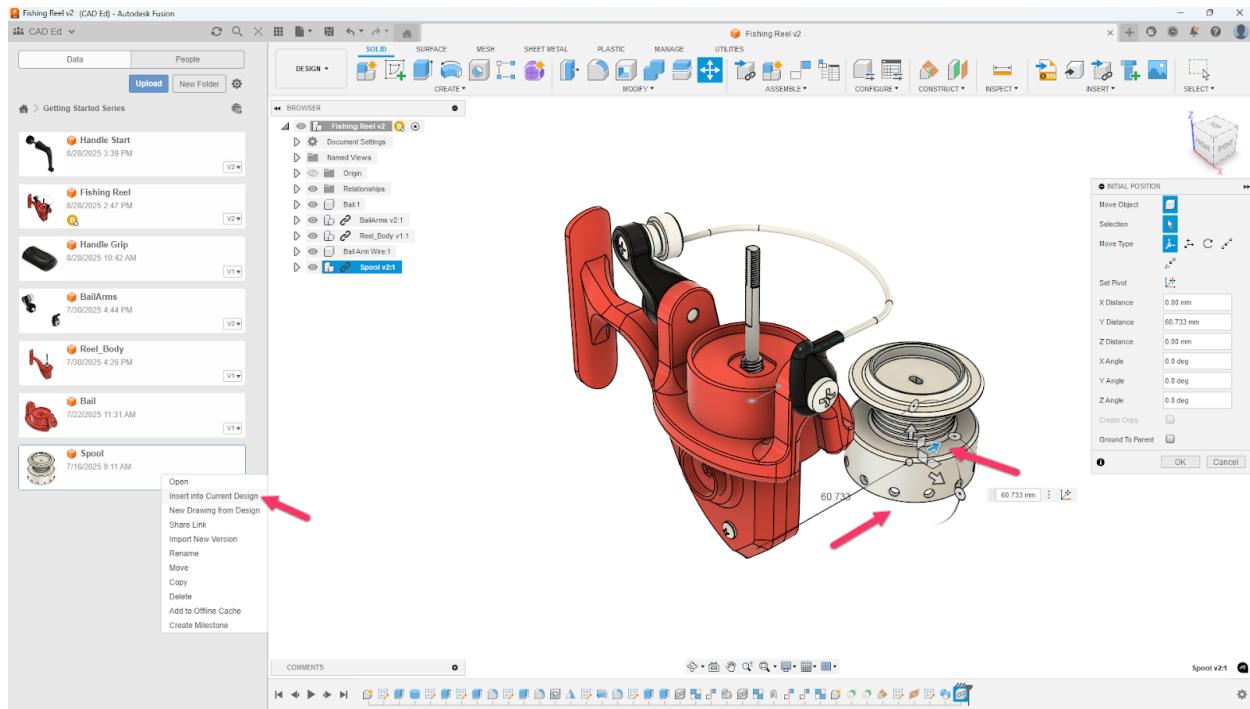


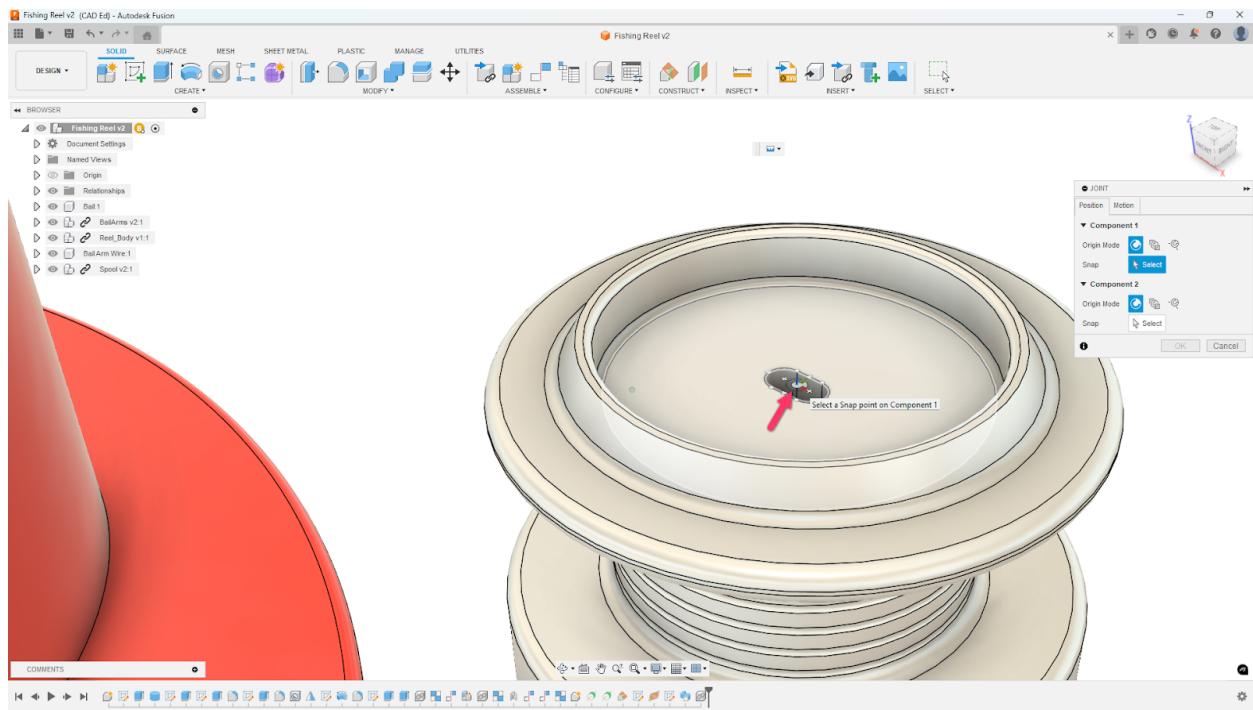
# Autodesk Fusion Getting Started tutorial series

## Video 11 - Assembly



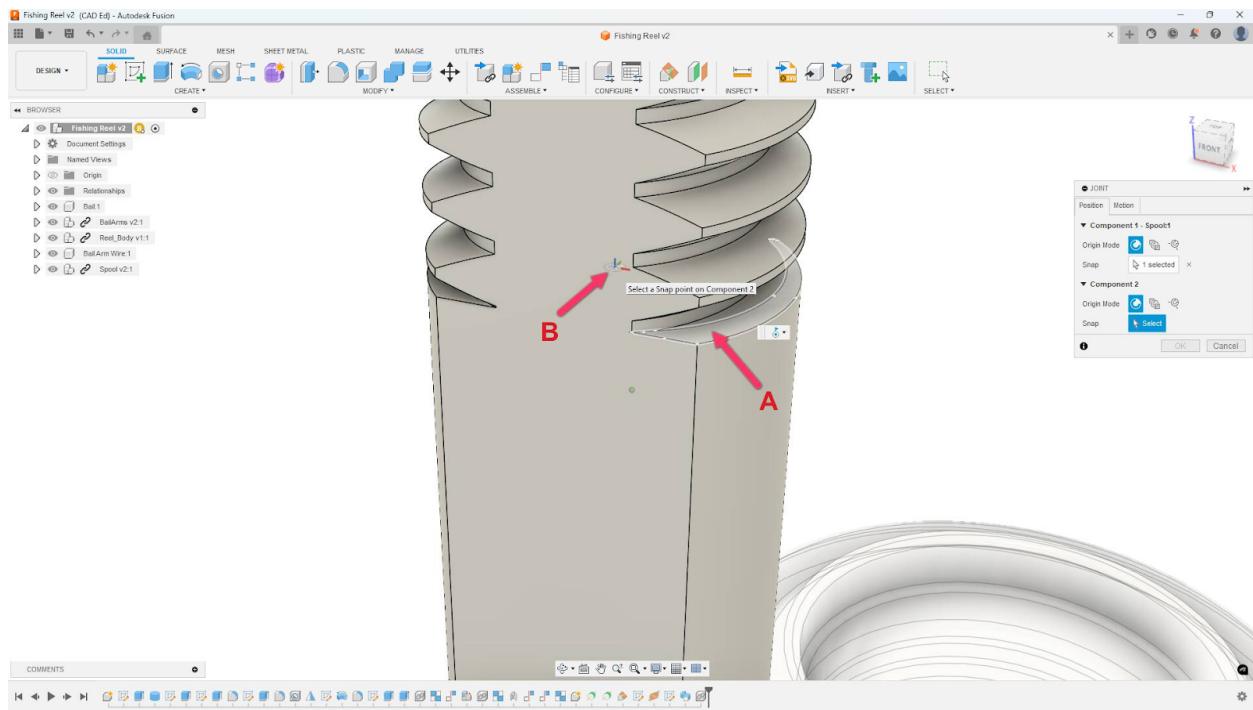
### Exhibit 1

In this exhibit, we have right-clicked on the Spool in the Data Panel and selected Insert Into Current Design. The Spool will appear at the bottom of the Fishing Reel, so drag one of the translation arrows to move the Spool off to the side and press OK.



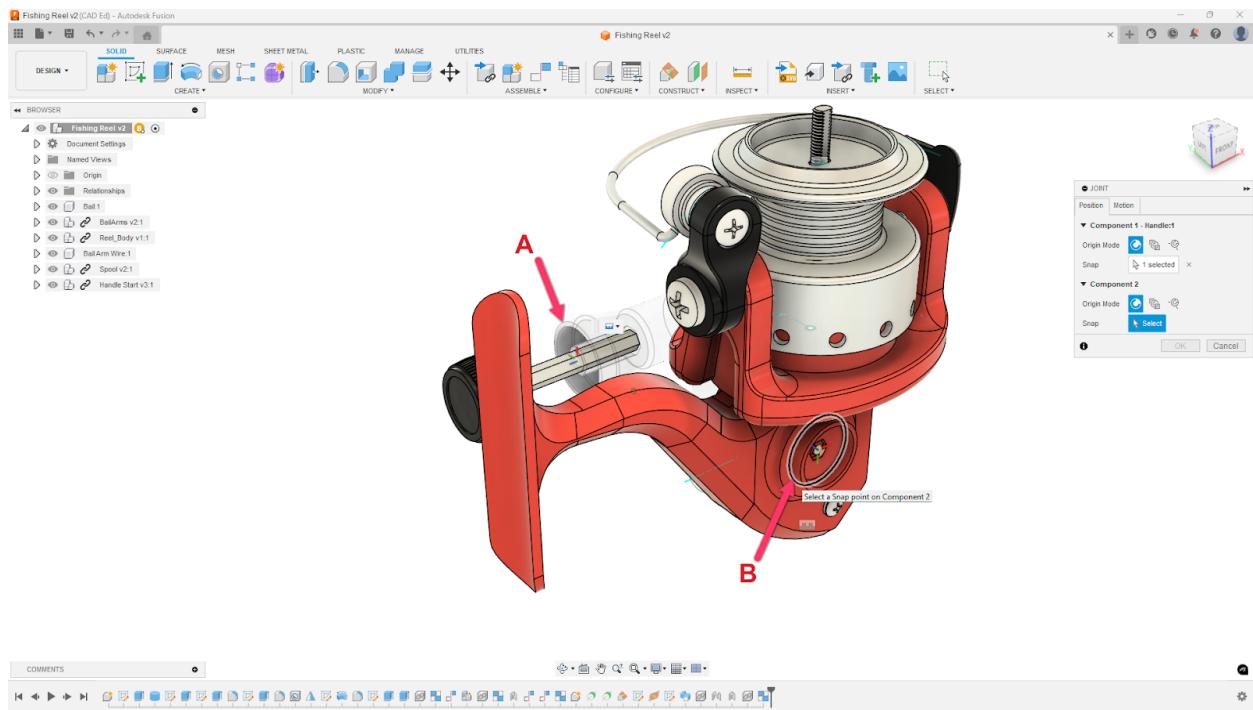
## Exhibit 2

In this exhibit, we have started the Joint command and have zoomed up on the top of the Spool and holding down the CTRL key, hover over the center of the slot and click to select the centerpoint of the slot.



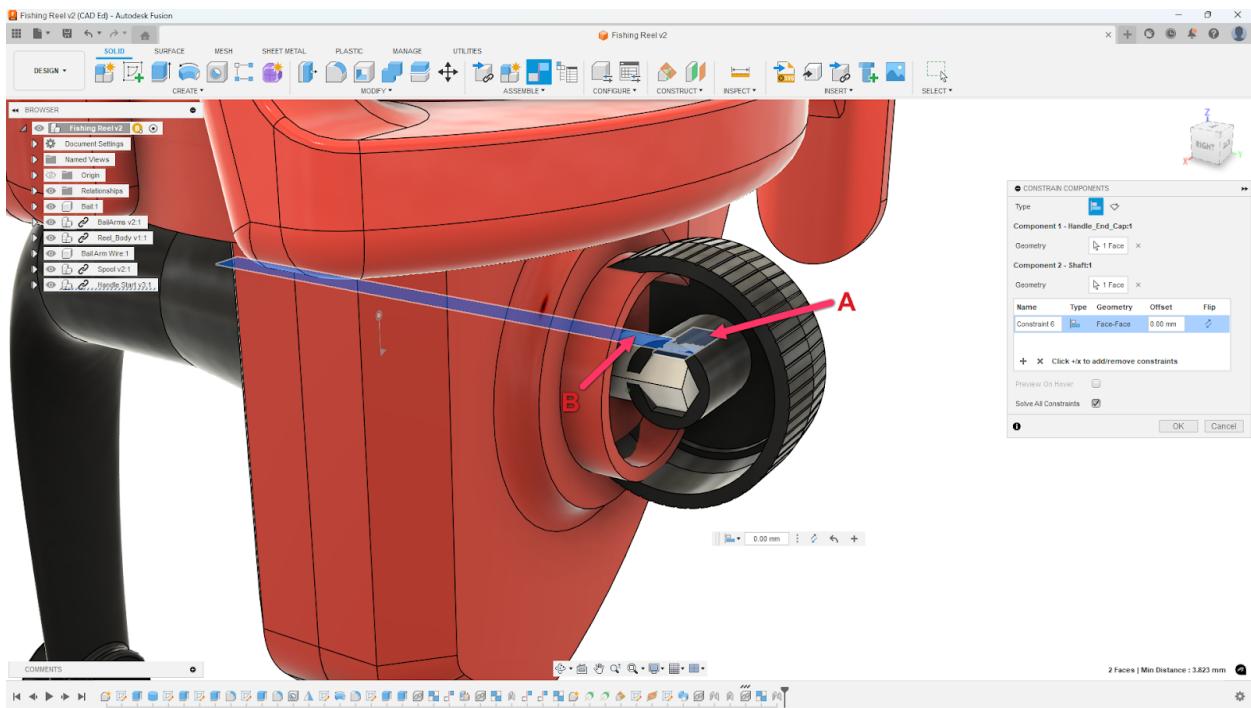
### Exhibit 3

In this exhibit, we are still in the Joint command, but now selecting the second location. Hover over the flat face of the shaft (A), hold down the CTRL key and click on point B. Make sure the Motion Type is set to Rigid, then press OK.



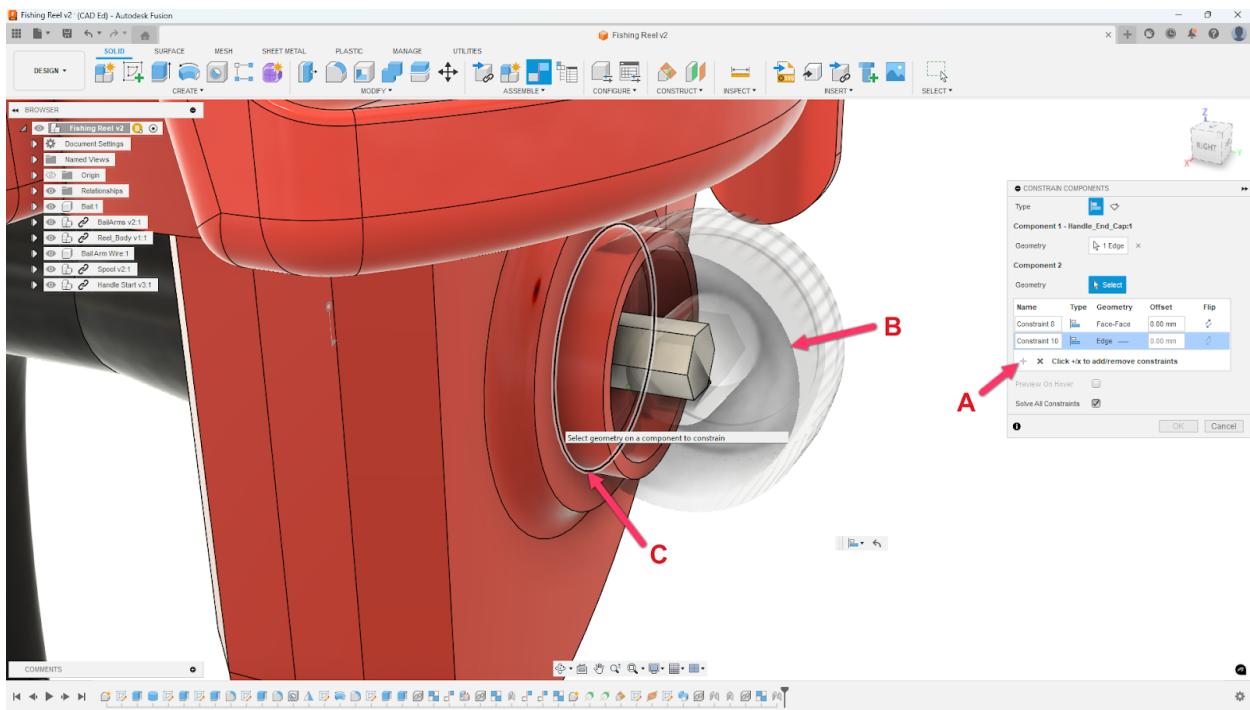
#### Exhibit 4

In this exhibit, we are creating a Joint using the shortcut J key. Select on edge (A) of the handle, then on edge B of the reel. You may need to Flip the Alignment. Set the Motion Type to Revolute and press OK.



## Exhibit 5

In this exhibit, we are using the Constrain Components command from the Assemble Menu. Select the inside top flat face of the hex hole in the end cap (A) and then the top face of the hex shaft (B) and the two planes will become planar with each other.



## Exhibit 6

In this exhibit, we have added another constraint by pressing the + symbol (A) in the Constrain Components Dialog. Then, select edge B on the end cap and edge C on the reel. This will create a revolute relationship between the end cap and the reel. Press OK.

The image shows two overlapping dialog boxes from a CAD application, both titled "INSERT FASTENER".

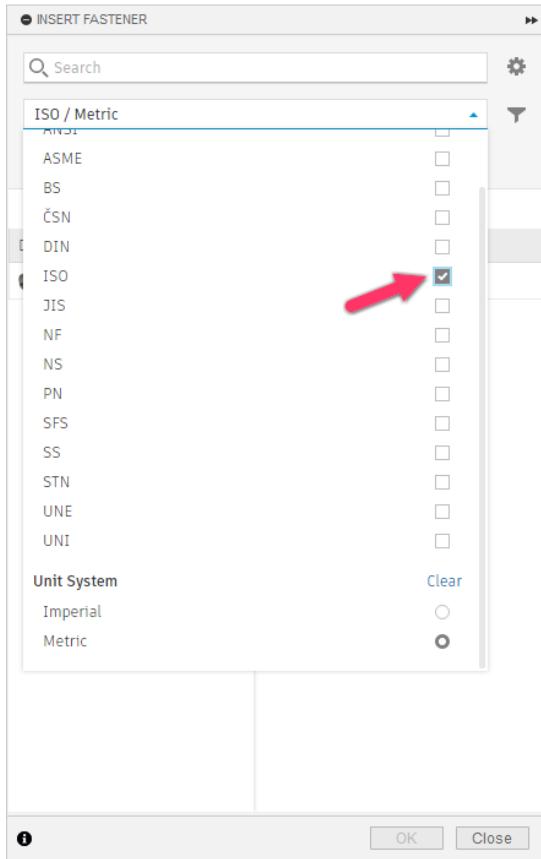
**Left Dialog Box:**

- Search bar: "All standards / Metric" (highlighted with a red arrow).
- Filter icon.
- List of standards:
  - ASME
  - BS
  - ČSN
  - DIN (selected, indicated by a blue square)
  - ISO
  - JIS
  - NF
  - NS
  - PN
  - SFS
  - SS
  - STN
  - UNE
  - UNI
- Unit System:
  - Imperial
  - Metric (selected, indicated by a blue circle)
- Clear button.
- OK and Close buttons at the bottom.

**Right Dialog Box:**

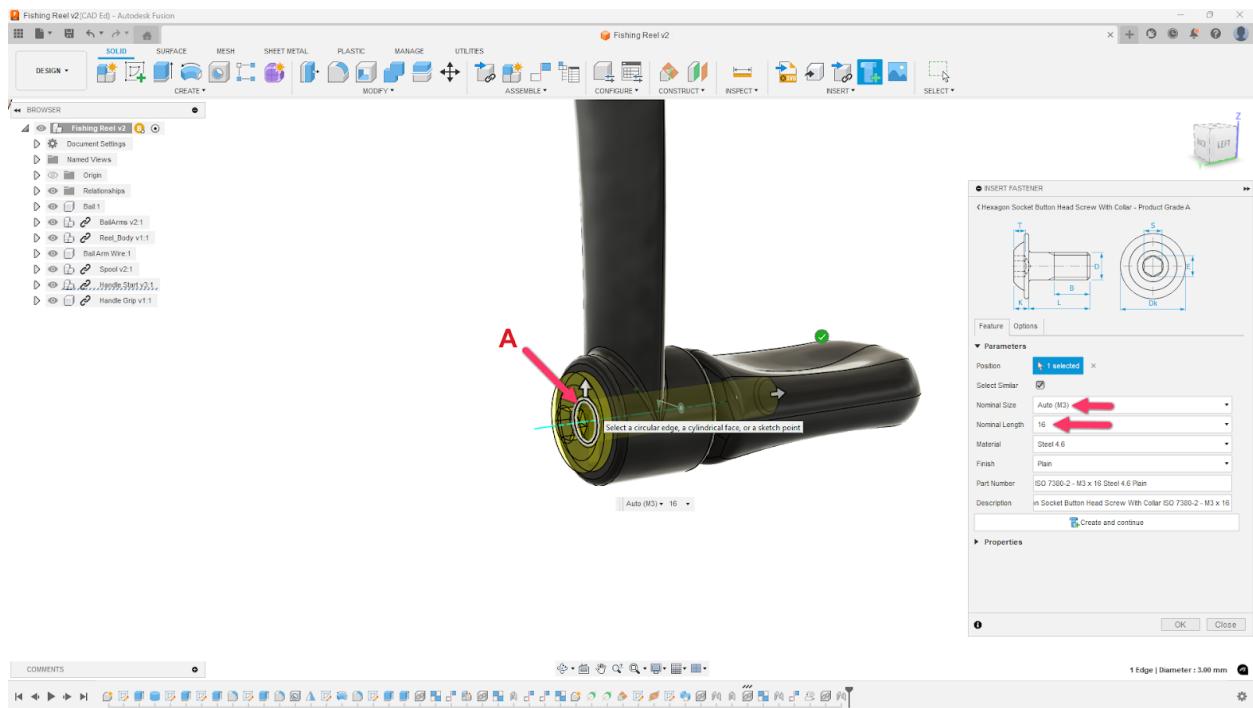
- Search bar: "All standards / Metric".
- Filter icon.
- Category: "Bolts And Screws".
- Sub-category: "Fasteners / Bolts And Screws".
- Table:

Description	Name
Hex Socket Button Head ...	Hex Socket Button Head ...
Hex Socket Button Head ...	ČSN EN ISO 7380-2:2023
Countersunk Head	
Eye	
Flanged Hex Head	
Hex Head	
Knurled	
Round Head	
Round Washer Head	(highlighted with a red arrow)
Set	
Socket Head	
Square Head	
Studs	
Wing/Thumb	
- OK and Close buttons at the bottom.



### Exhibit 7

In this exhibit, we are in the Insert Fastener Dialog. First, select the All Standards pull-down and select the Metric unit to filter for only metric fasteners. Second, Click on Bolts And Screws, then Round Washer Head. All of the metric Round Washer Head screws will display. We want to filter even more by selecting just the ISO standard. Then, select the ISO Hex Socket Button Head screw left in the dialog box.



## Exhibit 8

In this exhibit, we have selected the fastener and then hover over edge A on the Handle. The correct size fastener is automatically chosen for the size hole. Change the Nominal length from 12 to 16 and then press OK. Rotate the Handle to see that the fastener automatically created a rigid joint.