
LESION 6 ADVANCE LOFT AND SWEEP

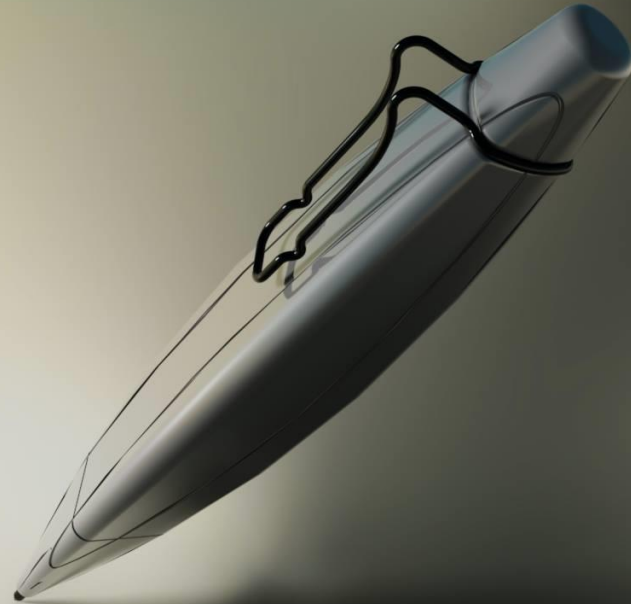
LAB 05 (WEIRD PEN)

IDE 33101CAID

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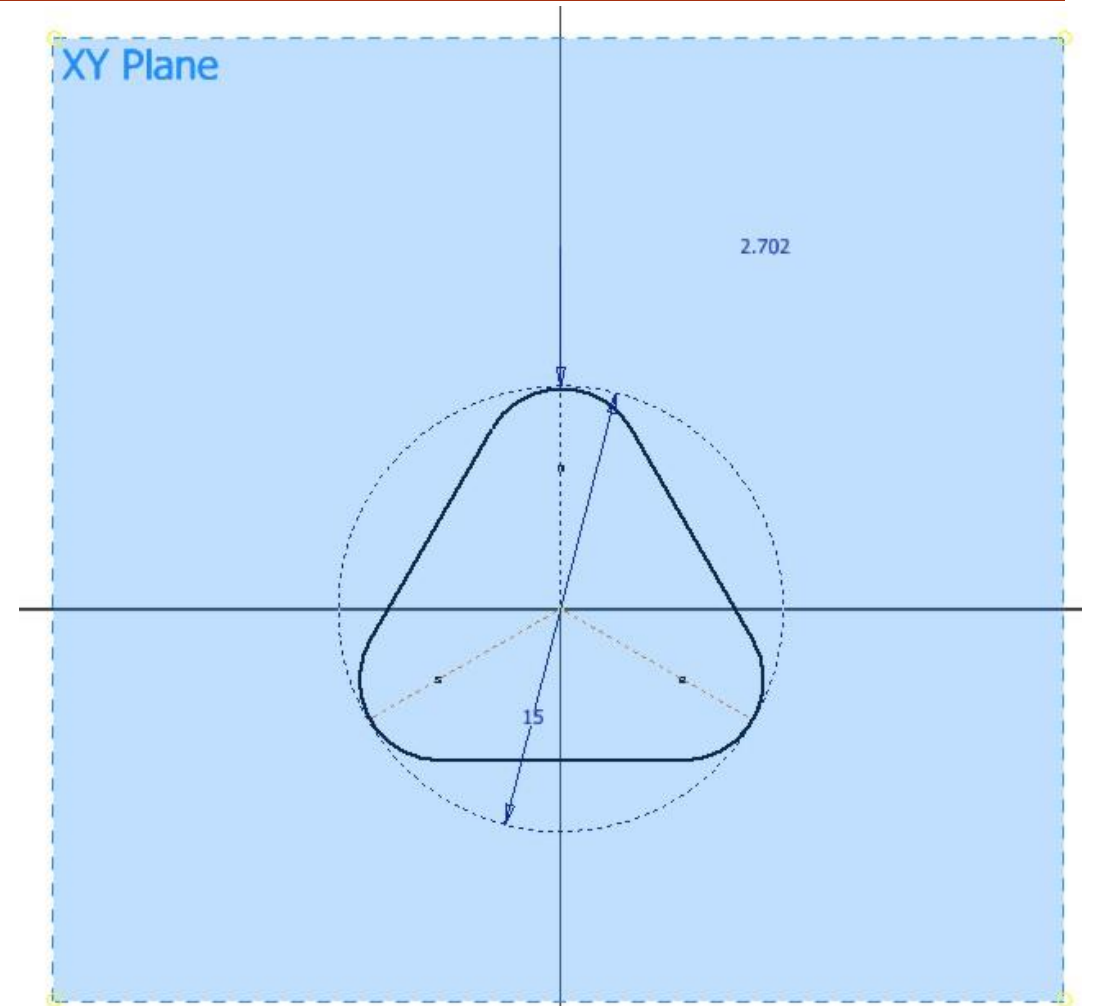
LECTURE 8-9

Weird Pen
Step by step
reveal



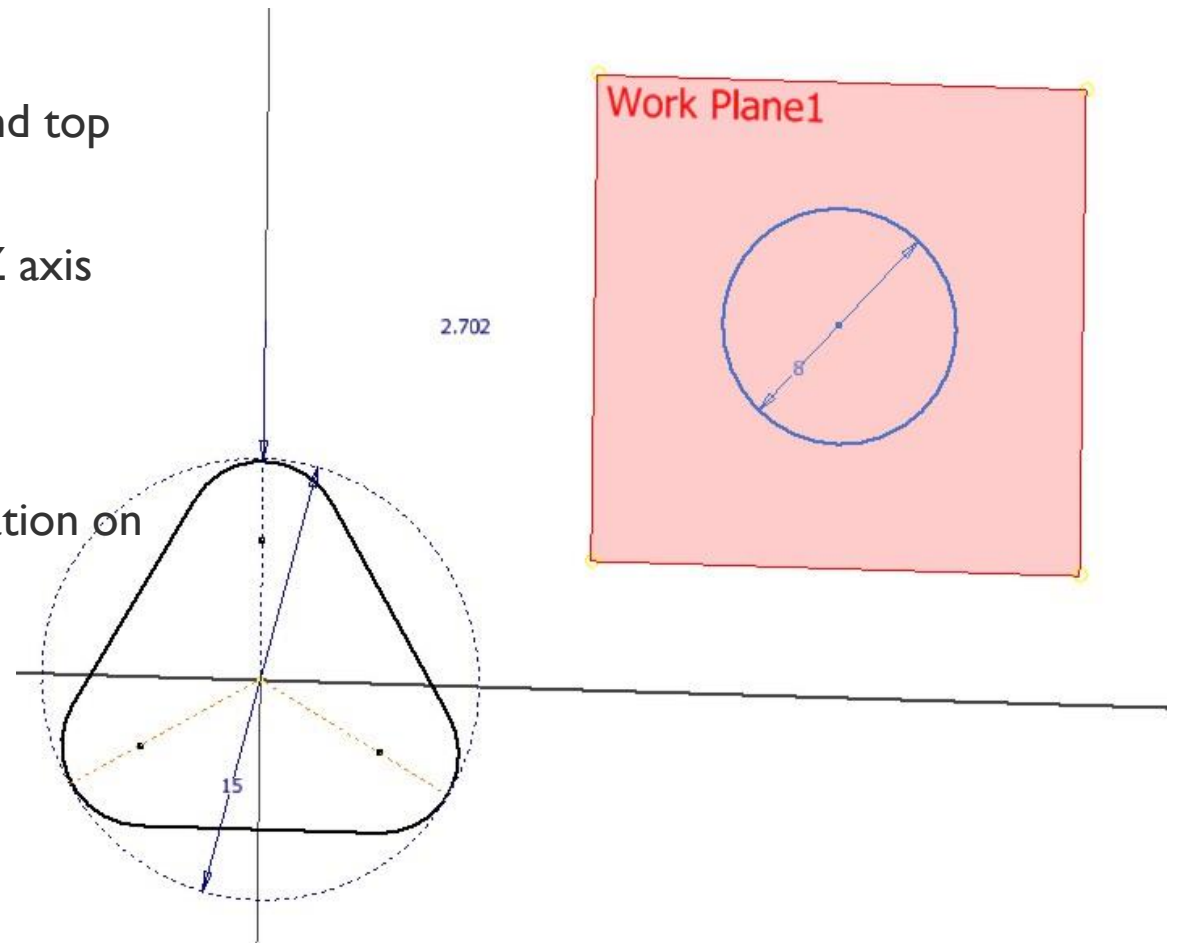
SKETCHING PROFILE

- Select XY plane as the sketch plane
- Create a round corner triangle as the picture shows
- Make sure that center of triangle is located on the center of XY plane



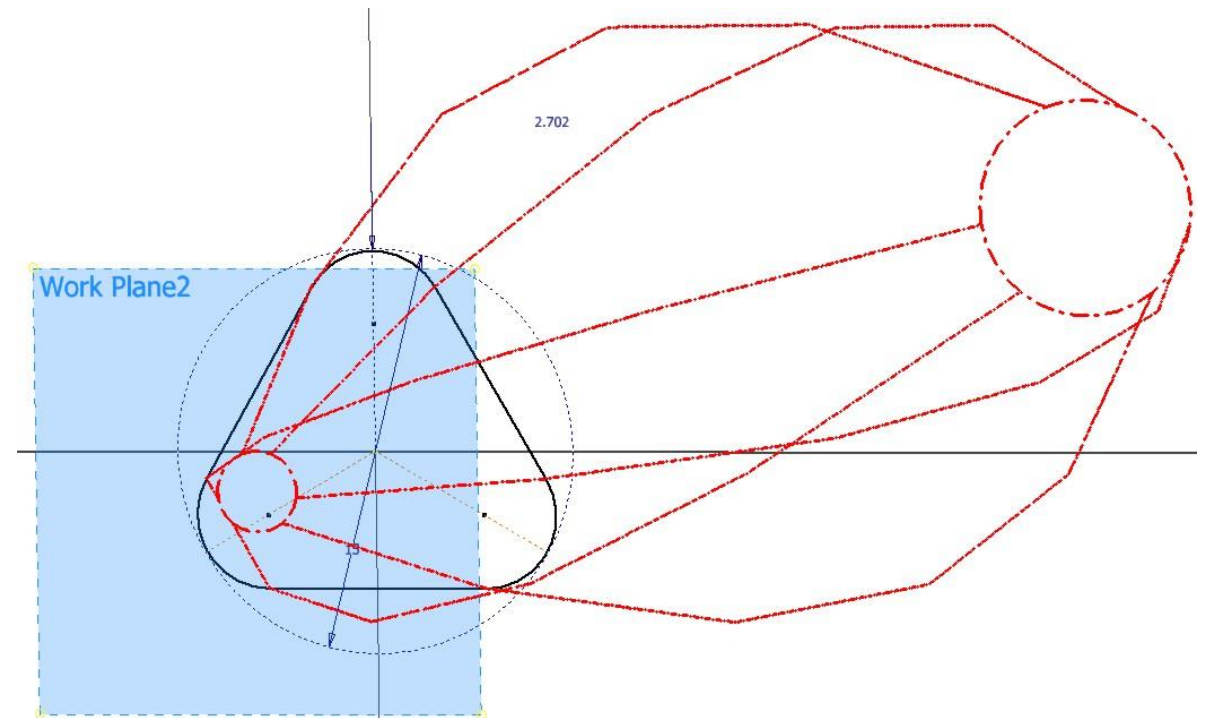
CREATE OTHER WORK PLANE

- 2 more work plane are need for profile of bottom end and top tip of the pen
- Work plane 1 for bottom end is located -120 mm alone Z axis
- Work plane 2 for Top tip is located 20 mm alone Z axis
- Sketch profile of bottom end and top tip
- Make sure those center of these 3 profiles have same location on XY plane



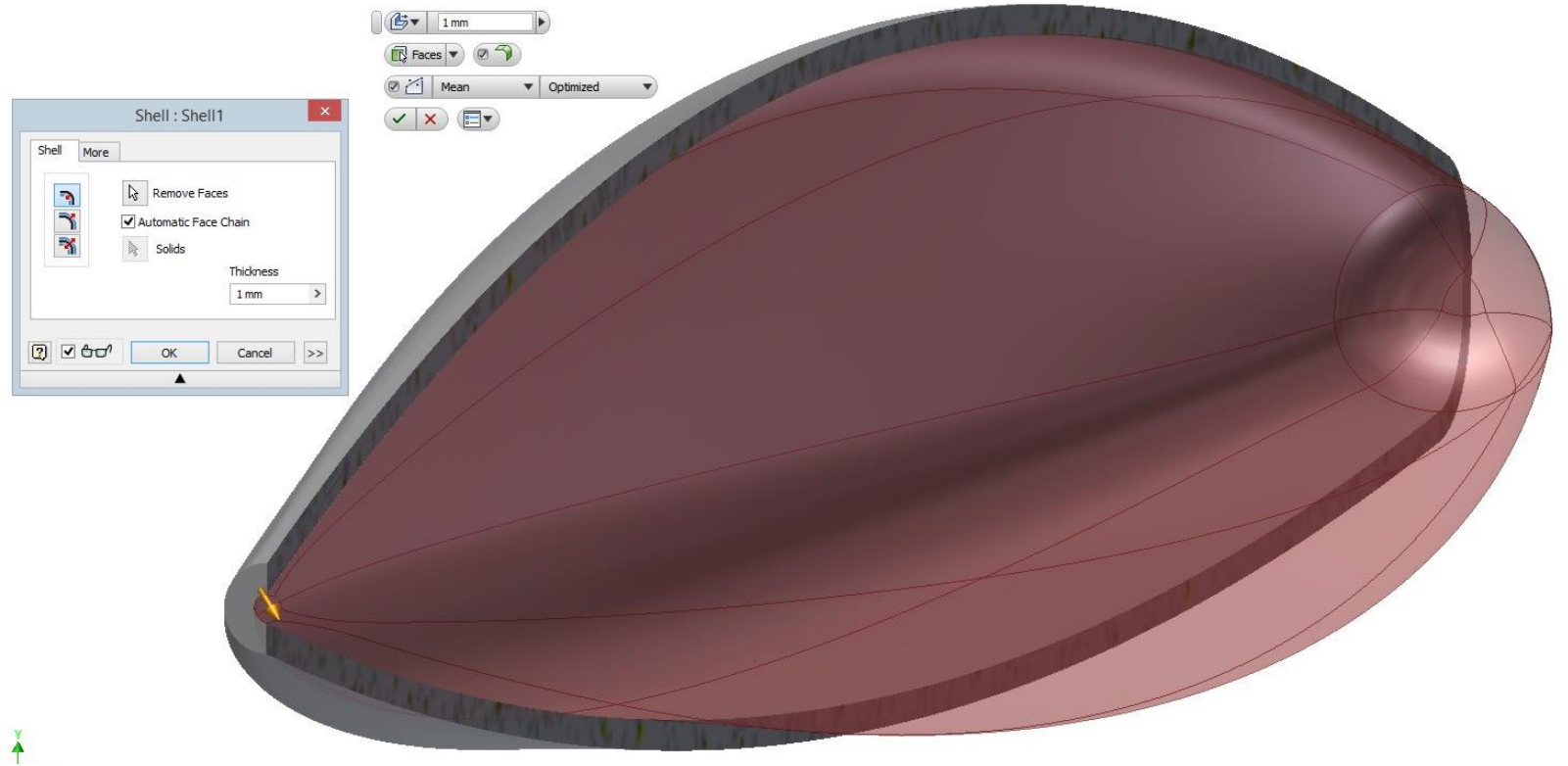
LOFT OPERATION

- Start loft operation
- Select profile as sketch from top to end
- Click Ok to create new loft model



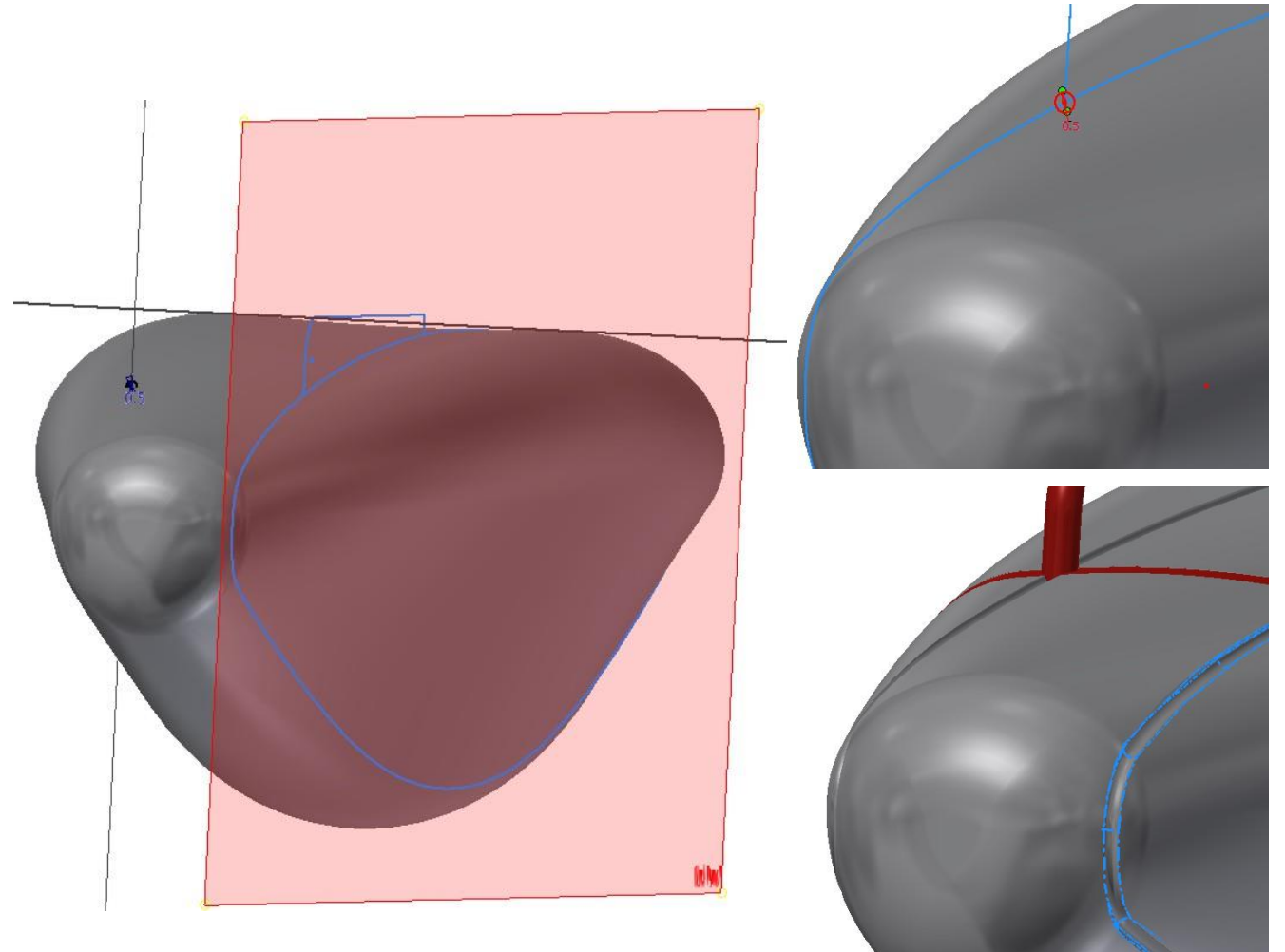
SHELL OPERATION

- Input thickness of model
- Select faces for shell
- Select the top tip face for remove faces
- Click OK, model will get hollow inside
- Thickness of face will create from outside to inside



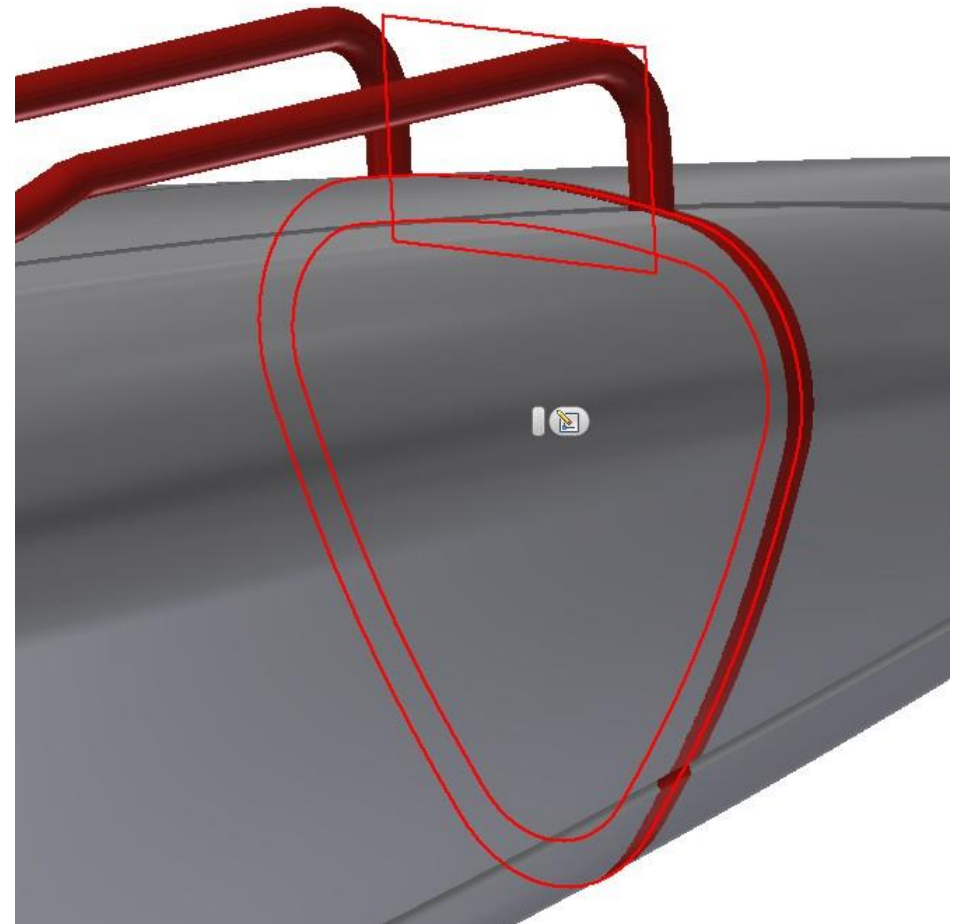
SWEEP CUT GRIP

- Before Cutting grip you have to create a new plane for sketching path and a profile for remove material from faces
- Create new work plane that offsets 8 mm from YZ plane
- Click at command sketch then operate **Project Geometry** → **Project Cut Edges**
- Now you have a new profile sketch on work plane 3
- On XY plane create a cutting profile
- Operate sweep operation then select a cutting profile and use sketch on work plane 3 as path
- Click OK



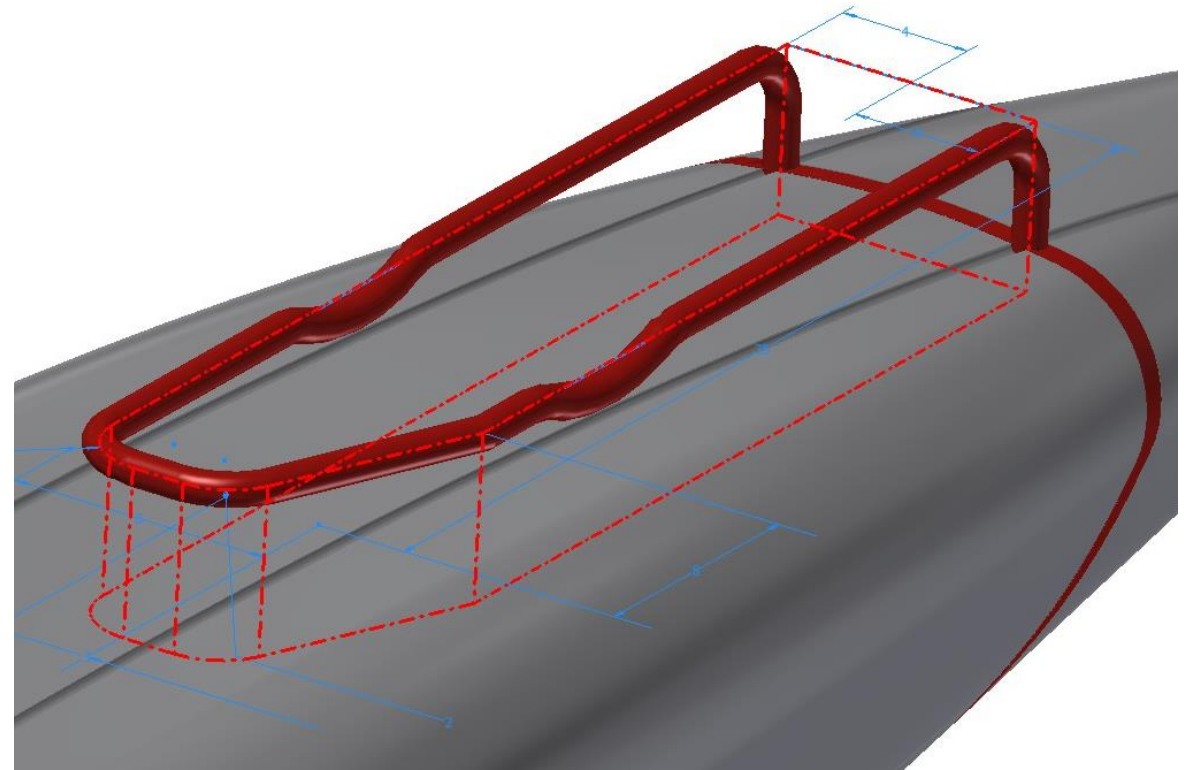
CUTTING WASHER

- Create a Work plane by offset it from XY plane along the location of washer
- Create a circle plate that its diameter bigger than pen body then extrude a new solid
- Use Combine Operation to intersect a new solid and Pen body
- Do not forget to tick on **KEEP Tool Body** function



MAKING PEN-CLIP

- Create a work plane then sketch profile of pen-clip
- Extrude and redefine shape of pen-clip
- Use Project Geometry to trace line for sweep
- Create cross-section
- profile then sweep as new solid



COMBINE WASHER AND GRIP

- Use combine operation to divide the hole pen body by using washer as partition
- Combine washer and pen-clip
- Decorate the whole wired pen by changing material

