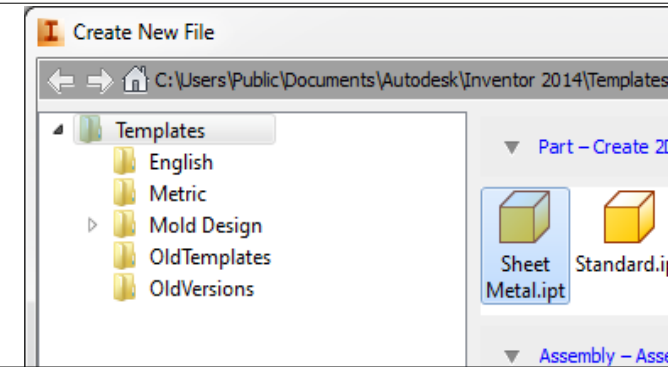
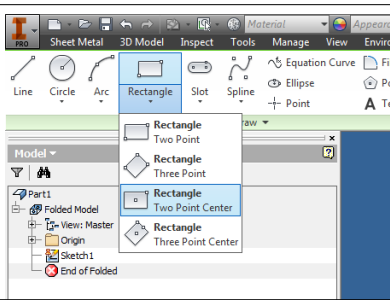


Sheet Metal Exercise.

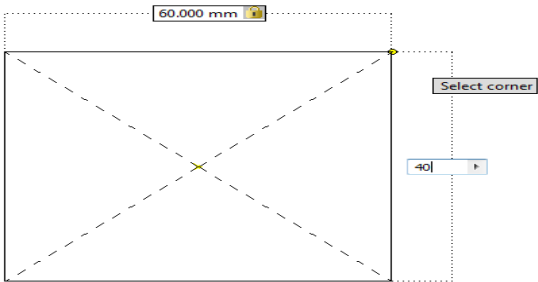
60 mm x 40 mm x 40 mm Box.



Step # 1. From the Create New File dialog box , select the *sheet metal.ipt* template.



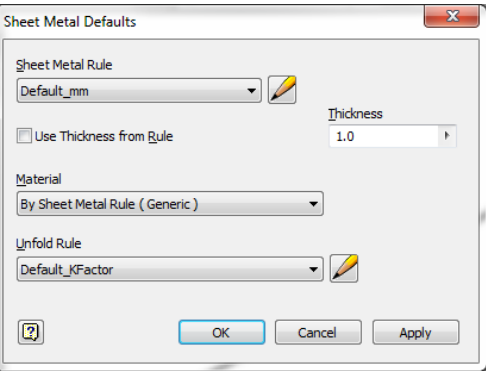
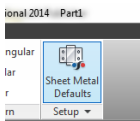
Step # 2. On the Sketch tab under the Draw panel select *Rectangle 2 point centre*.



Step # 3. Place the cursor at the origin and then drag out the shape of the rectangle. Enter 60 for the length and 40 for the height. (Use the *TAB* key to toggle between the input boxes)

Finish the sketch.

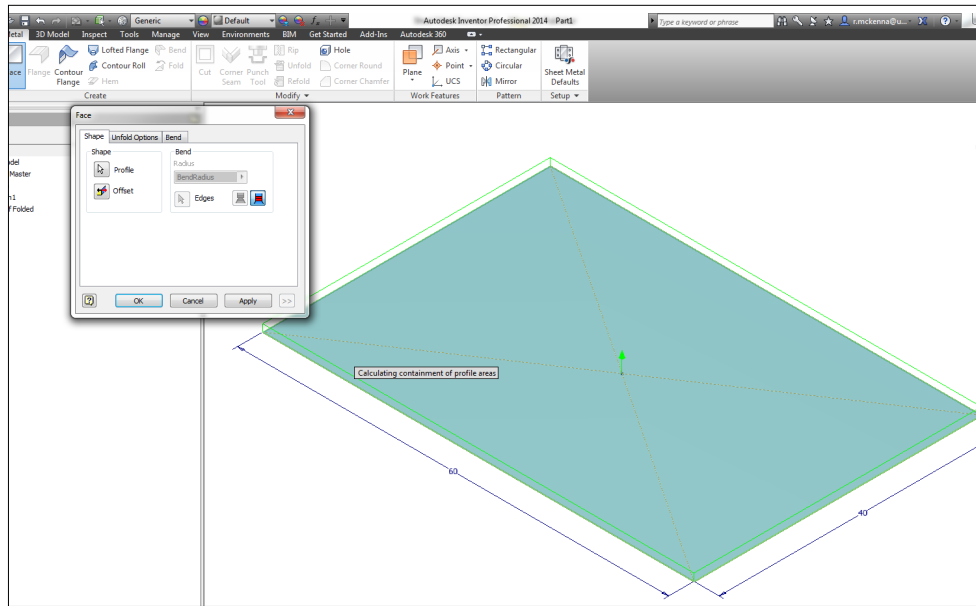
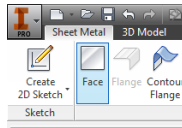
Step # 4. On the Sheet Metal tab select the *Sheet Metal Defaults Tool*



Step # 5. On the Sheet Metal defaults dialog box de-select the *Use Thickness from Rule checkbox* and set the thickness to 1.0

Click OK

Step # 6. On the Sheet Metal tab select the *Face* command.

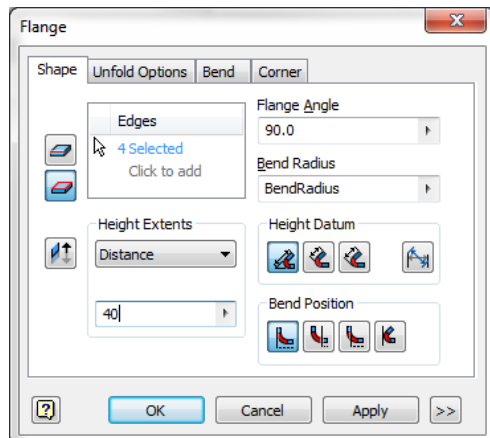
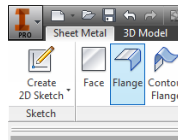


The Face command will automatically select the sketch and extrude it to the value set in the sheet metal defaults (1.0 mm)

Click OK

FIG 1.0

Step # 7. On the Sheet Metal tab select the *Flange* command.



The Flange command has the choice of either edge select or loop select.

Click on Loop Select and set the flange distance to 40 mm.

Select the upper edge of the rectangle and the entire loop will be selected.

The preview will show all 4 sides of the box. Click OK

Figure 2.0 showing the completed Flange command.

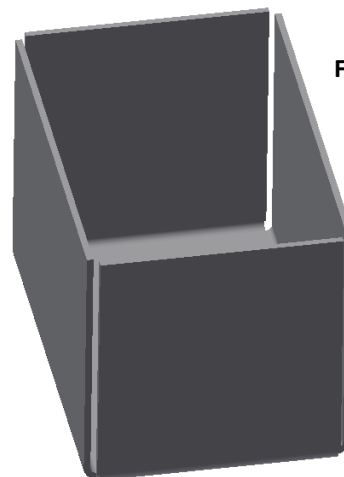


FIG 2.0

Step # 8. Re-select the *Flange* command.

This time choose *Edge Selection Mode* and set the flange distance to 10 mm.

Select the inner edge of the flanges as shown in Fig 3.0

Click OK

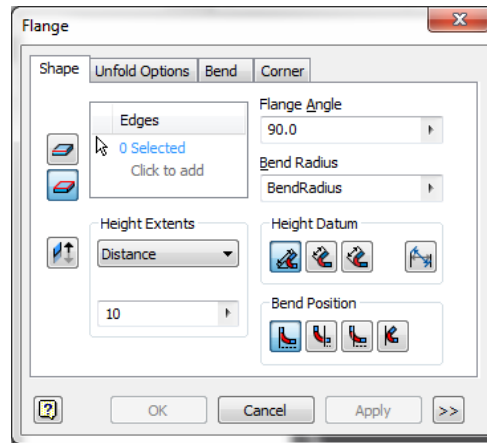
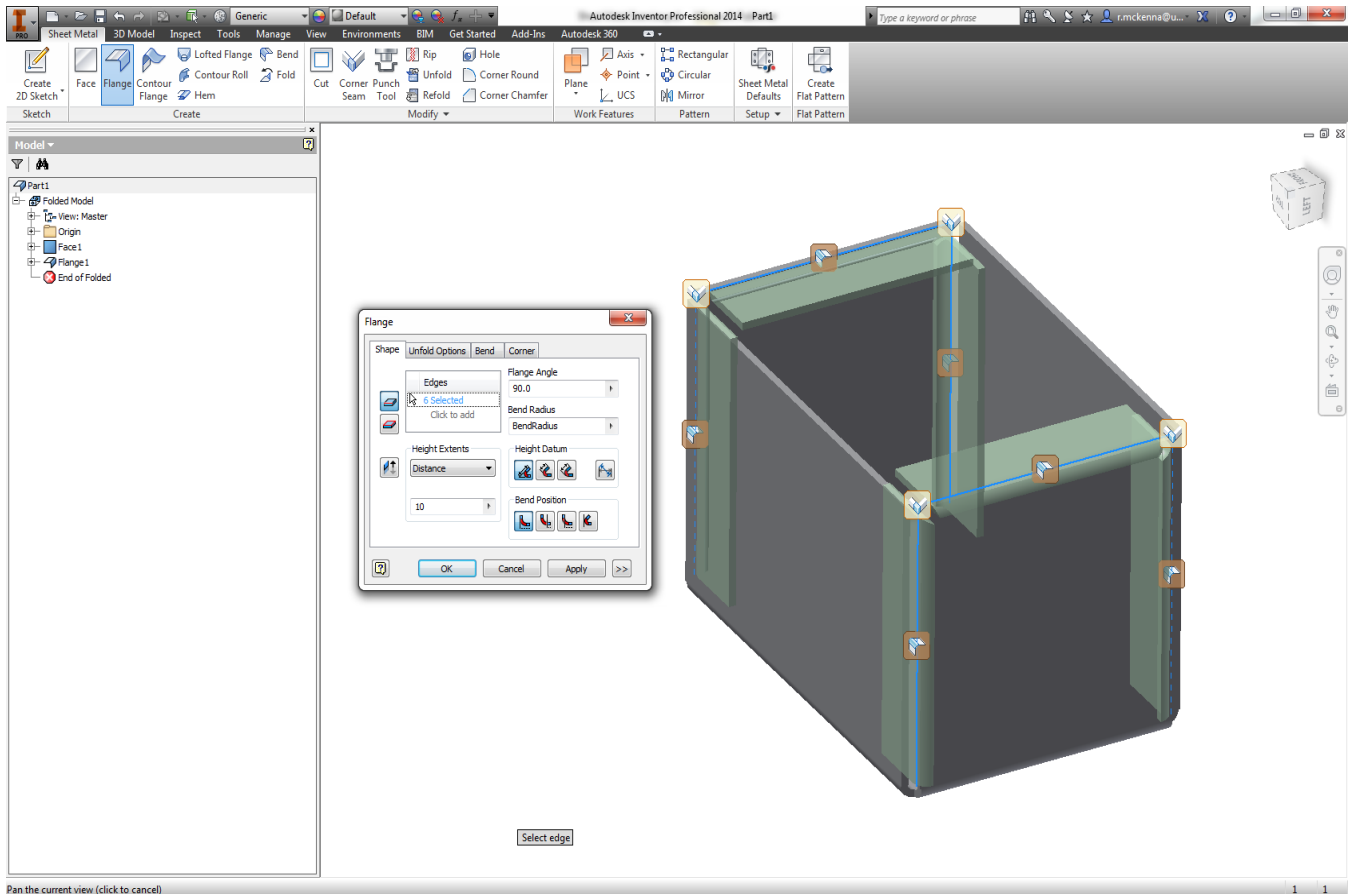


FIG 3.0



Step # 9. From the Modify Panel select the *Corner Chamfer* command.

Set the chamfer distance to 8.0 mm.

Select all the corners of the 10 mm flanges. as shown in Fig 4.0

Click OK

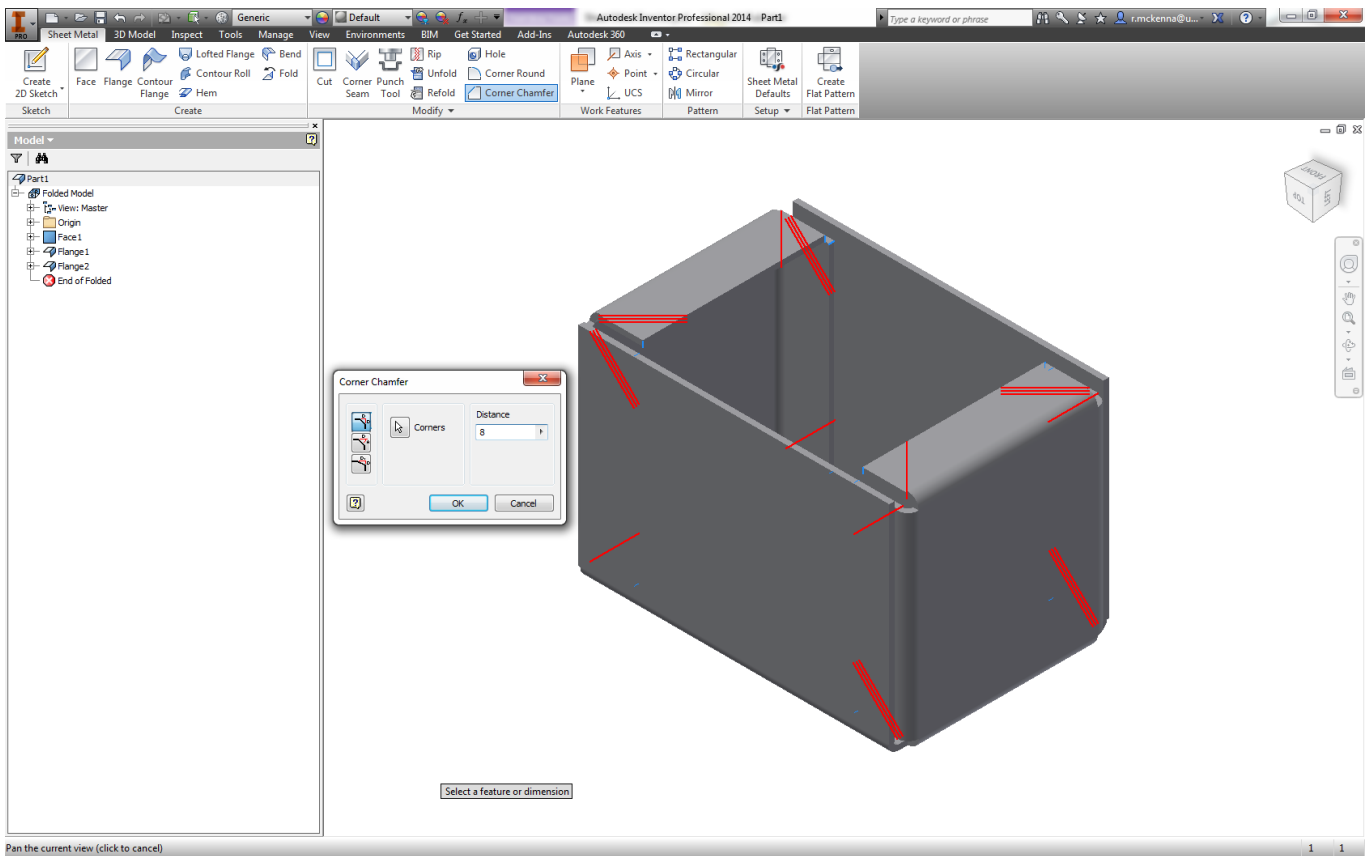
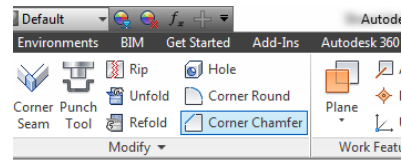


FIG 4.0

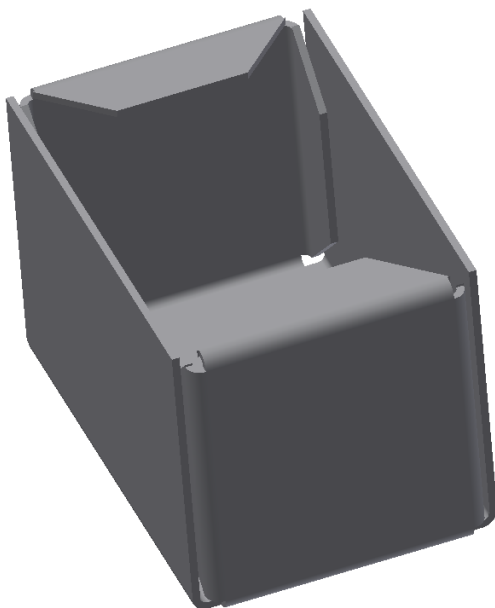


FIG 5.0

The two ends of the box showing the completed Chamfer command.

Step # 10. From the Create Panel select the *Flange* command.

Set the Height Extents as shown in the dialog box opposite.

Set the Bend Position as shown in the dialog box opposite.

Select the edge as shown in Fig 6.0

Highlight the selection arrow in Height Extents and select the vertex shown in Fig 7.0

Click OK

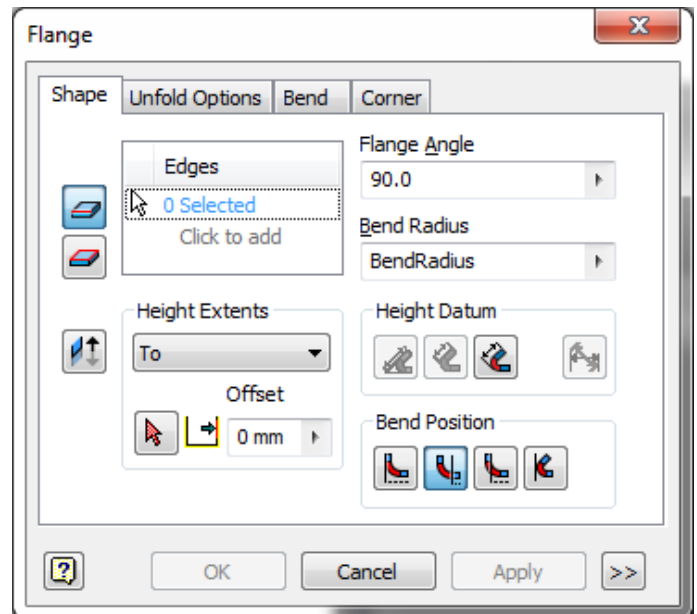


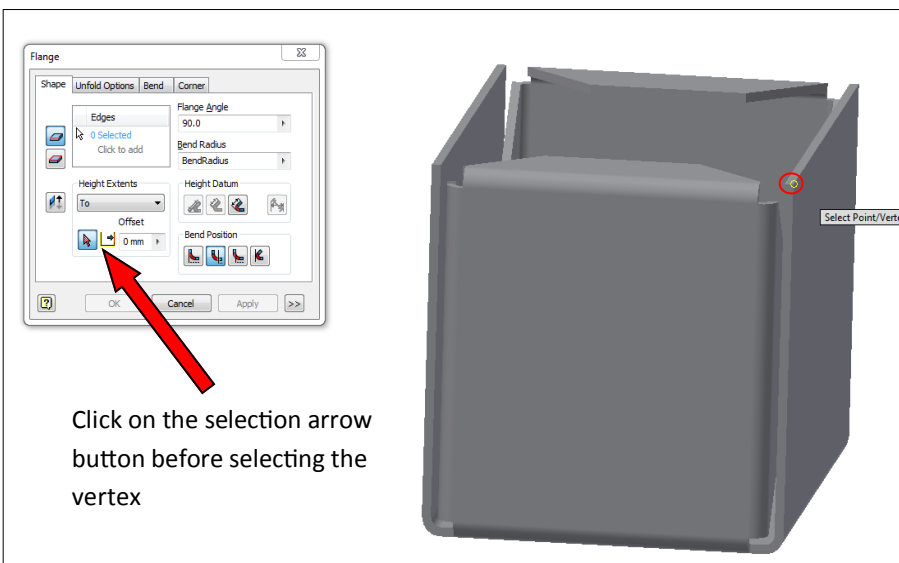
FIG 6.0

Shows the selection of the first edge.



FIG 7.0

Shows the selection of the vertex to determine the length of the flange.



Click on the selection arrow button before selecting the vertex

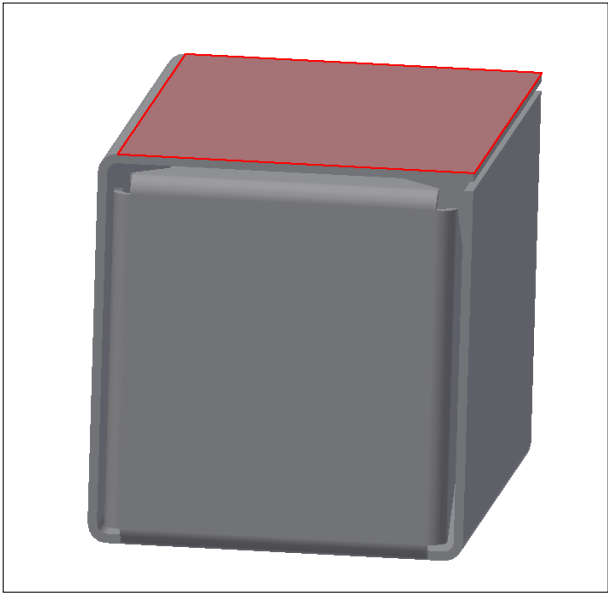


FIG 8.0

Fig 8.0 showing the completed box model

Step # 11. Select the Create Flat Pattern command.

The model is automatically selected , and if no errors are detected, a flat pattern like that in Fig 9.0 will be displayed.

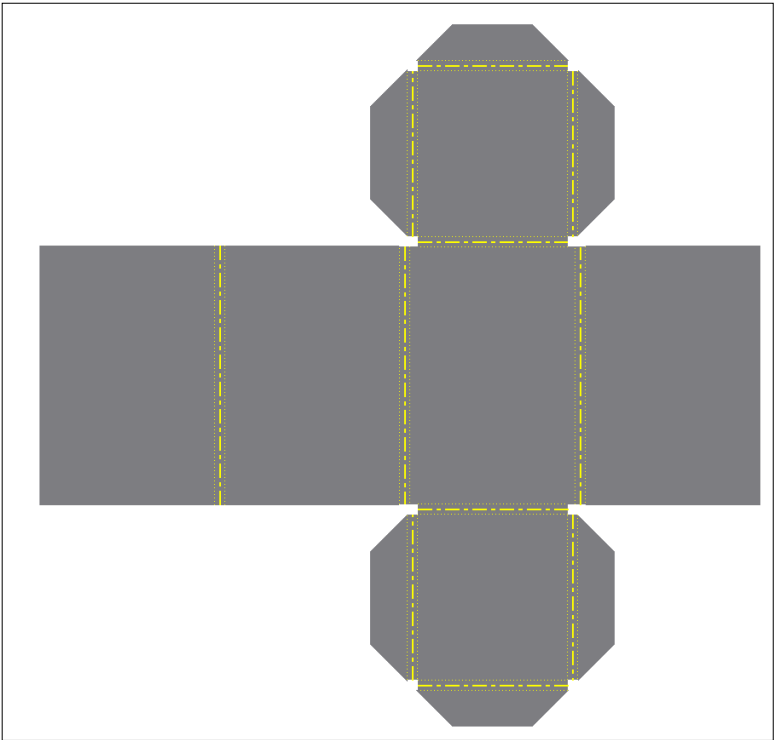
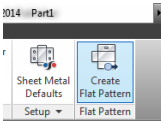


FIG 9.0

Toggle between the Flat Pattern and Folded part with the *Go to Folded Part Command*.

