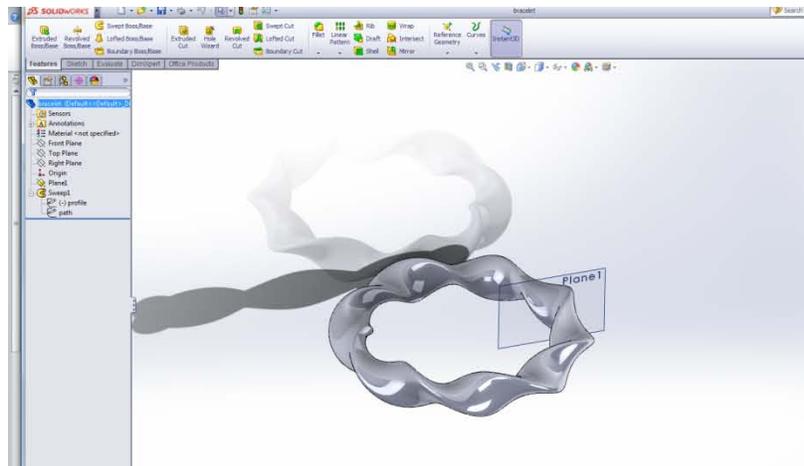


# Computer Aided Design Tutorial: Bracelet

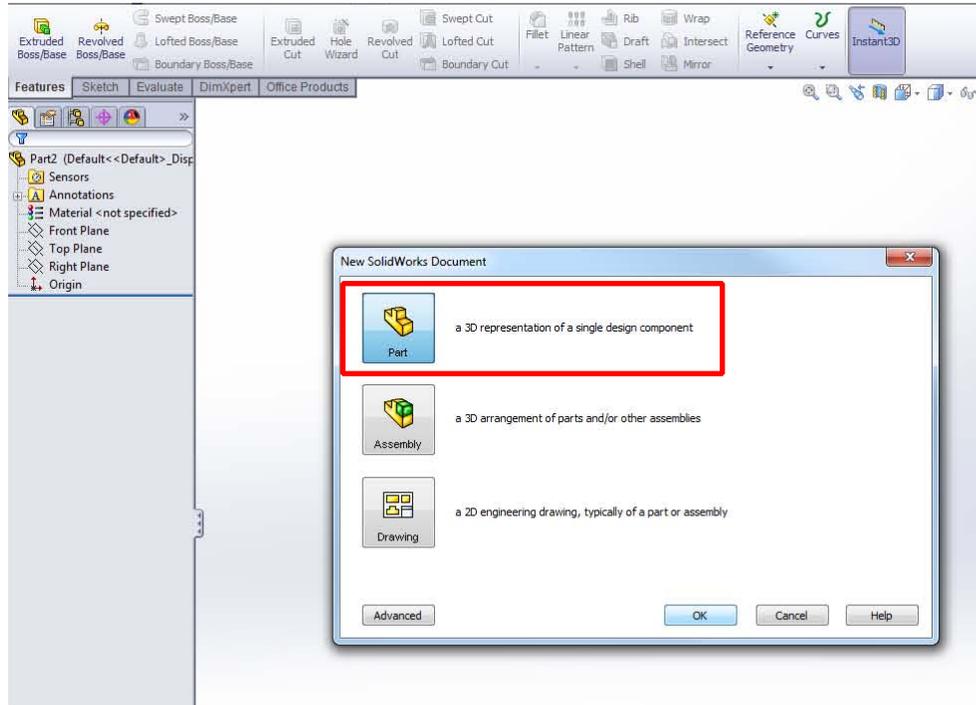


**Software:** Solidworks ([www.solidworks.com](http://www.solidworks.com))

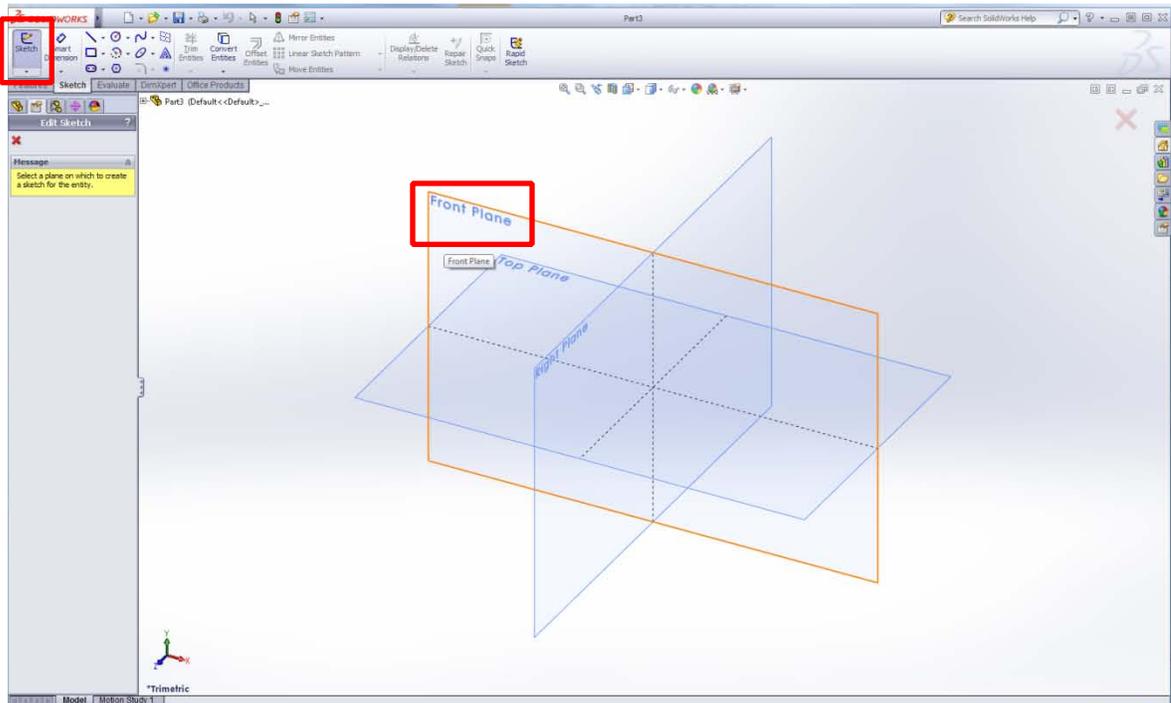
**Key skills:** Create a part from a sketch, define dimensions, add a reference plane, and more!



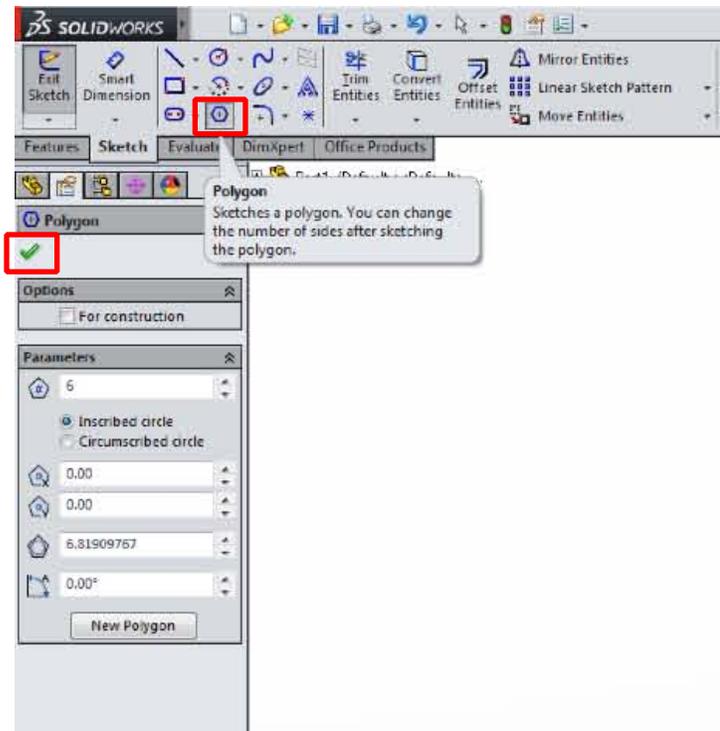
# 1. Open new part



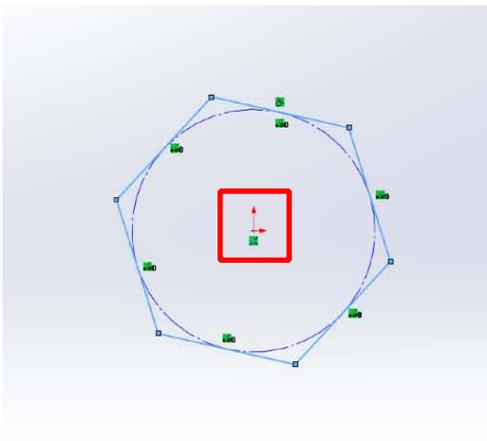
## 2. Create new sketch on front plane



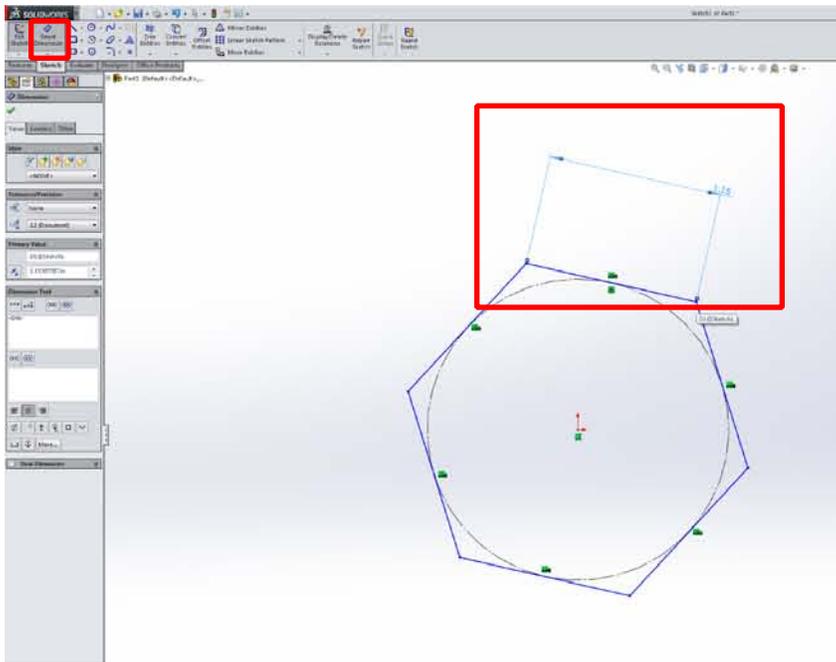
3. Select polygon shape, click accept.



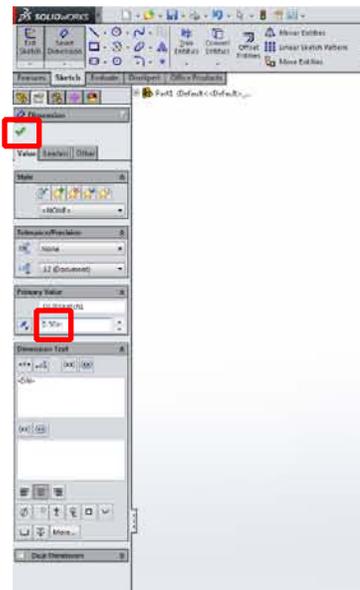
4. Click, drag, and release on the main screen to create a polygon. Place center at the origin



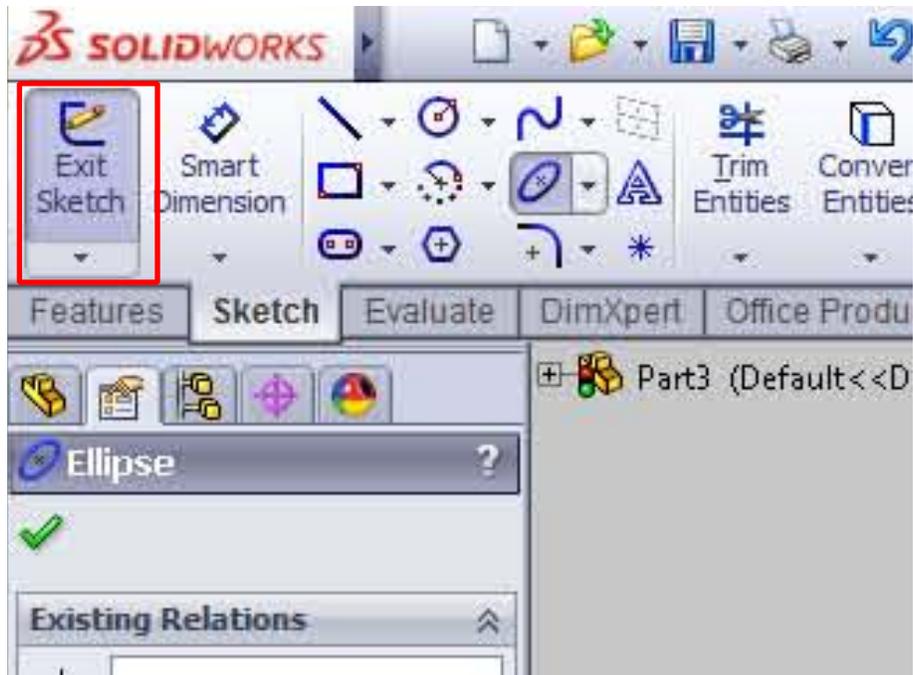
5. Dimension the polygon by clicking on “Smart Dimension.”  
Select a side, drag the dimension length, and click to release.



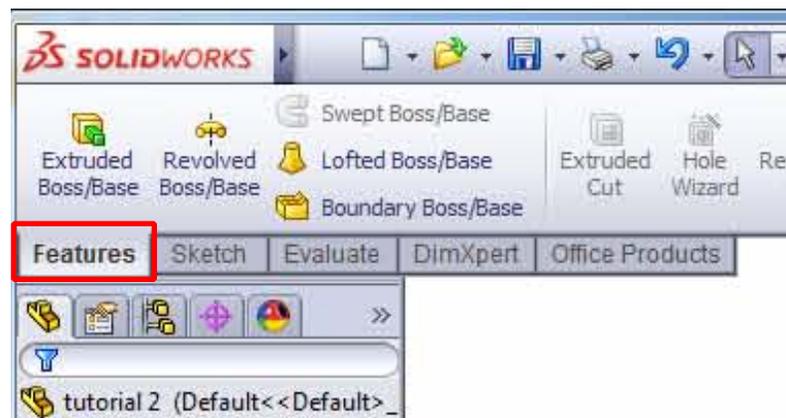
6. Enter the “Primary Value” to 0.5 inches and click the green arrow to confirm value.

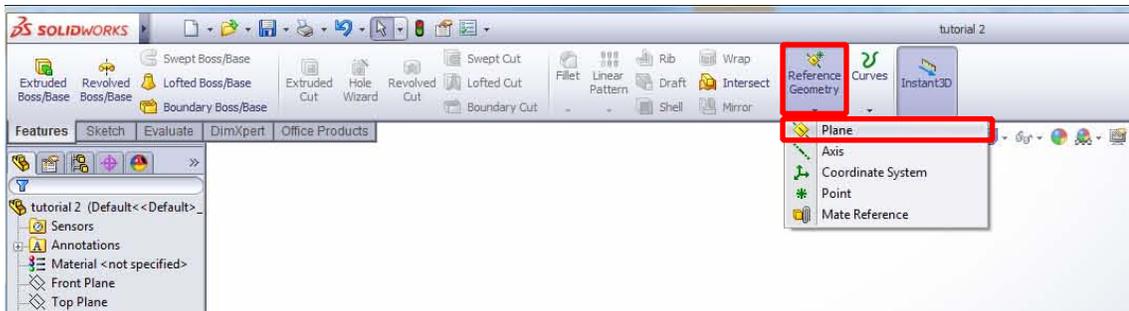


## 7. Exit sketch

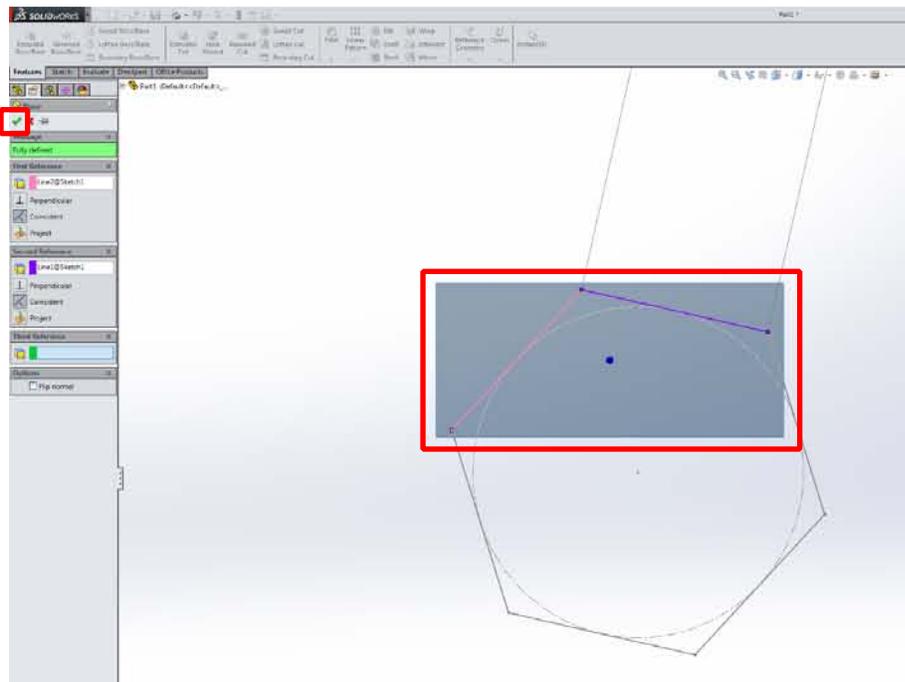


## 8. Open up Features and Create a new reference geometry: Plane

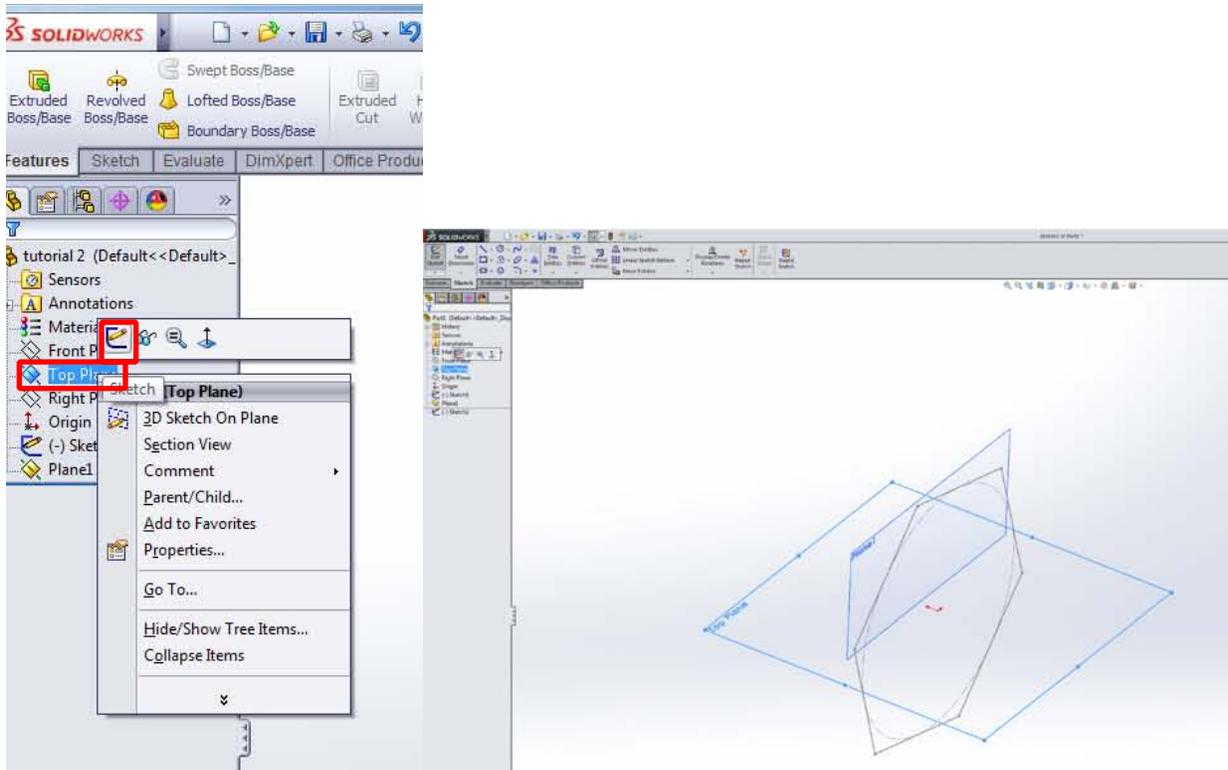




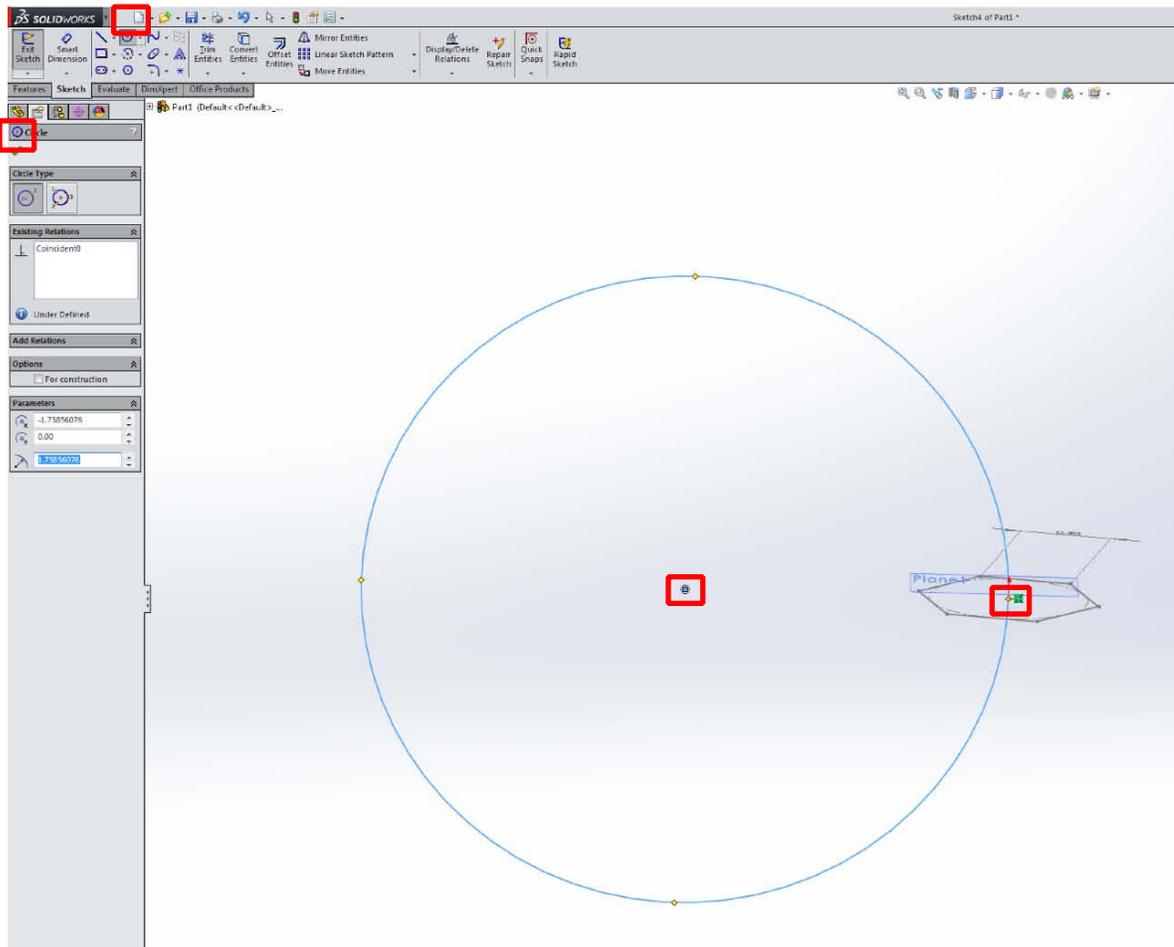
9. Define the plane by selecting two sides on the polygon. Click the green arrow to confirm plane.



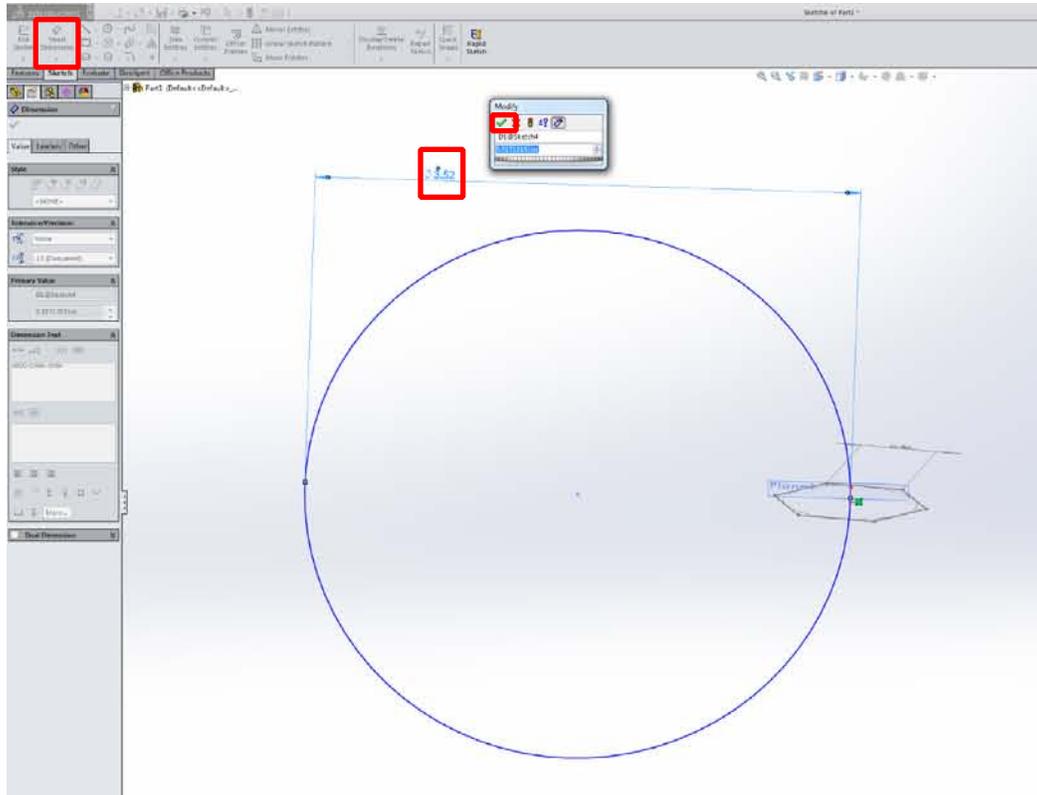
10. Right click on top plane from the “Feature Tree” on the left of the screen. Top Plane is perpendicular to your polygon (remember how you drew on the front plane?). Select the symbol for create sketch.



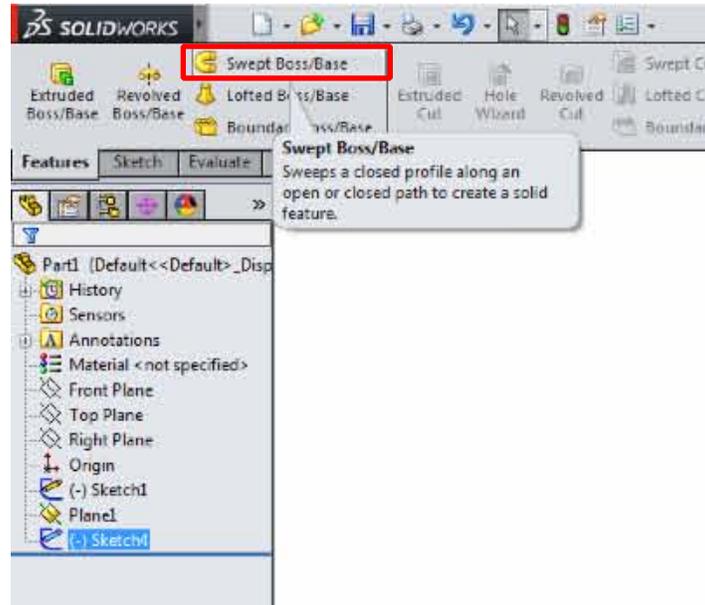
11. Create your bracelet shape based off of the polygon. Draw a circle with an offset center, connect the edge of the circle to the center of the polygon. Click the green check mark.



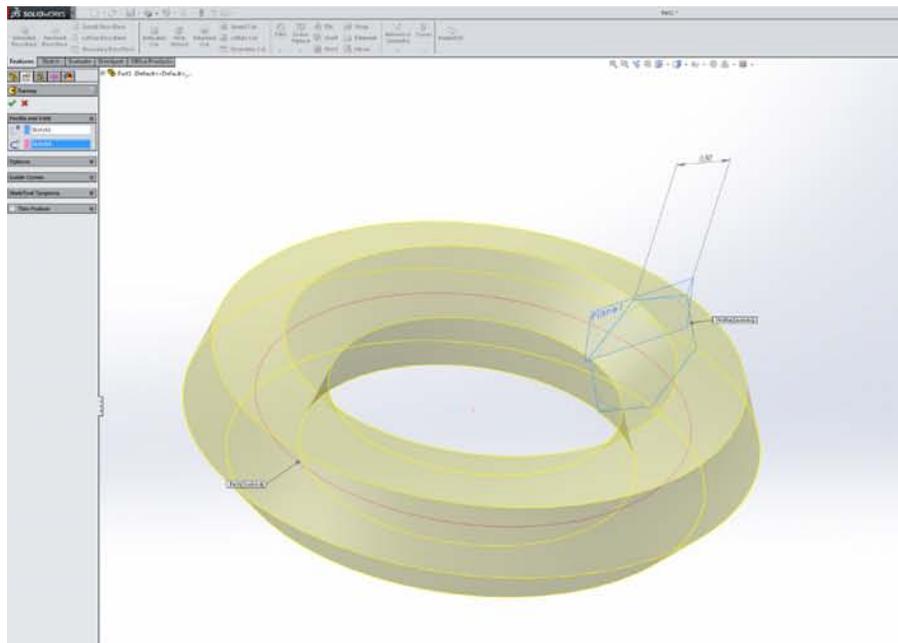
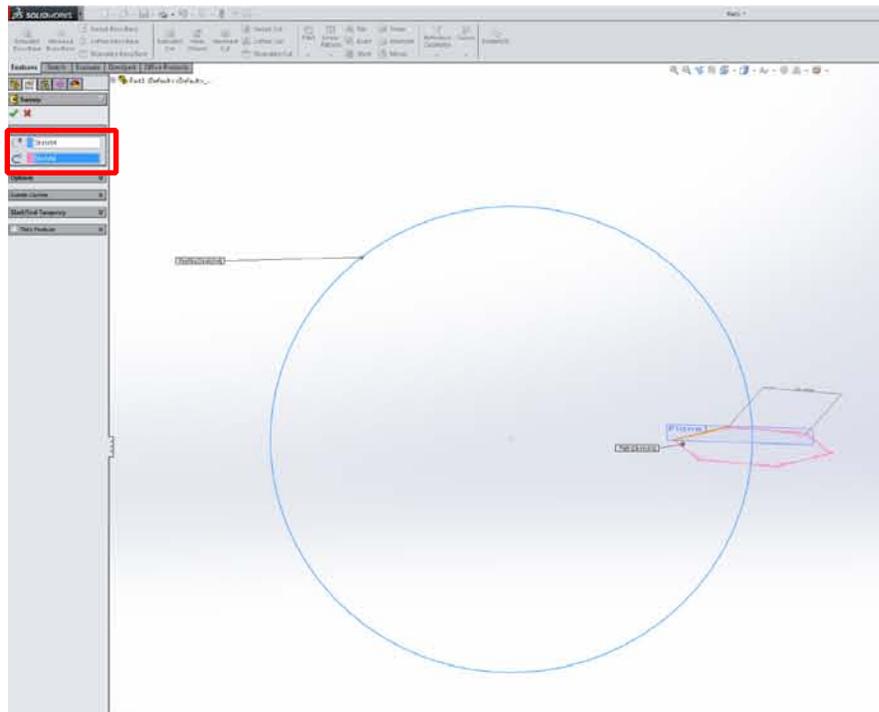
## 12. Smart dimension the circle to 3 inch diameter.



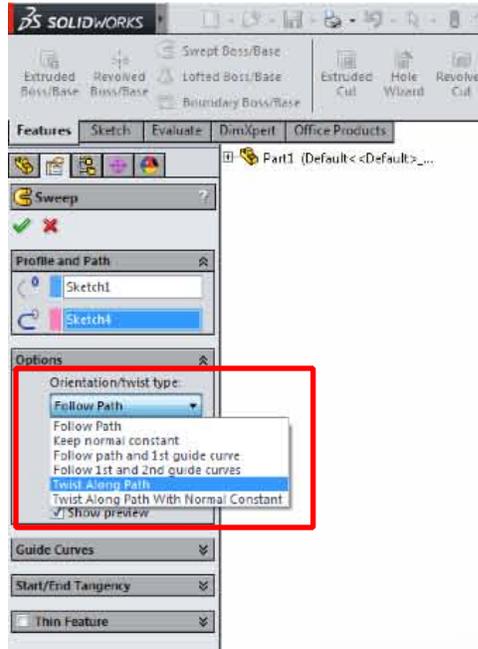
13. Exit sketch. Select Swept Boss/Base: Allows you to “sweep” a profile along a path to create a solid part



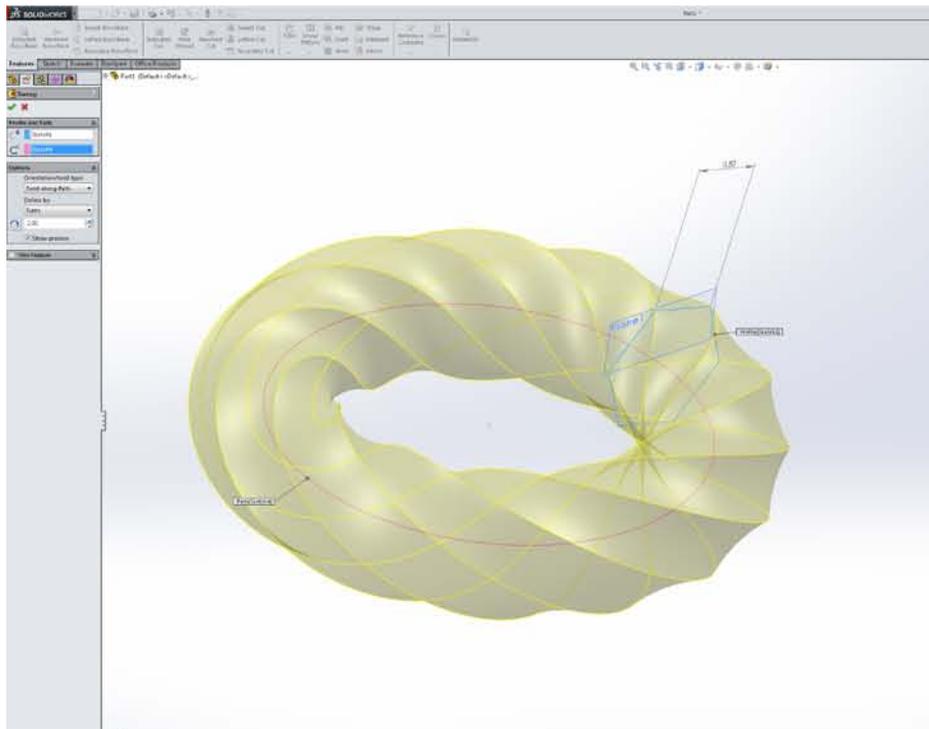
14. Select the polygon as the profile and the circle as the path.



15. Under options, select twist along path.

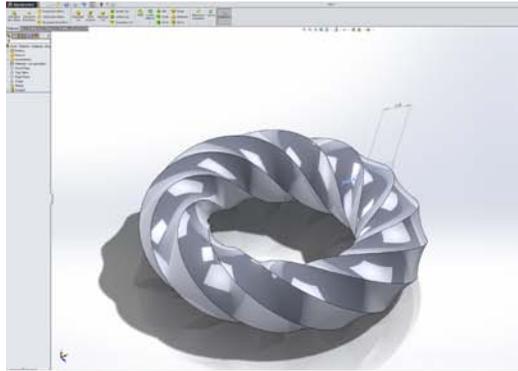


16. Select define by turns and enter a number.



17. Enter the green check mark to finish!





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