- Select the “Hole Wizard” in the “Features” tab
- Select the face or plane on which the hole will be placed

In the “Properties Manager” Window:

- Select the hole type:
  - Hole
  - Countersink
  - Counter bore
  - Tap
- Select Standard and Type
- Select the desired fit under the Hole Specifications Tab
- Set the End Condition (these are the same as the “Extrude Cut” options)
Show and Tell- Hole Wizard

Custom Sizing:
- To see custom sizing options, check the box next to “Show custom sizing”
- This will display the sizing options that can be changed to specific measurements
  - Through Hole Diameter
  - Diameter of Counterbore/Countersink
  - Depth of Counterbore/Countersink
  - Angle at bottom (for “hole” and “tap”)

Example of Countersink Custom Sizing:

![Countersink Custom Sizing Example](image)

Example of Hole/Tap Custom Sizing:

![Hole/Tap Custom Sizing Example](image)
Position of the hole:

- Select the **Position** tab
- Move the arrow over the part to see a preview of the hole.
- When you have chosen the location of the hole, click on the surface where you want to place the hole.
- While you are in the **Position** tab, you can place multiple holes on the surface. All of these holes will be the same type.
- When you are done placing the holes on your part, click the green check mark.
To dimension placement of holes:

- Click on **Smart Dimension** in the “Sketch” tab
- Select the center of the hole to add a dimension
- For holes placed on circular surfaces, the dimension will be measured from the center of the circle.
- When the dimensions are correct, click the green check mark
Using the design tree to edit dimensions:

- Expand the hole feature in the design tree
- Right-click on the “3D Sketch” under the hole feature in the design tree
- Select the “Edit Sketch” icon
- Now the dimensions can be edited in the sketch
Circular Pattern:

- Under “Linear Pattern” in the “Features” tab, click on the **Circular Pattern**

- Select the axis to revolve the pattern around
- Select quantities for the other parameters
  - Degrees of rotation
  - Number of entities in pattern
- When the pattern is complete, click on the green check mark
Holes on reference lines:
- Use the hole wizard like the previous example
- Use the view orientation tool to make the surface “normal” view
- Select the “Position” tab to place the holes on the surface
- When the mouse is near the points created by the intersecting construction lines, the hole will snap to that point.
- If the hole will not be created over that point, place it as close to that point as possible.