



# Sketching Tips and Tricks

## Model Items, Hole series



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# Introduction

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- ▶ Why talk about Sketching??????????



# Introduction

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- ▶ Why talk about Sketching??????????
- ▶ It's where it starts, and where you spend time.



# Basics

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## ▶ Sketch element Colors

 Black Fully defined

 Blue under defined

 Yellow invalid

 Red not solved

 Dangling



# Sketching Arcs

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- ▶ Tips and Tricks



## Line to arc switch

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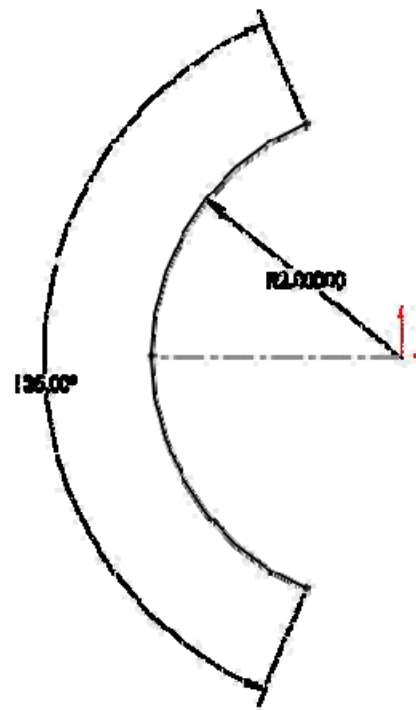
- ▶ Switch from Line to arc by returning the cursor to the start point of the current segment, or use the A key.



# Dimension Arc angle

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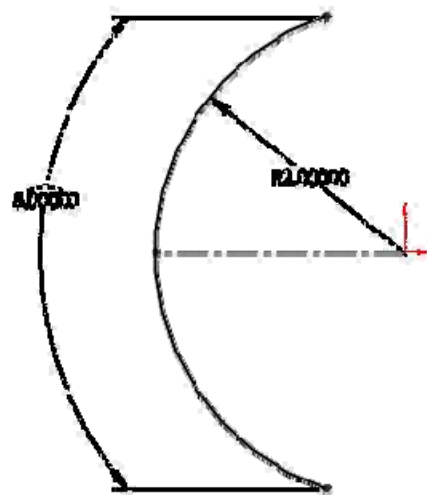
- ▶ Click on the two end point then click on the center.



# Dimension Arc Length

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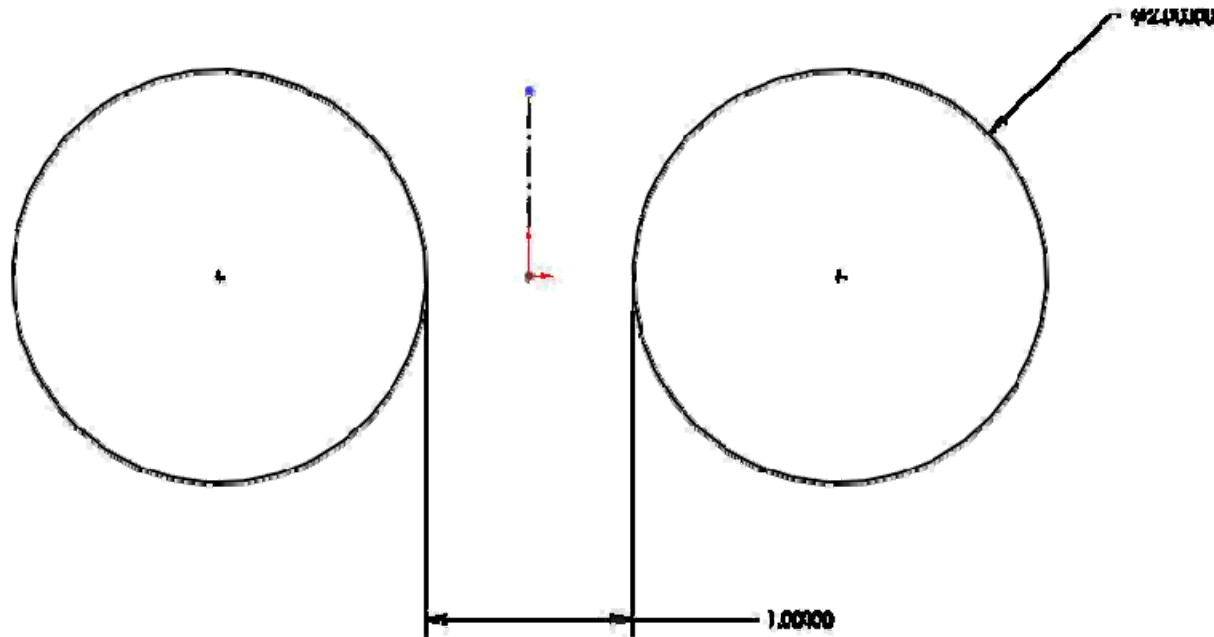
- ▶ Click on the two end points then click on the arc line.



# Dimension to arc



- ▶ Dimension to arc perimeter by holding the shift key as you apply smart dimension.



# Split entities

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- ▶ Splitting entities as a way of editing, avoid deleting when possible.



# Separating Sketch entities

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- ▶ Click on sketch segment while holding the CTRL key release CTRL before releasing the mouse button.
- ▶ Releasing the CTRL key before the mouse button will copy entity.



# Dragging sketch geometry

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- ▶ Drag sketch geometry by the holding the shift key while dragging.



## Use the Sketch wizard

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- ▶ To solve errors in complex sketches use the sketch wizard, view all the solutions before you decide.



# Create a Slot Sketch

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- ▶ Create a slot by sketching a line select offset bidirectional and select cap ends (arc or line) select sketch line to be switched to construction if needed.
- ▶ Alternative slot creation. Thin Feature with fillet option, currently not available.



# Snaps

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- ▶ When sketching on geometry (ASSY, or part) hold down CTRL to avoid snapping.



# Trim Tool

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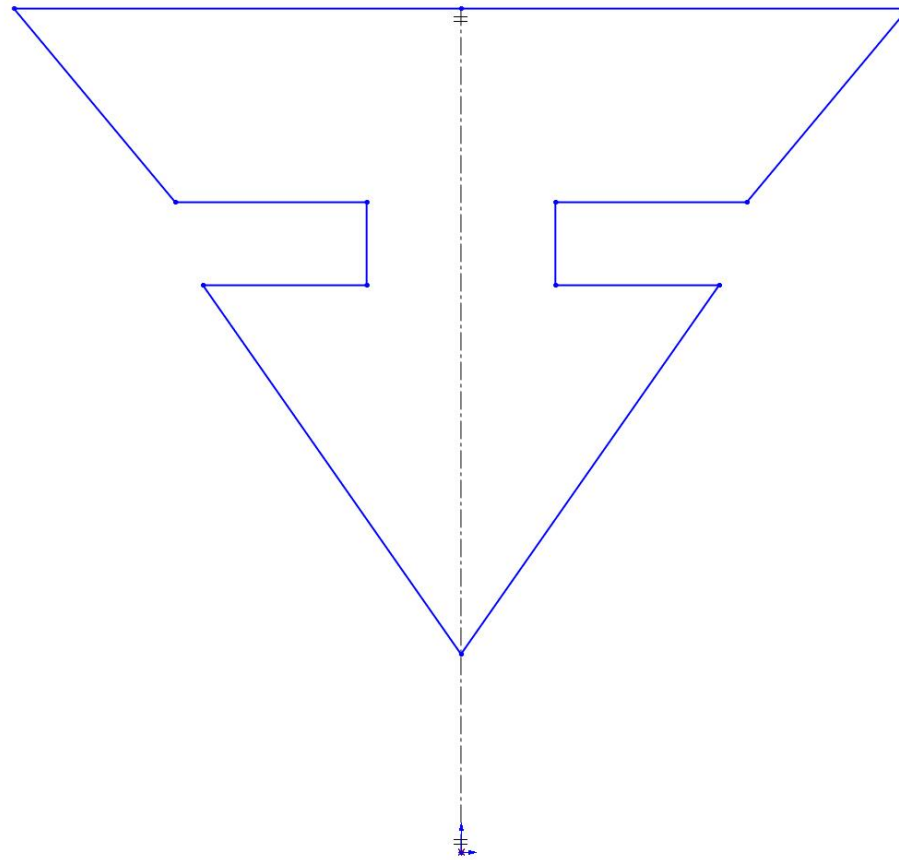
- ▶ Use the Trim tool to trim and extend.
- ▶ Extend lines by holding the shift key and dragging the sketch entity.



# Dynamic Mirror

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Great for symmetrical concepts



# Convert entities

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- ▶ Convert entities by selecting a face and then clicking convert entities.
- ▶ Convert entities of part of a face by using sketch tool “close sketch to model”



# Configuration driven sketch relation

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- ▶ You can vary sketch relations of the same entities using configurations.



# Reuse sketch dimensions

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- ▶ Bring dimensions into the drawing.



# Creating a new part in an Assembly

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- ▶ Create it by using the Top Down method (In context)
- ▶ Create it by using the Bottom up method (build part and bring it into the assembly.)
- ▶ I would like to show you my preferred method.



# Assembly feature Hole series

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