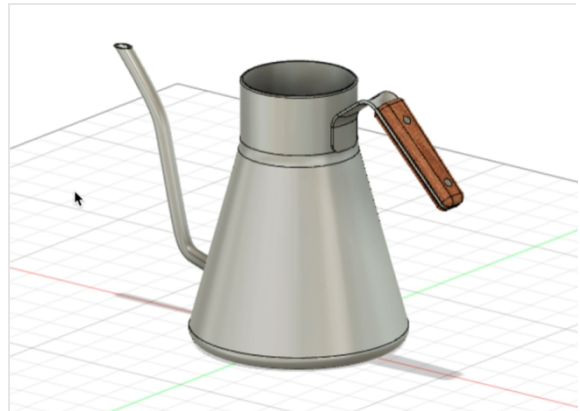


## Components and assembly structure

Learn how to create new components and assembly structure in Fusion 360.

### Learning objectives:

- Distinguish top-down and bottom-up assemblies.
- Create new components.
- Create external components.



Creating new components and assembly structure

1. Select **New Component** in the Toolbar to create a new component.

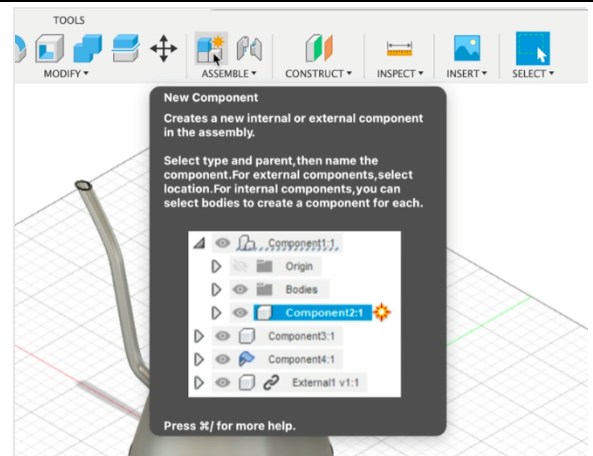


Figure 1. Selecting New Component lets you create a new component.

2. After the type, define whether the component is External or Internal. “External” lets you create a separate design file when using the “Bottom-up” approach. In contrast, “Internal” lets you place the new component in your active design file, nested under the active component.

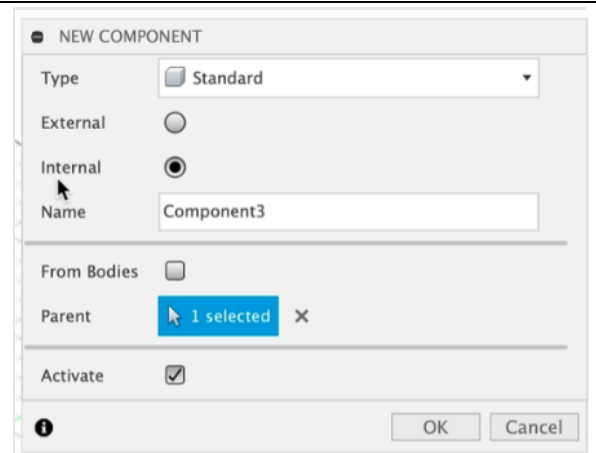


Figure 2. Here you indicate either External or Internal for the component.

3. Name each Fusion 360 component as you create it. You can also change the name at any time via the Browser.

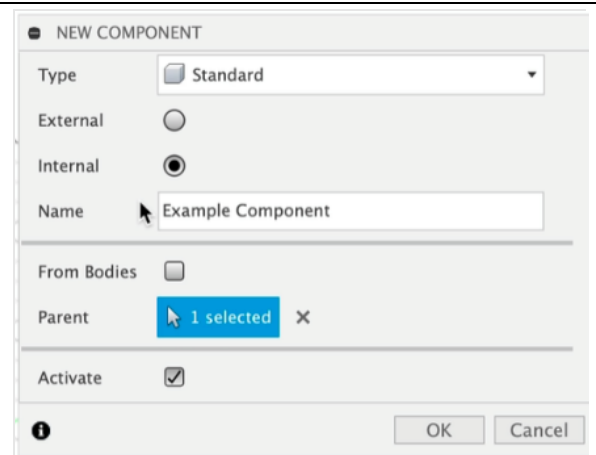


Figure 3. Name each Fusion 360 component as you create it.

4. If desired, you can clear the parent component and select a different component in the Browser. This lets you choose the location where the component will be nested.

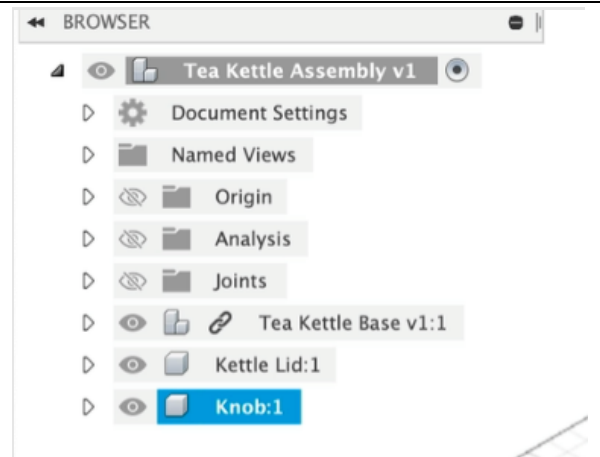


Figure 4. If desired, clear the parent component and select a different component in the Browser.

5. Select **Activate** to keep the component active once it's created, and then click **OK**. A component is active when it has an active "circle" icon next to it. Active means all features or operations that you create will display in the parametric timeline of that component.

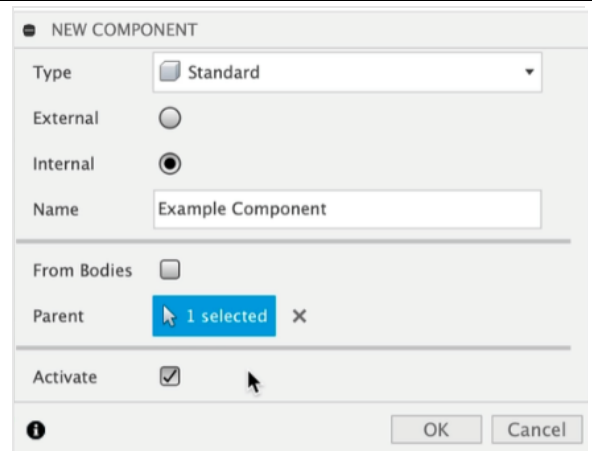
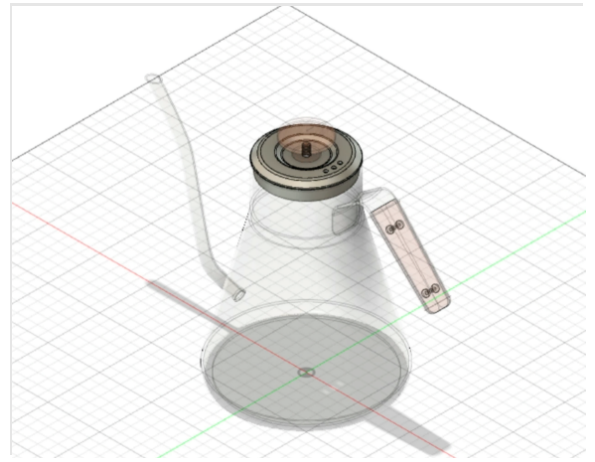


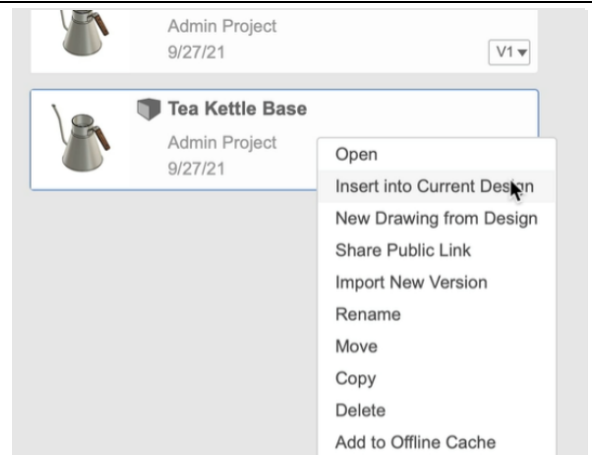
Figure 5. Selecting Activate lets you keep the component once it's created.

6. You can activate different components and sub-assemblies to focus on one aspect of a large assembly while keeping assembly files organized.



*Figure 6. Activating different components and subassemblies let you focus on one aspect of a large assembly.*

7. To create a “Bottom-Up” assembly, right-click on a file in the Data Panel, and click **Insert into Current Design**.



*Figure 7. Selecting Insert into Current Design lets you create a “Bottom-Up” assembly.*

8. To avoid having to open each individual design file to make a simple change, you can use the **Edit in Place** tool. To do this, hover over any external component or sub-assembly and activate the pencil icon. The external component displays in the Canvas, while other components in the parent design become inactive.

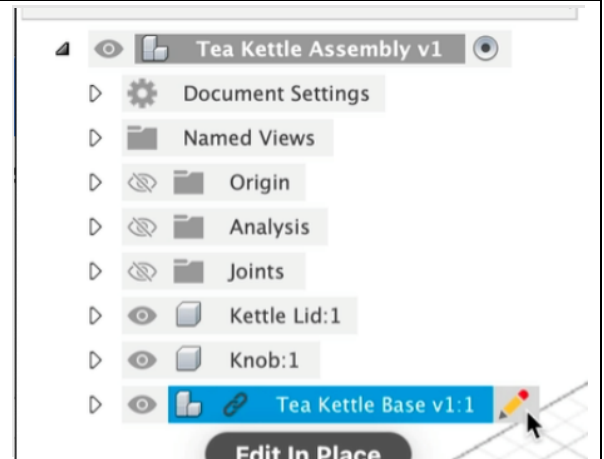


Figure 8. Clicking the pencil icon lets you Edit in Place.