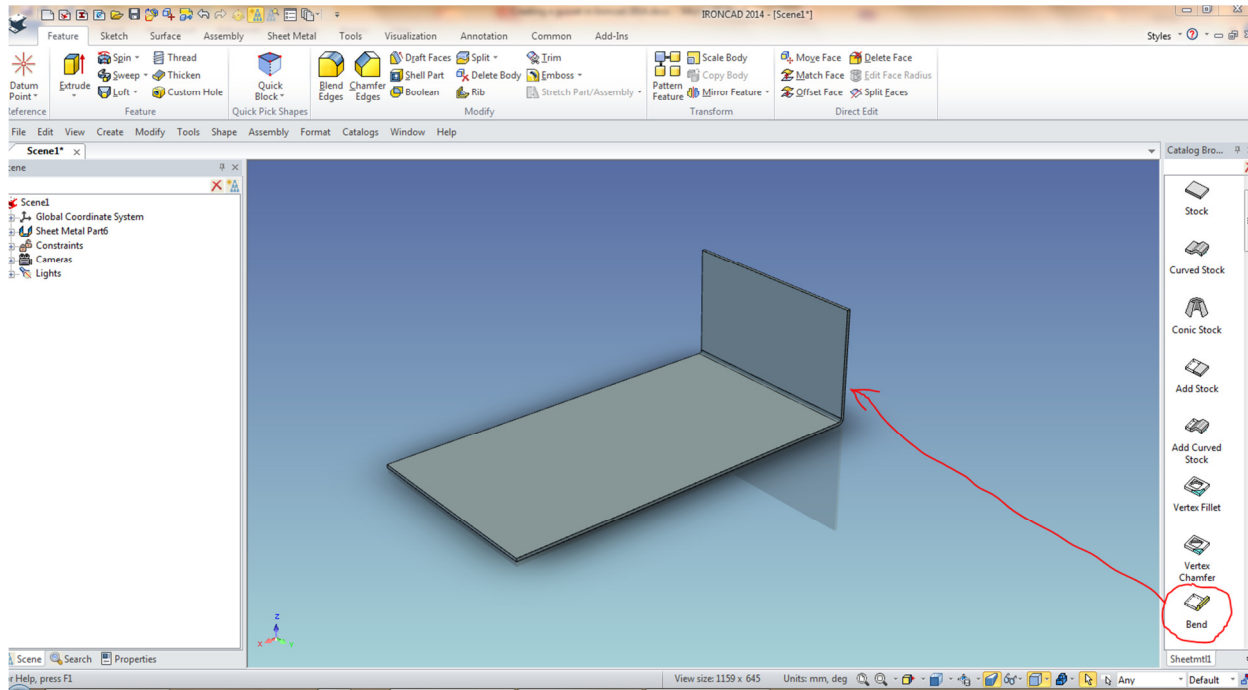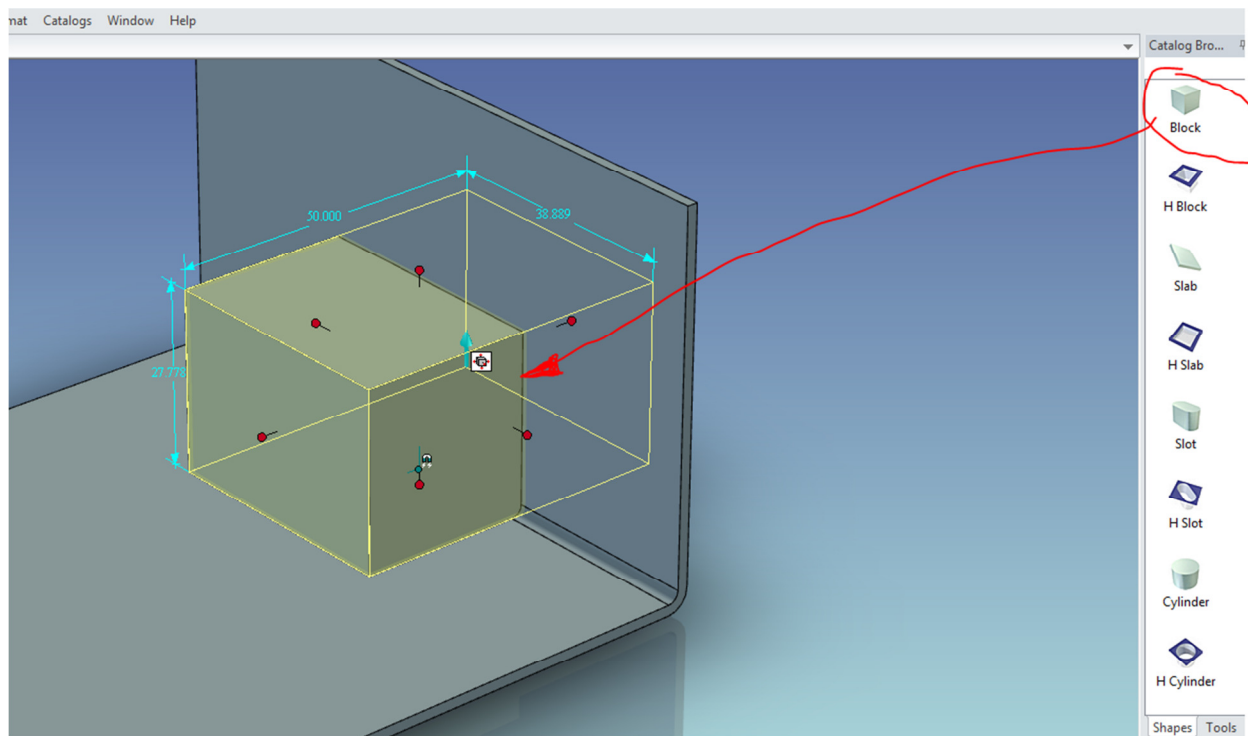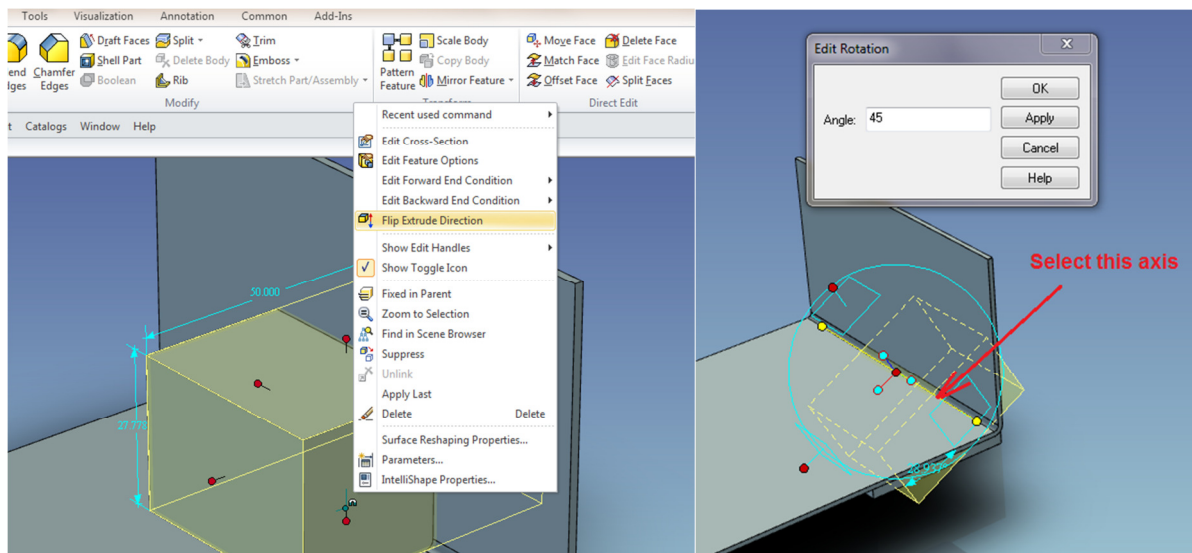Creating a Gusset in Ironcad 2014 (without IronPro) . All credit to 'dleczynski' from IronCad Community who posted this originally and this is purely a translation into English from his video.
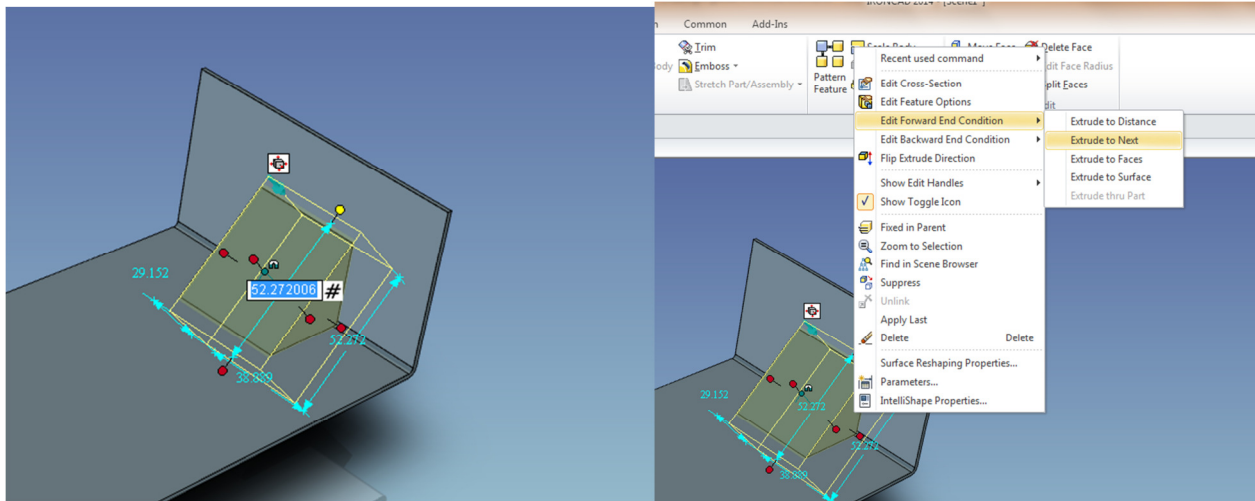

Add a bend to your stock

Drag a Block from Shapes catalogue onto the bend.

Right click block's at Intellishape level, select 'Flip Extrude Direction'. Turn on Triball, select axis as shown, place cursor (hand) inside Triball, right click and drag to rotate, set angle at 45 degrees.
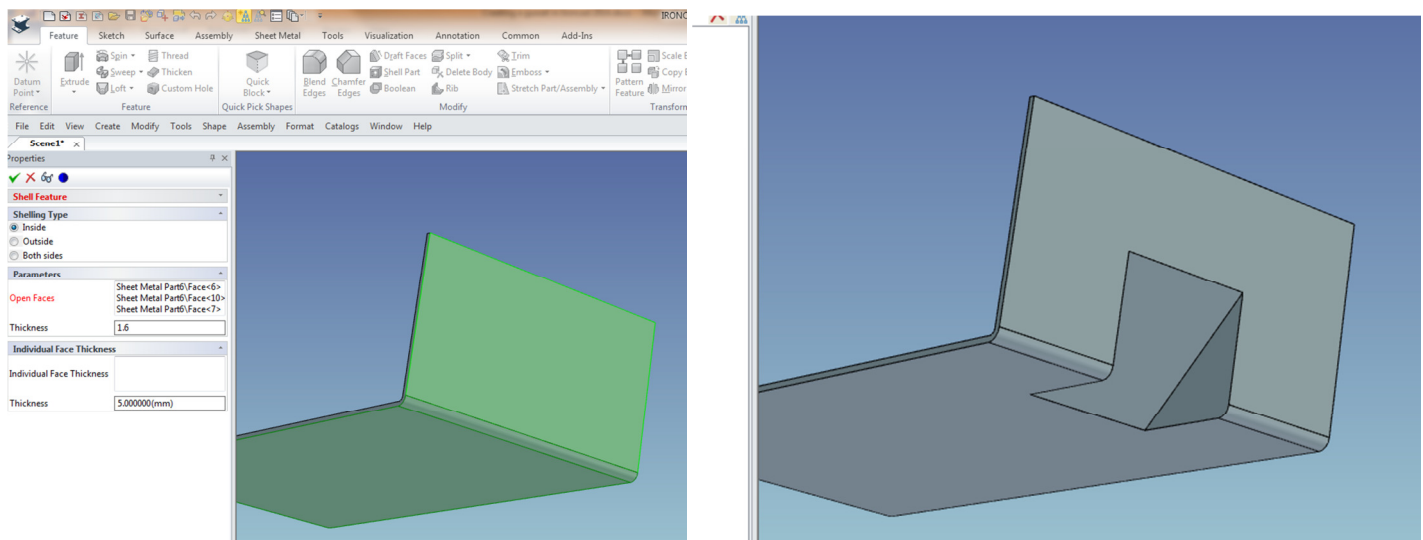

Stretch block up and out past the stock and bend, right click Intellishape, select 'Edit Forward Condition' – 'Ectrude To Next'
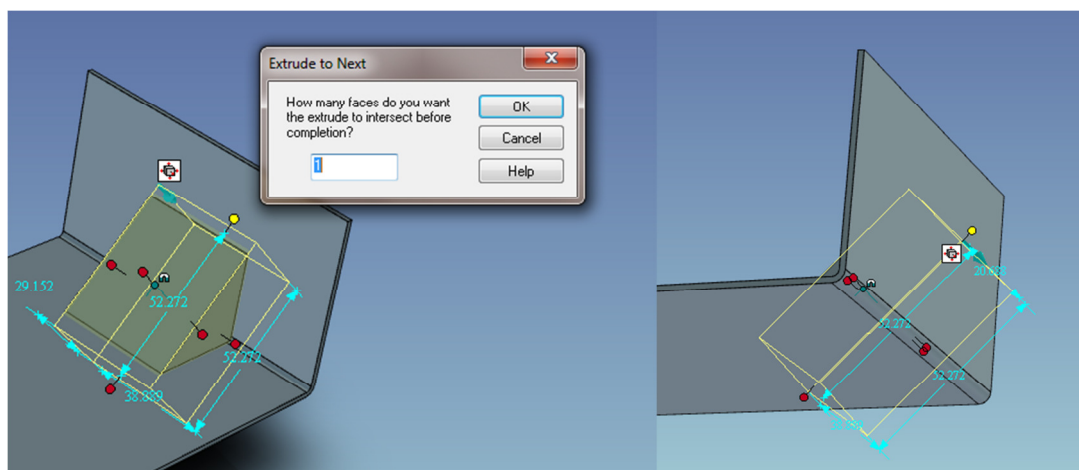
Accept the number at 1 for the question. Flip part over to check the block extrusion does not appear on rear face
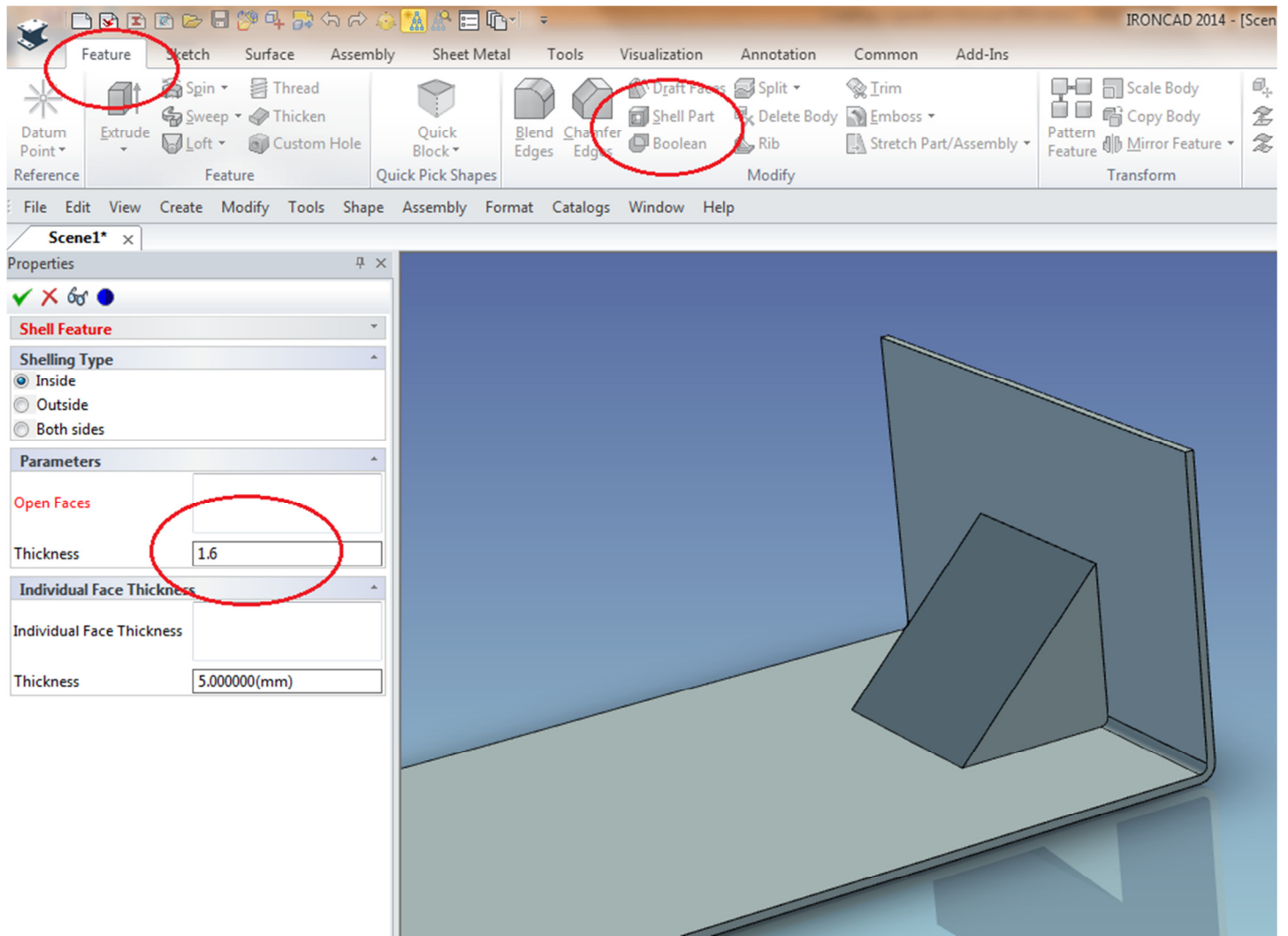
Select 'Shell' from the 'Feature' ribbon bar. Change the thickness to that of the stock – in this example 1.6mm


Select the outside bend, outer face of bend stock and underneath of stock for 'Open Faces'

Care should be taken to select blends for the gusset. Once you have detrmined what the minium radius is for the gusset blends, you have to figure out which edges will have the smaller radius and which will have the smaller radius plus material thickness.
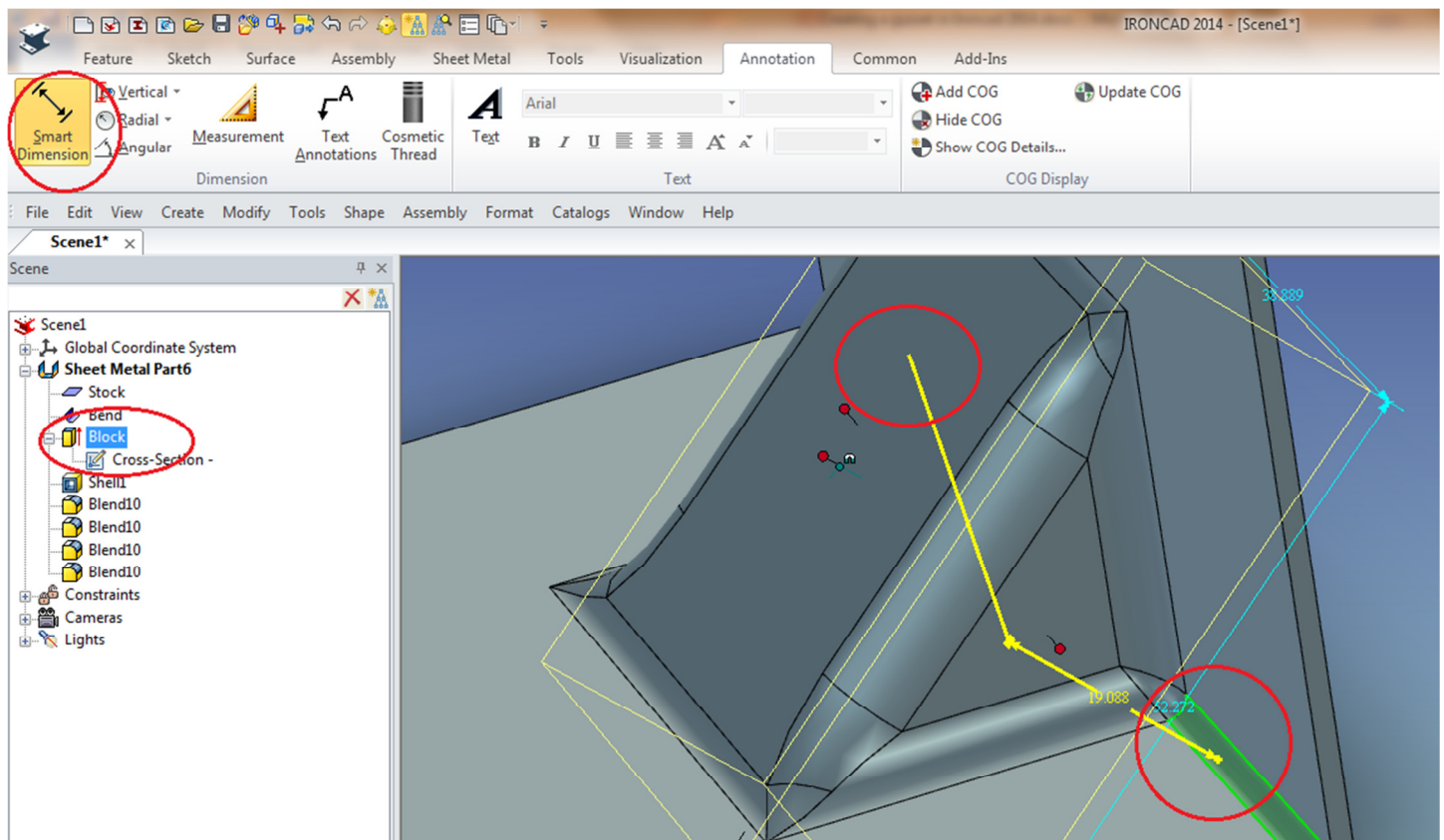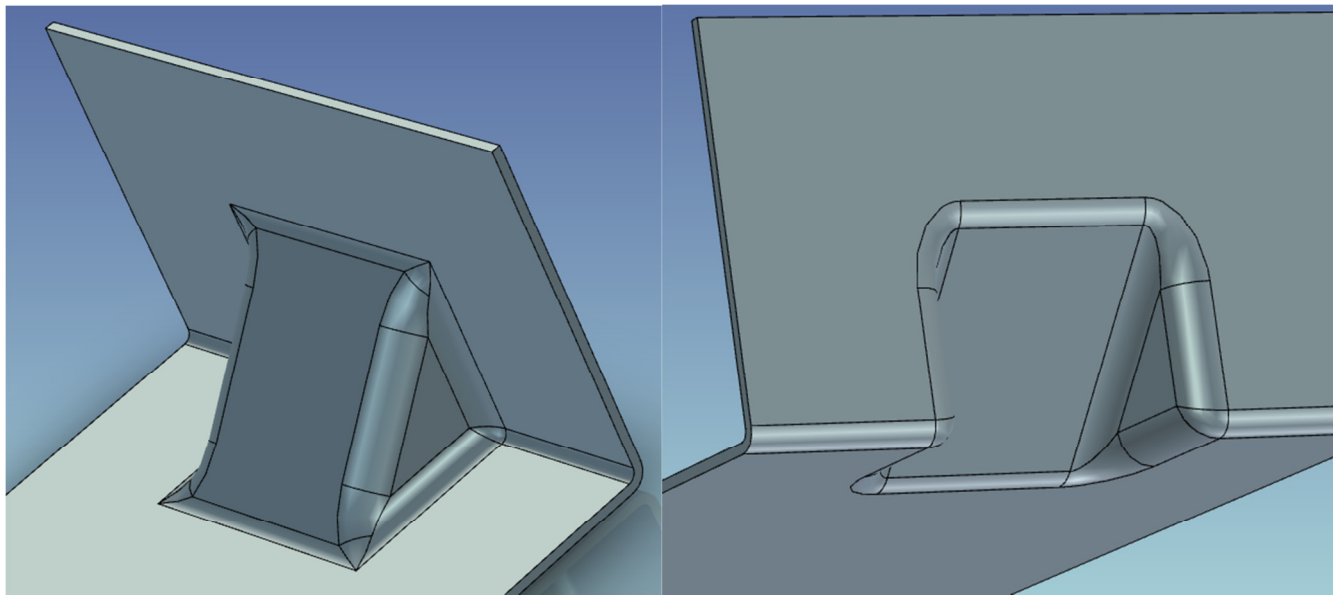
Let's say for this example that the smaller radius is 3.4mm and the material thickness is 1.6mm. Outside radius with therefore be 5mm
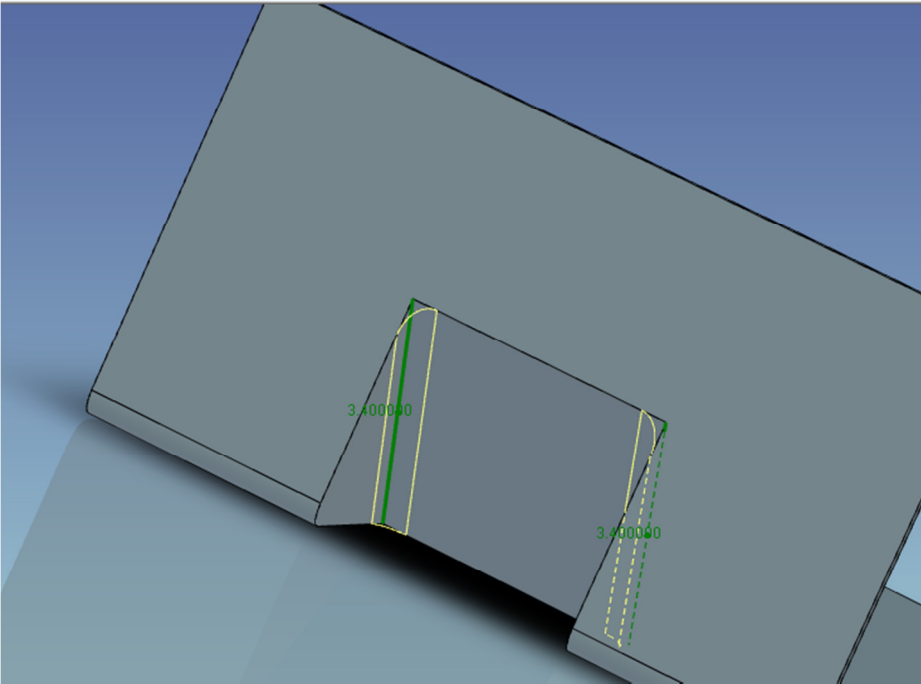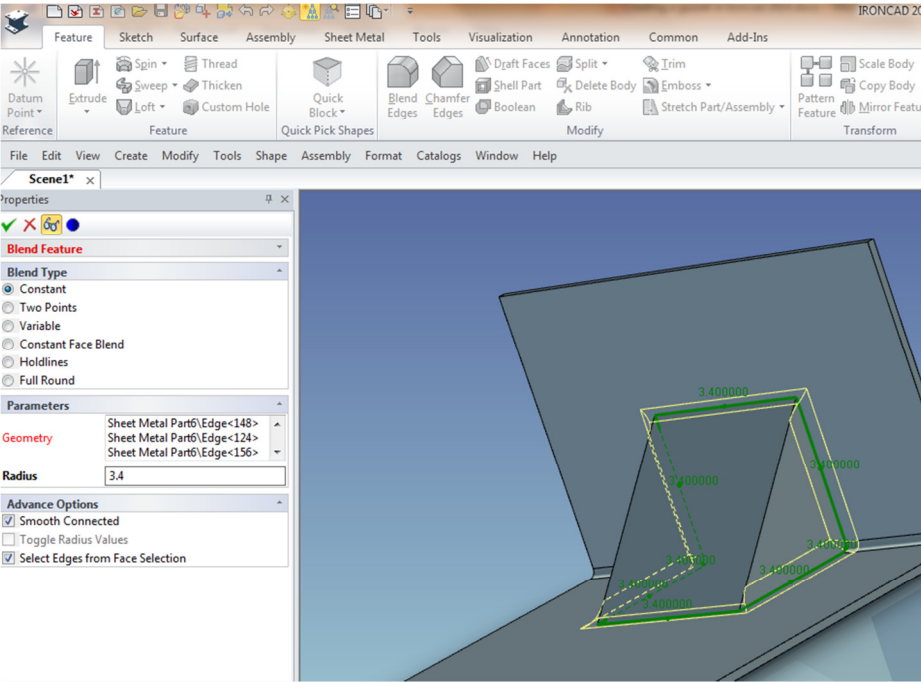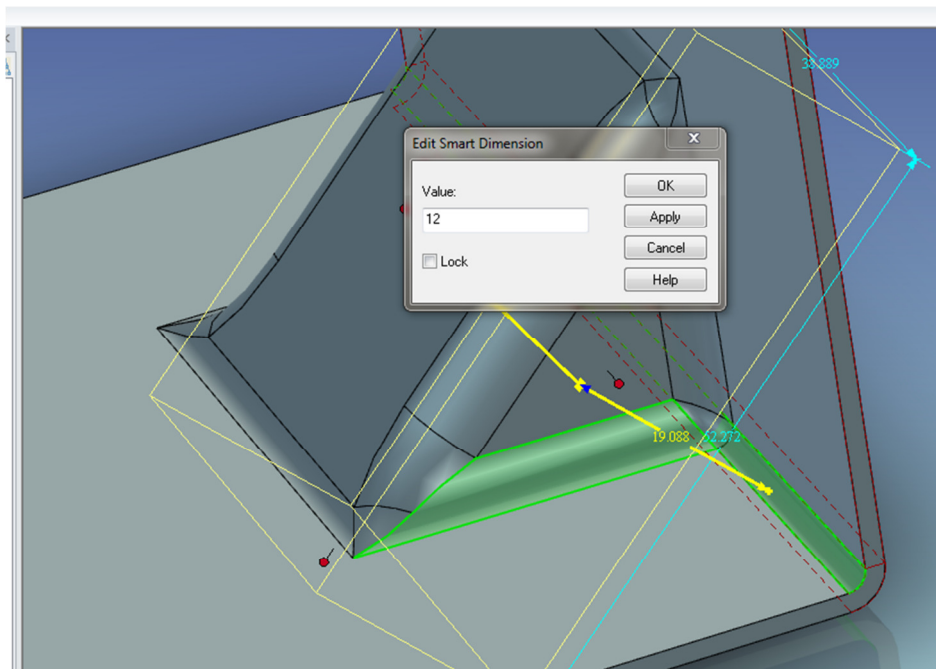

3.4mm radii (inside smaller radii) set for both sides of gusset
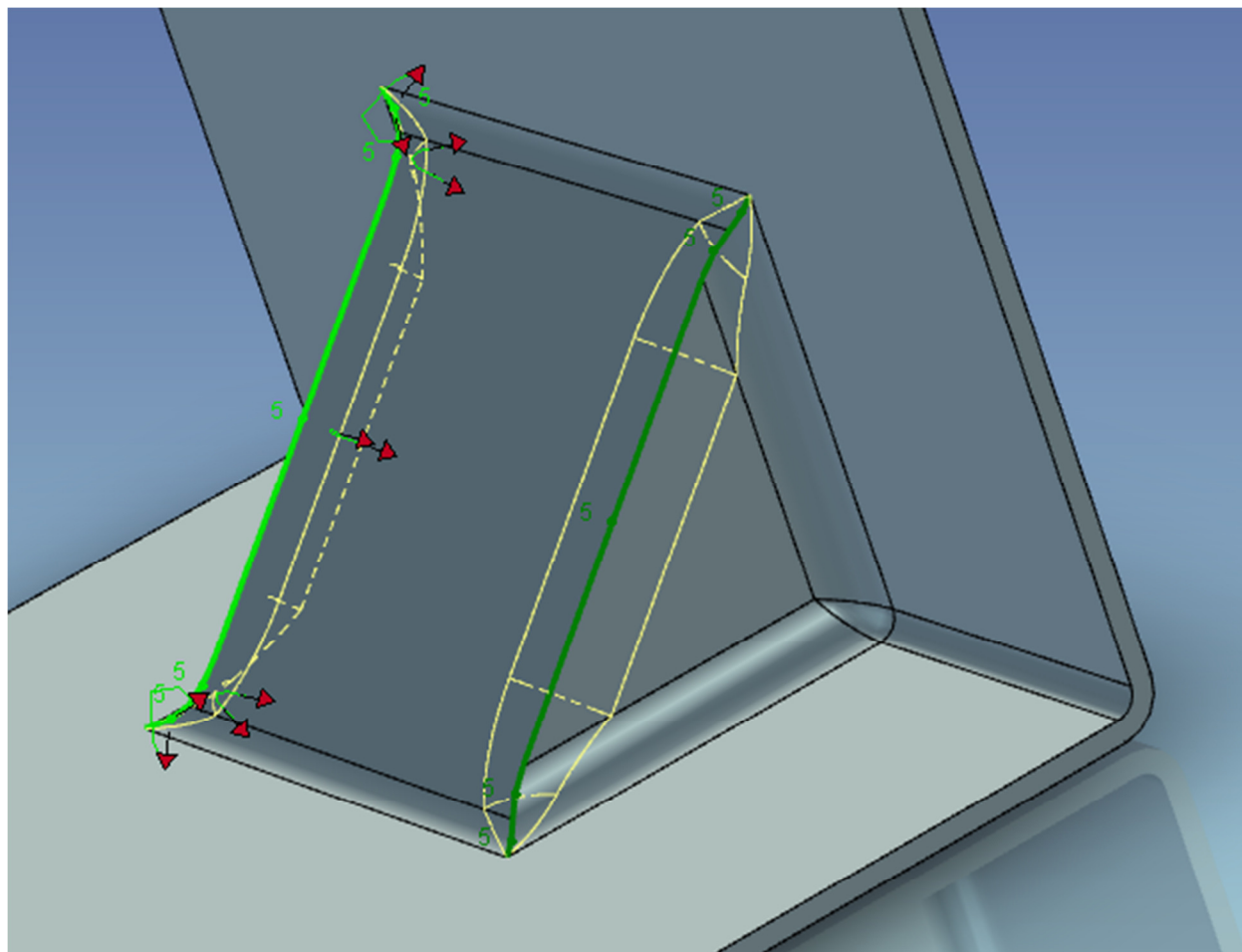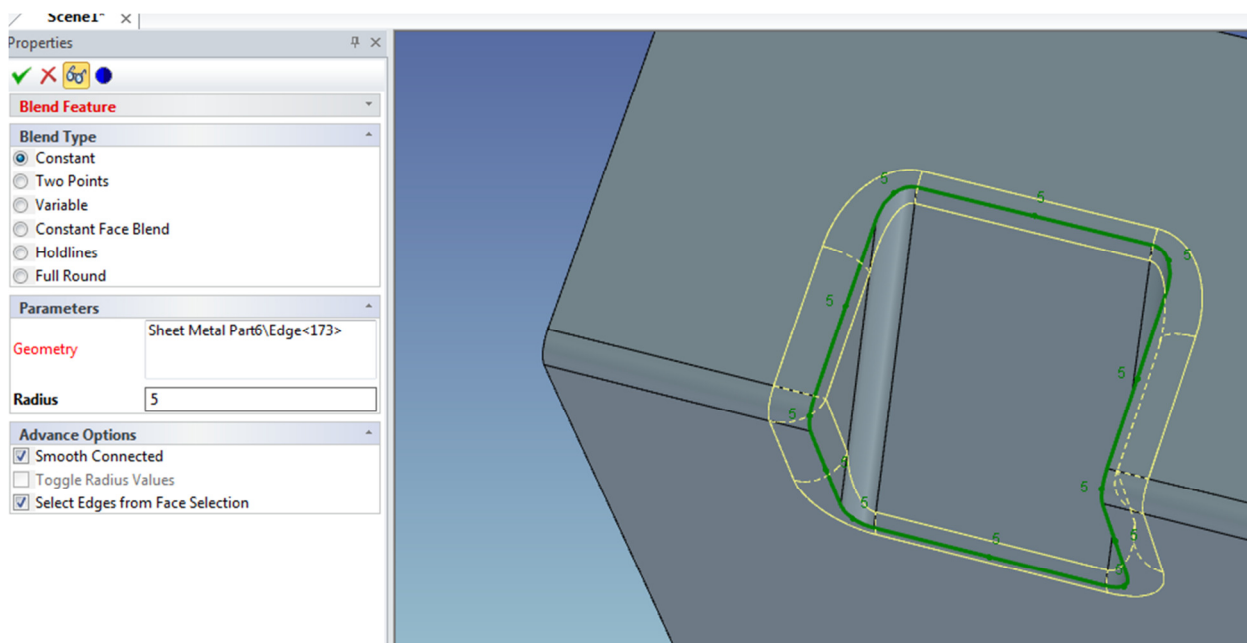
5.mm radii (outside larger radii) set for both sides of gusset

To set depth of gusset, select the Block from the Scene list, select 'Annotation' – 'Smart Dimension' from the ribbon bar, click on top face of block (will turn green temporarily) and then select the inside of the bend as shown above.

Press esc, double click on the blue smart dimension (cursor will be hand) and change the value in the box to the one you wish, in this case 12mm. Press OK
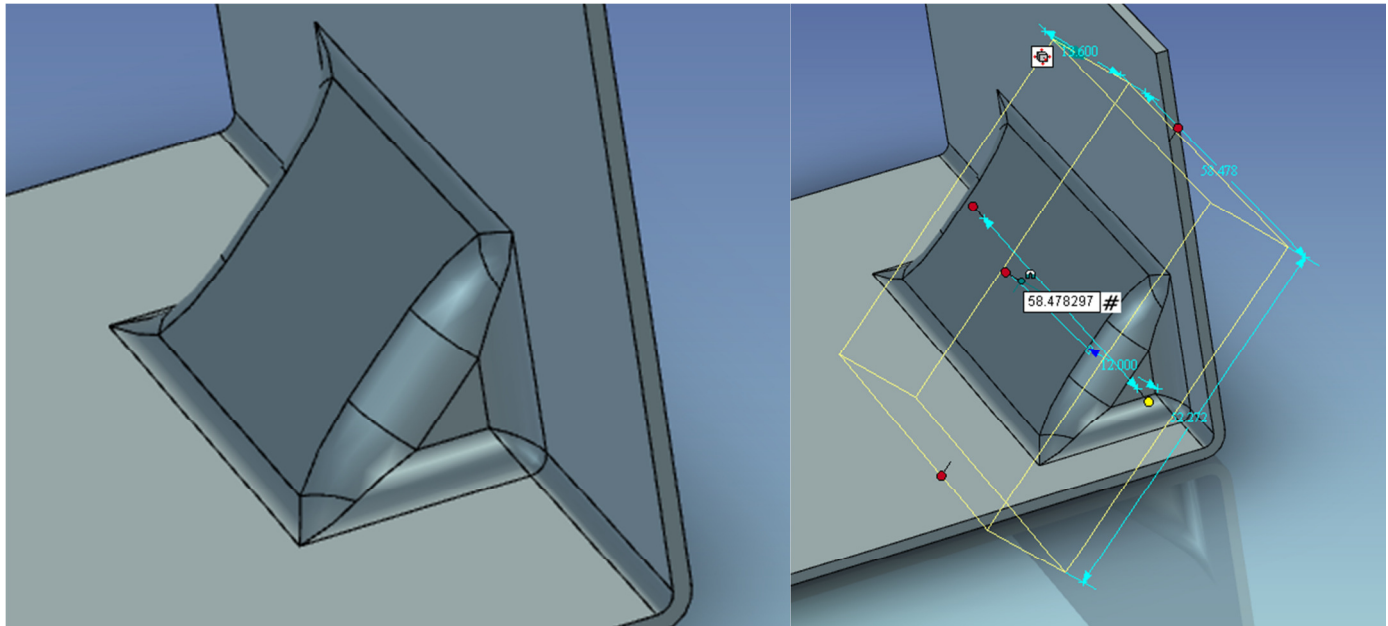
Result.

Select block and use size handles to size and position width