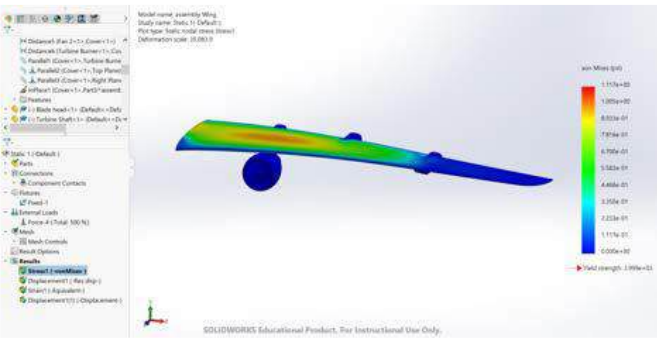


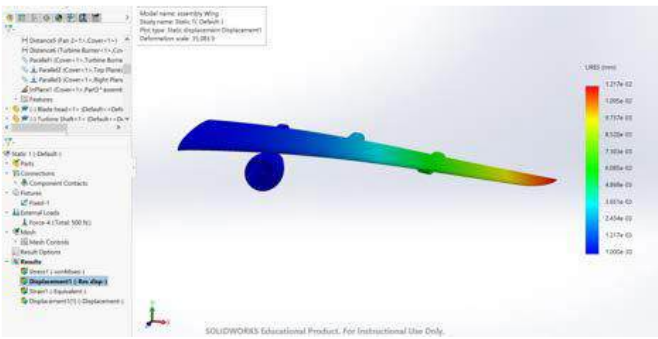
AANANTHAN MARIAPPAN

**3D DESIGN
EXPERIENCE PORTFOLIO**

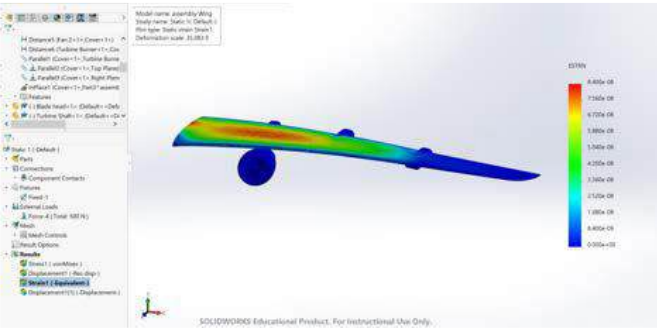
3D Modeling and Design Analysis



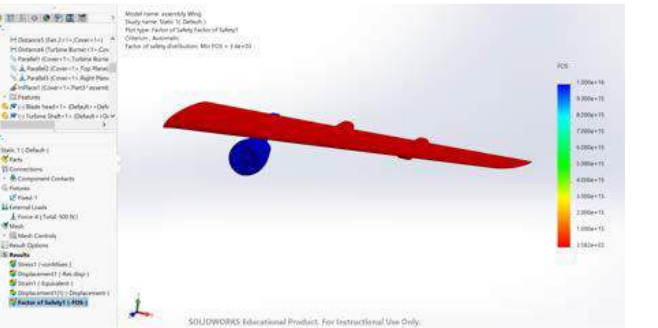
Stress Analysis



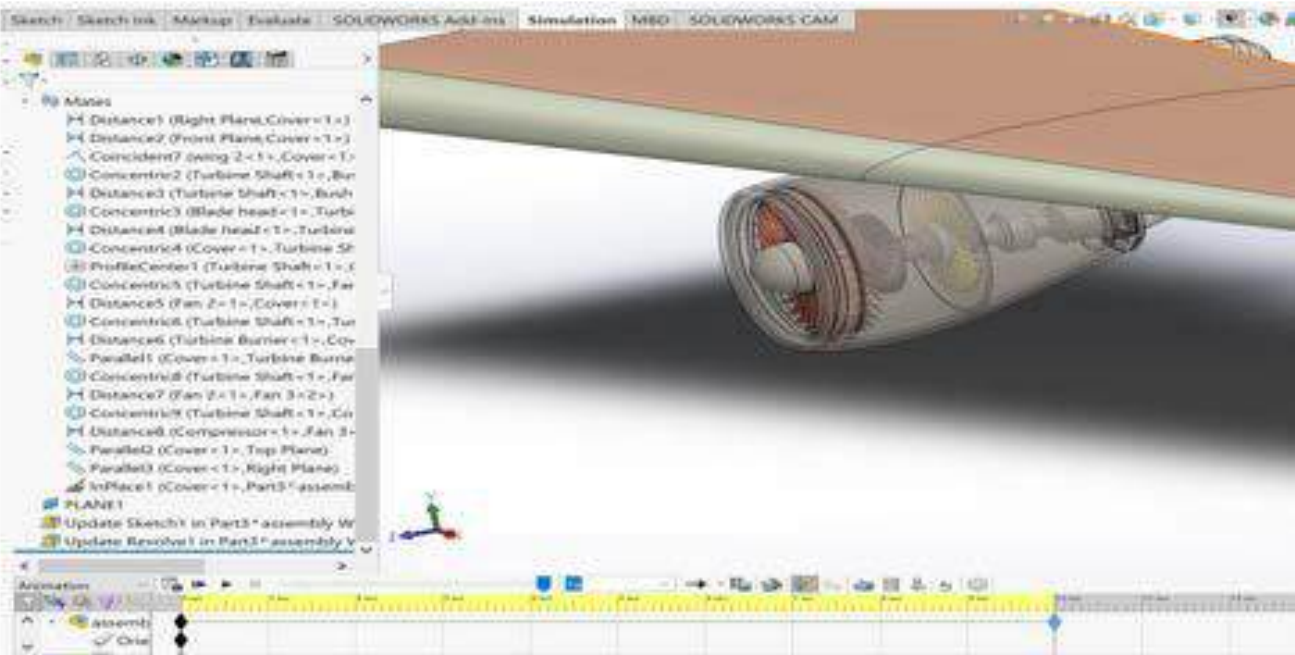
Displacement Analysis



Strain Analysis

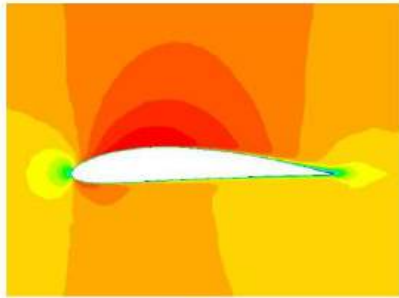


Factor of Safety (FOS)

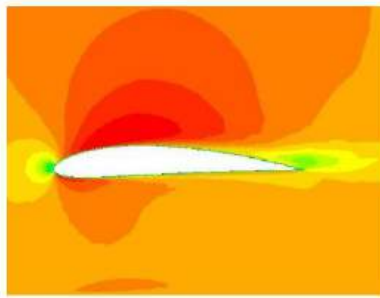


Motion Study

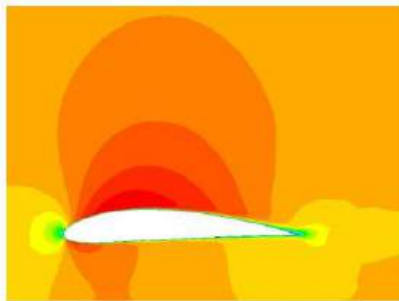
CONTOUR OF VELOCITY MAGNITUDE FOR VARIOUS H/C VALUES



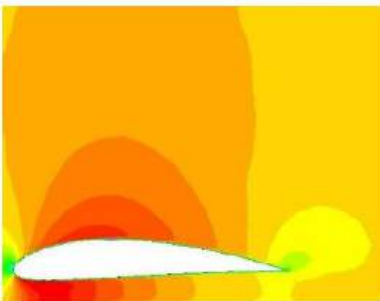
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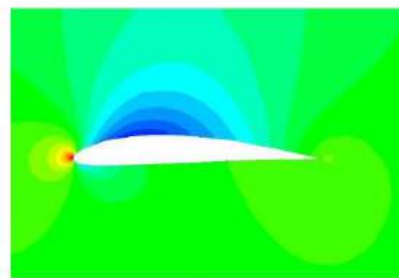


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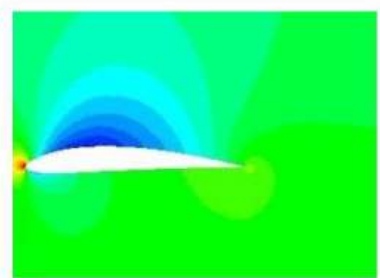


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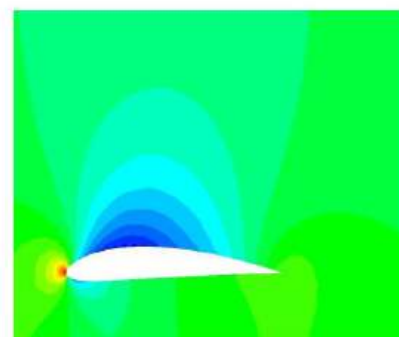
CONTOUR OF PRESSURE COEFFICIENT FOR VARIOUS H/C VALUES



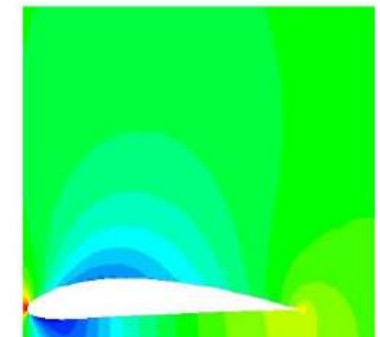
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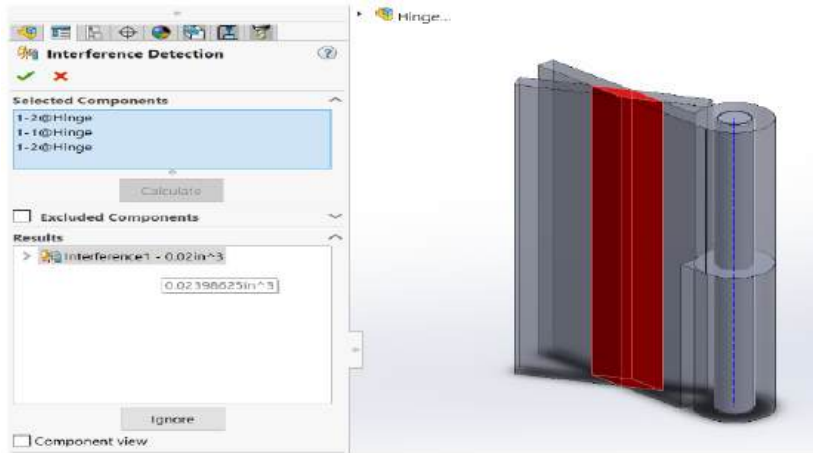


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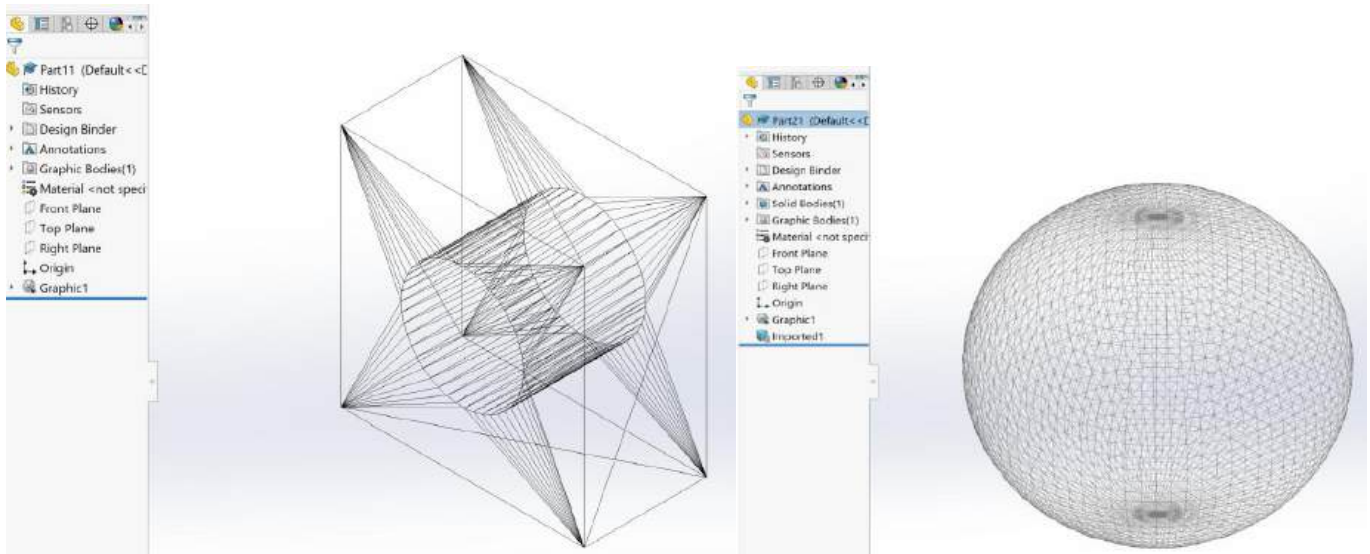


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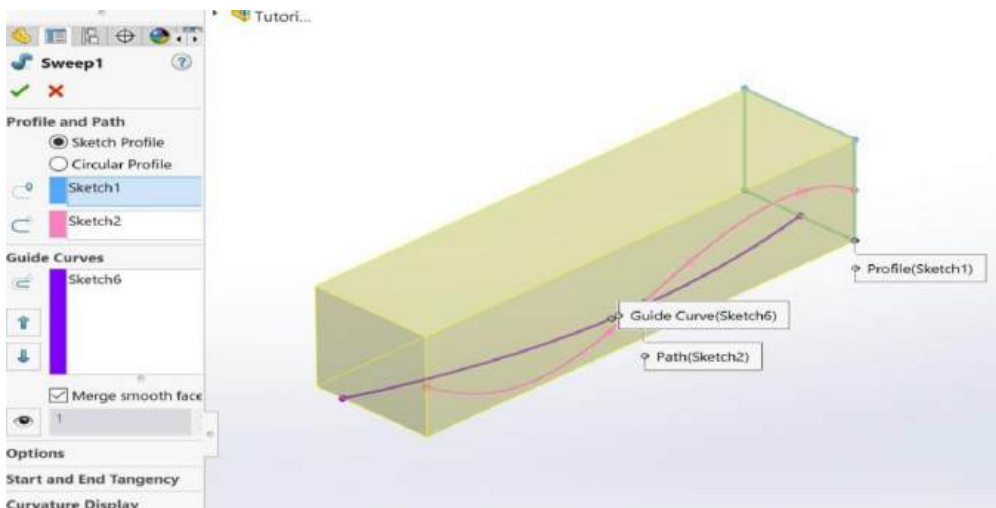
Hing Interference detection



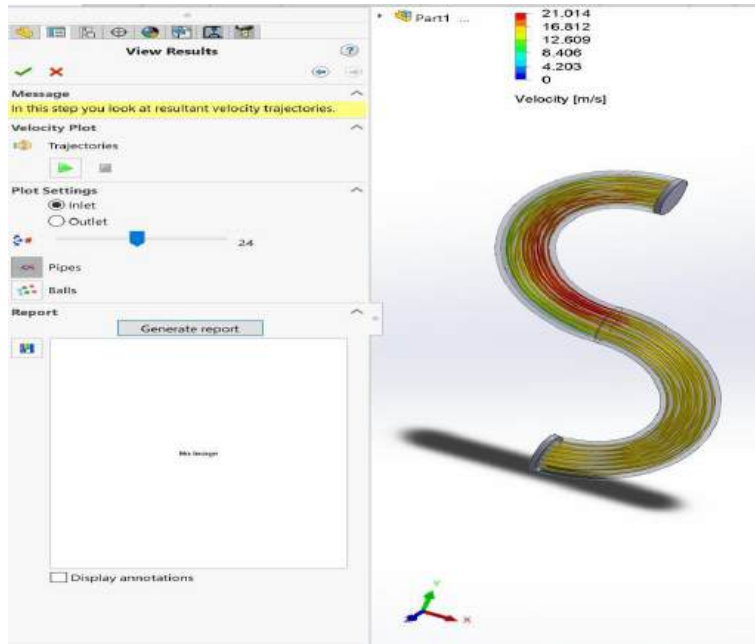
STL File



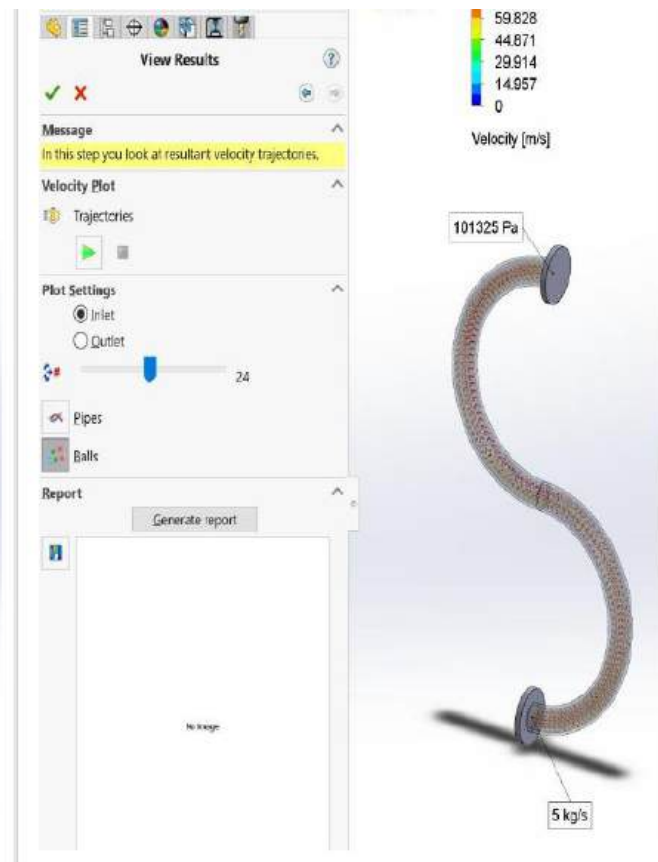
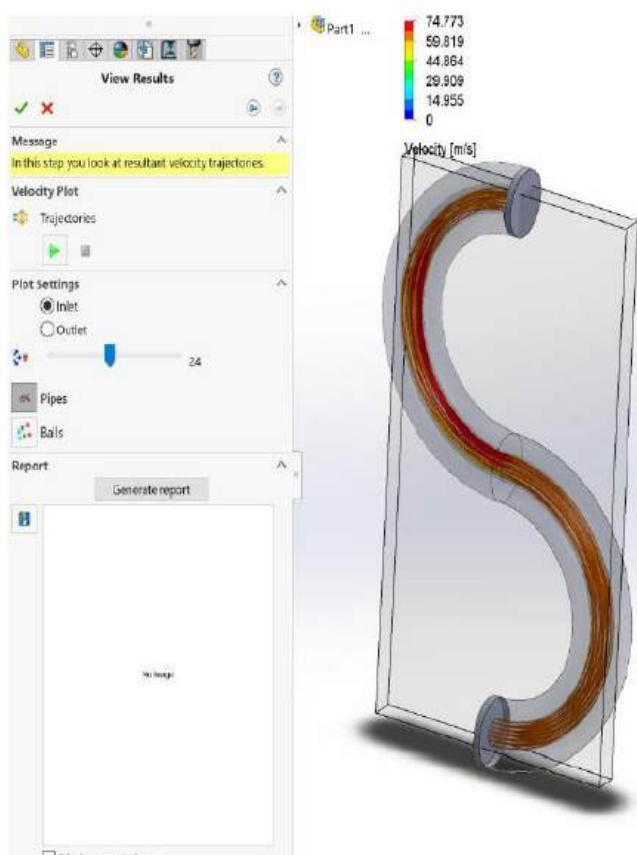
Sweep feature



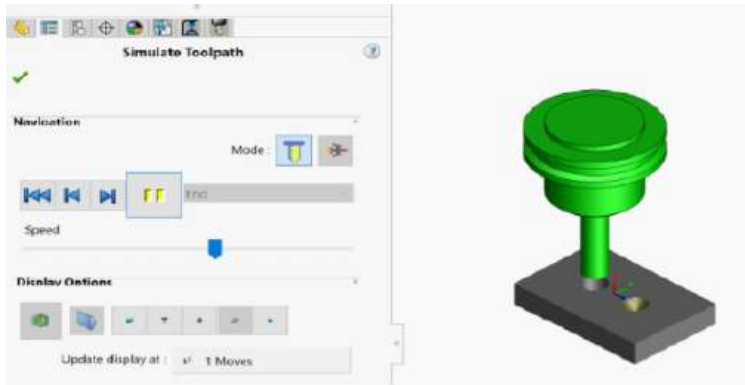
Flopress Simulation



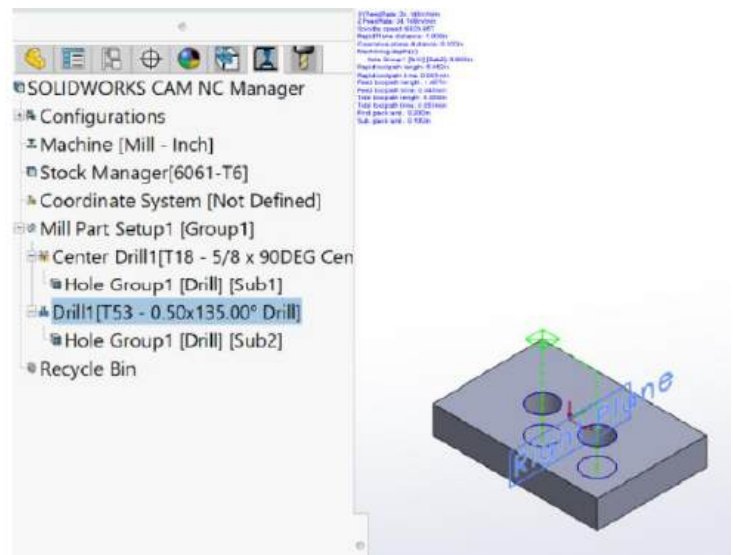
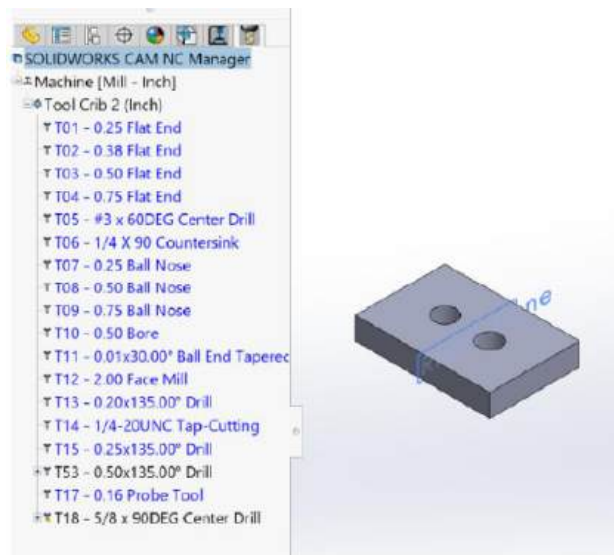
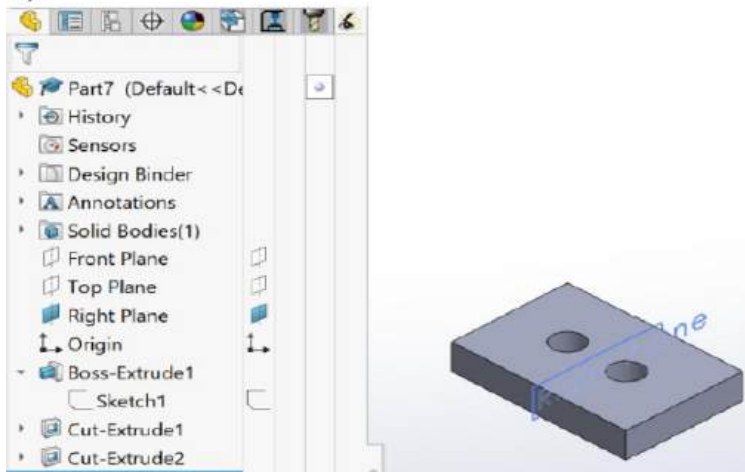
Result obtained



Milling operation in SolidWorks



3)



Milling code

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1 O0001
2 N1 G20
3 N2 (5/8 X 90DEG CBT SPOT DRILL)
4 N3 G91 G28 X0 Y0 Z0
5 N4 T18 M06
6 N5 S5000 M03
7
8 N6 ( Center Drill1 )
9 N7 G90 G54 G00 X-.5 Y0
10 N8 G43 Z1. H18 M08
11 N9 G82 G98 R.1 Z-.225 P1000 F2.5
12 N10 X.5
13 N11 G80 Z1. M09
14 N12 G91 G28 Z0
15 N13 (1/2 SCREW MACH DRILL)
16 N14 T16 M06
17 N15 S6829 M03
18
19 N16 ( Drill1 )
20 N17 G90 G54 G00 X-.5 Y0
21 N18 G43 Z1. H16 M08
22 N19 G83 G98 R.1 Z-.6034 Q.1 F34.1483
23 N20 X.5
24 N21 G80 Z1. M09
25 N22 G91 G28 Z0
26 N23 G28 X0 Y0
27 N24 M30
28

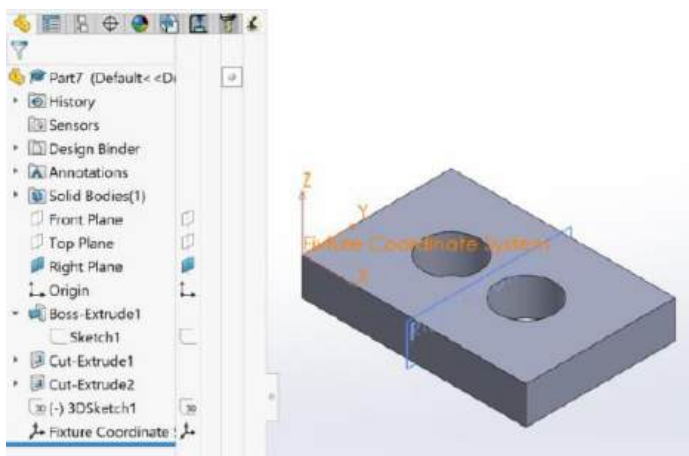
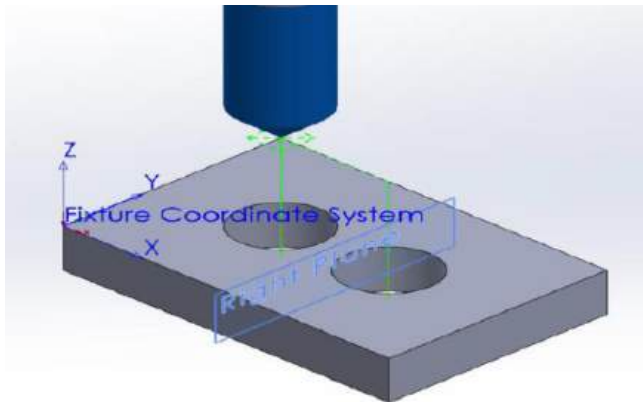
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O0001
N1 G20
N2 (5/8 X 90DEG CBT SPOT DRILL)
N3 G91 G28 X0 Y0 Z0
N4 T18 M06
N5 S5000 M03
6
N6 ( Center Drill1 )
N7 G90 G54 G00 X-.5 Y0
N8 G43 Z1. H18 M08
N9 G82 G98 R.1 Z-.225 P1000 F2.5
N10 X.5
N11 G80 Z1. M09
N12 G91 G28 Z0
N13 (1/2 SCREW MACH DRILL)
N14 T16 M06
N15 S6829 M03
18
N16 ( Drill1 )
N17 G90 G54 G00 X-.5 Y0
N18 G43 Z1. H16 M08
N19 G83 G98 R.1 Z-.6034 Q.1 F34.1483
N20 X.5
N21 G80 Z1. M09
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N23 G28 X0 Y0
N24 M30

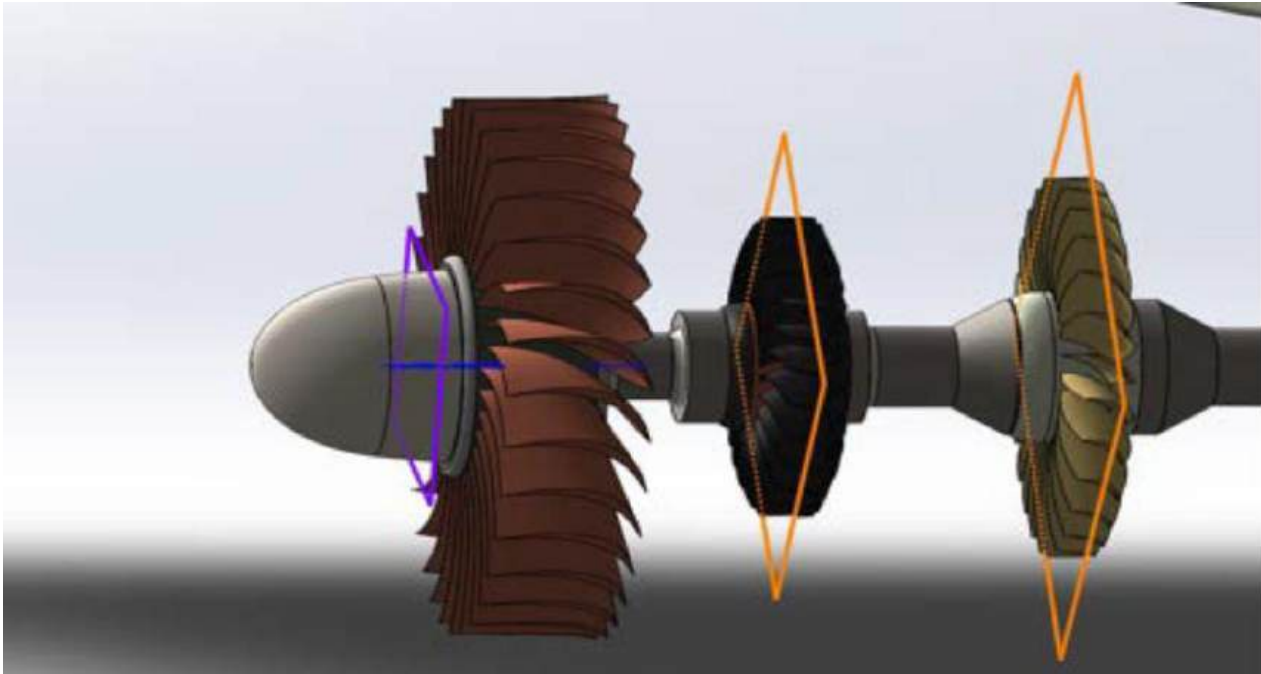
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Milling two holes

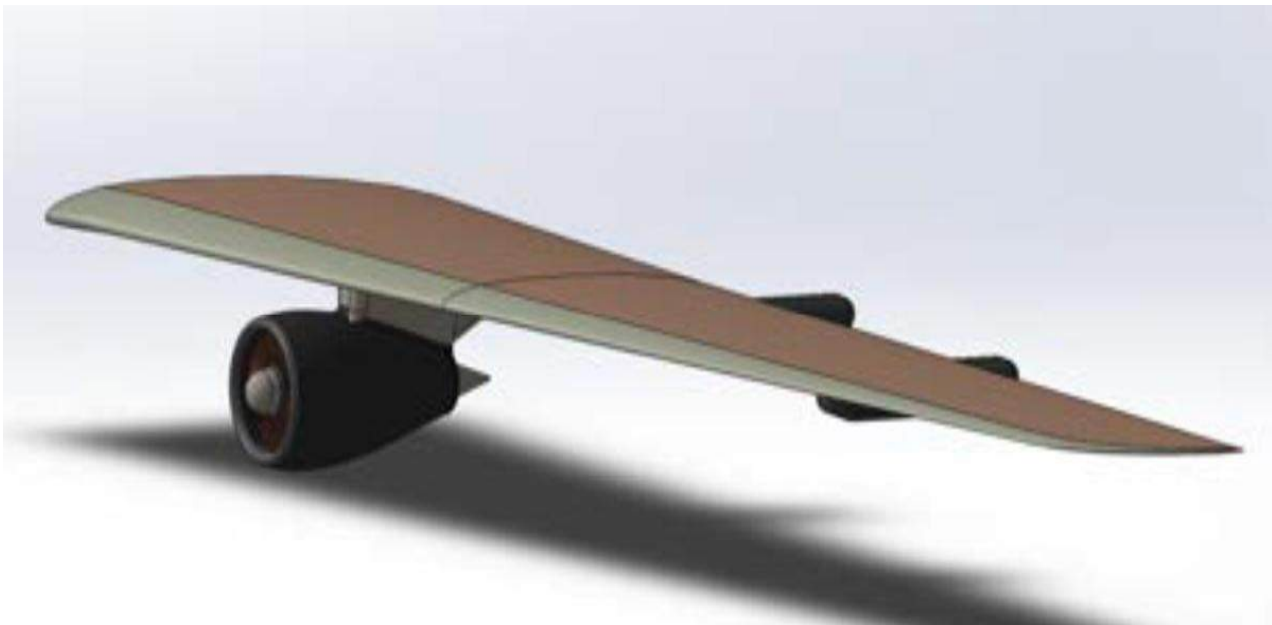


CAD Design/Model

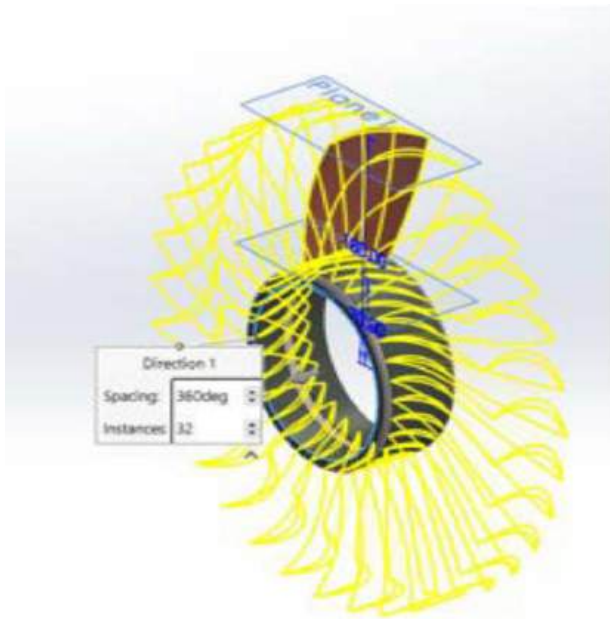
Boeing Engine shaft with turbine



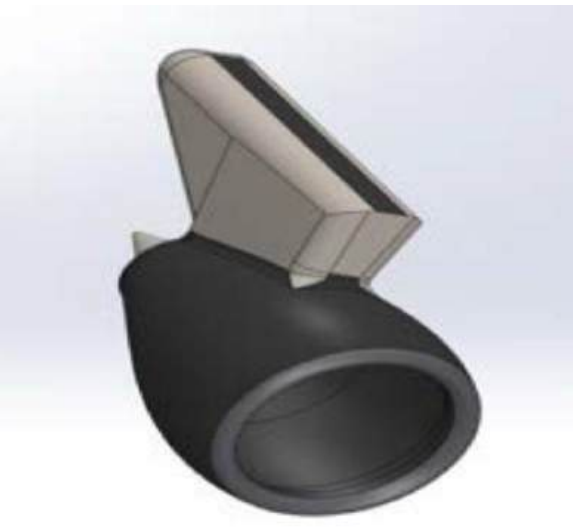
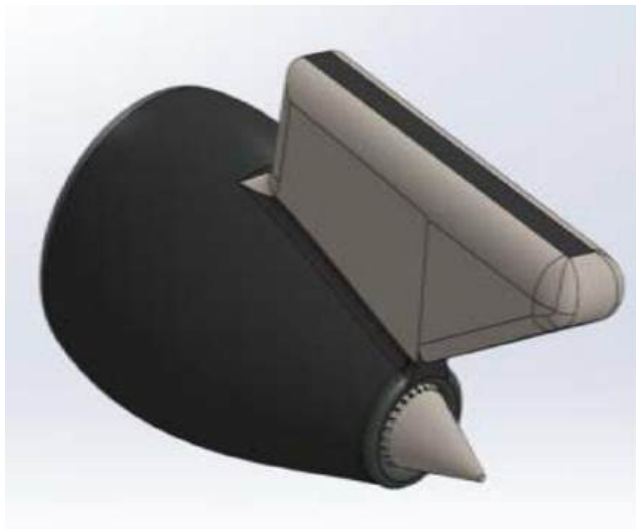
Boeing wing assembly

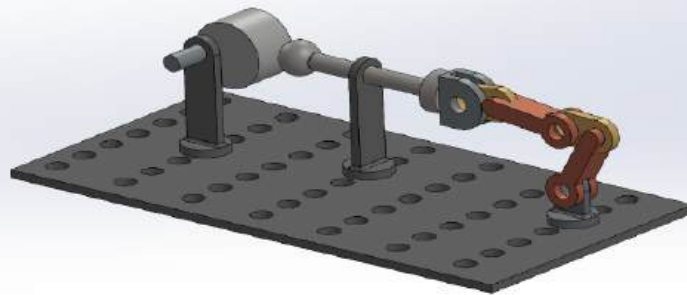
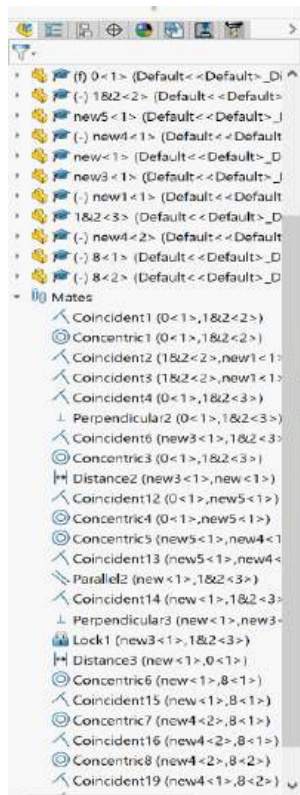


Boeing turbine

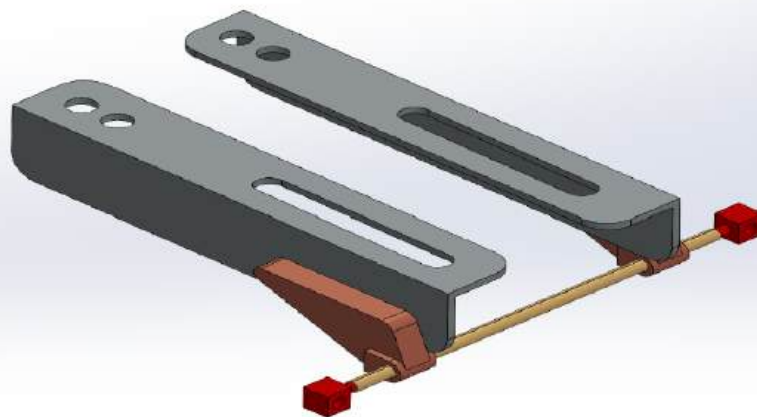
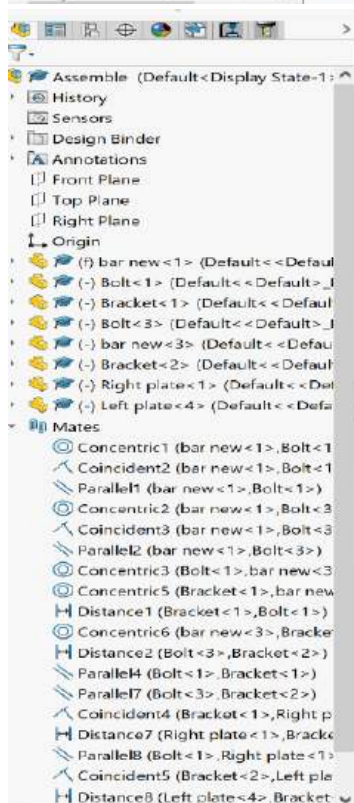


Boeing engine cover

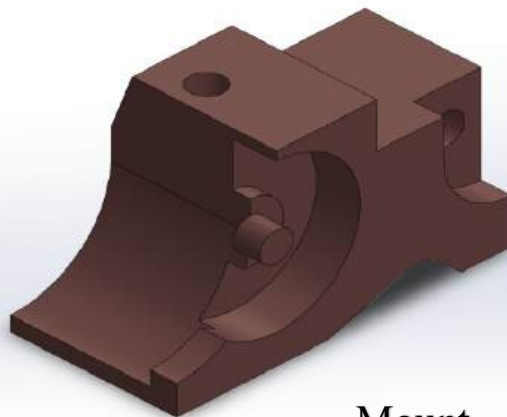
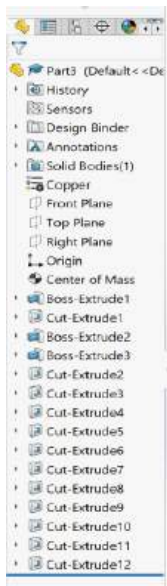




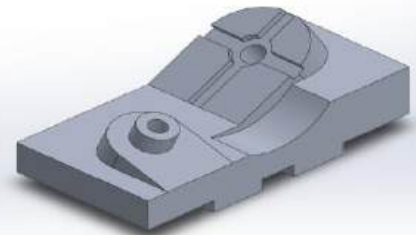
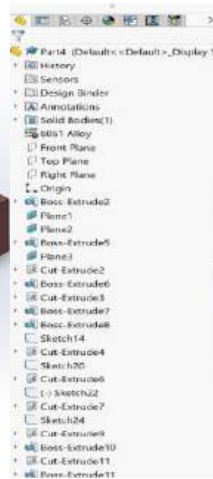
Linkage assembly



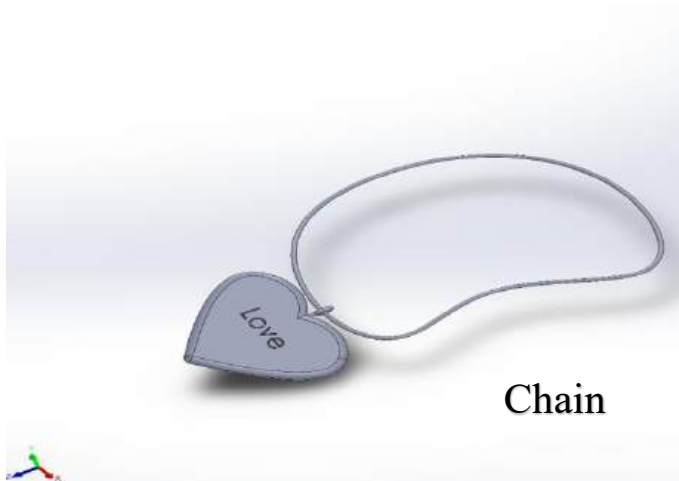
bracket mechanism



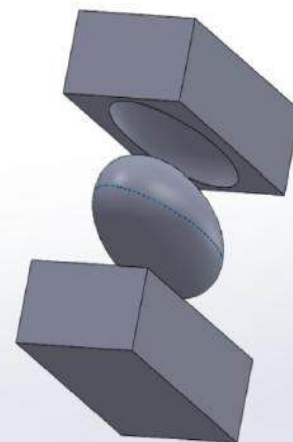
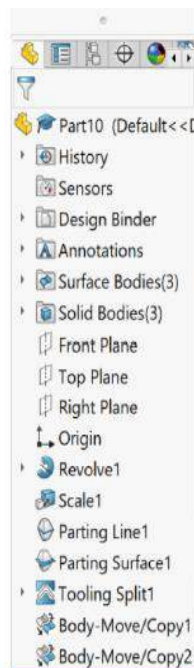
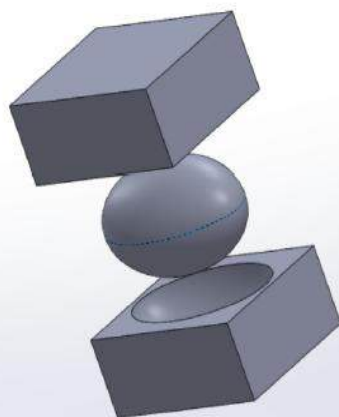
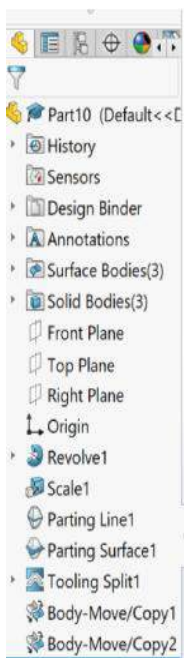
Mount



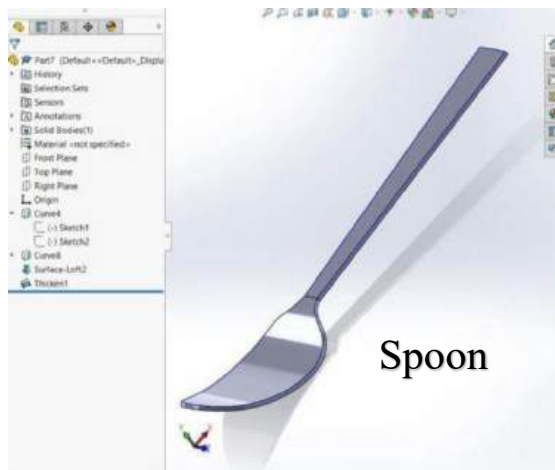
Fixture



Chain



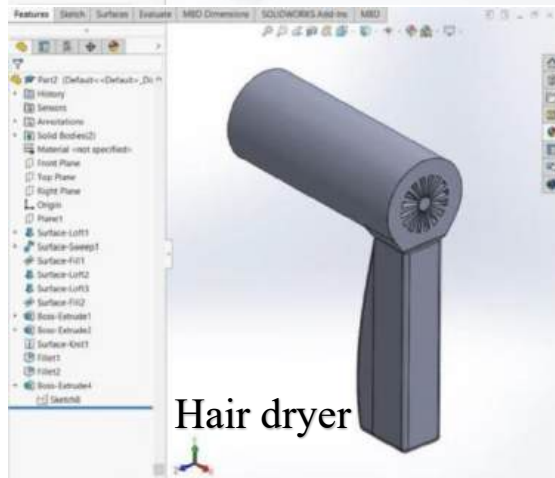
Casting/Injection Mold with cavity



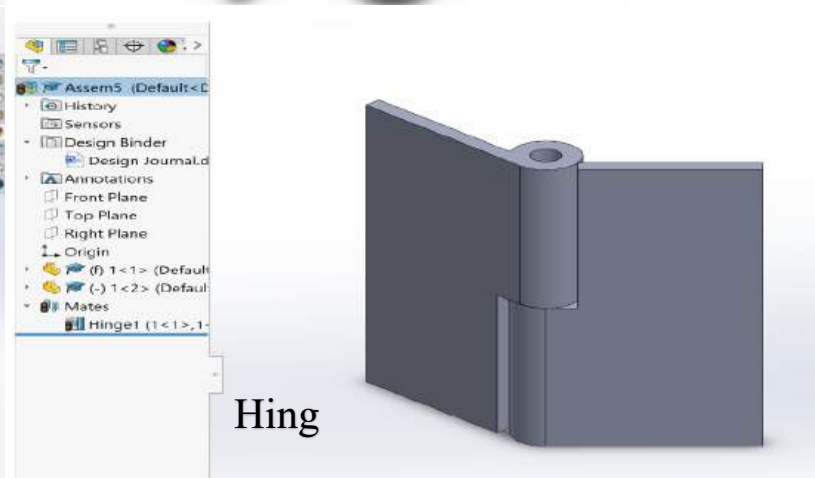
Spoon



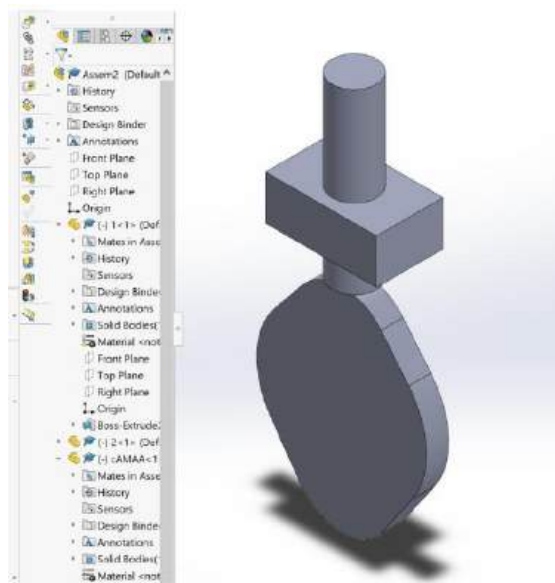
Mount



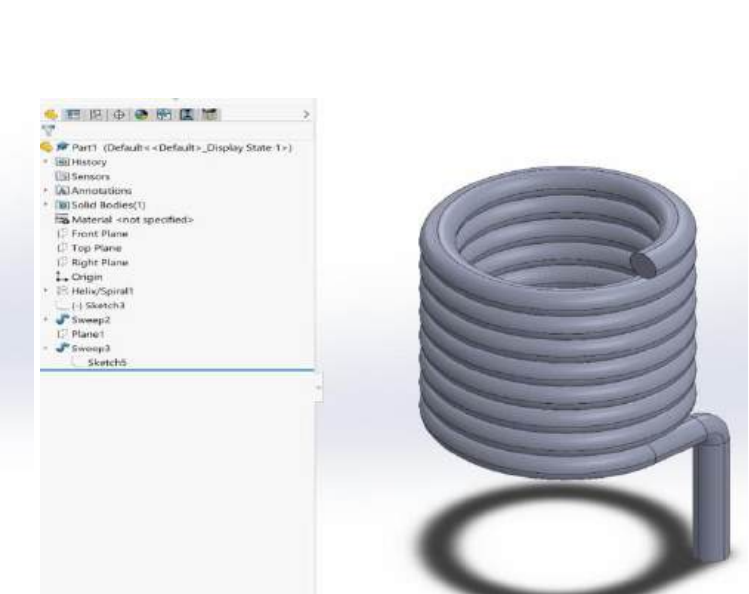
Hair dryer



Hing



Cam and lever assembly

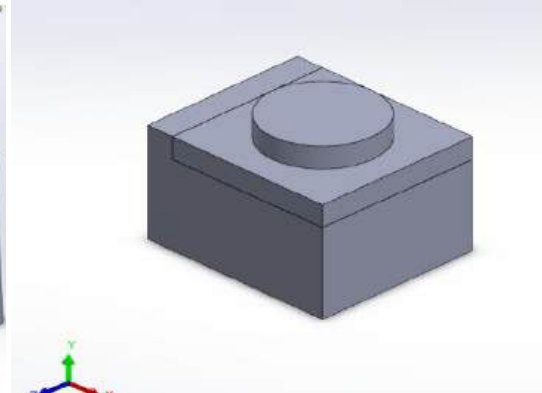


Helical Coil

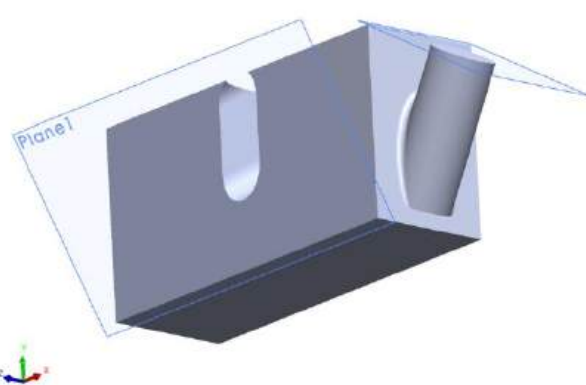
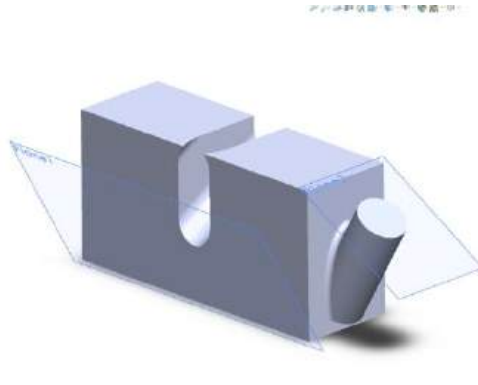
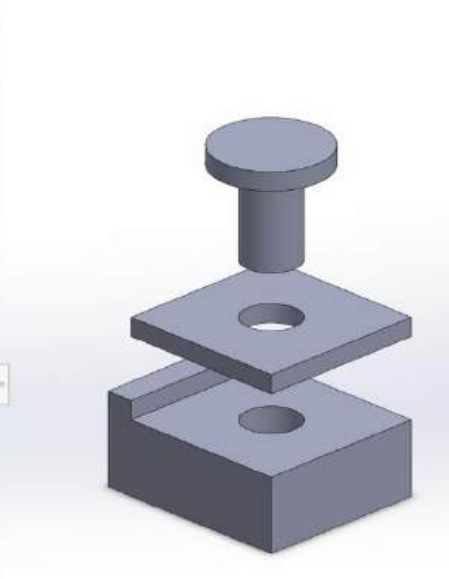
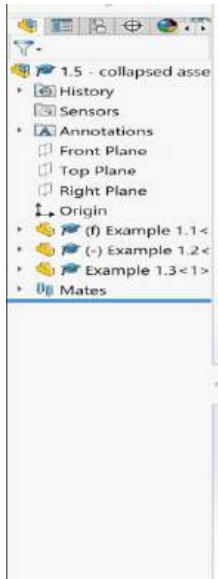
Welded frame



Clamped block assembly



Exploded view



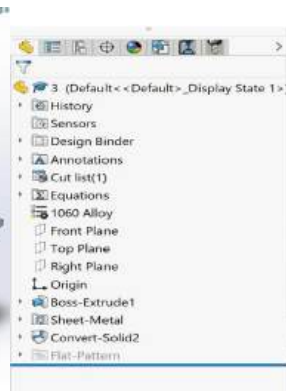
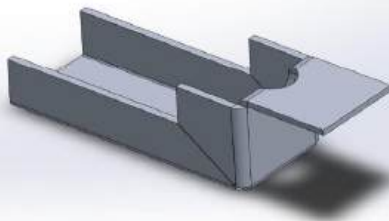
Custom bracket



Bottle Final assembly

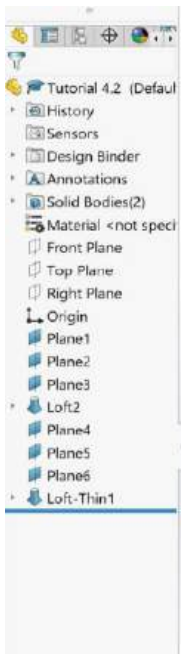


Rendered Image

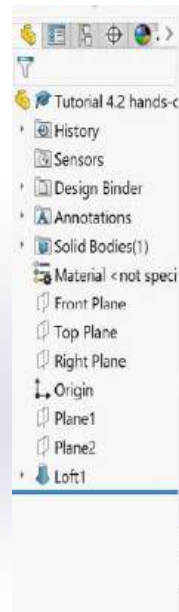


Folded metal sheet

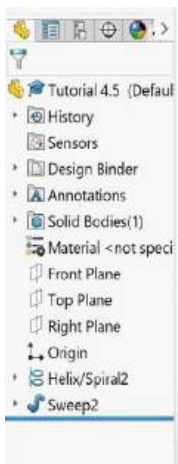
Wine Glass



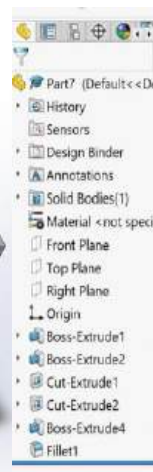
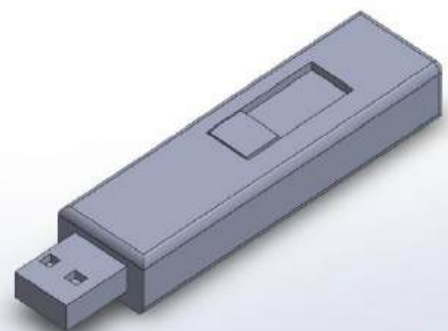
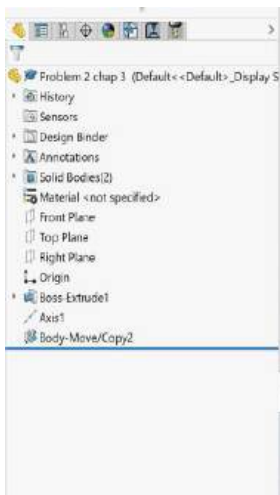
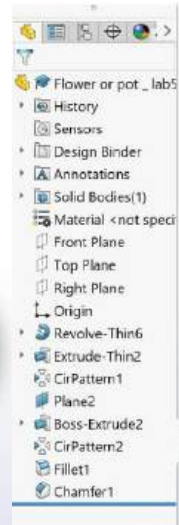
Twisted block



Spiral Coil



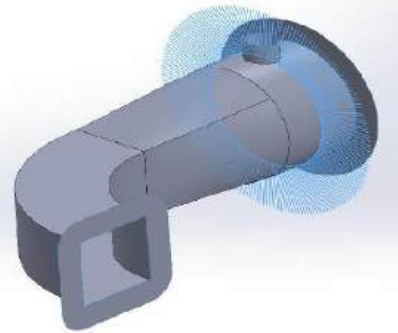
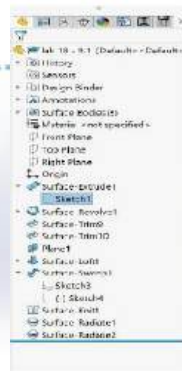
Pot



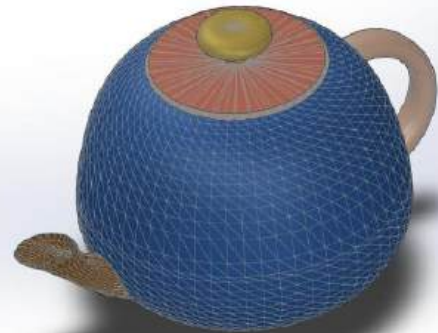
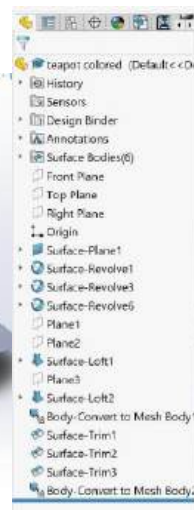
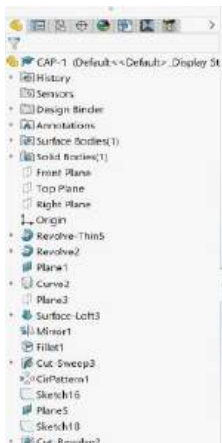
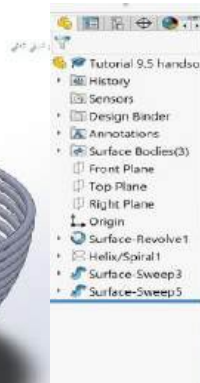
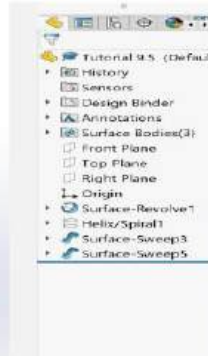
Designer Cube

USB Drive

HVAC Vent



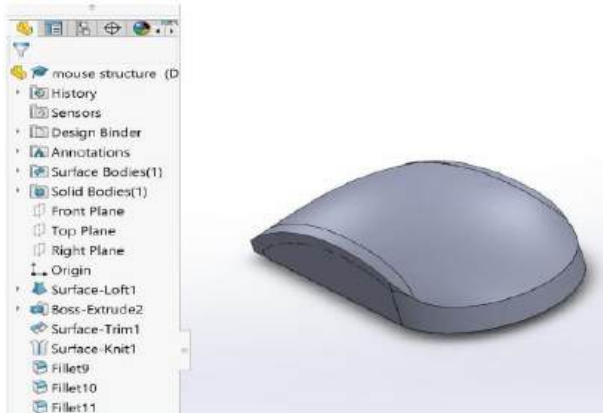
Distorted coil



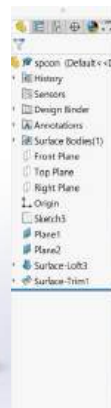
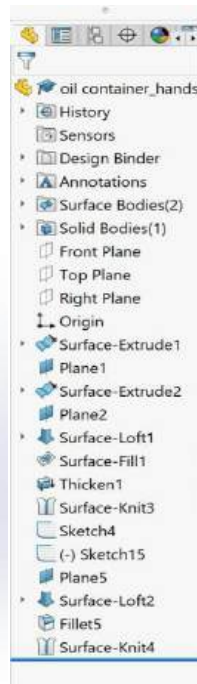
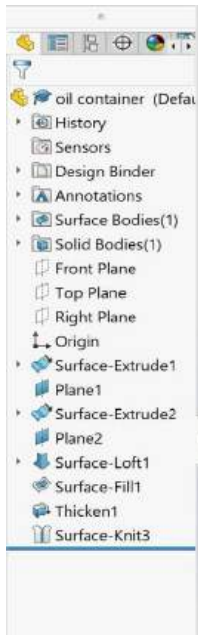
Baseball hat

Tea Pot

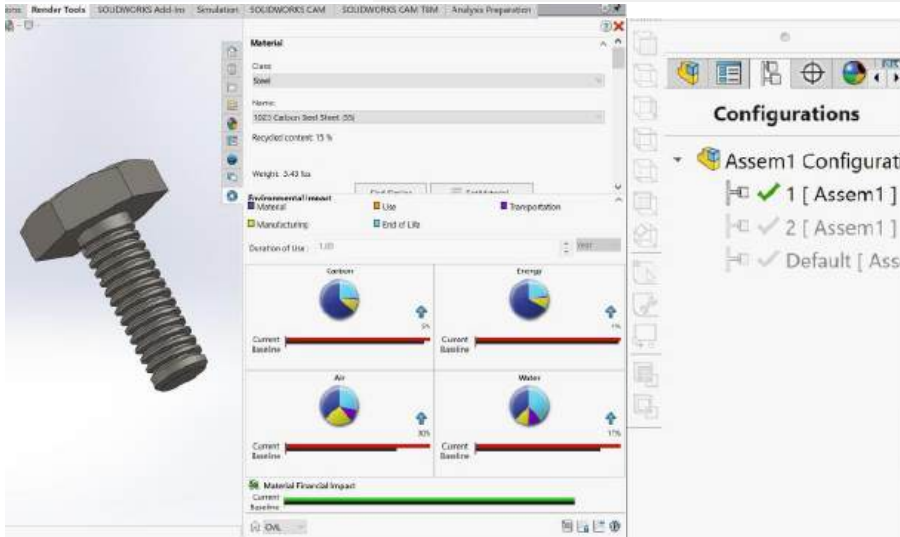
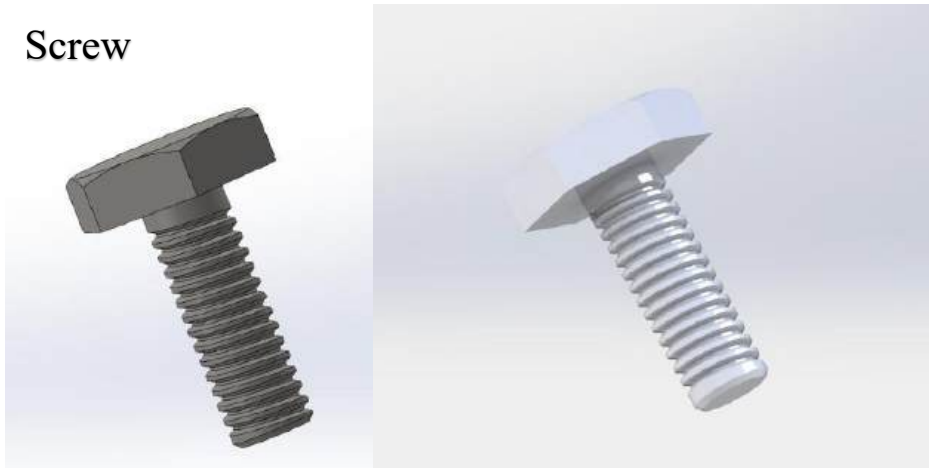
Apple Computer mouse



Oil Container



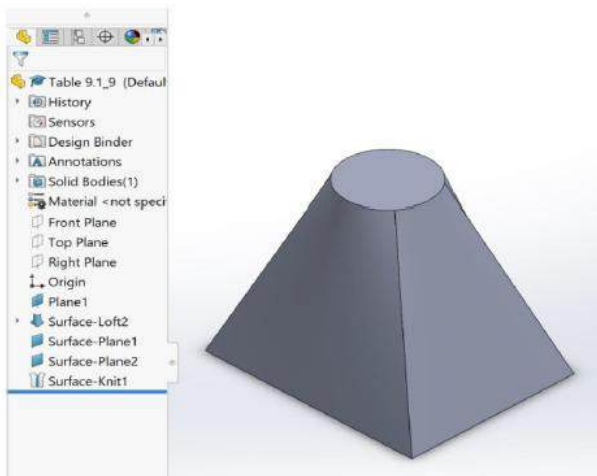
Screw



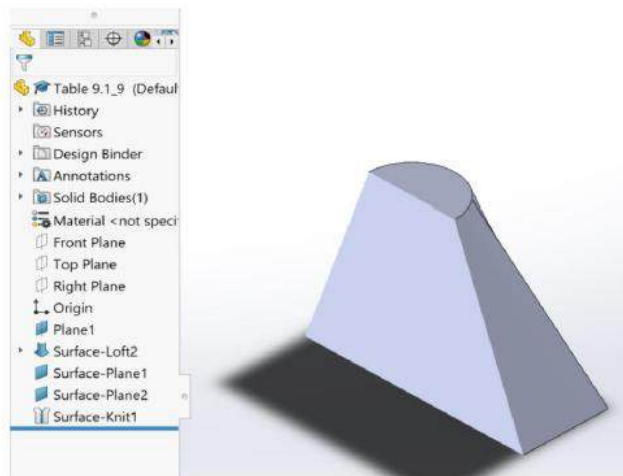
Wheel

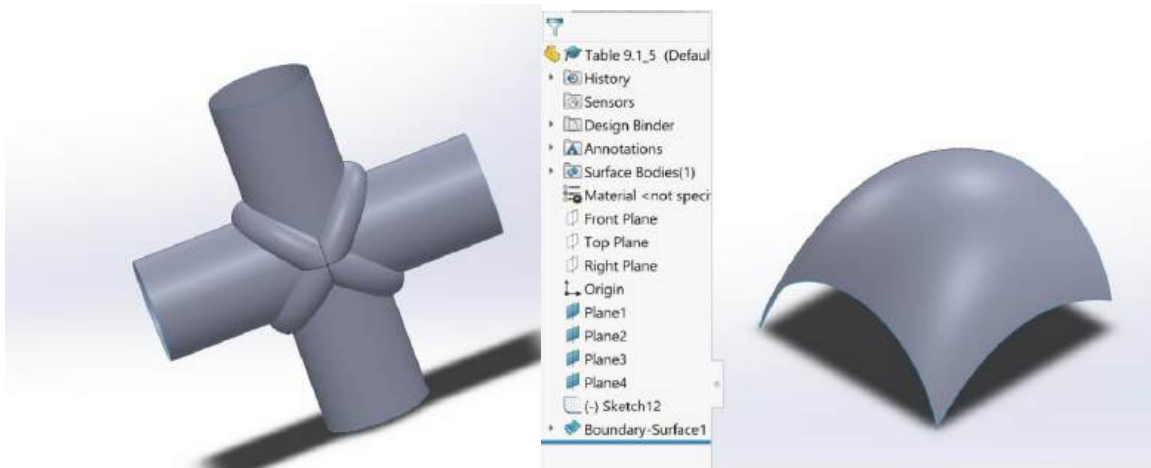


Solid body – knit surface

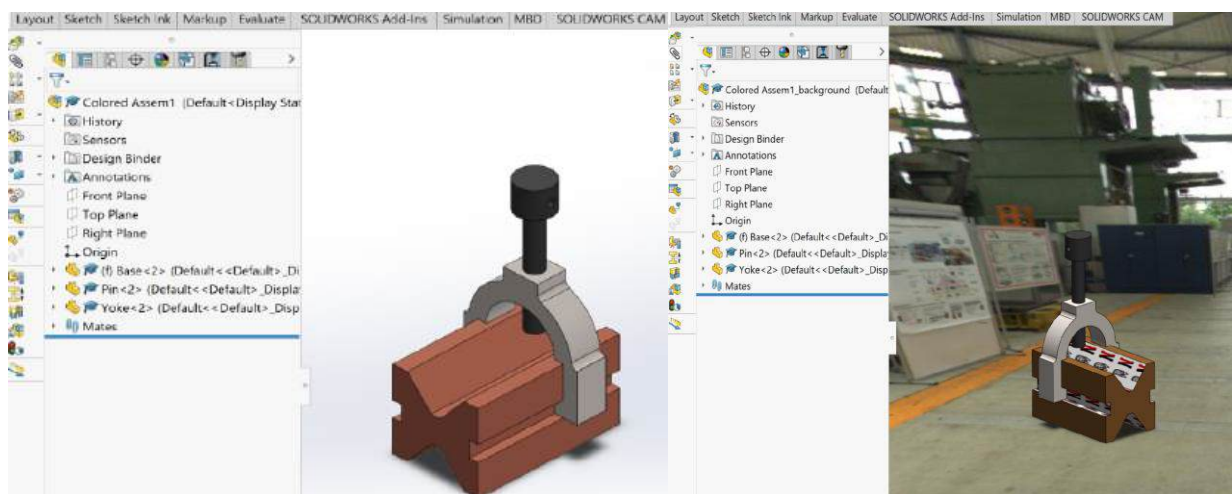


showing solid being cut





Vice Assembly with base, pin and yoke



Light adjustment with different perspectives

