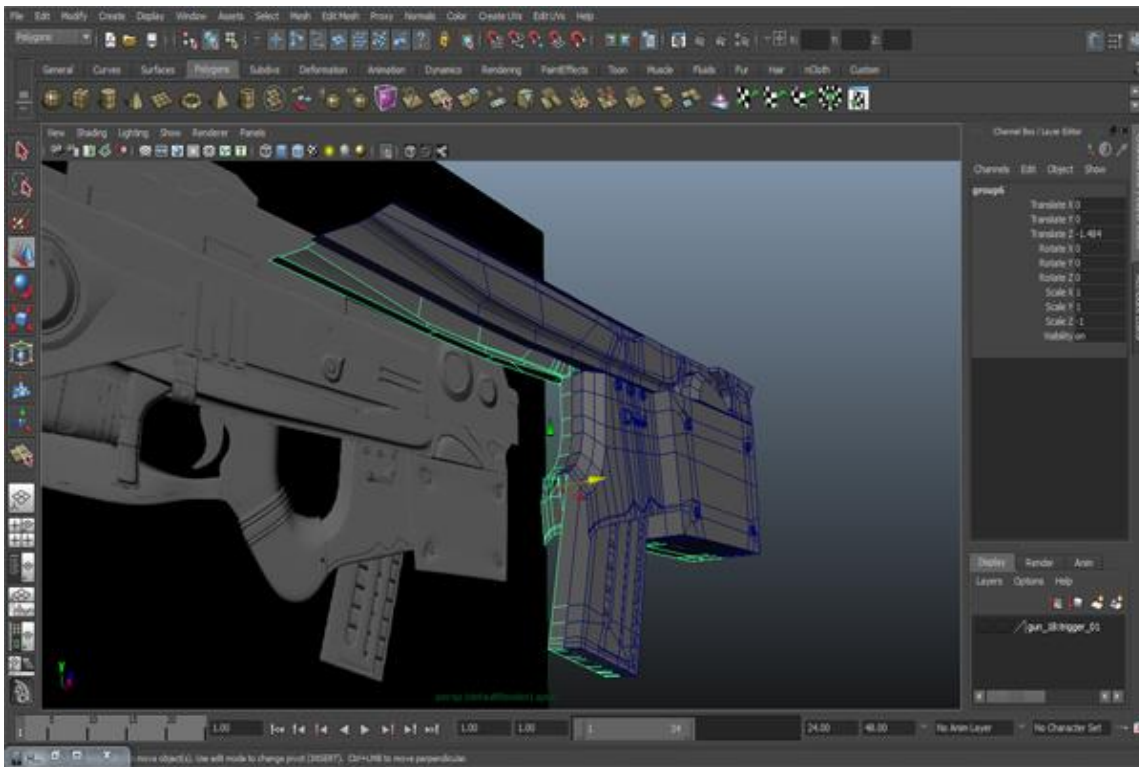
Step 29

Now before we go ahead, we will do an essential task. Duplicate what we have made so far to the other side. By doing this we will be able to understand the proportions of the model. First of all select the whole gun and press **Ctrl+G** to create a group. Go to *Edit>Duplicate Special* (click on the option box) and set the scaling value of the Z Axis to **-1.000** and do not click on instance. We set the value of the Z Axis to **-1.000** because when we copy the model to the other side it will automatically be set opposite to the Z-Axis.



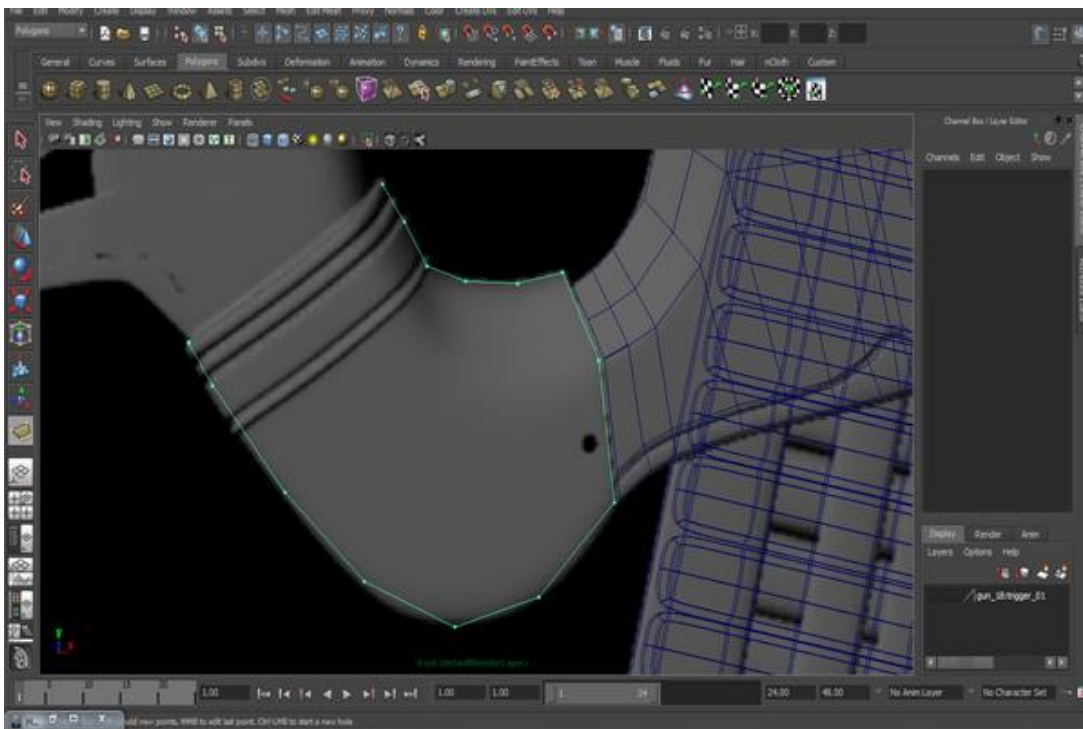
Step 30

Move the other duplicated side opposite to the Z-Axis.



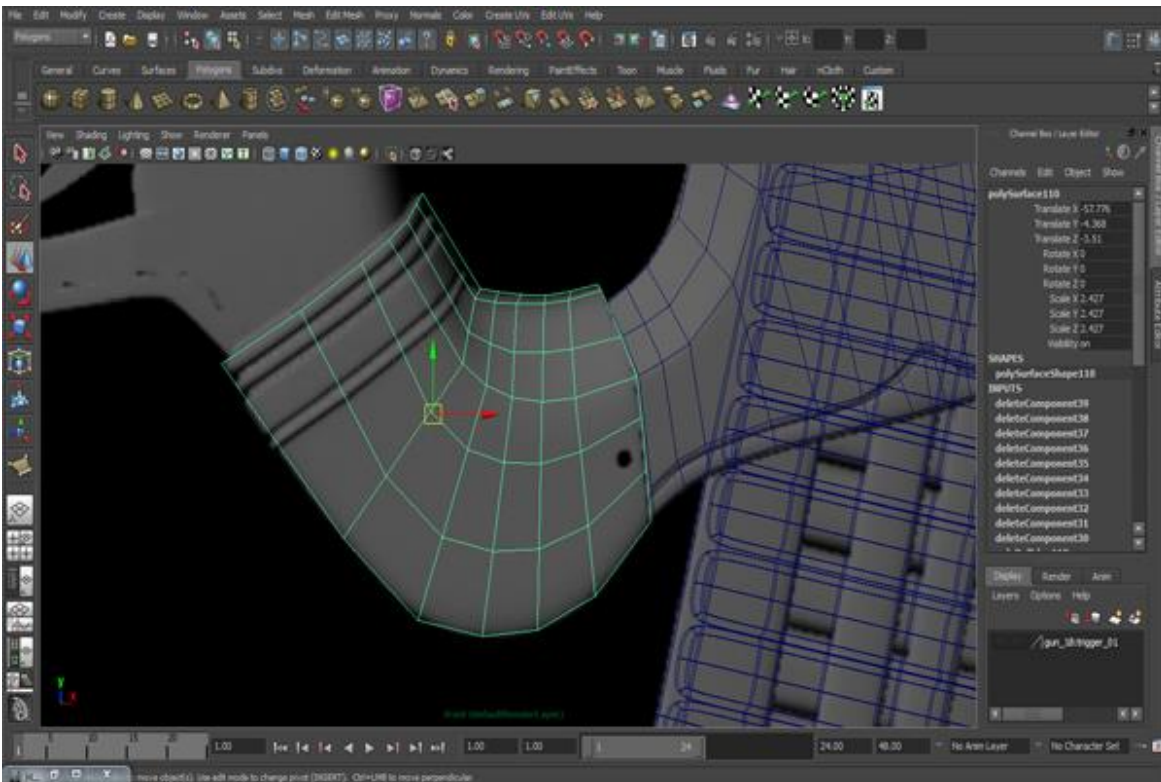
Step 31

In the Front view, take the “Create Polygon Tool” and create a polygon according to the reference.



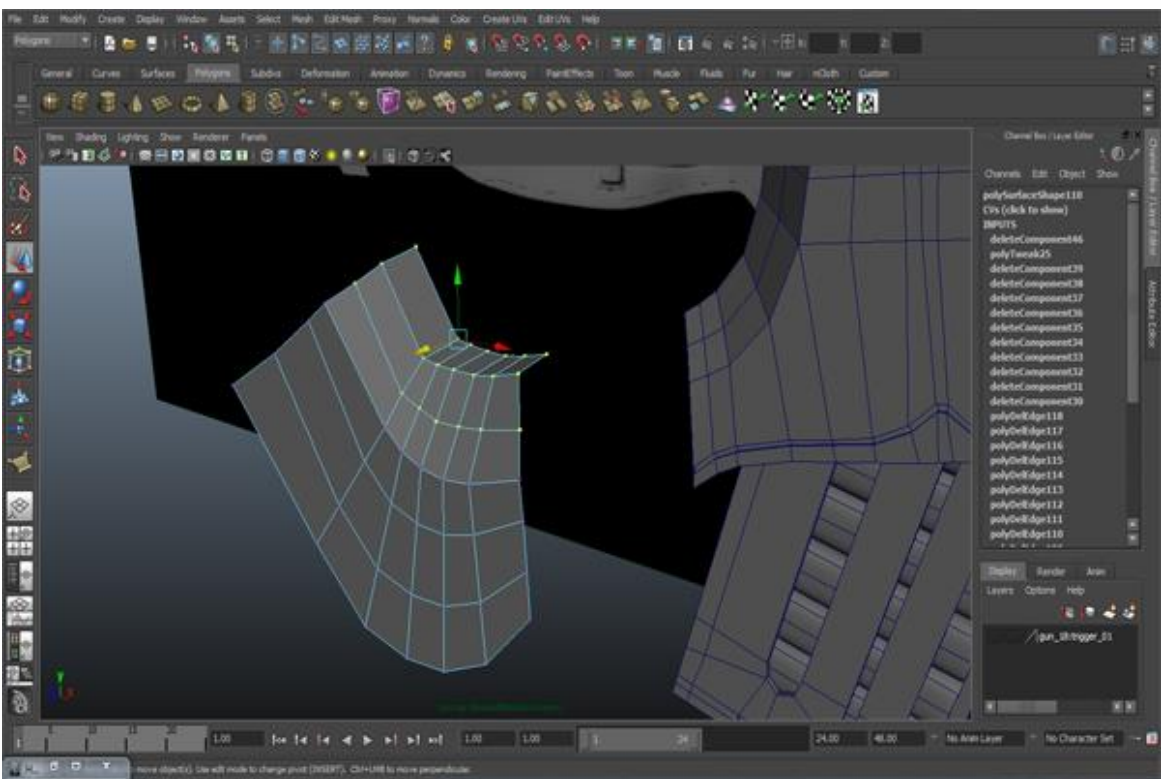
Step 32

Connect vertex to vertex and complete the loops.



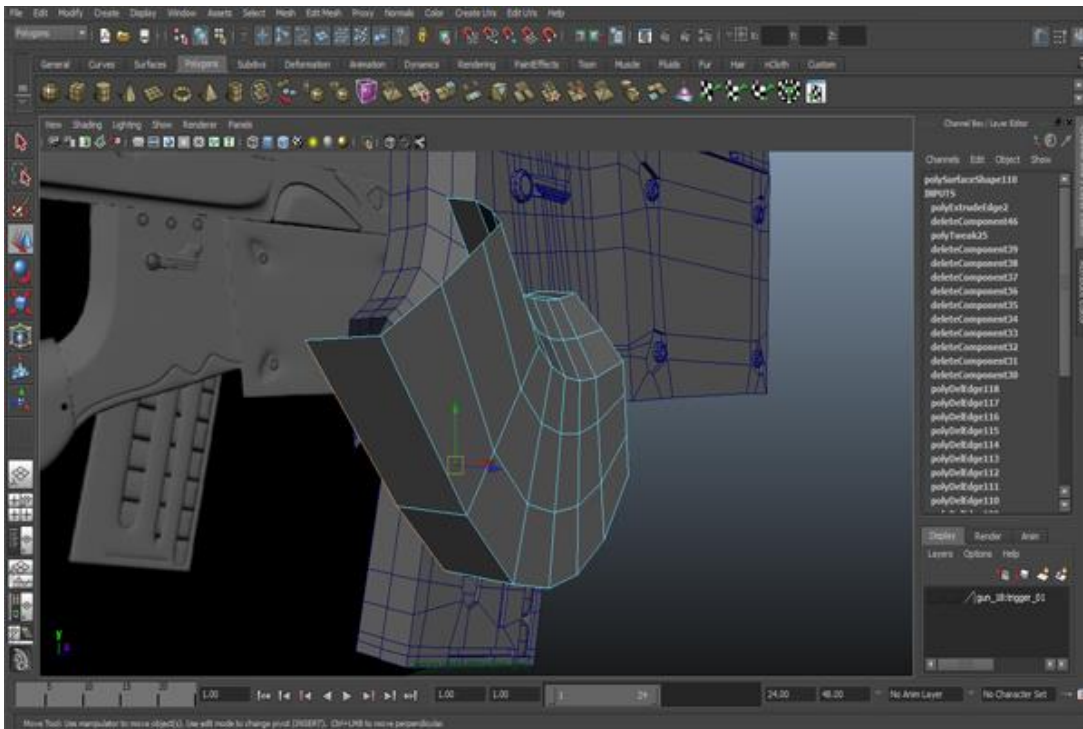
Step 33

Go to the Perspective View and give it the required shape by moving the vertices.



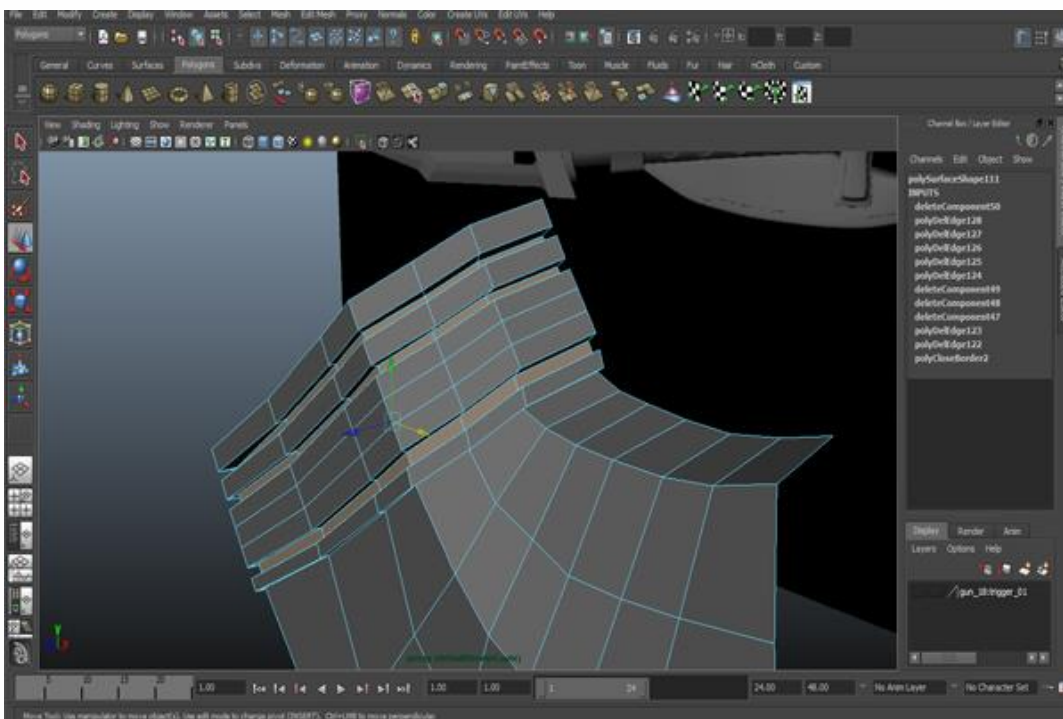
Step 34

Select the bottom edges and extrude them backwards. For extrude go to *Edit Mesh>Extrude*.



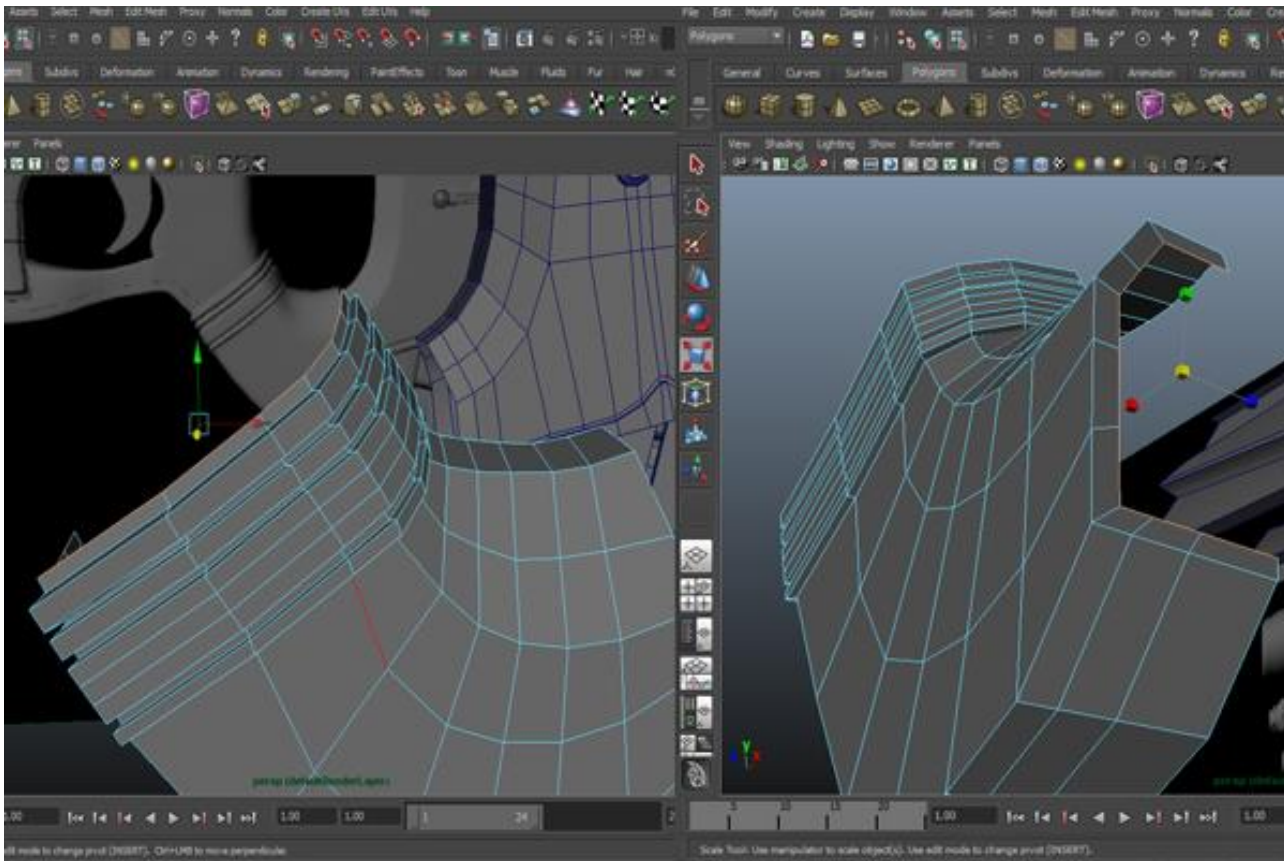
Step 35

Put it in it's right place. Remember it is a separate mesh, we do not combine it with any other part. Go to *Edit Mesh>Insert Edge Loop Tool* or *Split Polygon Tool* and insert edge loops on left side and then select the faces in the loops and extrude Them backward.



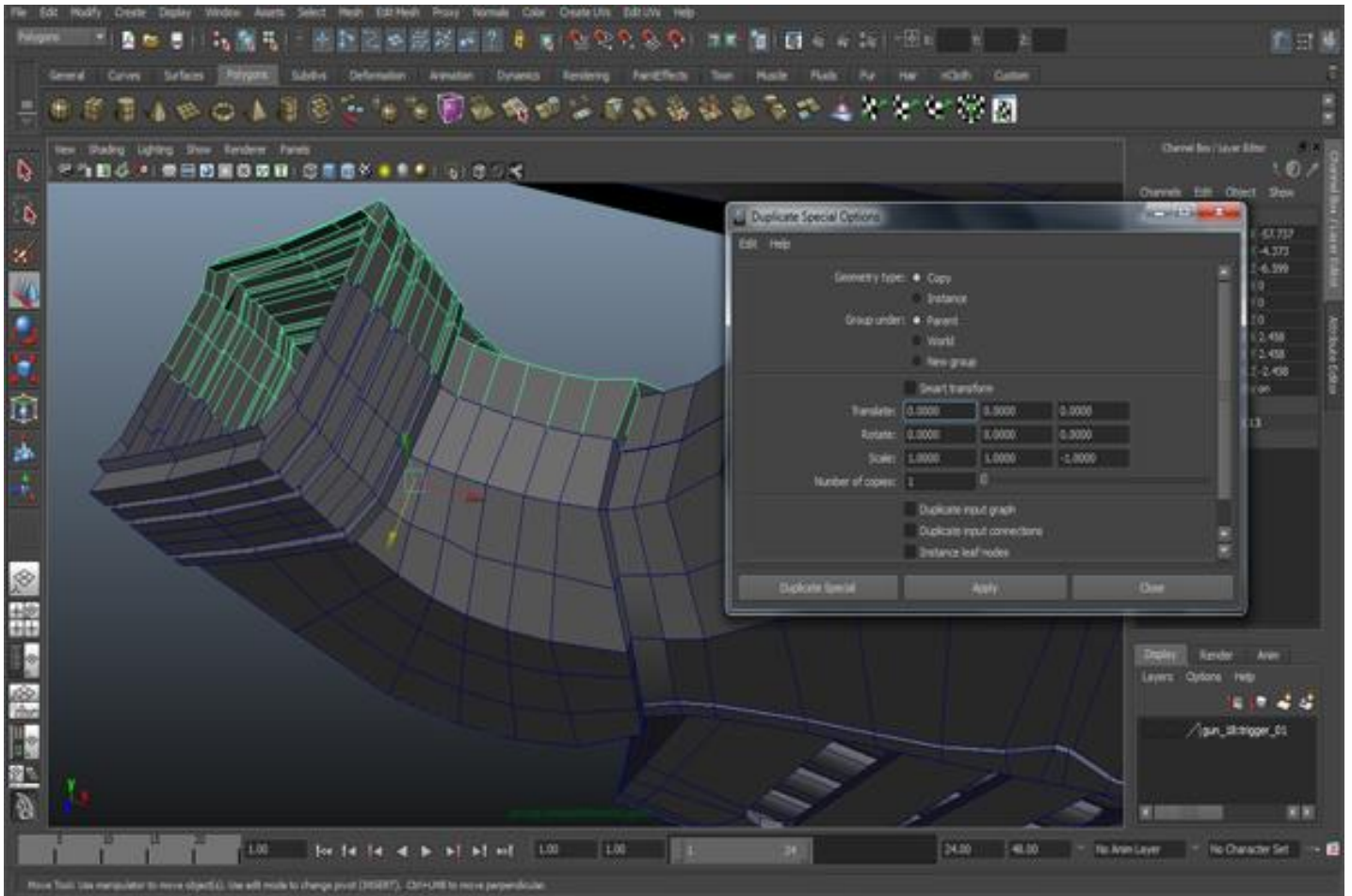
Step 36

Select the left side border edges and extrude them outward. Similarly select the right side border edges and extrude them inward. See the image.



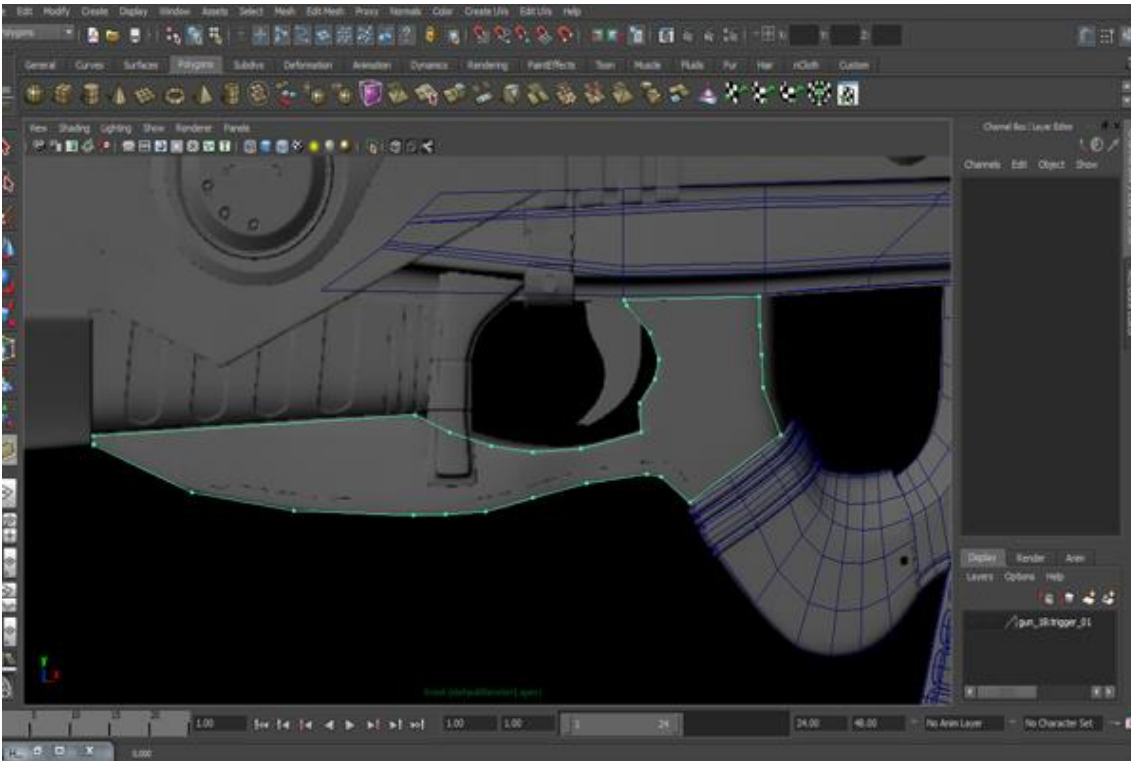
Step 37

Now go to *Edit>Duplicate Special* and copy the half mesh to the other side. Remember, just keep copying and don't combine both sides. We will do that later and I will show you how to do it.



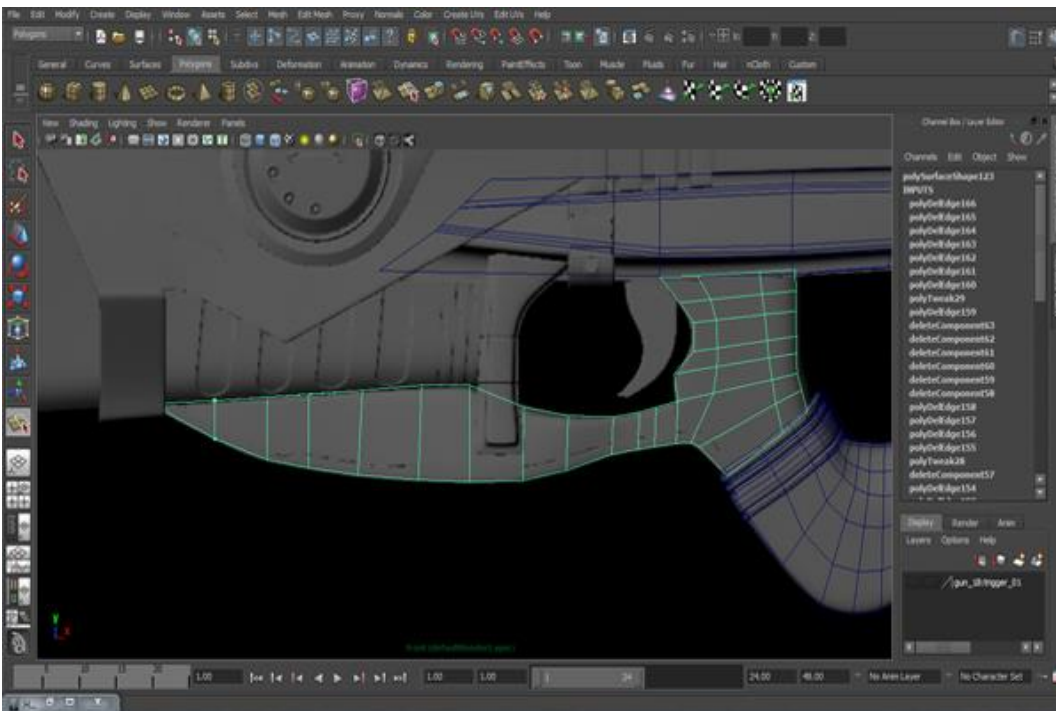
Step 38

Let's move to the next part. While in the front view, go to *Mesh>Create Polygon Tool*, select Create Polygon Tool and create a polygon as I'm showing you in the figure below.



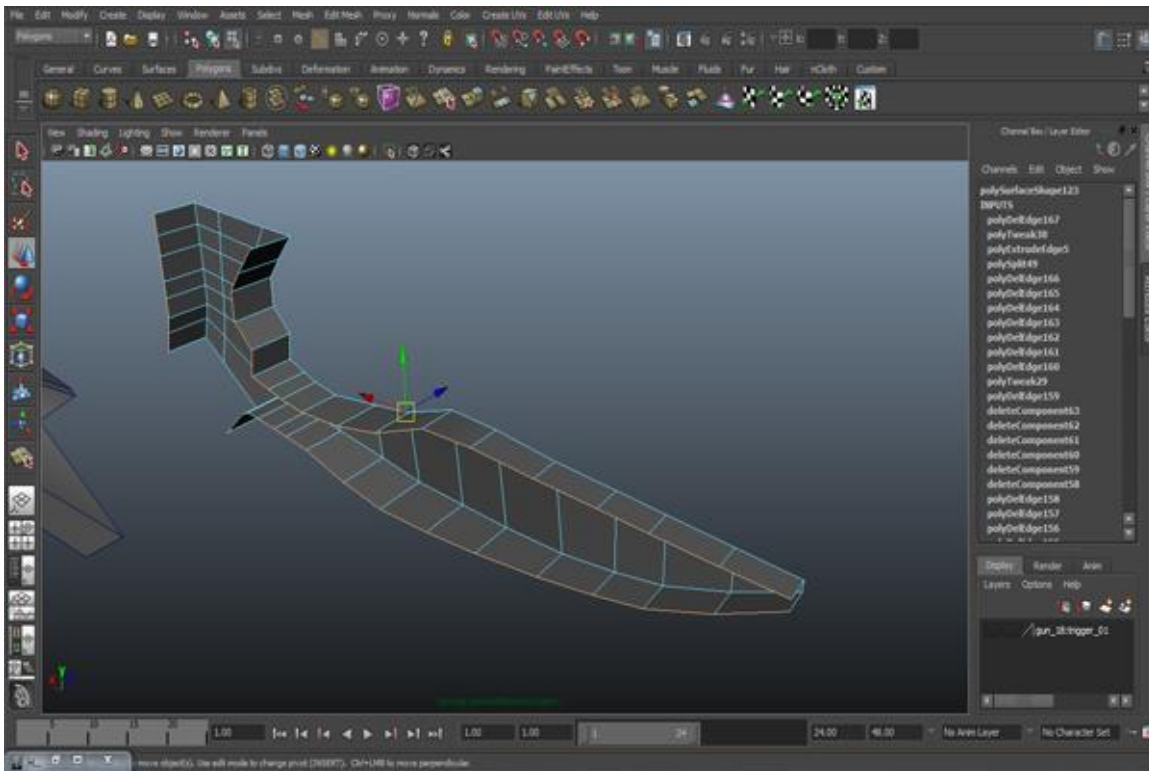
Step 39

Connect vertex to vertex and create the loops.



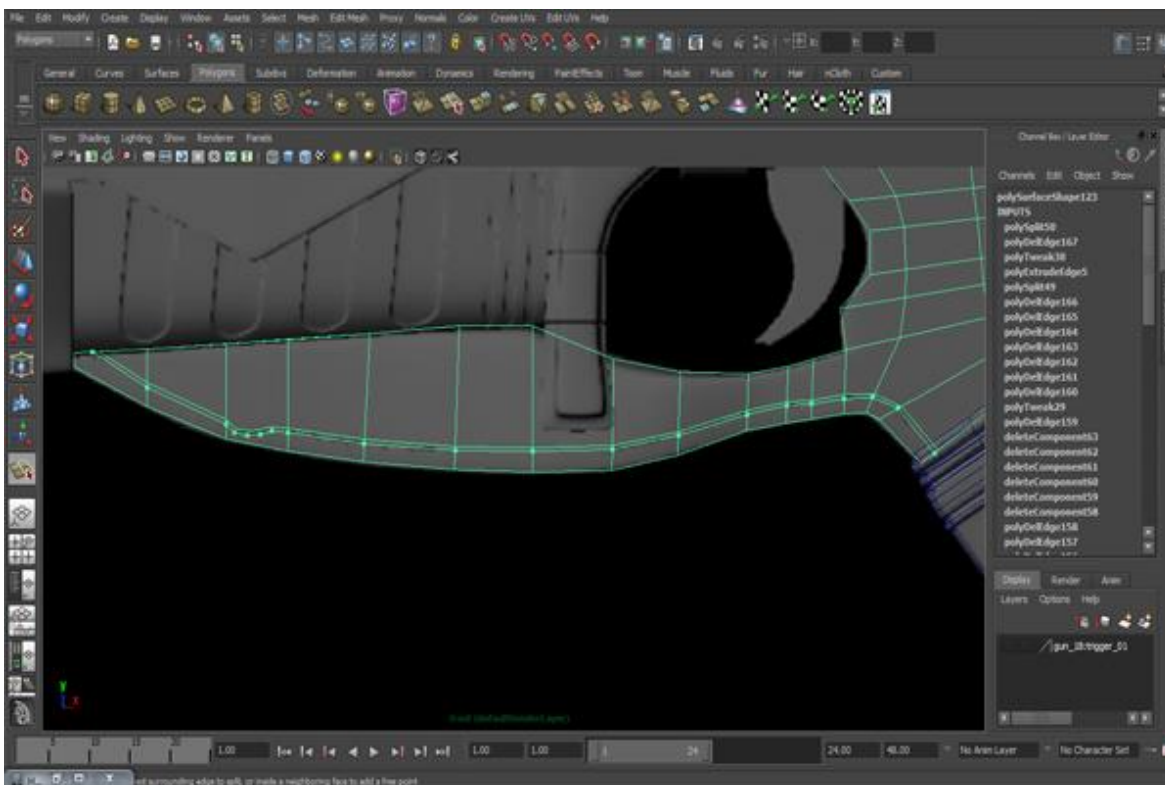
Step 40

Select the border edges and extrude them as you can see in the figure.



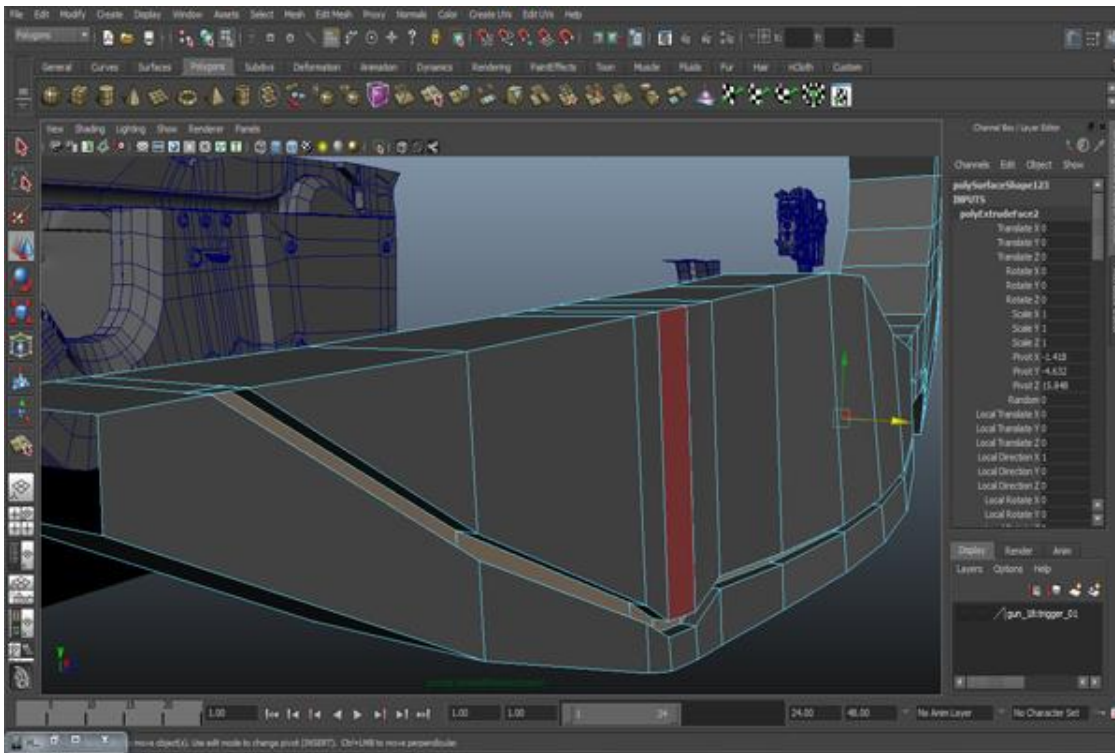
Step 41

Now go to *Edit Mesh>Split Polygon Tool* and create a line according to our reference.



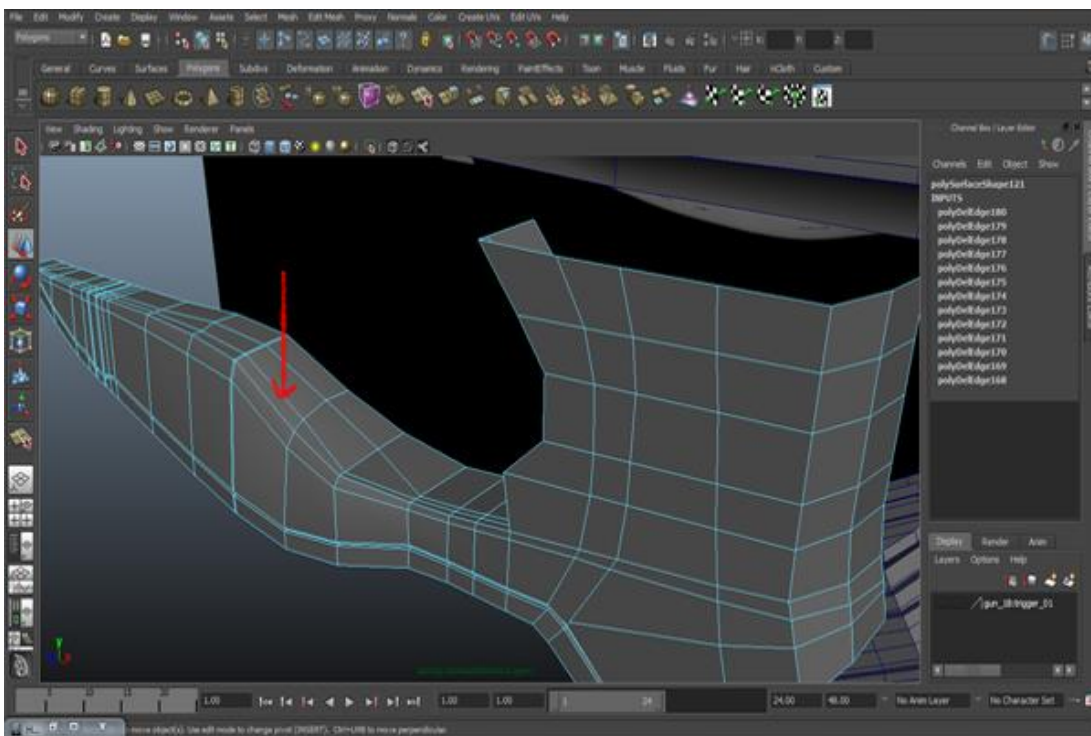
Step 42

Select the faces along the line and extrude them.



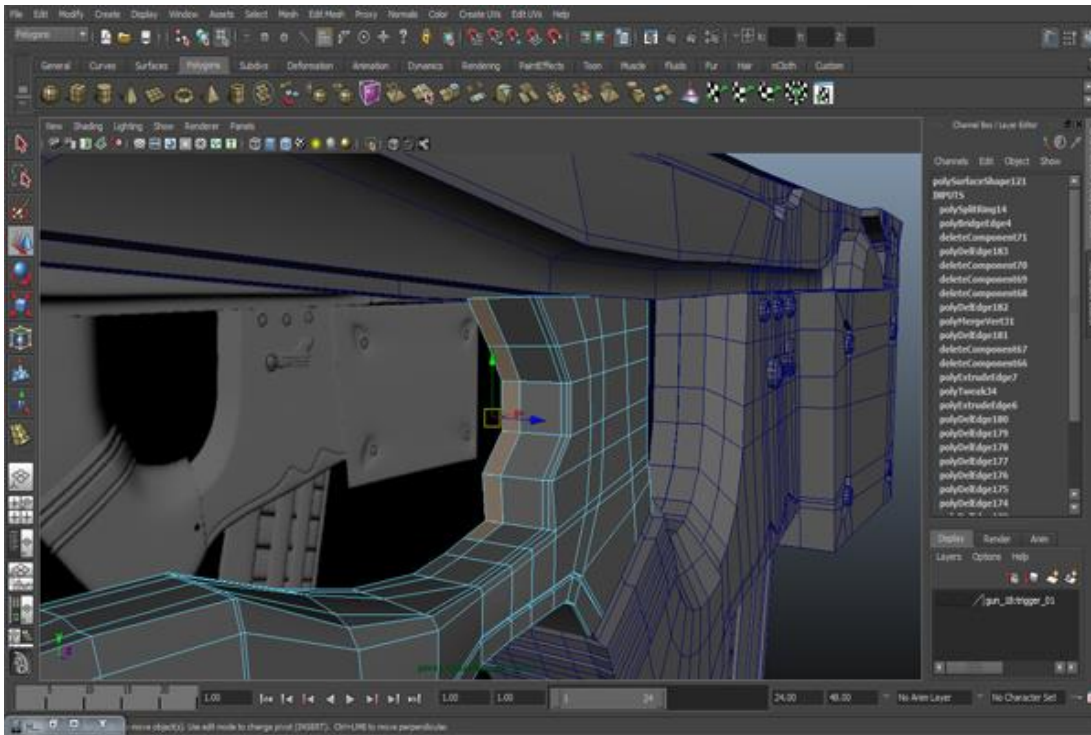
Step 43

For smoothness, let's add some edges and spread them out from the center (The red arrow is pointing to them). You can check it by pressing the 3 key for smoothness mode, and press the 1 key to go back into hard mode.



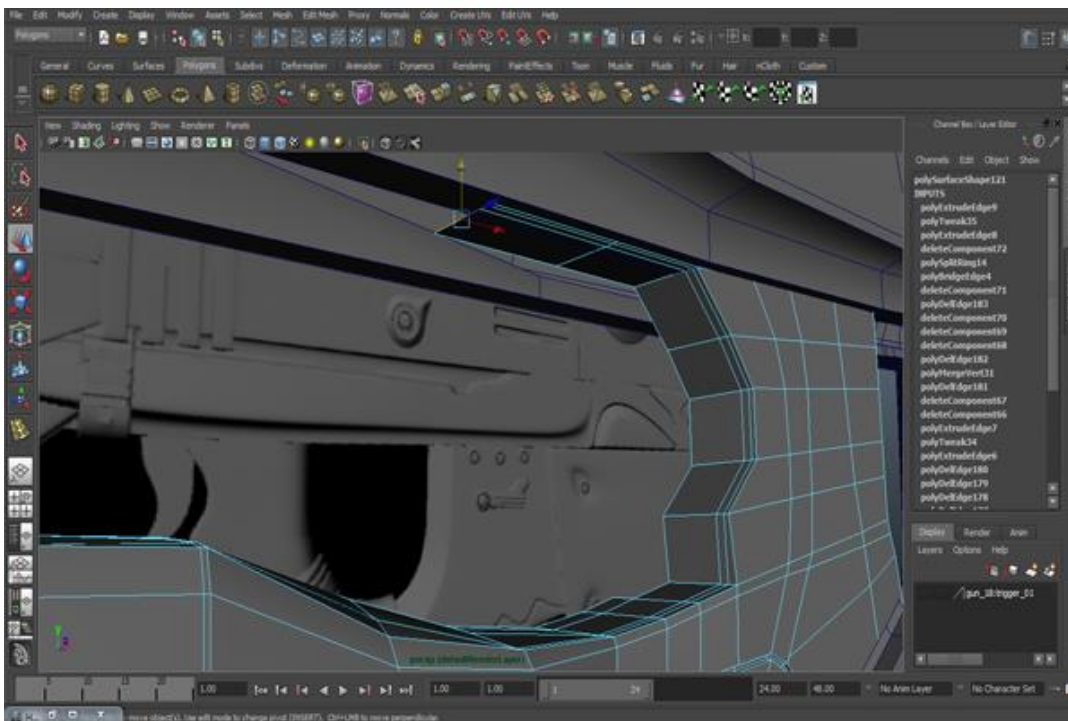
Step 44

Now we have to make some room for the trigger. Go to *Edit Mesh>Insert Edge Loop Tool* and insert an edge loop. Select some faces (as you can see in the figure) and delete them.



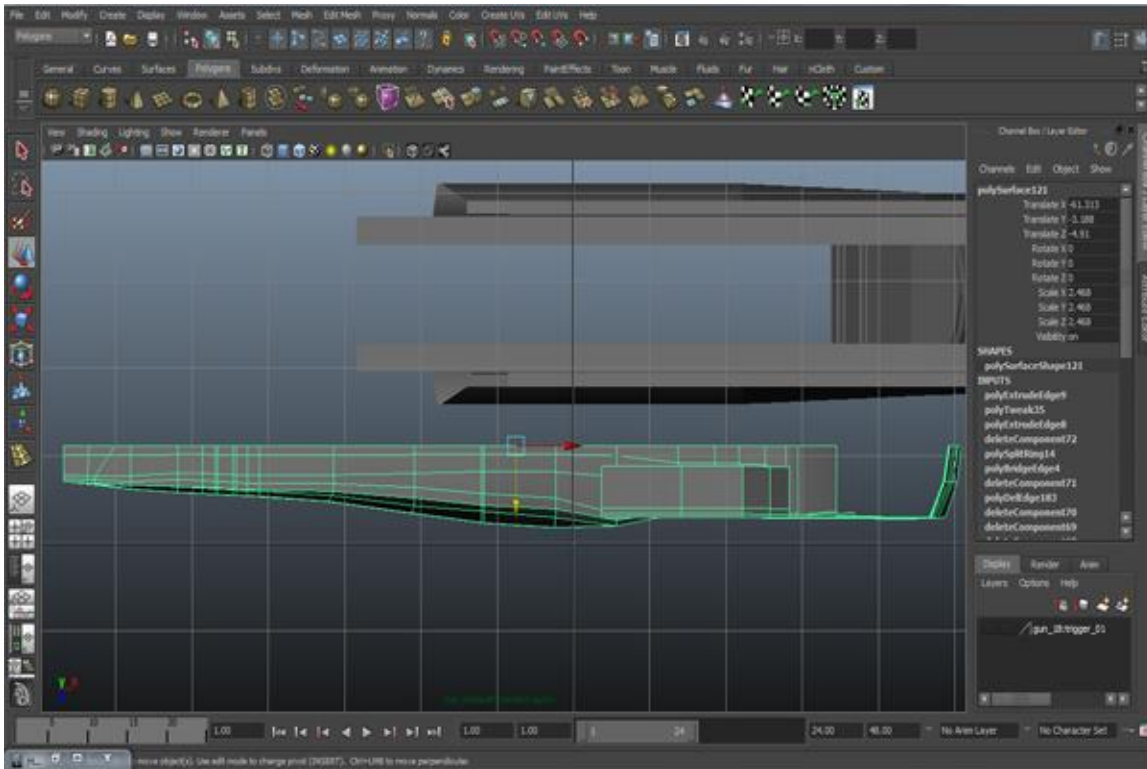
Step 45

In the Perspective View, select some edges and extrude them to the left side.



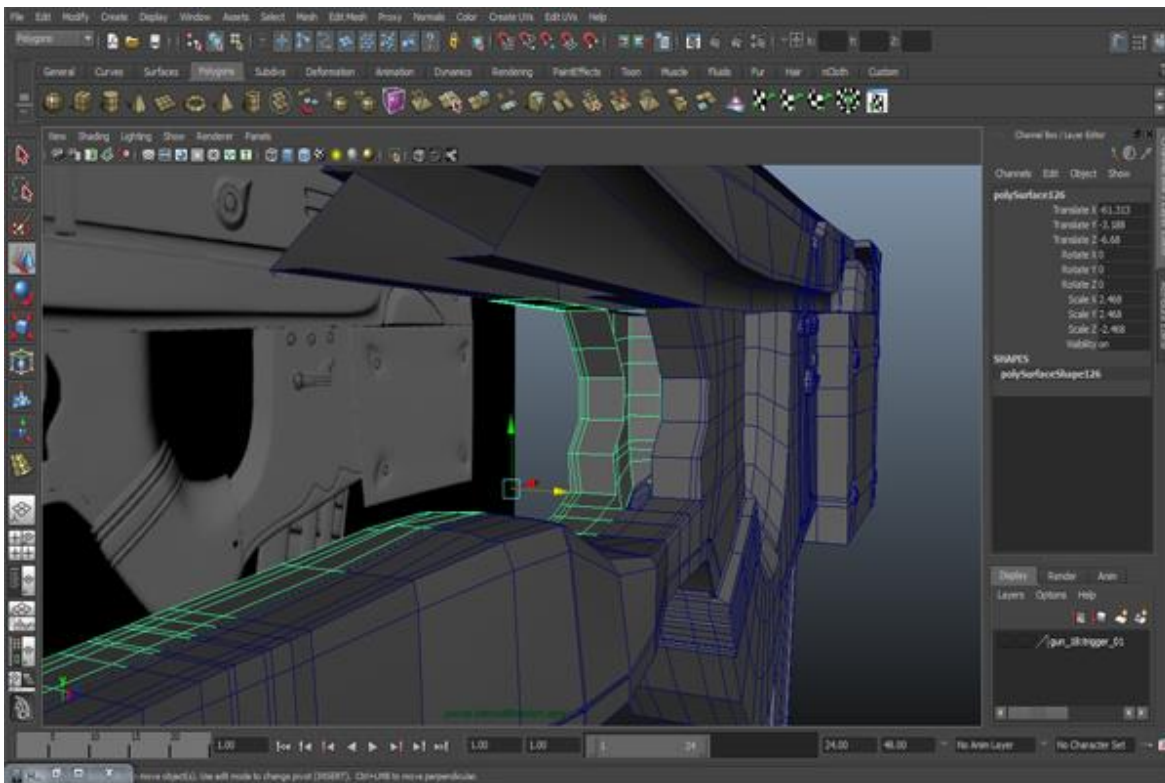
Step 46

You will have to change its shape slightly from top view.



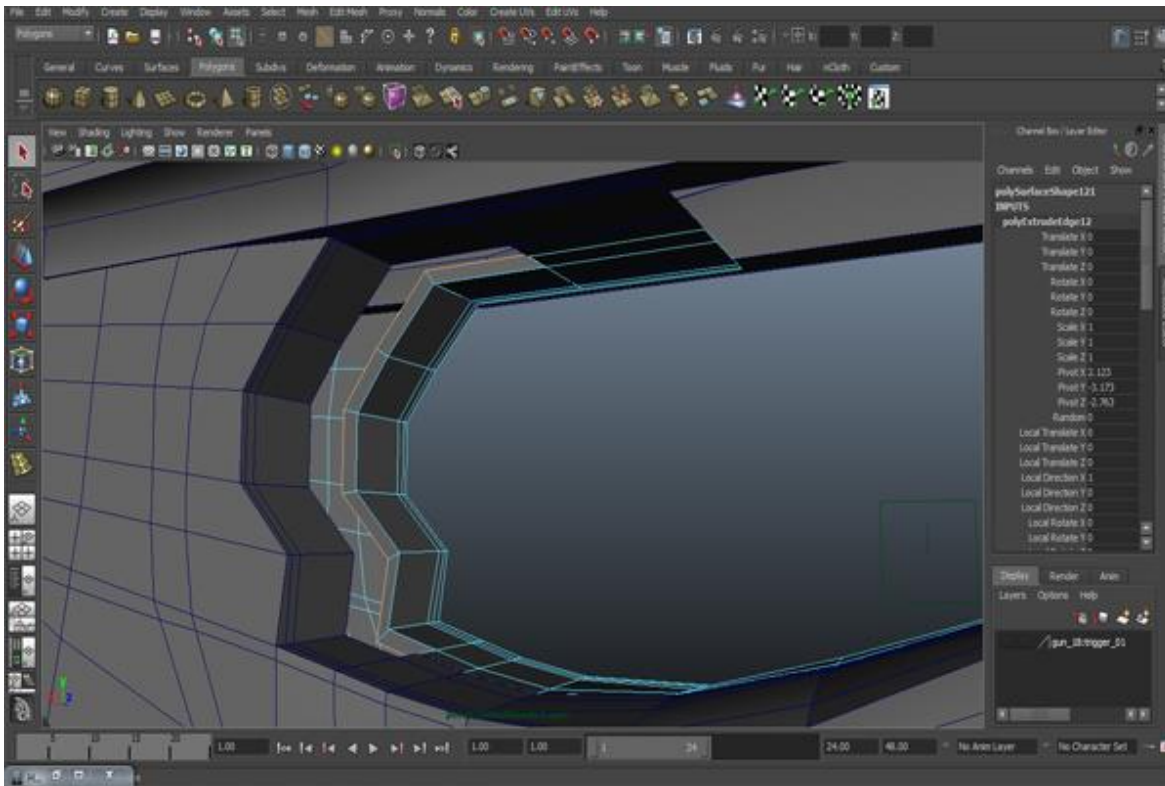
Step 47

Use "Duplicate Special" and copy it to the opposite side.



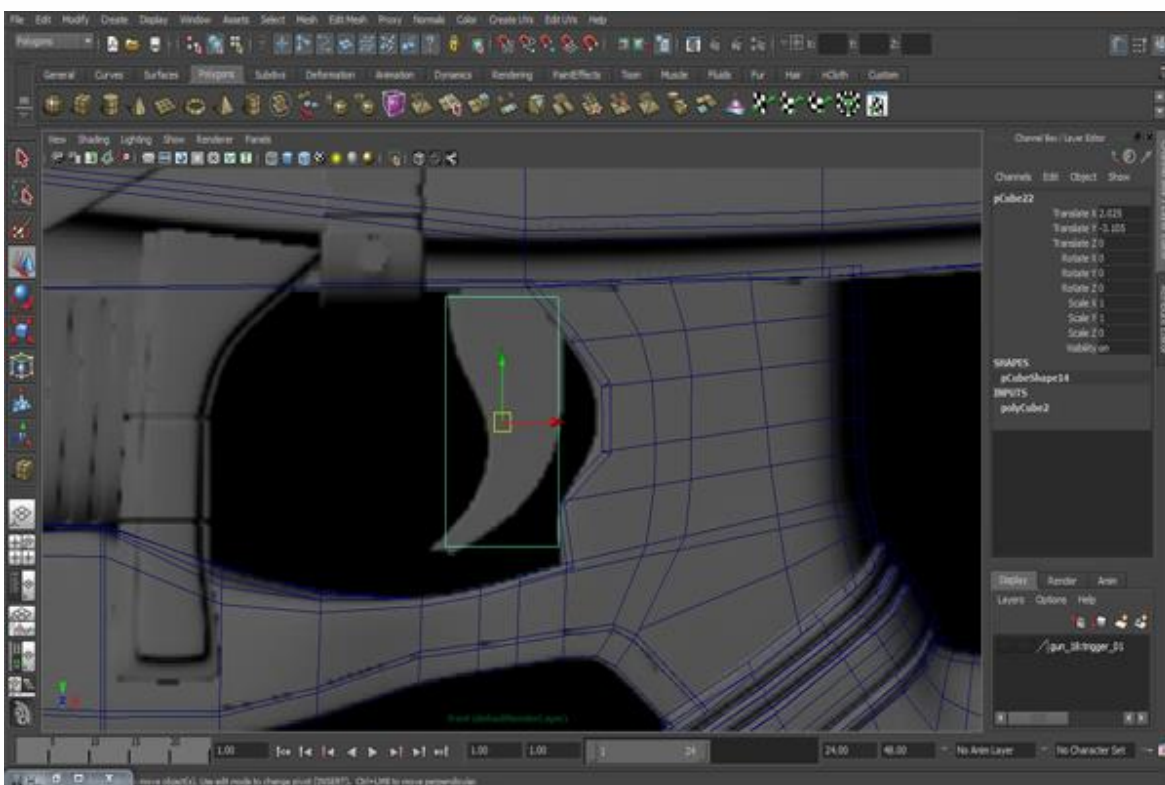
Step 48

Select the border edges and extrude them inside.



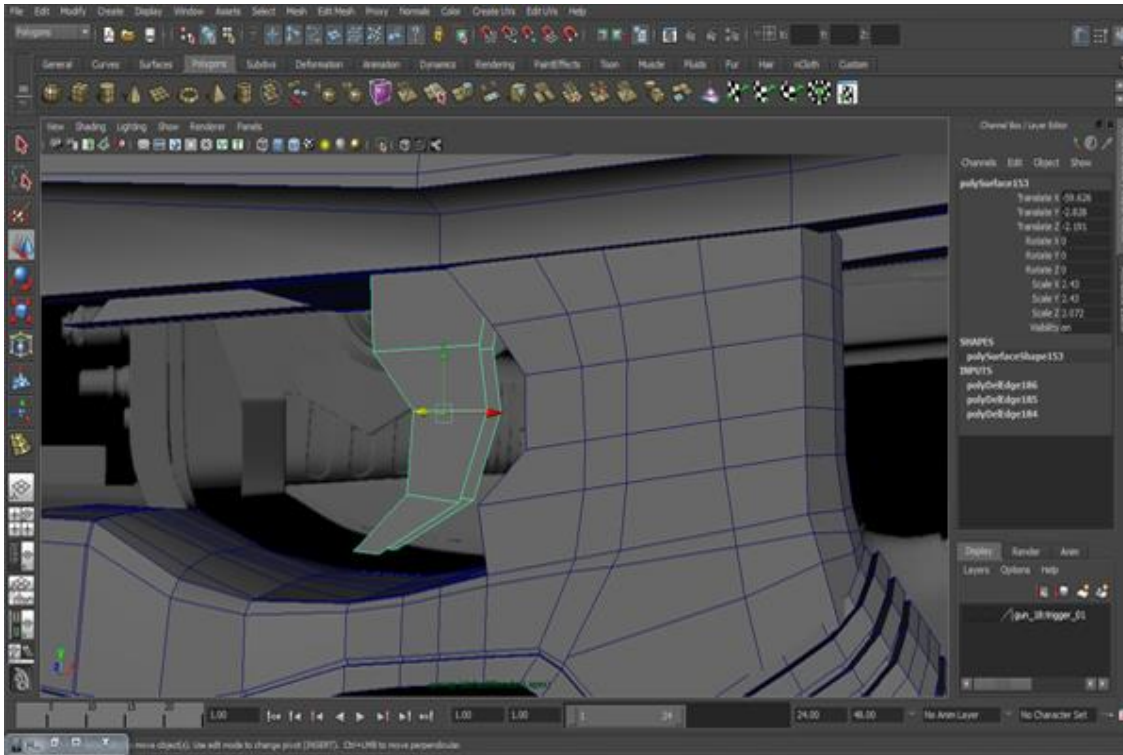
Step 49

Now we can make the trigger. Create a Box in the Front view.



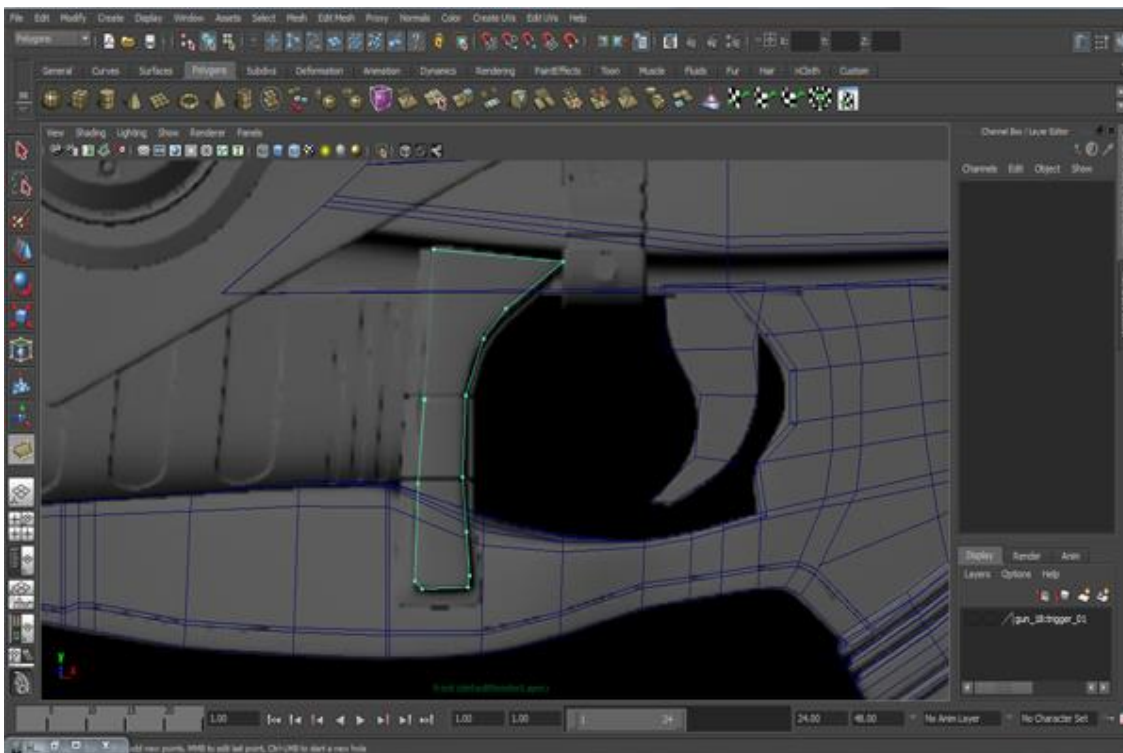
Step 50

Go to *Edit Mesh>Insert Edge Loop Tool* and add some edges and then modify it as I did. Delete the back faces.



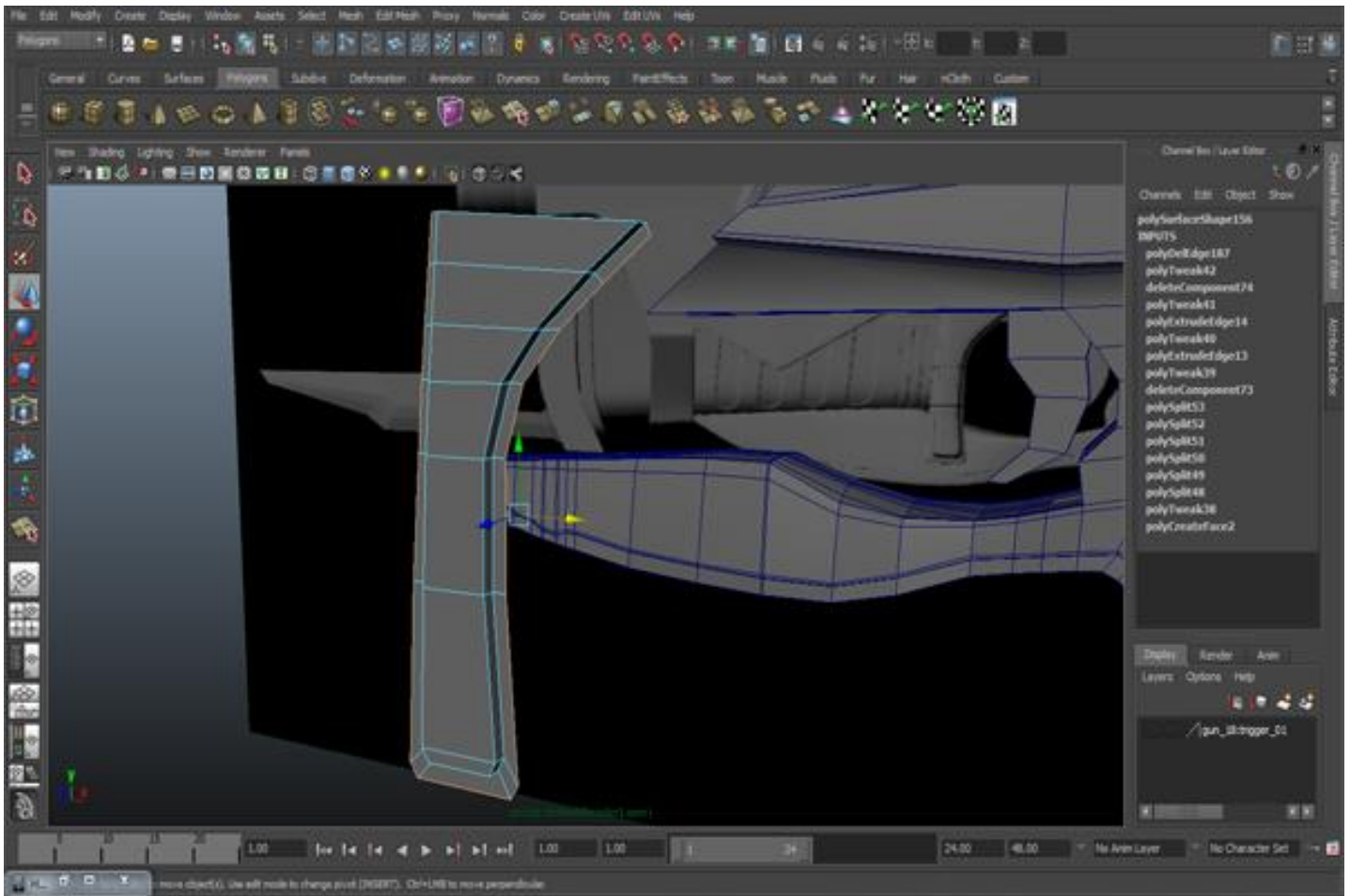
Step 51

Go to *Mesh>Create Polygon Tool* and create the shape according to the figure below.



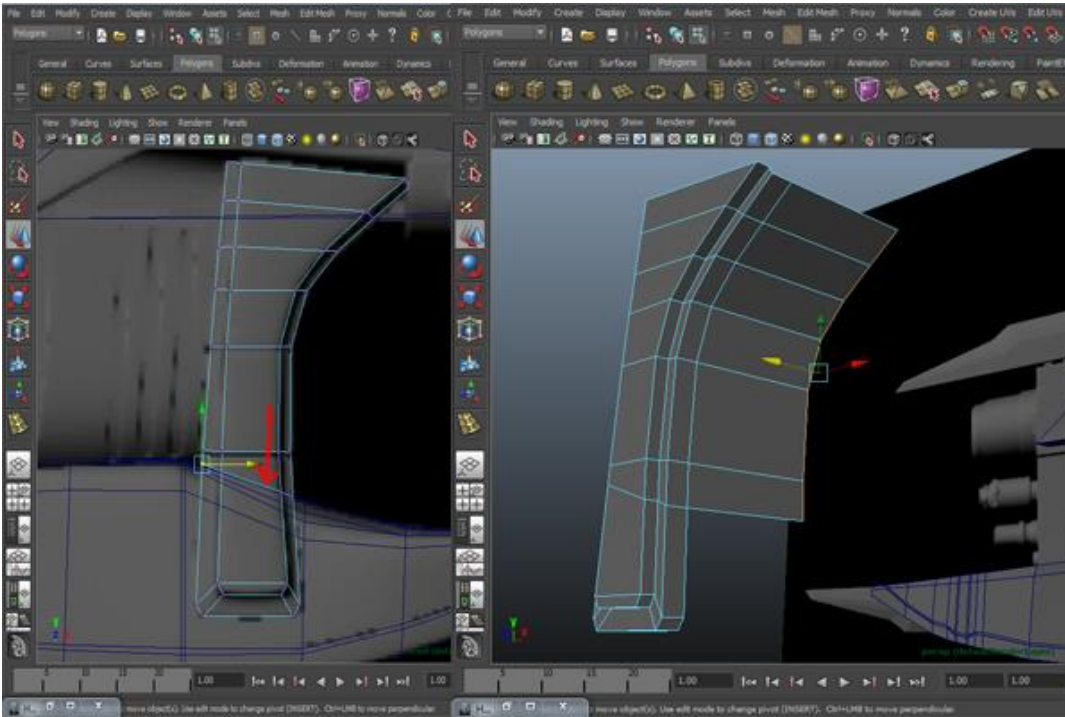
Step 52

Make edge loops on the polygon and then select border (except the top edge) and extrude it a little bit backward. Then again extrude from all sides, except the top edge.



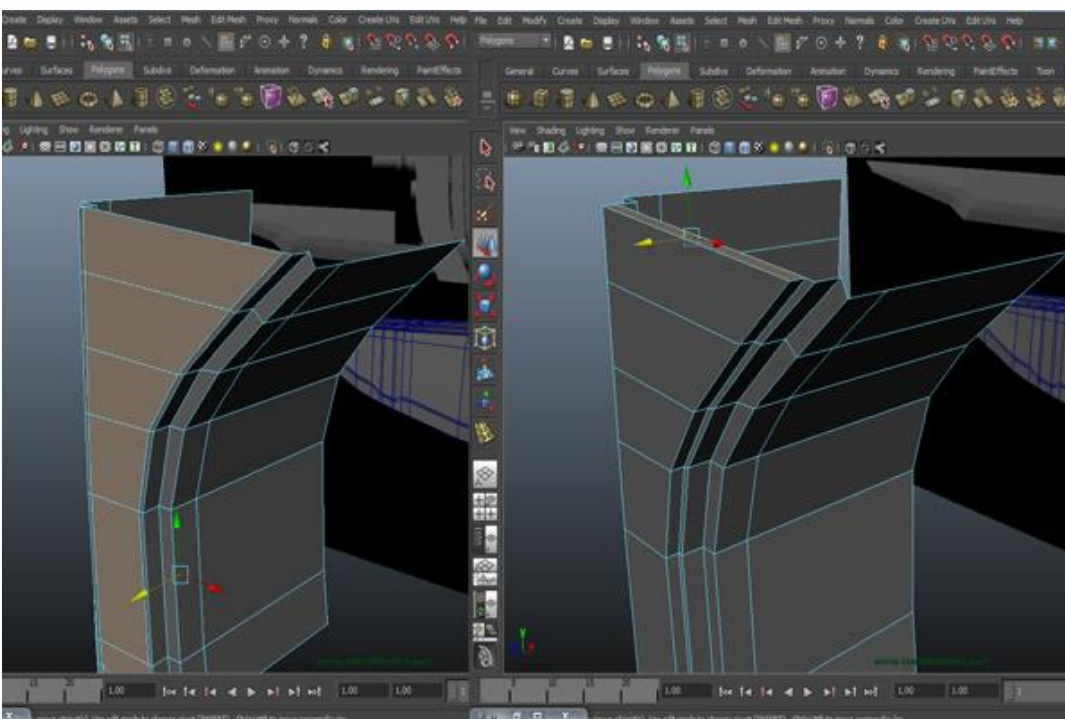
Step 53

Then insert an edge loop where the arrow is pointing in the image below. Select the border (except the top edge) and extrude it backward. Again extrude one more time, but this time deselect the edges below the edge loop where the arrow is pointing.



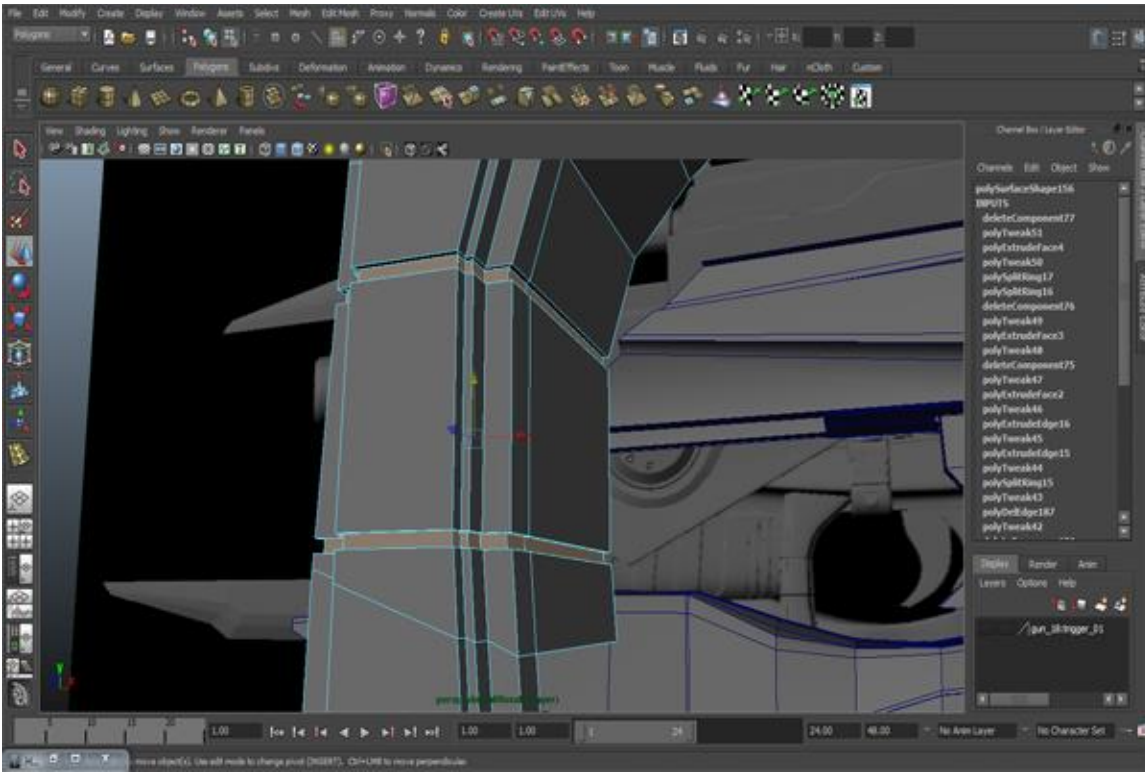
Step 54

Select the front side faces and extrude and scale inward, then again extrude outward. Delete the top face.



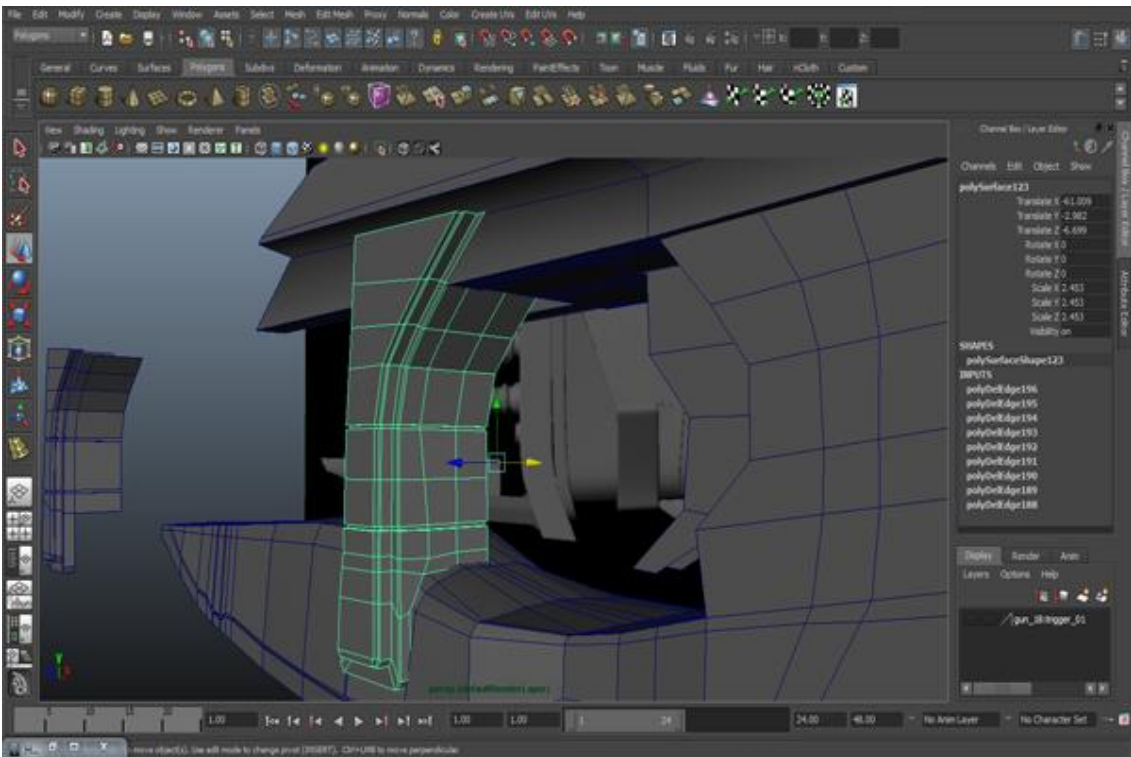
Step 55

Insert two more edges to make two stripes. Select the faces of the stripes and extrude them inward from all sides.



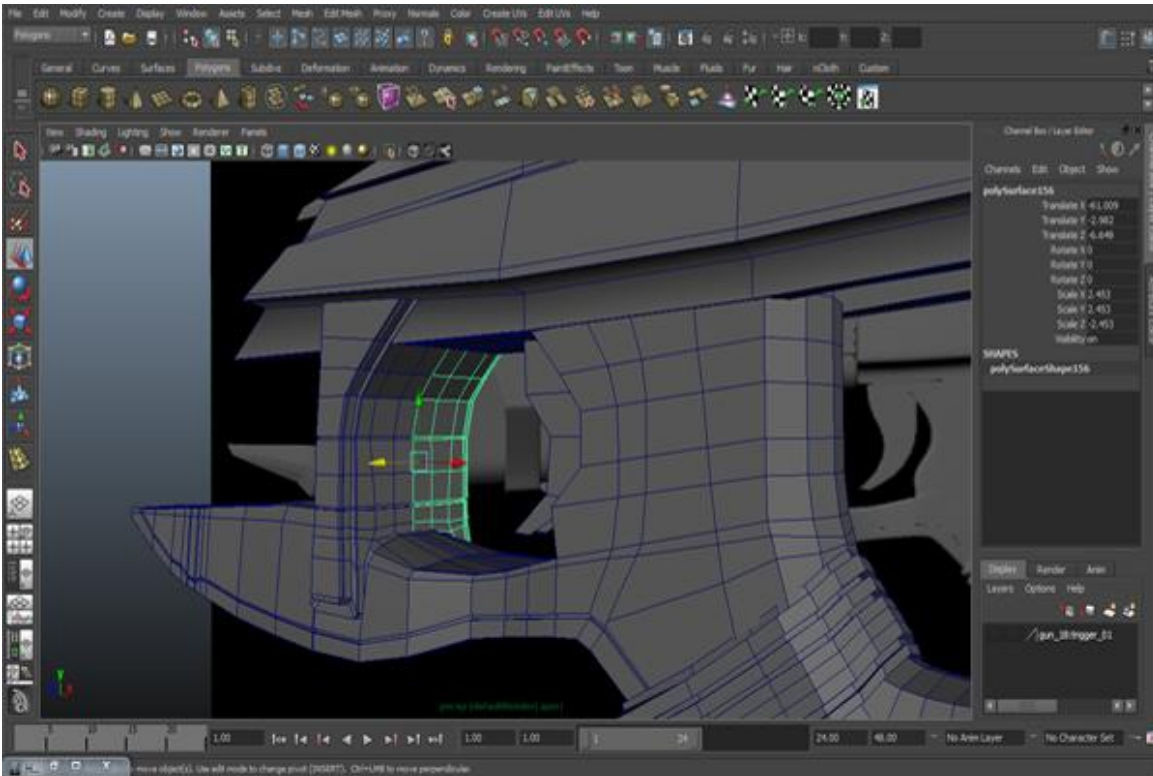
Step 56

Put it in its right place and modify as needed.



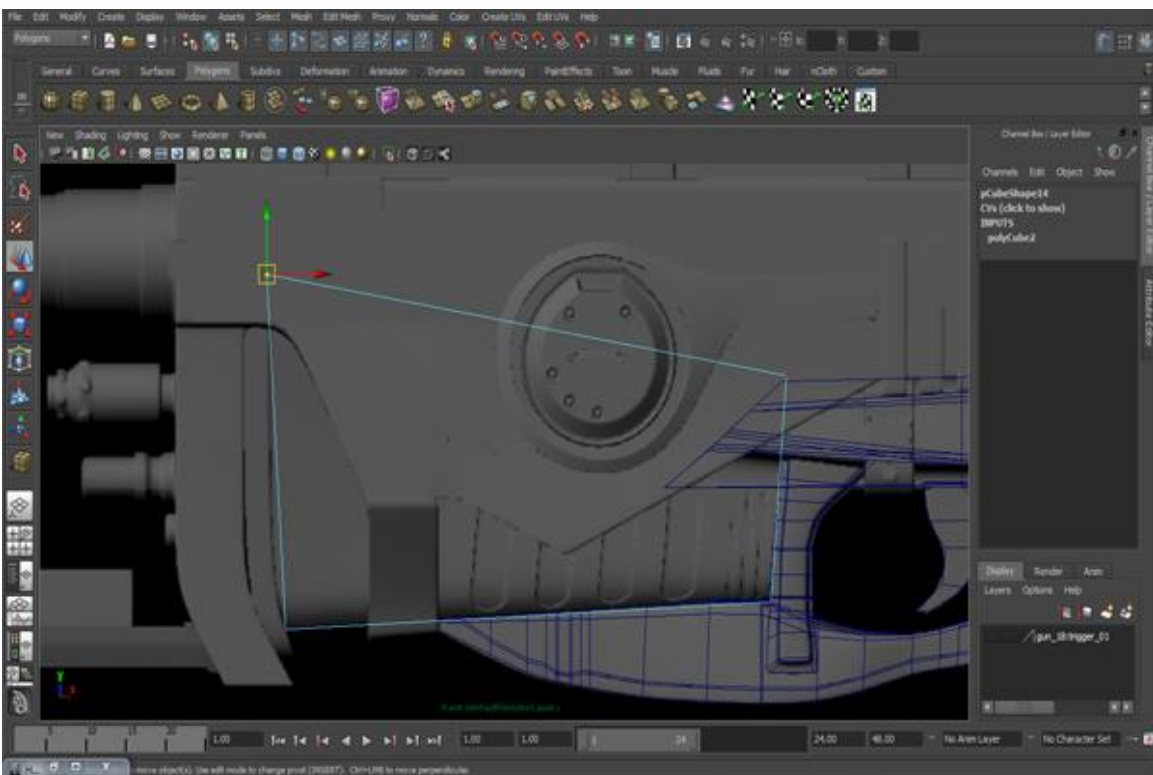
Step 57

With the help of duplicate special make a copy on other side.



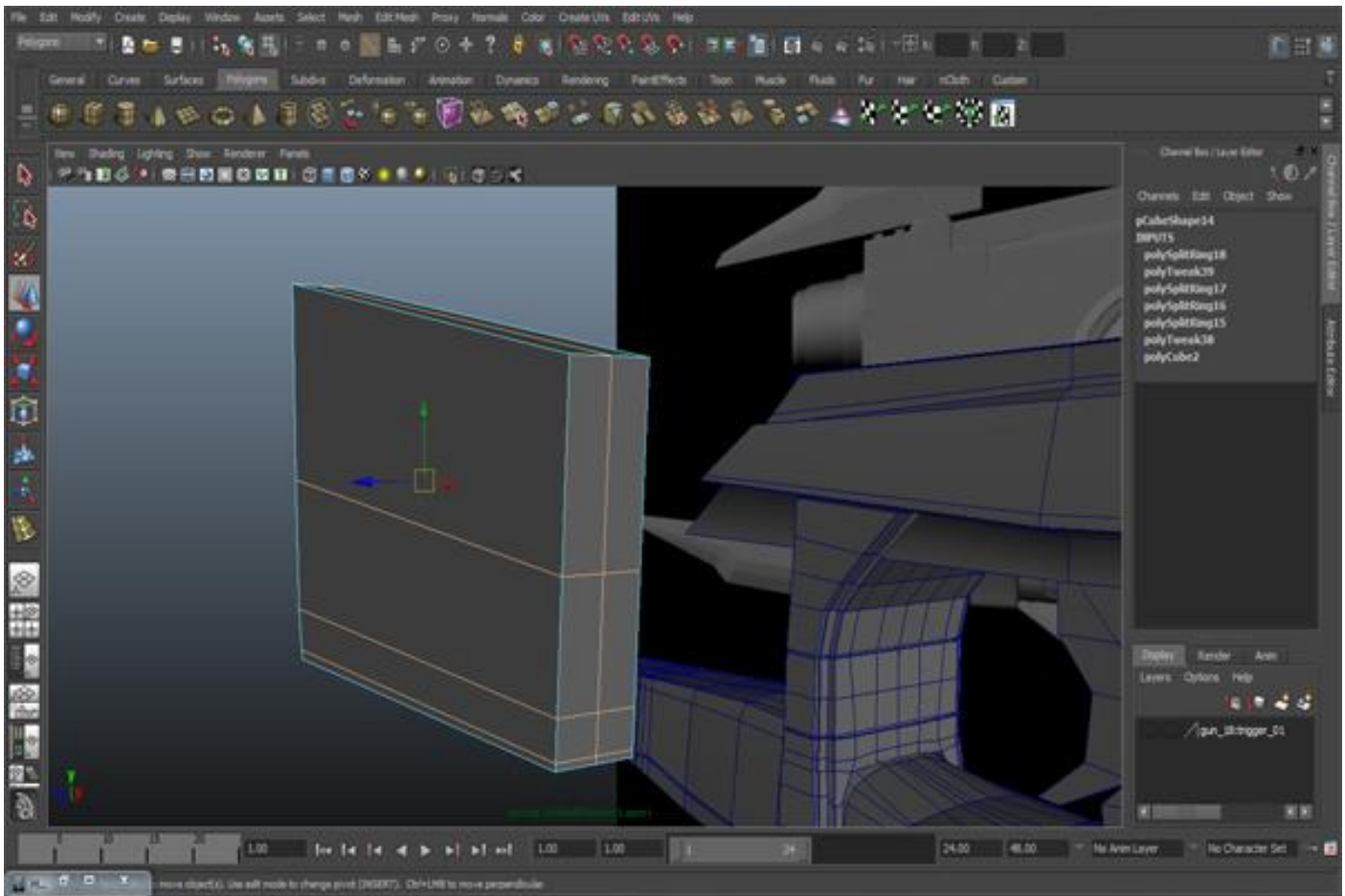
Step 58

In the Front view, create a Box and give it the shape according to the reference object.



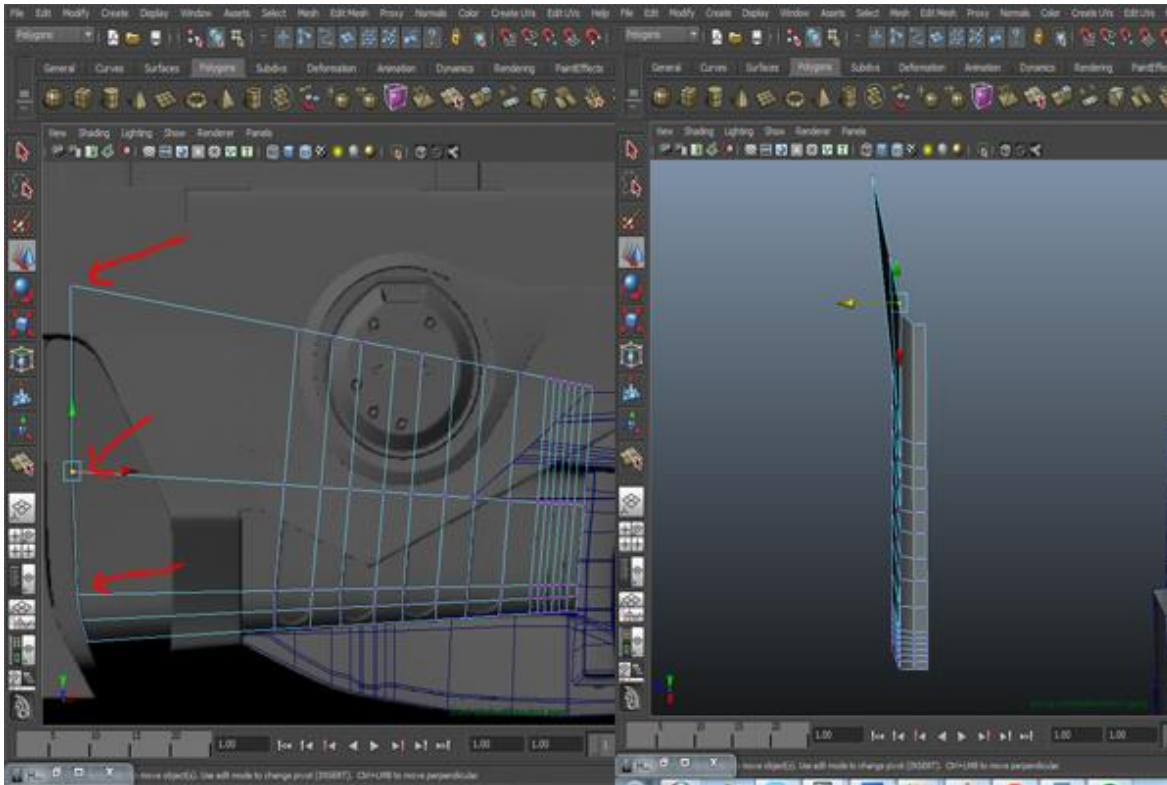
Step 59

Go to *Edit Mesh>Insert Edge Loop Tool*, insert three edge loops and one from the top.



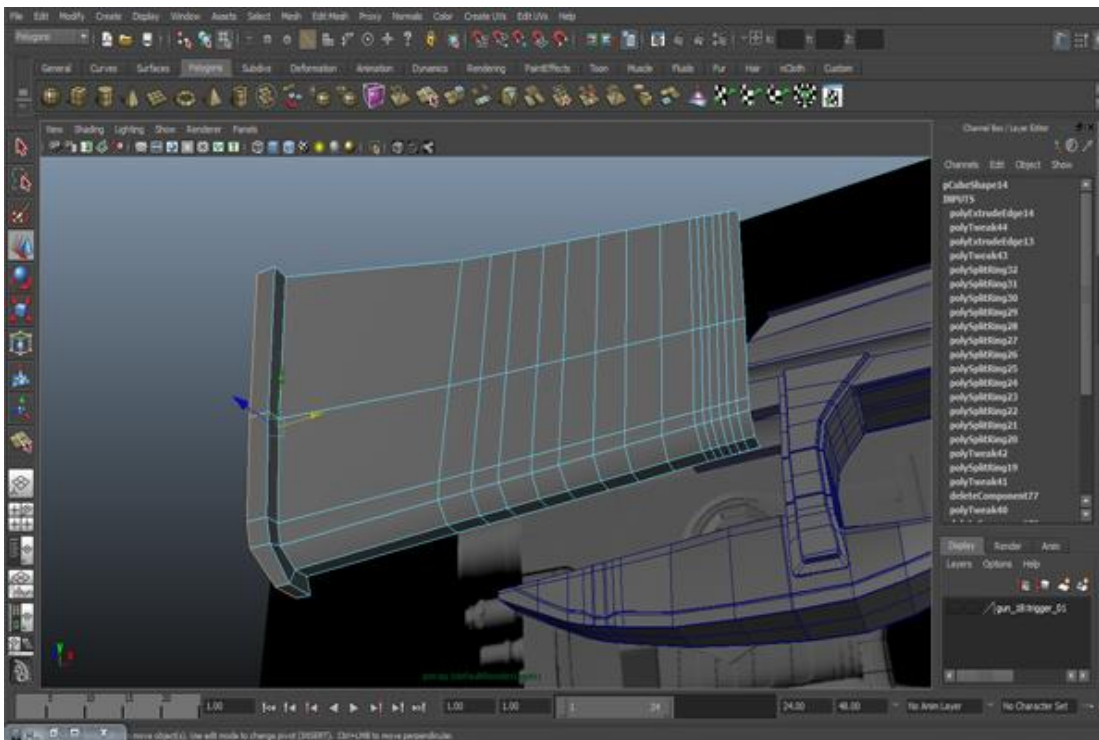
Step 60

Insert edge loops from the front view and delete the back, left & right side faces. Give it a narrow shape from right side, and just move three vertices as I have shown by the arrows.



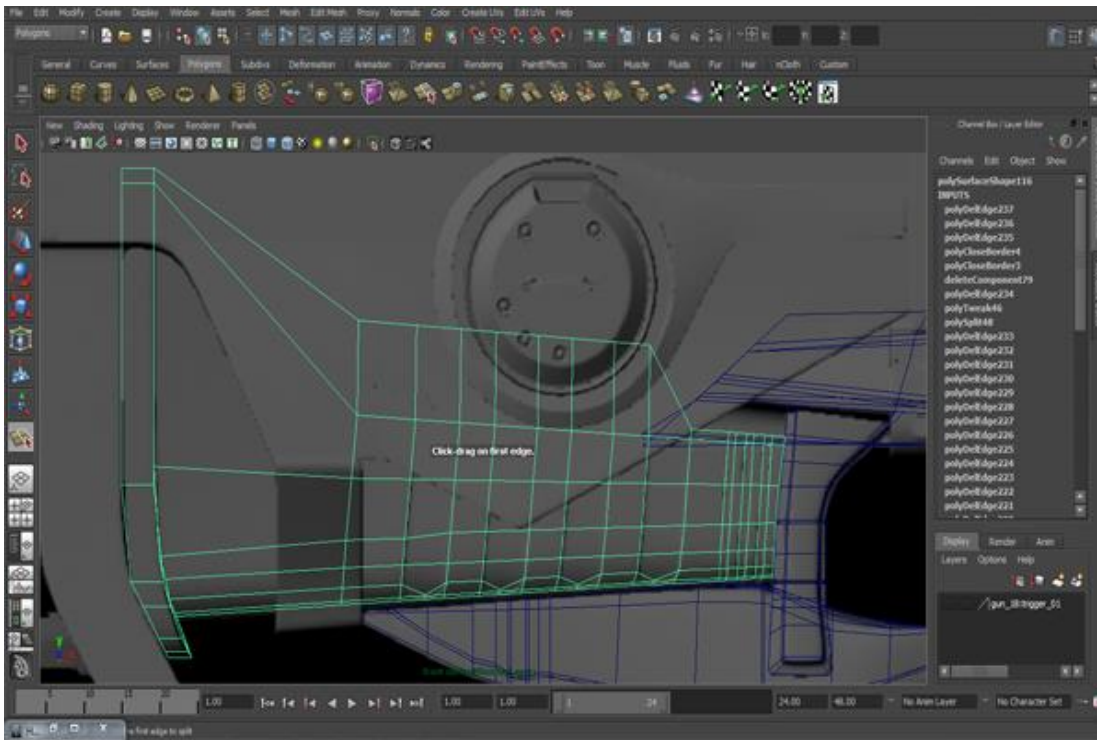
Step 61

Extrude it from the left side according to our model and as you can see in the figure below.



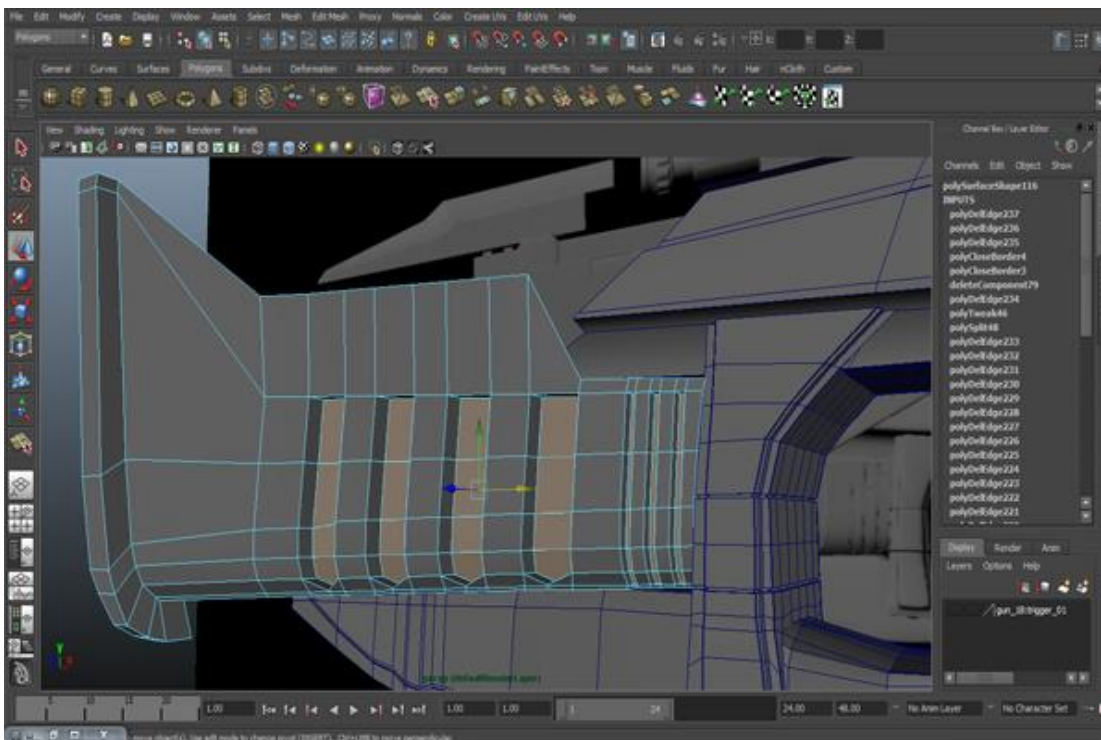
Step 62

Now we'll make the blocks that remain on it. With the help of the Split Polygon Tool, create a block shape on the mesh and modify it slightly.



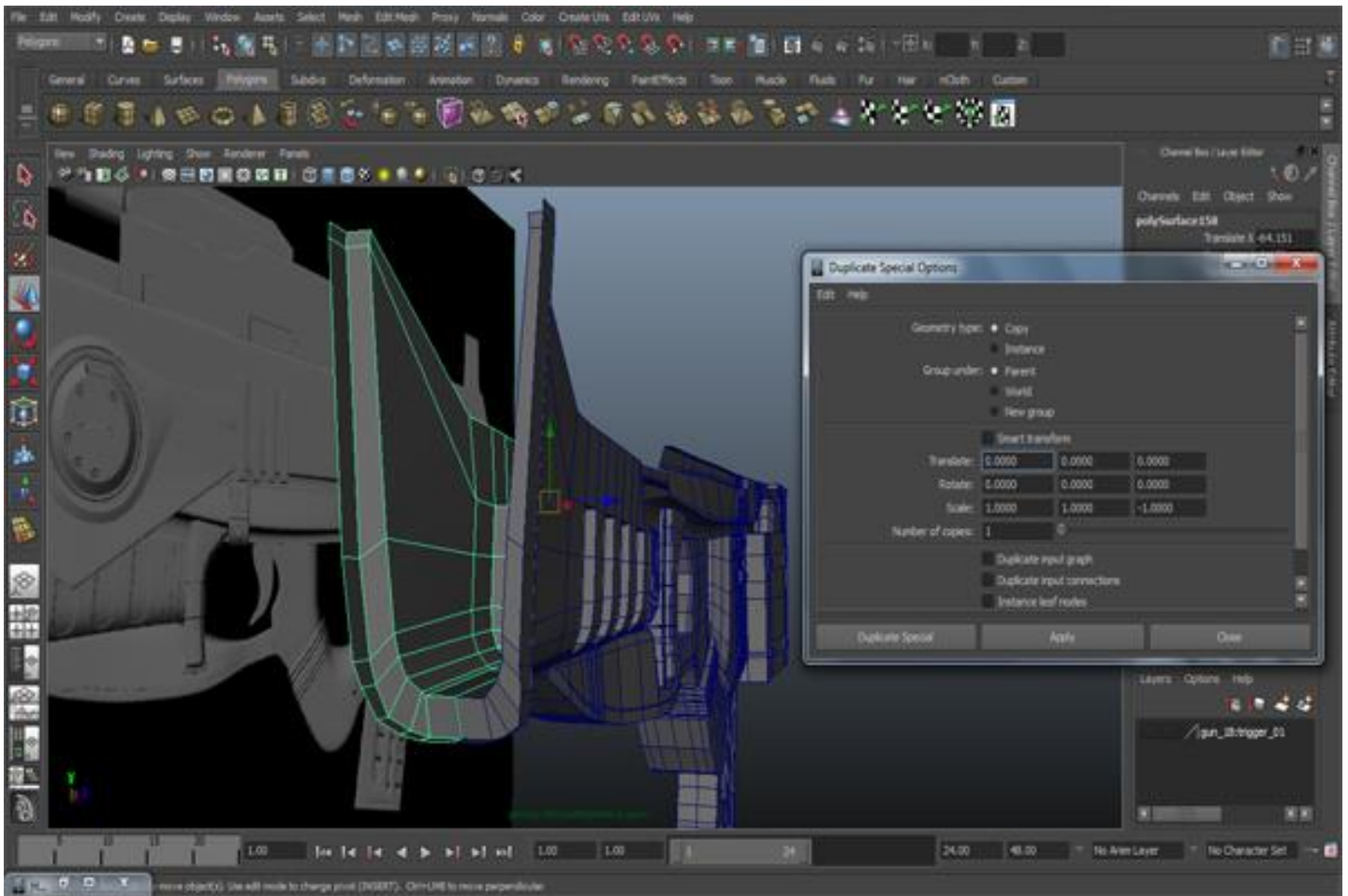
Step 63

Select the faces of the blocks that we just created and extrude them backward. Because the upper part of the mesh will not show up, therefore you give it any shape as you want.



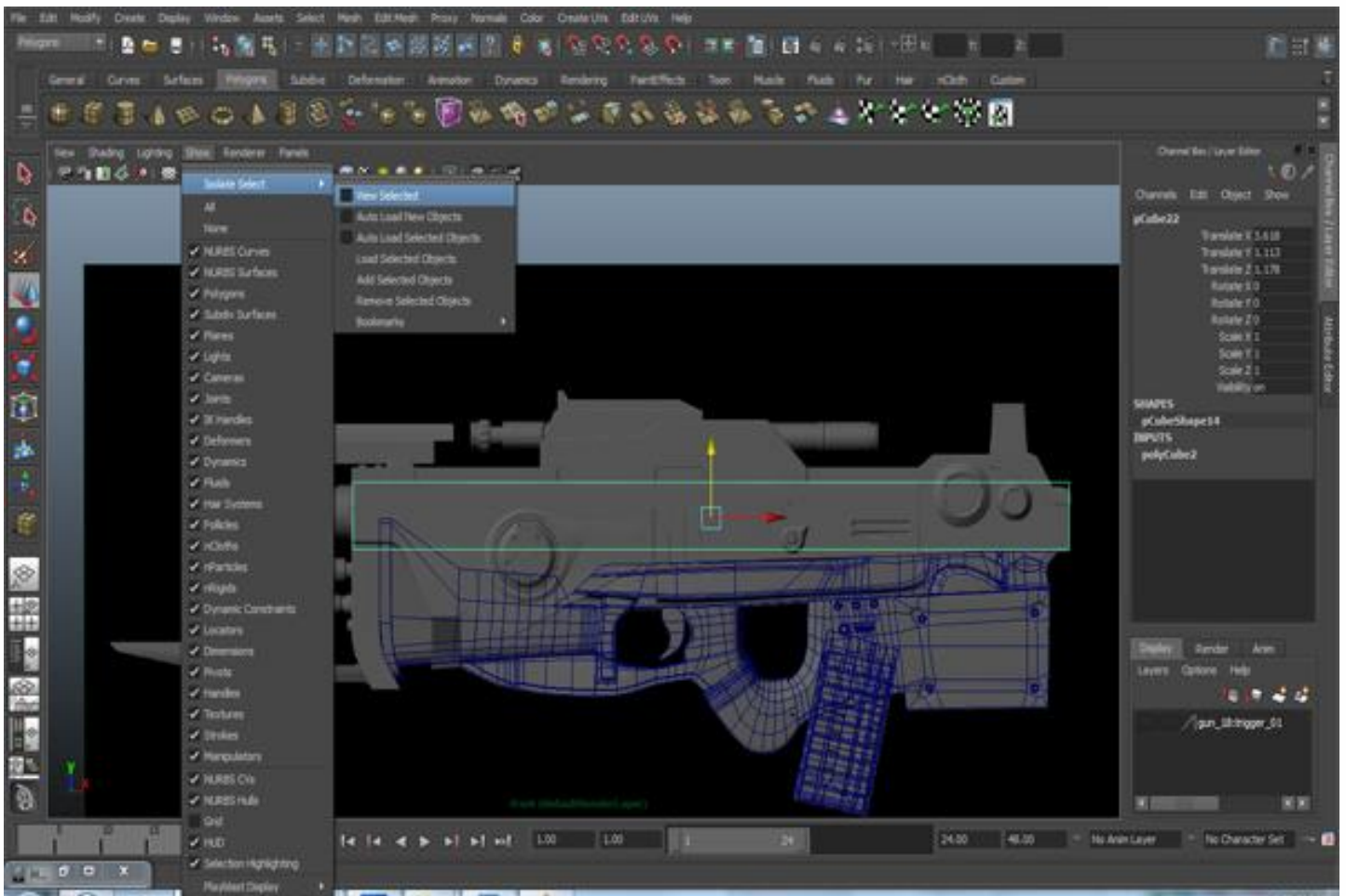
Step 64

Now, by using the Duplicate Special option, copy it to the opposite side.



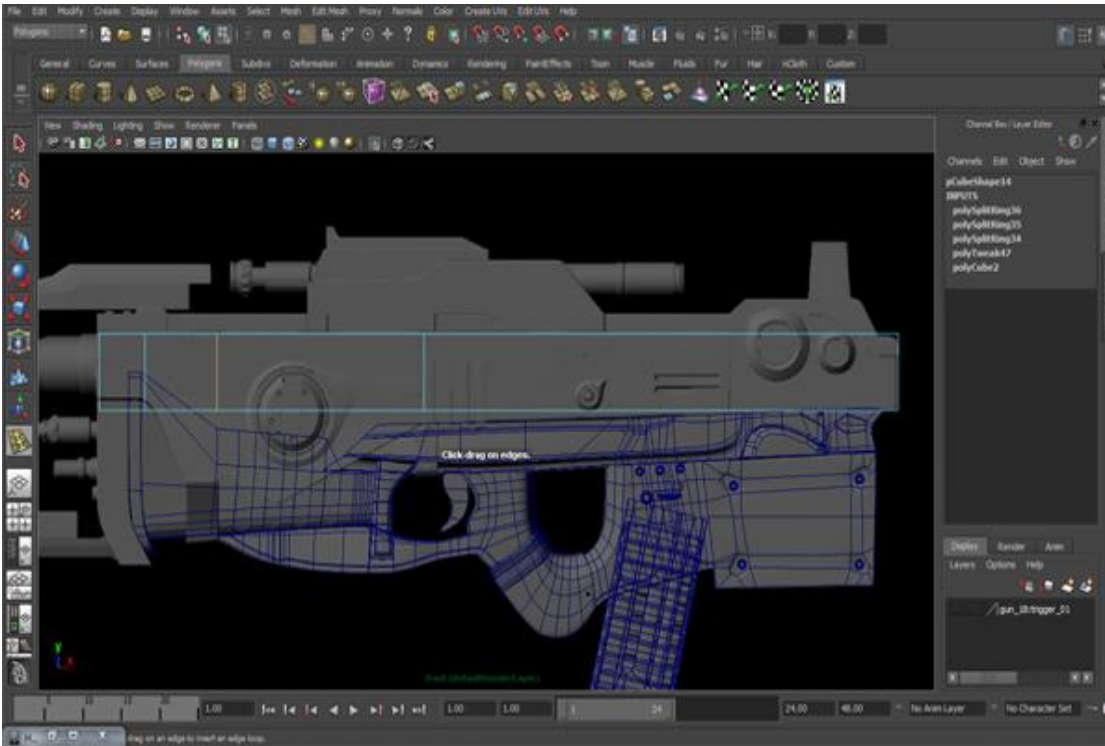
Step 65

Now we will make the largest part of the gun. There are other ways too to model this gun, it is not necessary that you only use the Create Polygon Tool. You can also use a box to model this part. So create a Box in the Front view as our reference. One more thing that I want to tell you is if you have any problem with other parts, like heaviness in the view port of the perspective view, you can go to *Show>Isolate Select>View Selected* and only select the object that you want to keep visible. Also select the image plane otherwise it will disappear too. But If your viewport is not heavy then you don't need to do it.



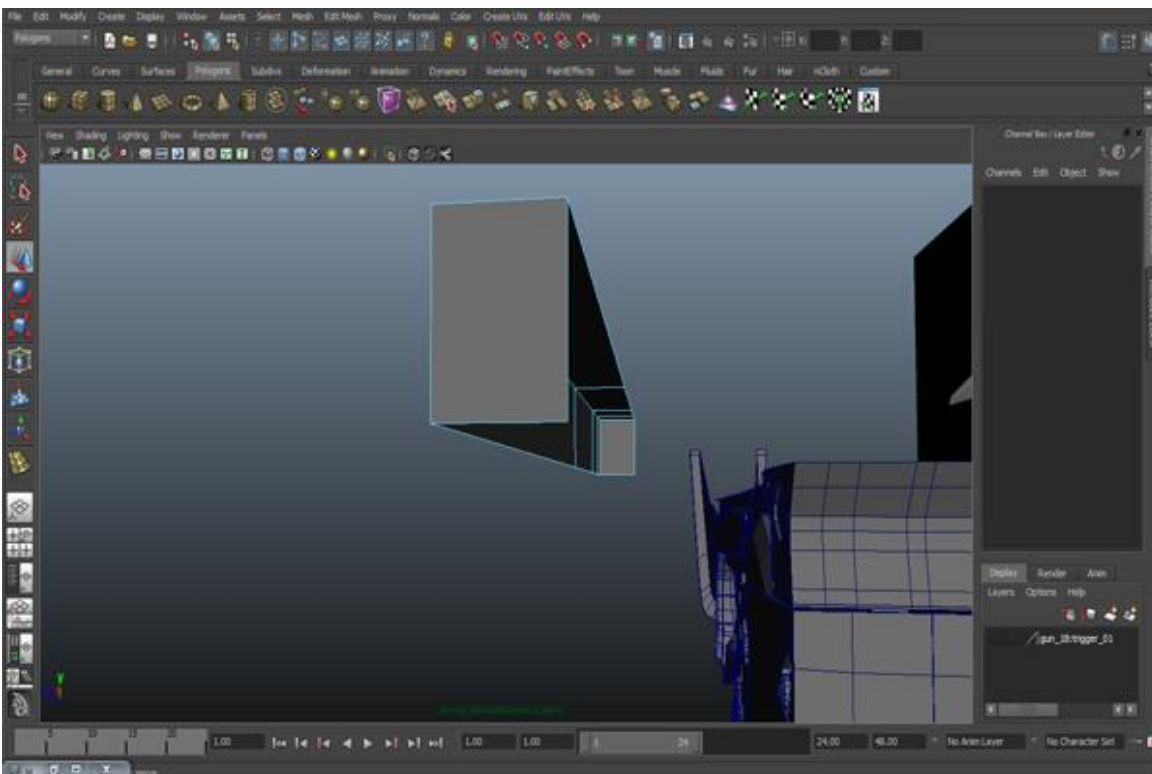
Step 66

Go to *Edit Mesh>Insert Edge Loop Tool* and insert three edge loops vertically as you can see in the figure below.



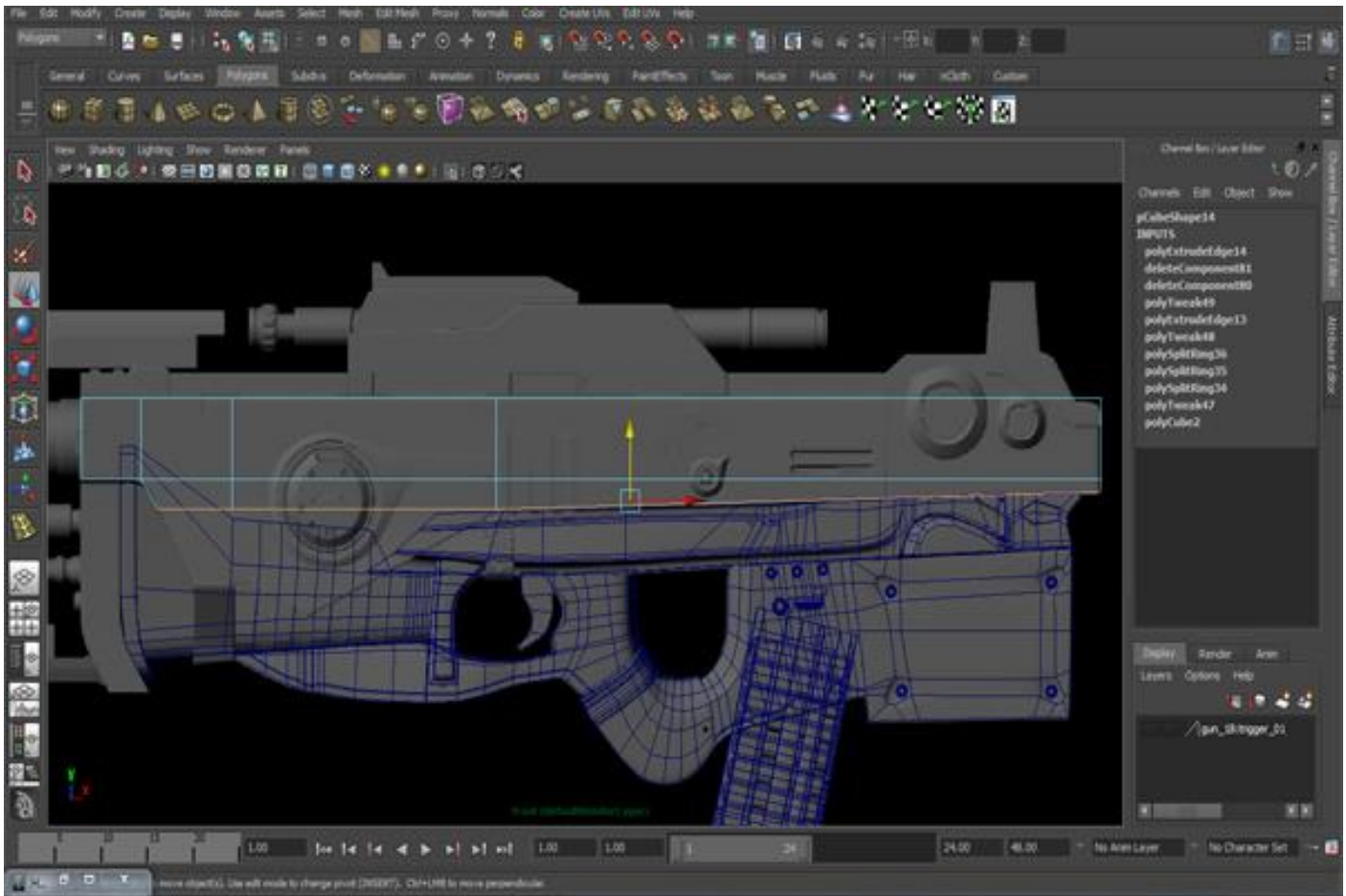
Step 67

Select the bottom and back faces and delete them.



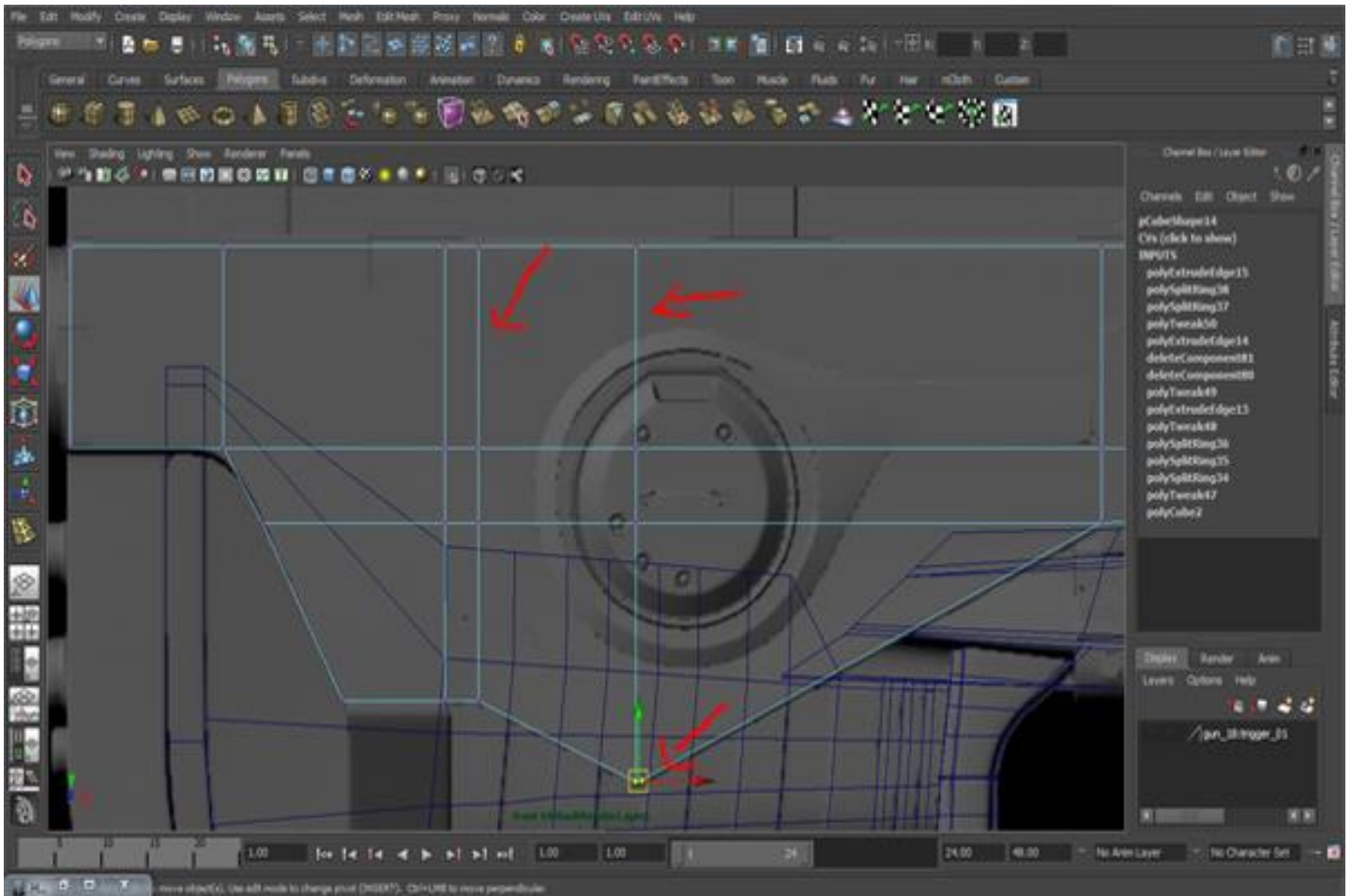
Step 68

Select three edges and extrude them down. And adjust them a little bit.



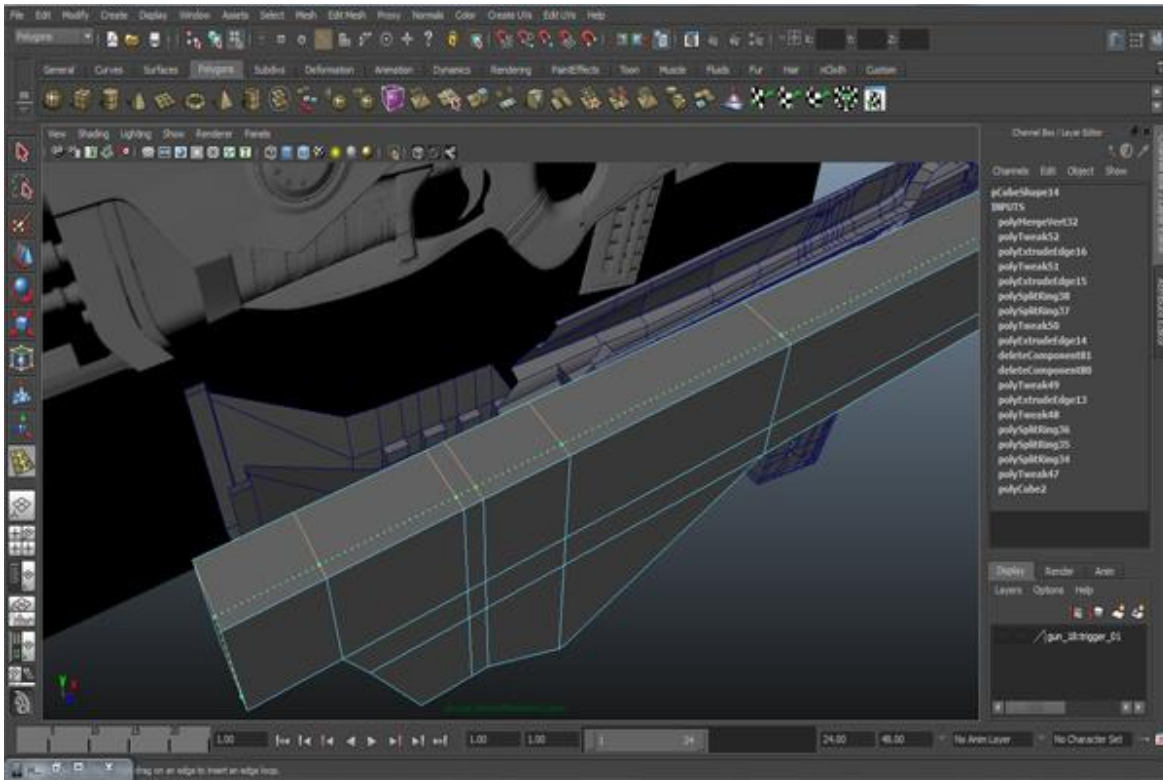
Step 69

Insert two more edge loops on top where the two arrows are pointing. And then move down to the two vertices where the third arrow is pointing, select them and go to *Edit Mesh>Merge* and merge them. By doing this, the two vertices will become one. Also adjust the shape according to the model.



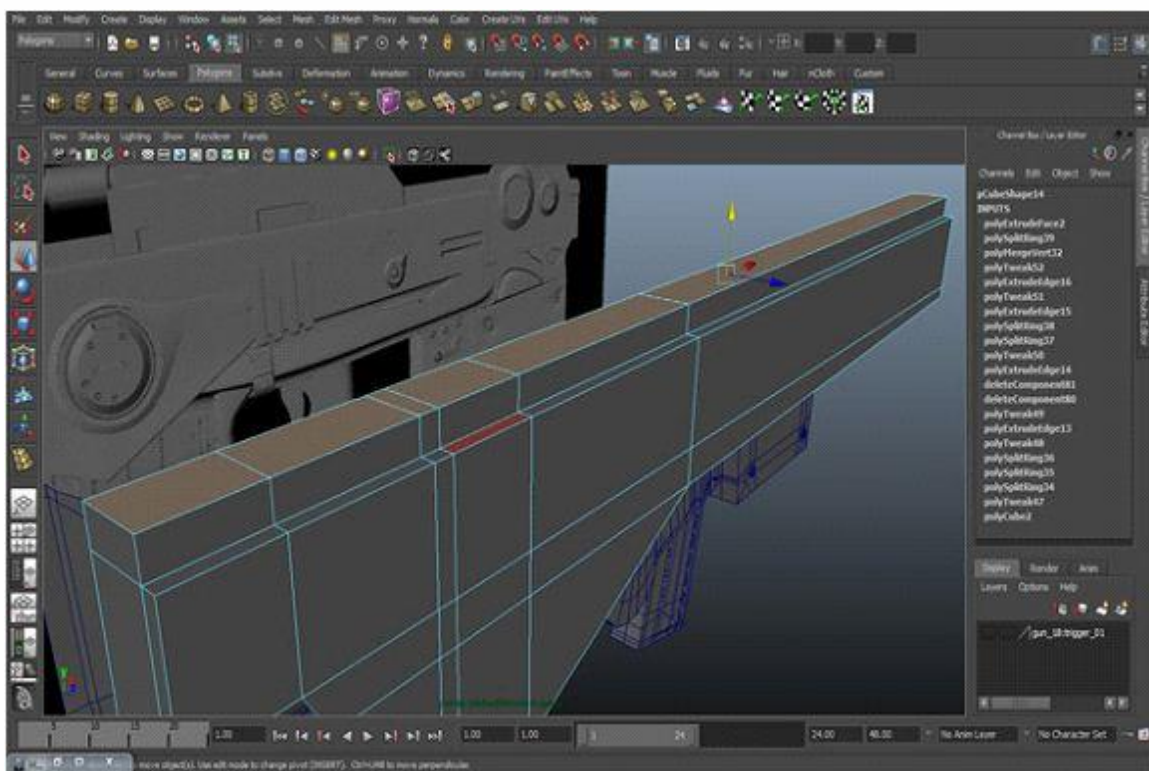
Step 70

Go to the Perspective and insert an edge loop from top.



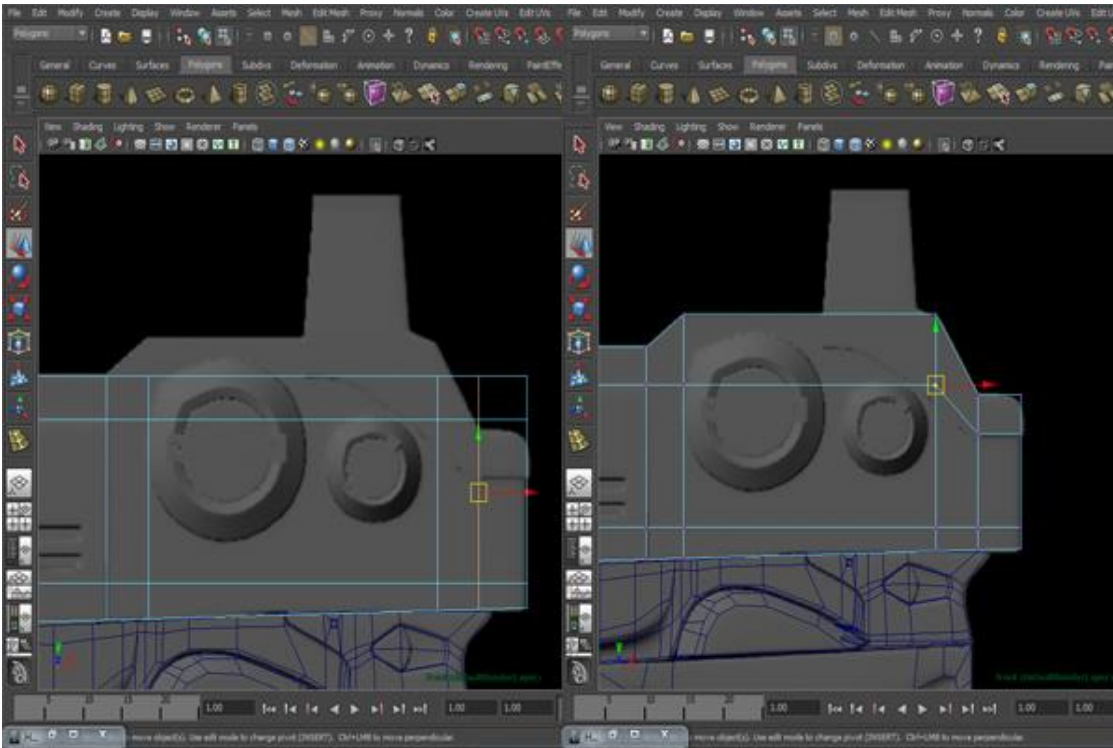
Step 71

Select the top faces and extrude them up.



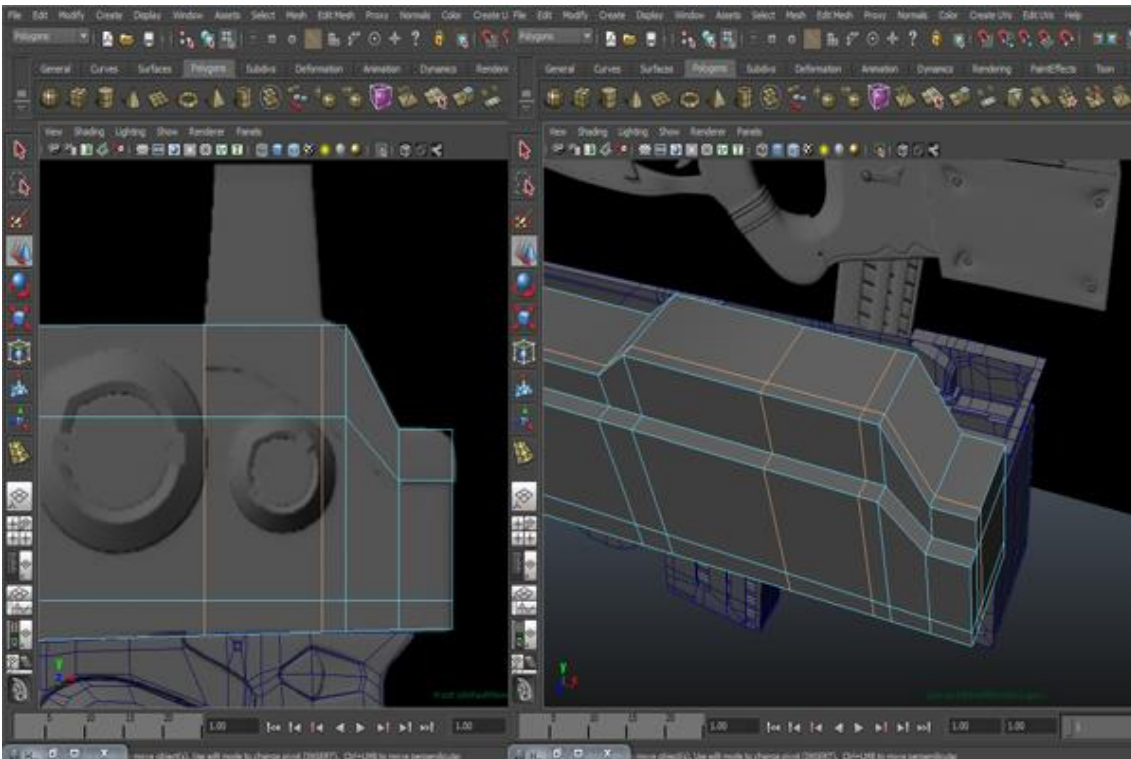
Step 72

From the Front view, insert four edge loops at right side of the model, and give it shape as you can see in the image below.



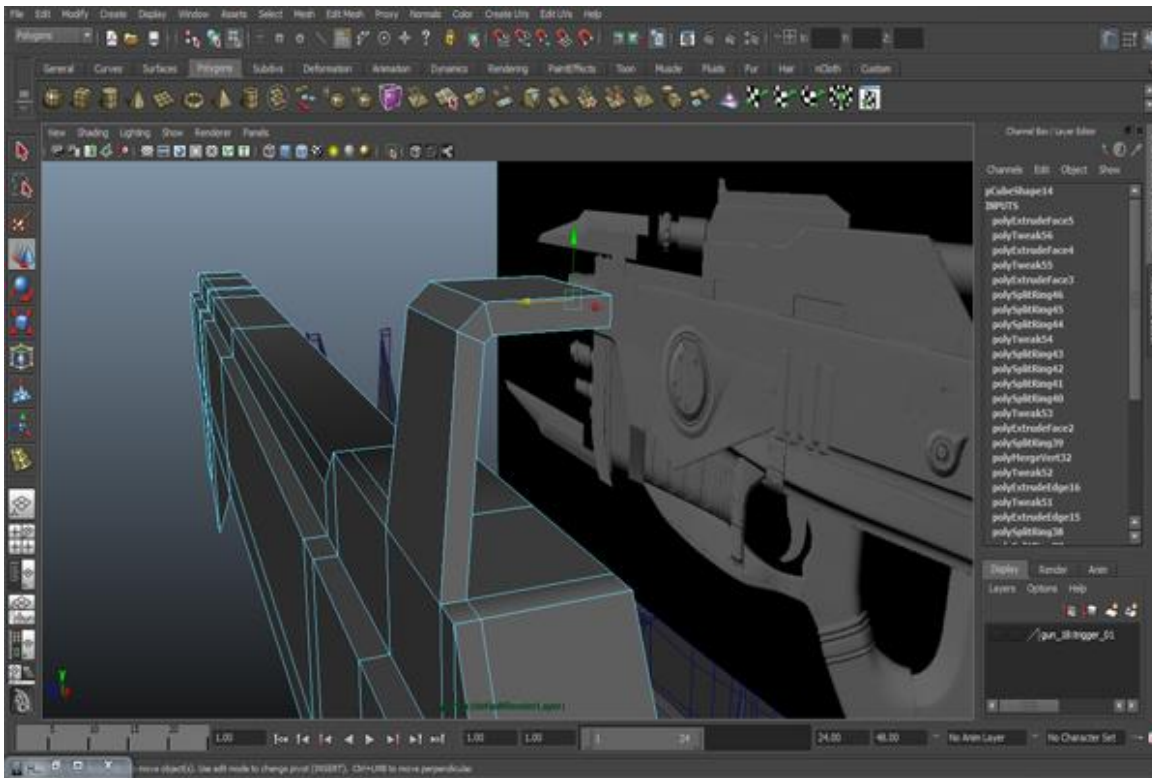
Step 73

Insert two more edges from the front and one from the top.



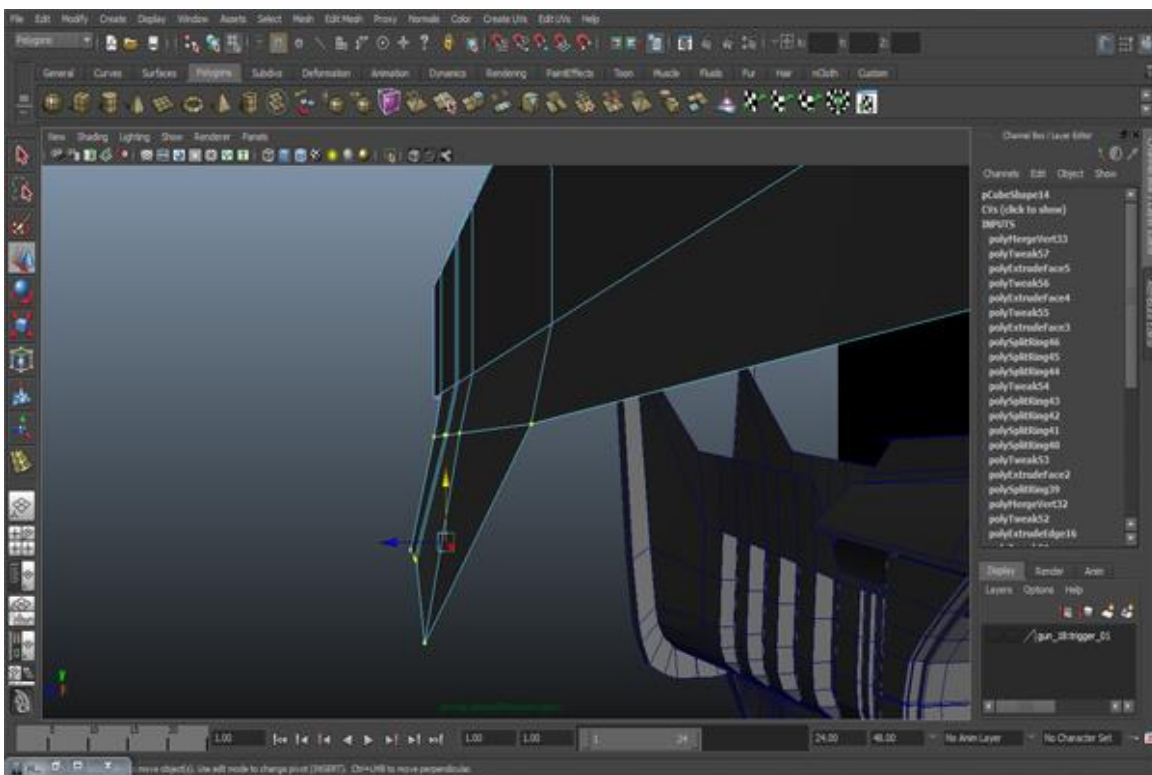
Step 74

Go to *Edit Mesh>Extrude*, and extrude something like this.



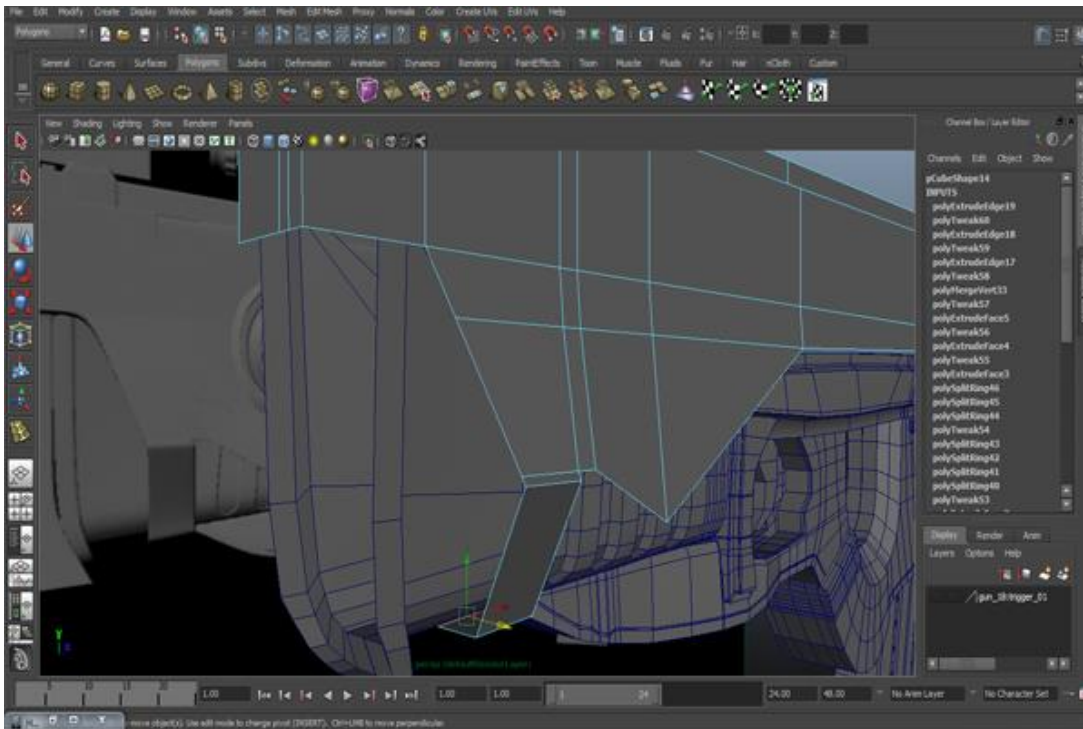
Step 75

Select the vertices and move them outward.



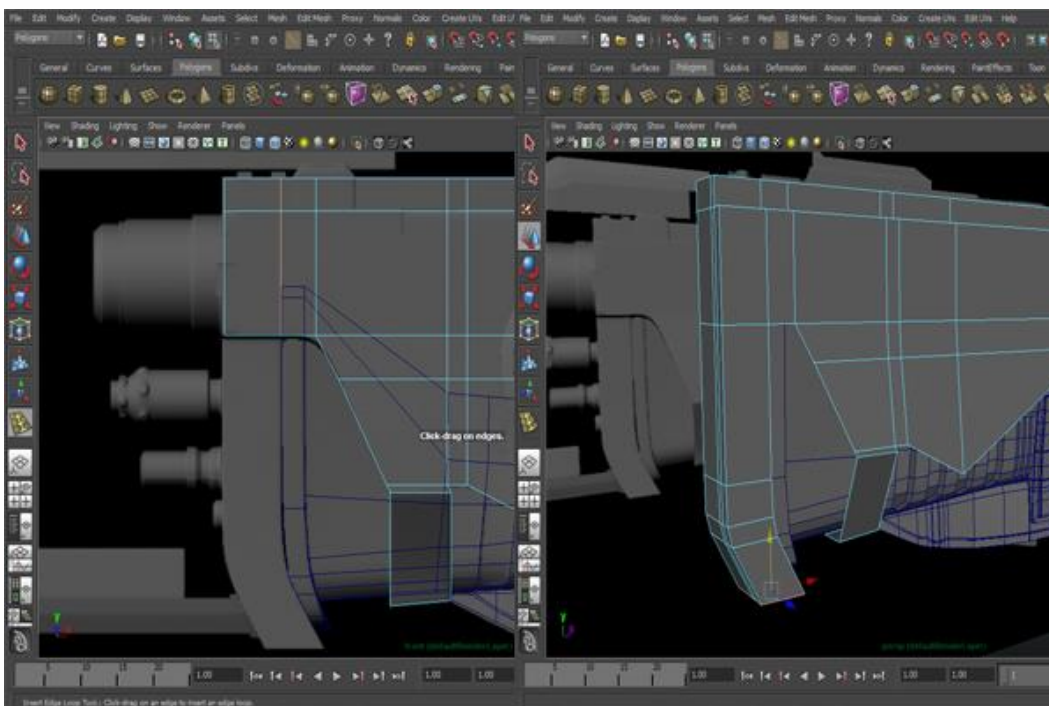
Step 76

Select an edge and extrude it down the side according to the model. Check out the proportions of the model at the beginning of the tutorial, the final model.



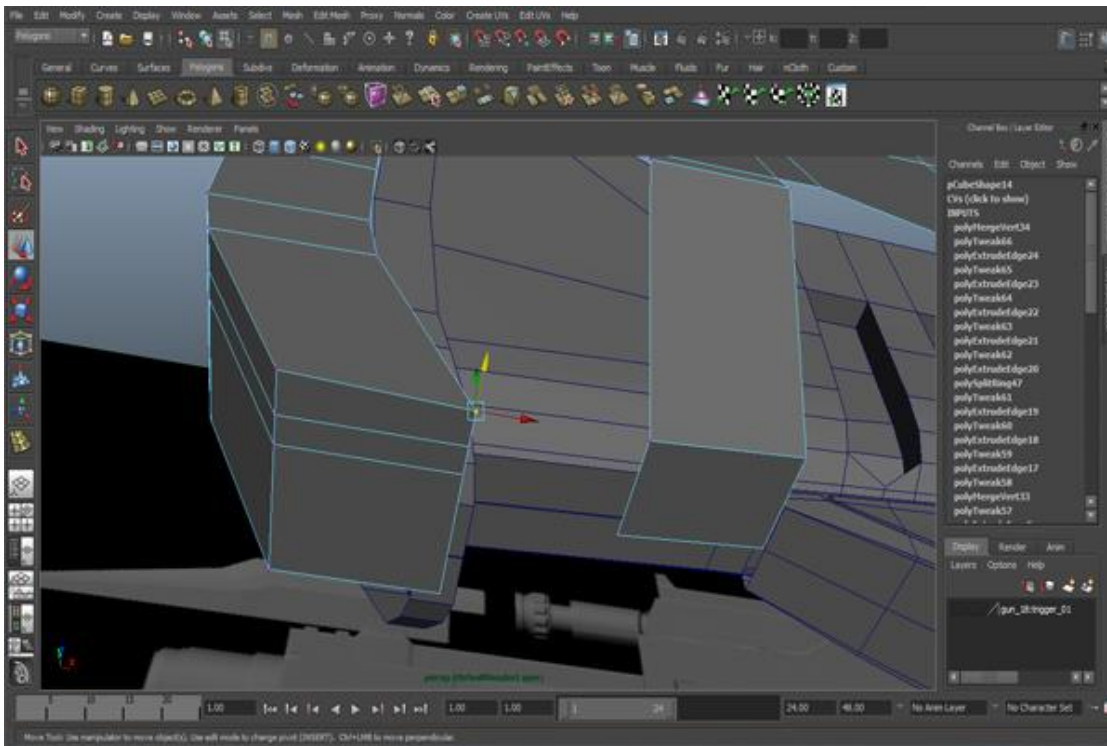
Step 77

Now continuing with this part we will create the front part of the gun. First insert an edge loop from Front view (see figure.) Go to the Perspective view, select the edges and extrude them.



Step 78

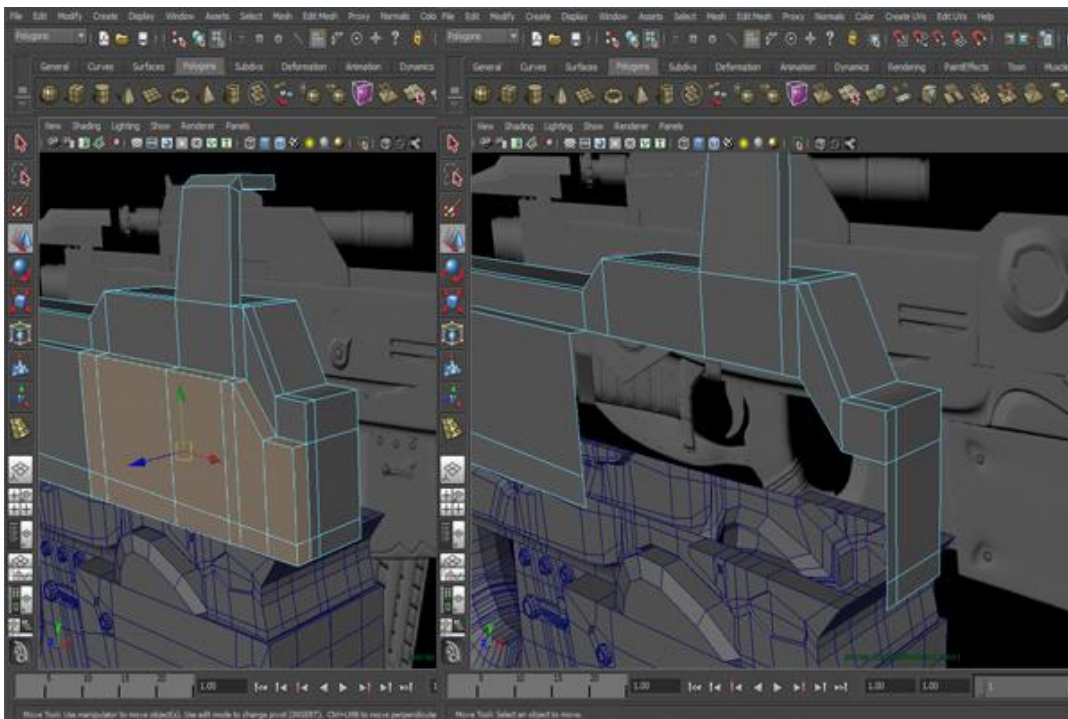
Then also extrude from the bottom and merge the vertices at the last point.



Advertisement

Step 79

In the Front view, select the faces from the right side and back side of the gun and delete them, as you can see in the figure.



Step 80

Then close it. Now the base model is almost complete. We will see how to add more details to this model in the next part of this tutorial.

