	AIR UNIVERSITY
	DEPARTMENT OF MECHATRONICS ENGINEERING
	LAB NO 2

Lab Title Belt Roller Assembly

Student Name: Muhammad Abdullah Khan **Reg. No:** 221748

LAB ASSESSMENT:

Attributes	Excellent (5)	Good (4)	Average (3)	Satisfactory (2)	Unsatisfactory (1)
Ability to Conduct Experiment					
Ability to assimilate the results					
Effective use of lab equipment and follows the lab safety rules					

Total Marks: _____ Obtained Marks: _____

LAB REPORT ASSESSMENT:

Attributes	Excellent (5)	Good (4)	Average (3)	Satisfactory (2)	Unsatisfactory (1)
Data presentation					
Experimental results					
Conclusion					

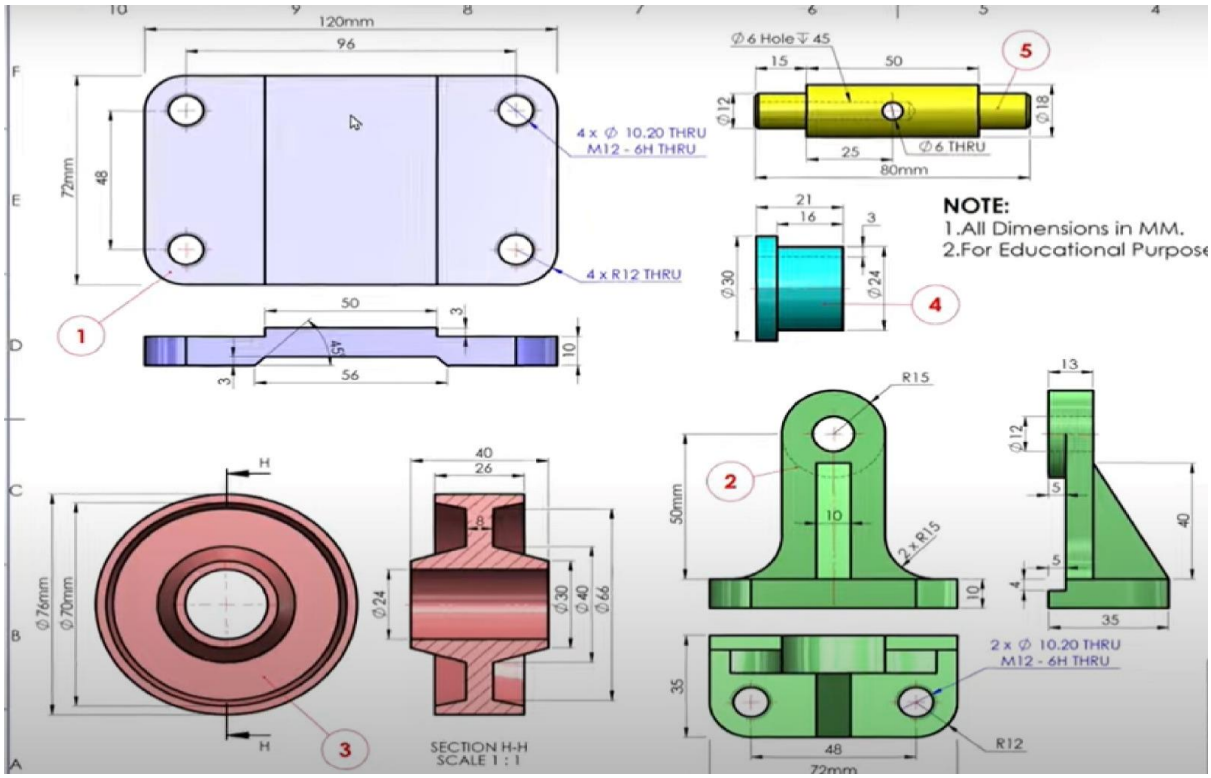
Total Marks: _____ Obtained Marks: _____

Date: 04-Oct-2023 Signature: _____

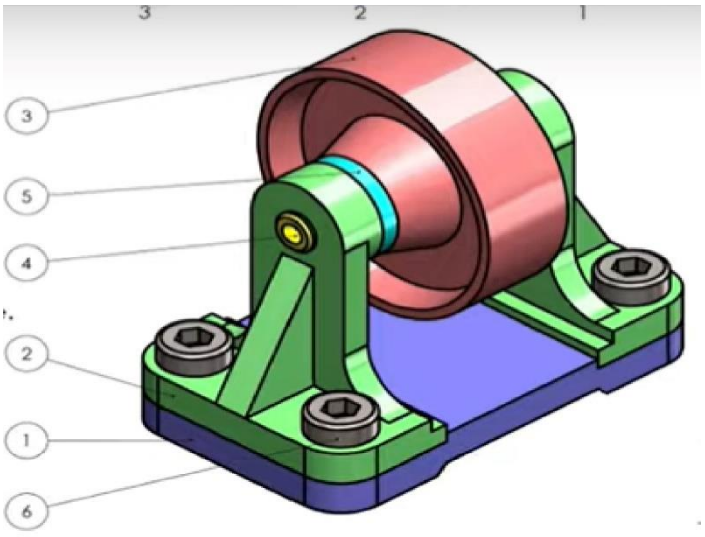
INTRODUCTION TO BELT ROLLER:

Belt Roller or belt driven roller conveyor systems we mean a series of rollers supported by a structure, suitable for unit handling loads which are driven by a belt. In the latter case they can be fit to friction rollers to carry out conveyors with load accumulation.

DIMENSIONS:

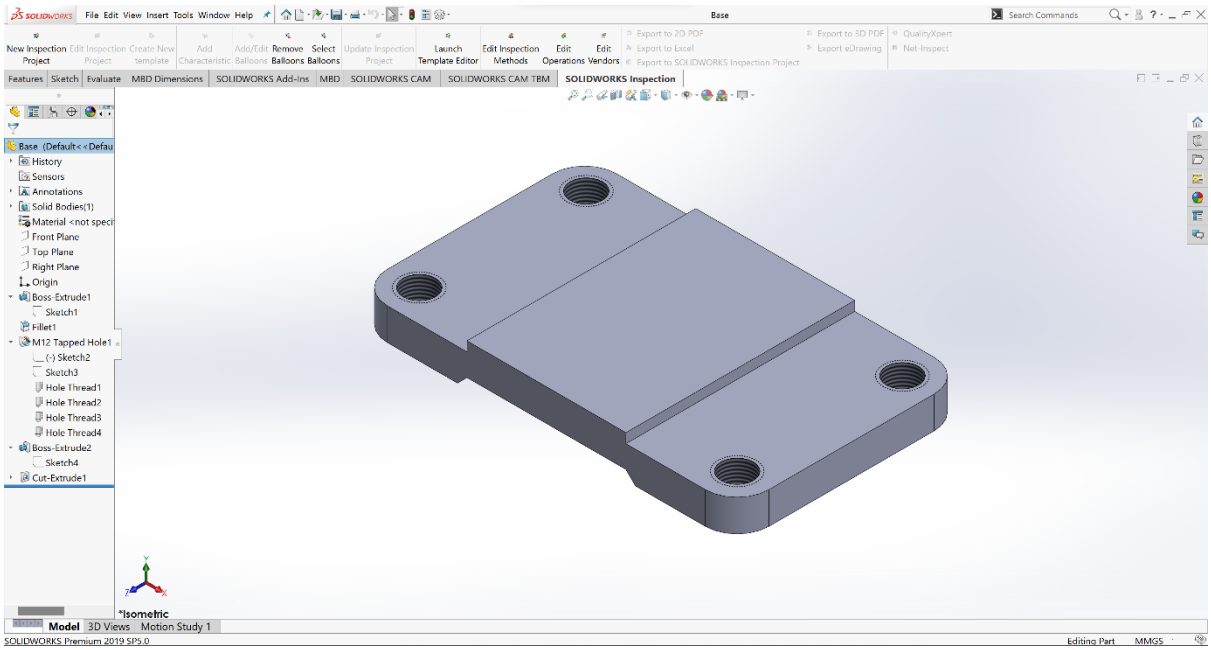


ASSEMBLY:

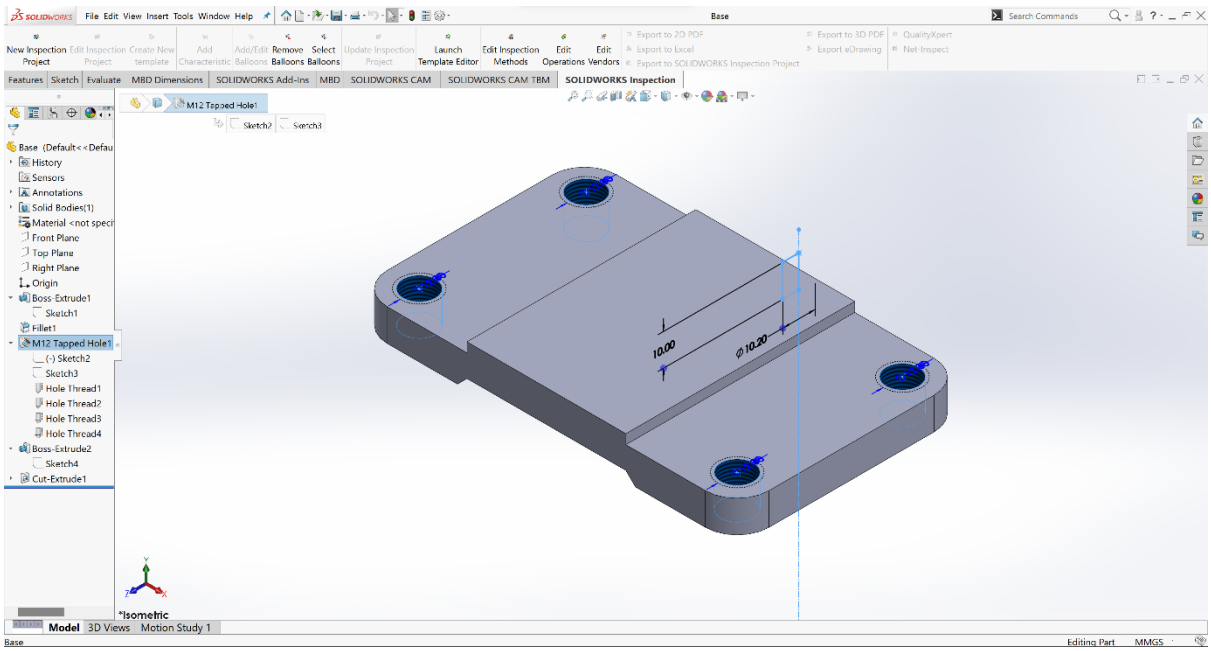


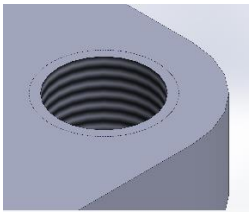
PARTS

BASE:

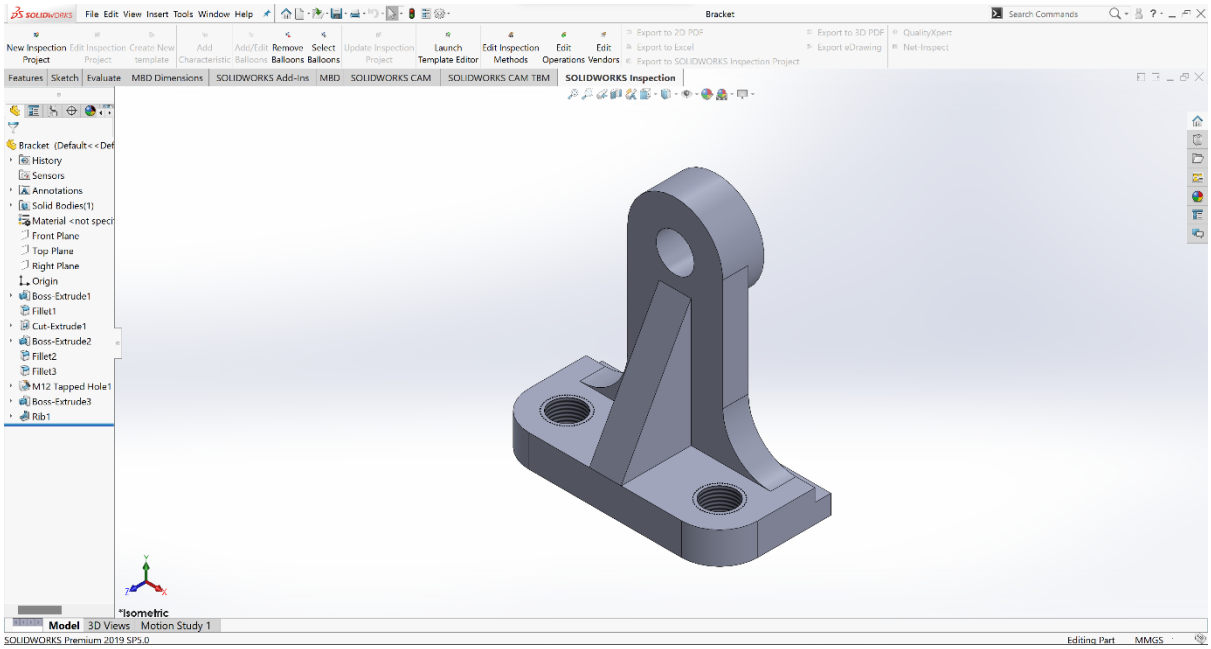


The list of features used is given on the left but the main different features used were tapered holes with threads in the making of this part



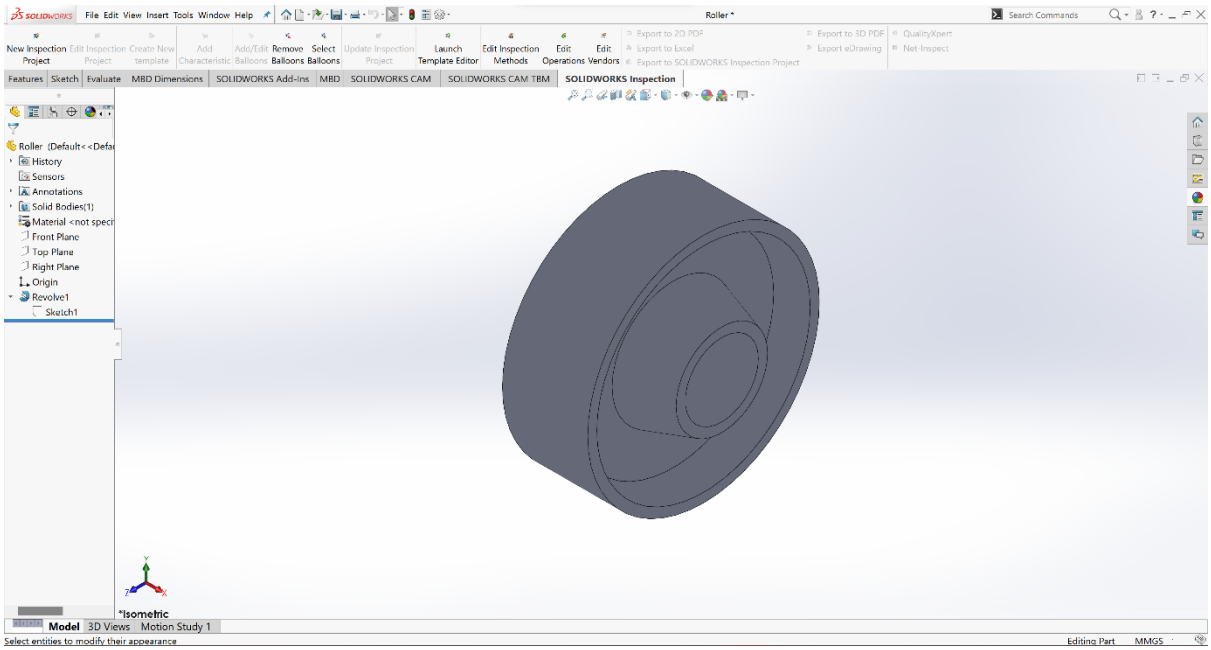


BRACKET:

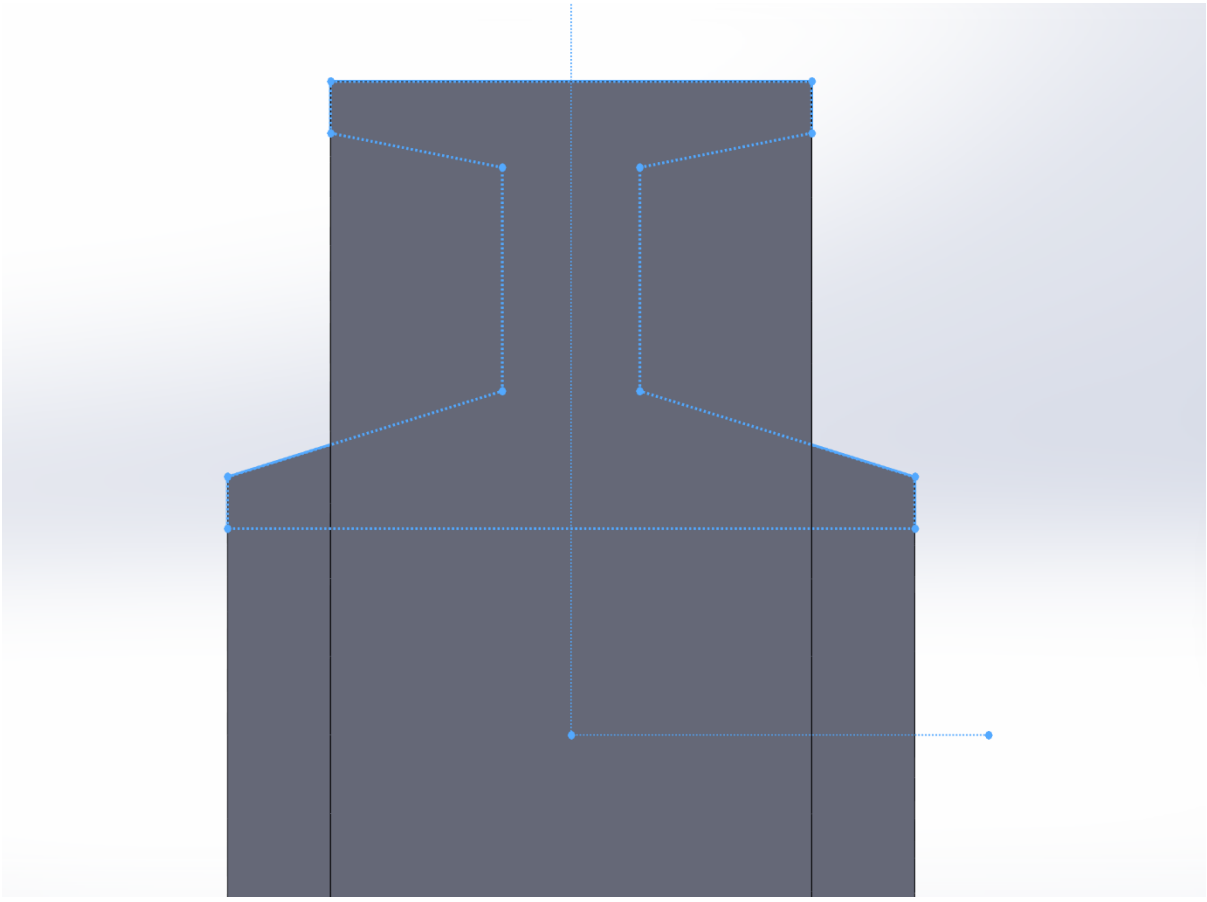


The list of features used is given on the left but the main features used for making this wear rib and I used convert entities feature instead of extrude cutting the new circle again.

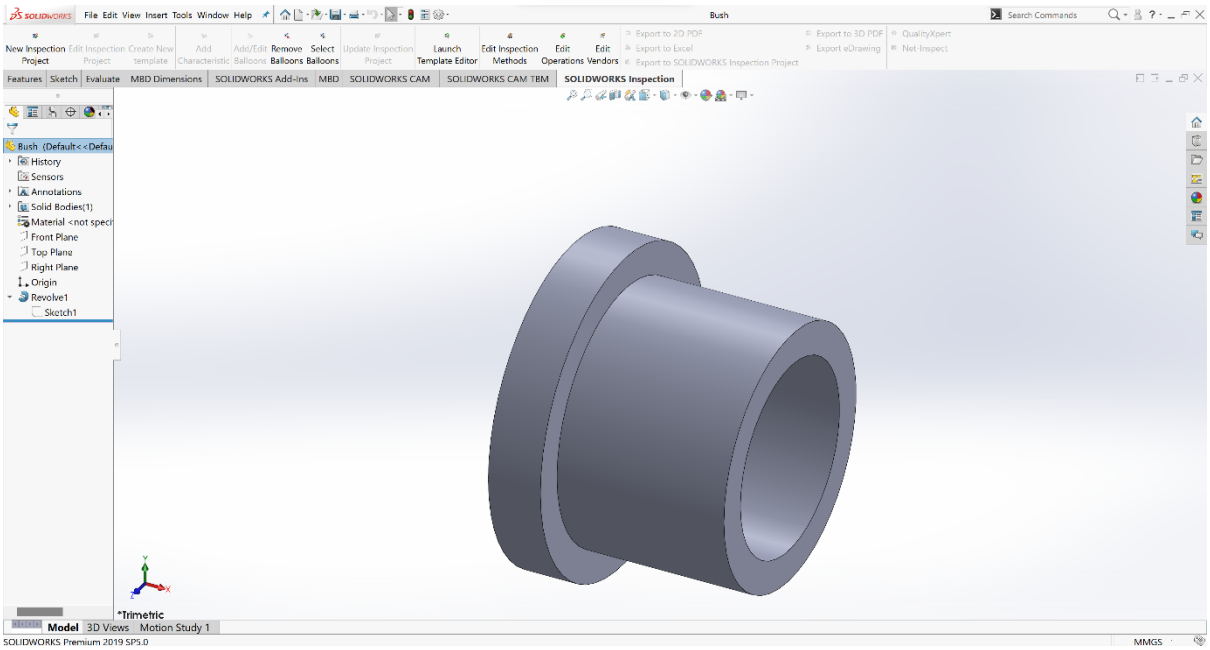
ROLLER:



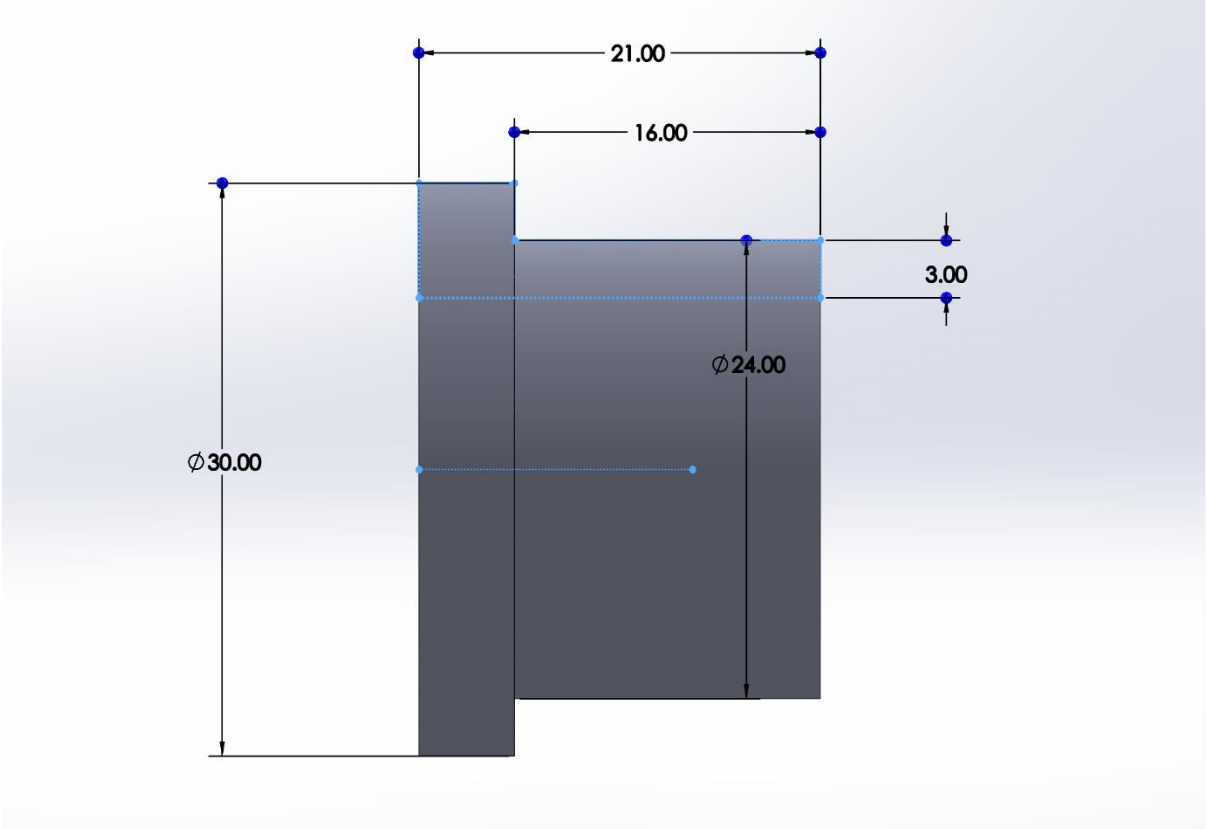
The main feature used is revolve boss base around our sketch to make it perfect



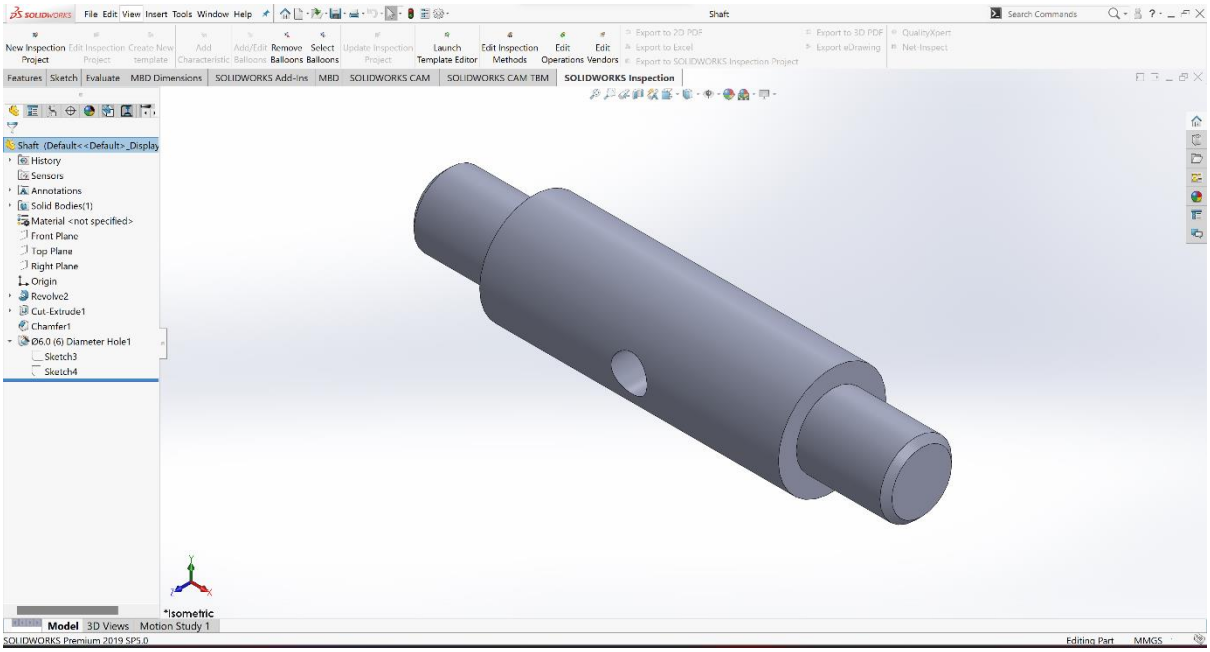
BUSH:



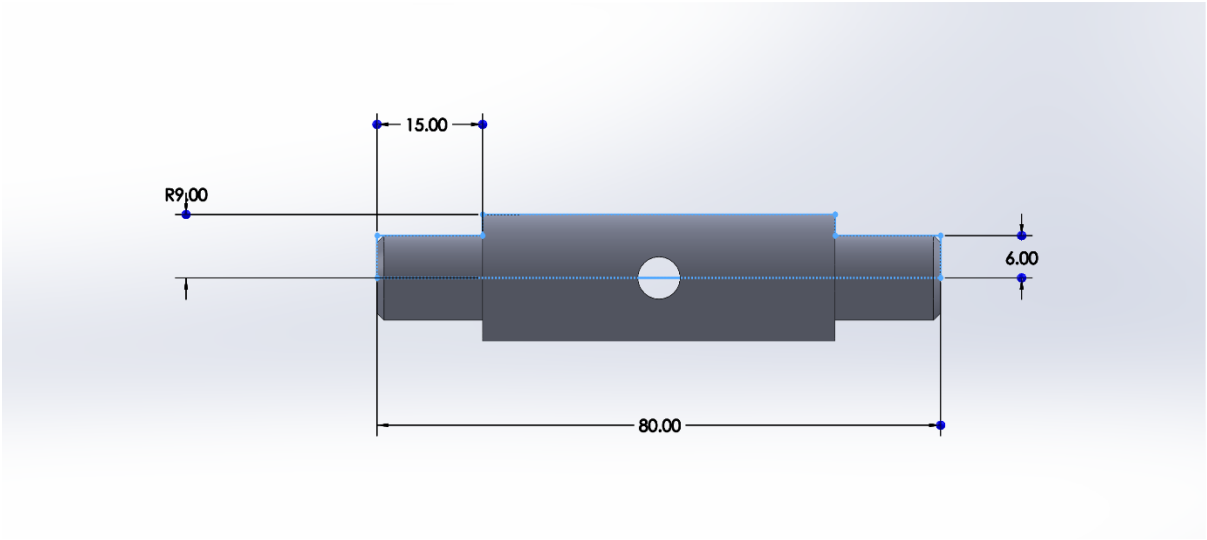
The main feature used is revolve boss base around our sketch to make it perfect



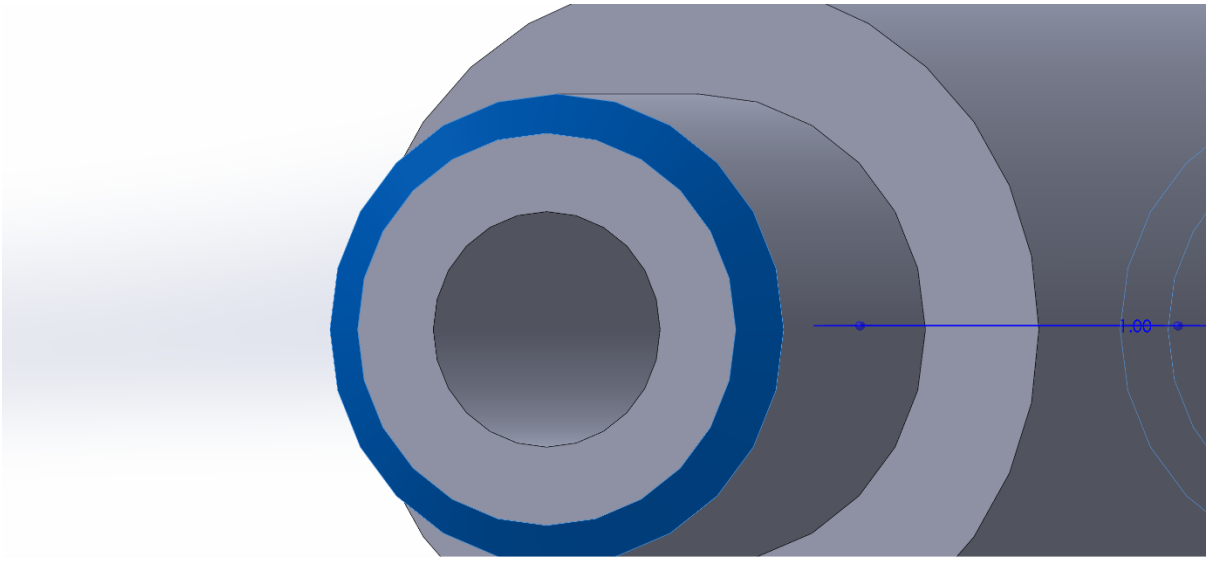
SHAFT:



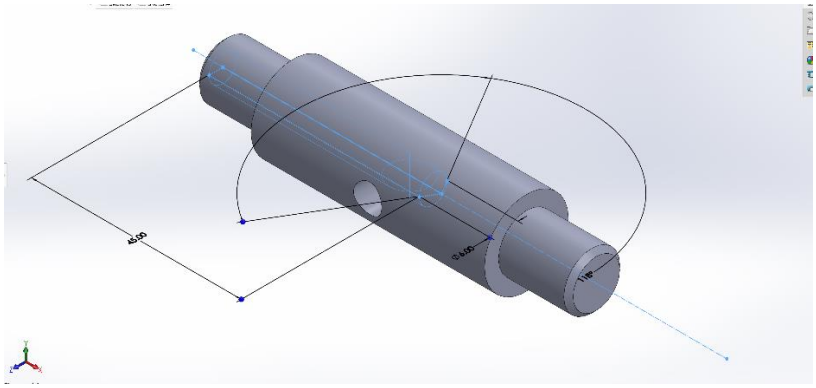
The features used are on the left but others are listed below



Sketch for revolving boss/base

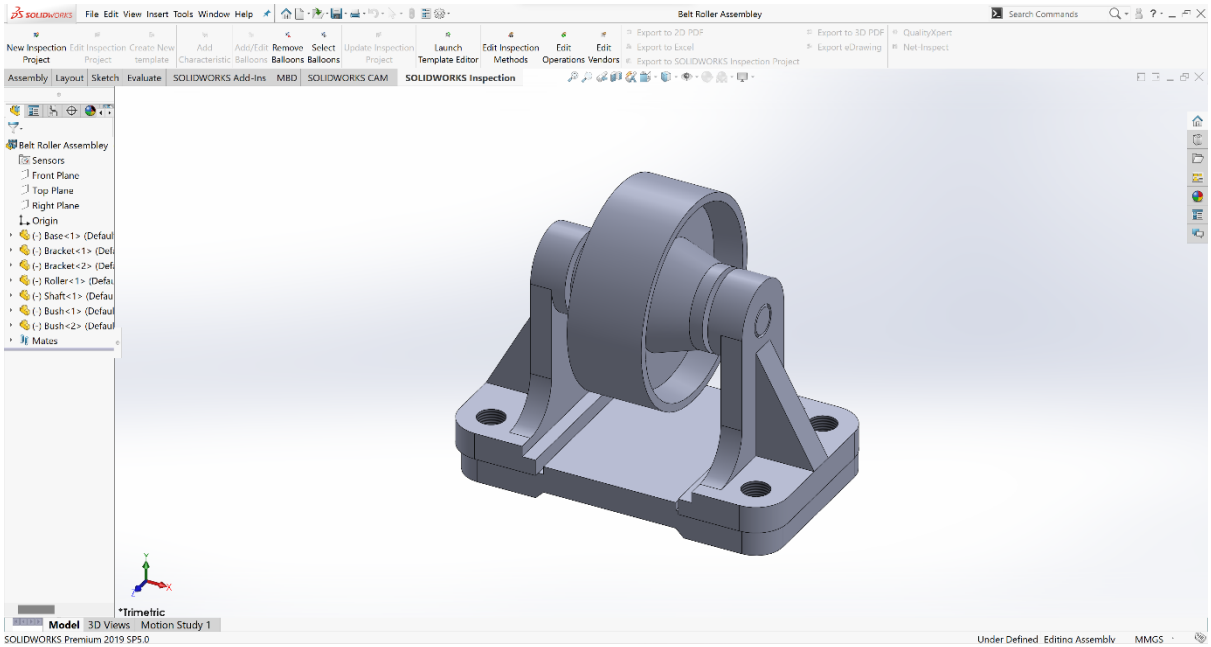


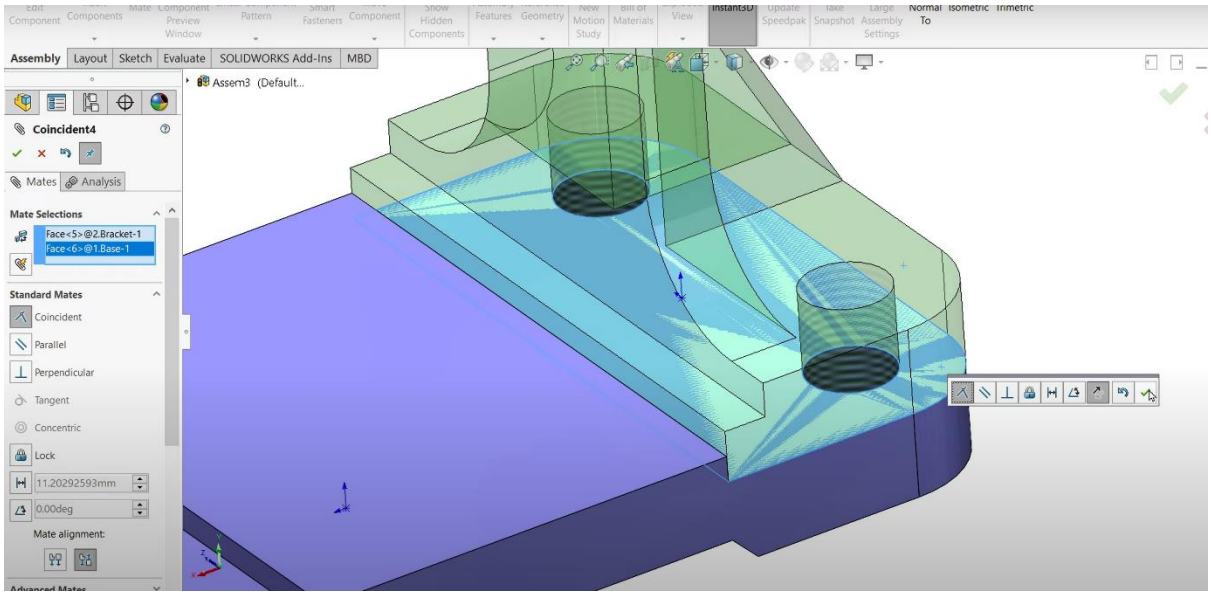
Chamber feature used at edges similar to filet



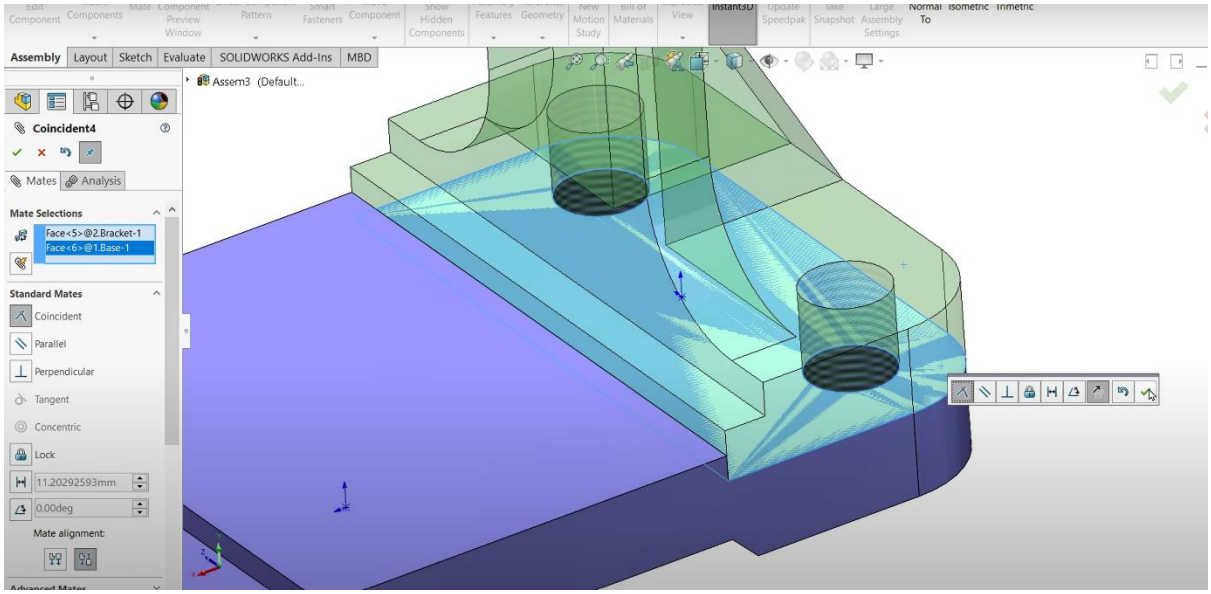
6 Diameter Hole Till Midpoint

ASSEMBLY

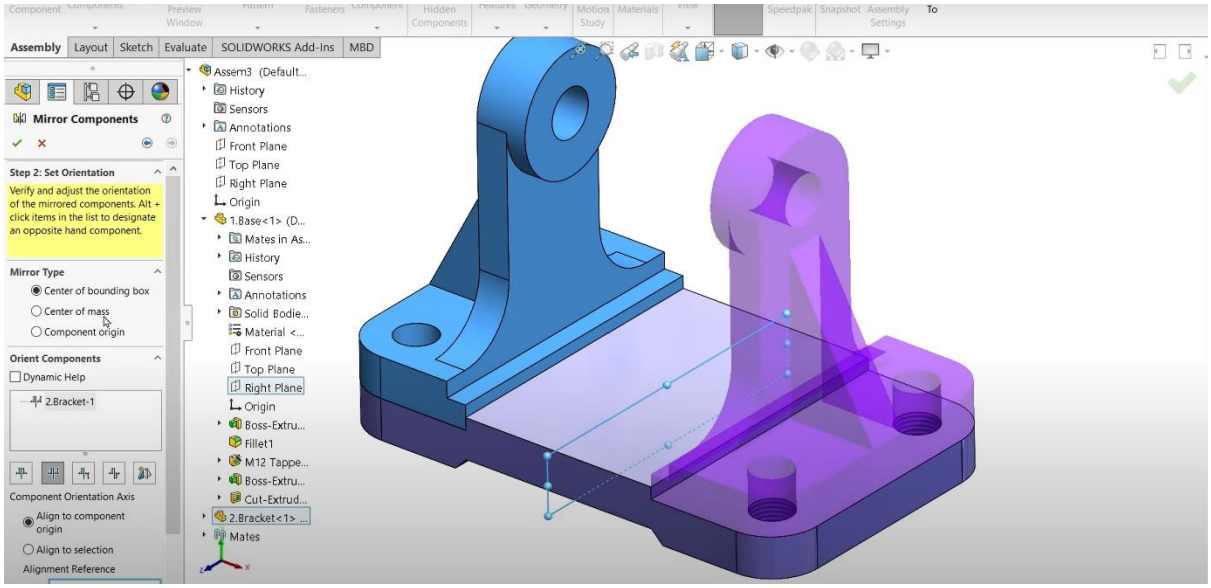




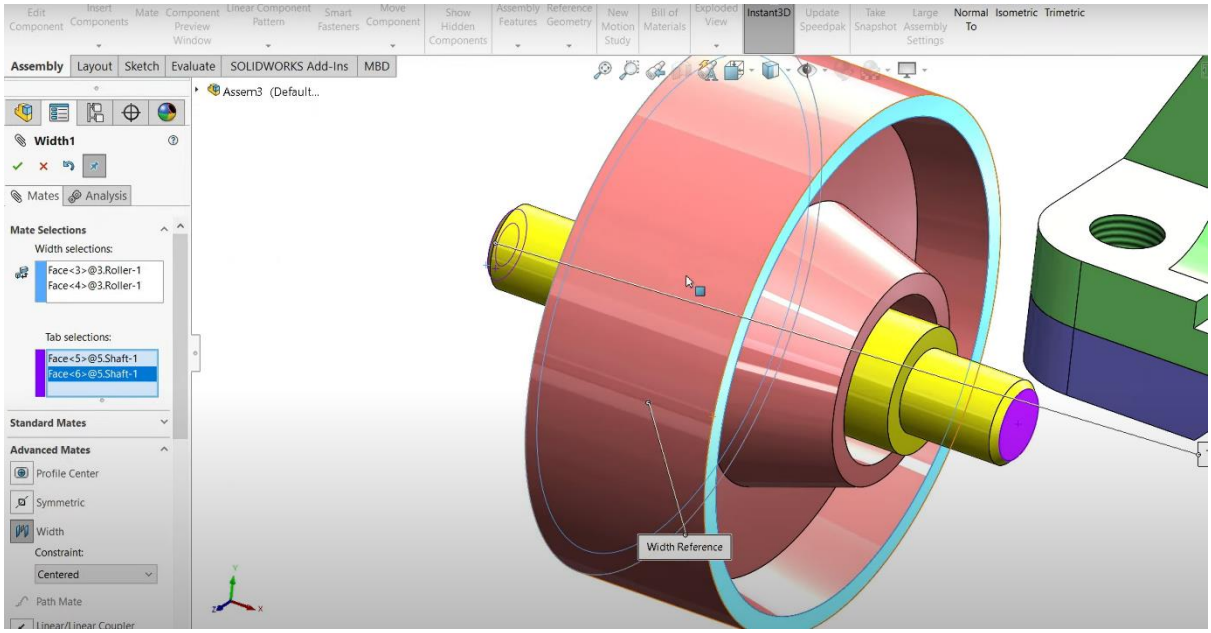
Concentric Relation



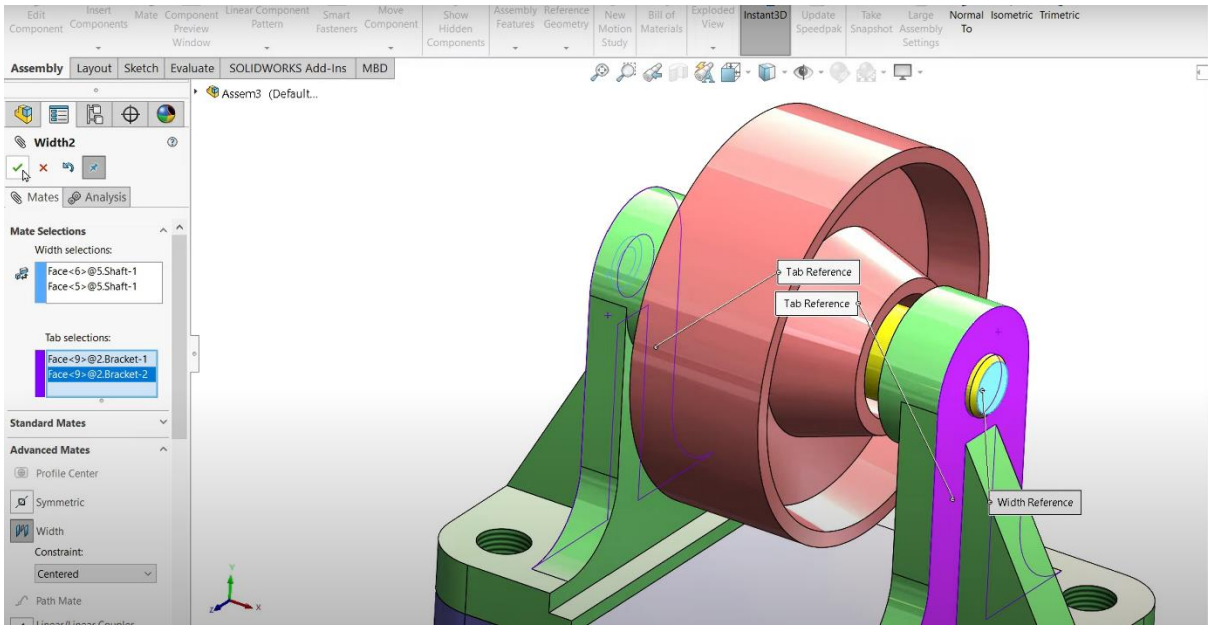
Coinciding Faces



Mirroring Bracket



Using Width Feature On Selected Faces



Again Width On Specified Faces

This completes our assembly as all parts are now fixed in there specific positions and now we can use motion study to give and record its motion

CONCLUSION:

To conclude, we learned many new features including Dynamic Mirror and width feature got our hands set on mate feature and mirror feature.