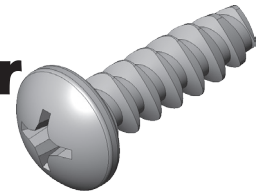


Screw from McMaster-Carr



A. McMaster-Carr website.

Step 1. Go to McMaster-Carr webpage 316 Stainless Steel Phillips Rounded Head Thread-Forming Screws for Plastic.

Step 2. Click part number **99461A284**
No. 4 3/8"
 click **Product Detail**, Fig. 1.

Step 3. Scroll down and set file type to **3-D SOLIDWORKS**
 click **Save**, Fig. 2.

McMASTER-CARR.

Super-Corrosion-Resistant 316 Stainless Steel Phillips Rounded Head Thread-Forming Screws for Plastic

More corrosion resistant than 18-8 stainless steel screws, these have excellent resistance to chemicals and salt water and may be mildly magnetic. Also known as Plastite screws, they have a triangular shank that presses tightly against formable plastic such as polypropylene to resist loosening. Length is measured from under the head.

For technical drawings and 3-D models, click on a part number.

Lg.	Head Dia.	HT	Drive Size	Drill Bit Size	Approximate Threads per Inch	Pkg. Qty.	Pkg.
316 Stainless Steel							
No. 2							
3/16"	0.167"	0.062"	No. 1	No. 48	28	25	99461A171 \$10.63
1/4"	0.167"	0.062"	No. 1	No. 48	28	25	99461A173 10.63
3/8"	0.167"	0.062"	No. 1	No. 48	28	25	99461A175 10.63
1/2"	0.167"	0.062"	No. 1	No. 48	28	25	99461A177 10.63
No. 4							
1/4"	0.219"	0.08"	No. 1	No. 44	20	25	99461A282 9.38
3/8"	0.219"	0.08"	No. 1	No. 44	20	25	99461A284 9.38
No. 6							
No. 8							
No. 10							
1/2"	0.322"	0.115"	No. 2	No. 29	16	25	99461A409 11.00
3/4"	0.322"	0.115"	No. 2	No. 29	16	25	99461A412 11.00
1"	0.322"	0.115"	No. 2	No. 29	16	25	99461A416 11.00
No. 12							
1/2"	0.373"	0.133"	No. 2	No. 21	14	10	99461A573 8.75
3/4"	0.373"	0.133"	No. 2	No. 21	14	10	99461A576 8.75
1"	0.373"	0.133"	No. 2	No. 21	14	10	99461A579 8.75

Fig. 1

McMASTER-CARR. thread rolling screws

Phillips Rounded Head Thread-Forming Screws
 for Plastic, Corrosion-Resistant 316 Stainless Steel, Number 4 Size, 3/8" Long

Material: 316
 Screw Size: N
 Screw Size Decimal: 0
 Equivalent: 0
 Length: 3/8"
 Head: 2
 Diameter: 0
 Height: 0
 Drive Size: N

RoHS: RoHS 3 (2015/863/EU) Compliant
 REACH: REACH (EC 1907/2006) (06/25/2020, 209 SVHC) Compliant
 DFARS: Not Specialty Metals Compliant
 Country of Origin: United States

More corrosion resistant than 18-8 stainless steel screws, these have excellent resistance to chemicals and salt water and may be mildly magnetic. Also known as Plastite screws, they have a triangular shank that presses tightly against formable plastic such as polypropylene to resist loosening. Length is measured from under the head.

3-D Solidworks
 SAVE
 Print

Fig. 2

B. Copy Screw File.

Step 1. Use File Explorer (**Windows-E**) to copy the screw file from your Downloads folder to your **No Touch Tool** folder, Fig. 3.

C:\Tech Ed 20-21\No Touch Tool

File Home Share View

Pin to Quick access Copy Paste Organize New Open Select

<> << Tech Ed 20-21 >> No Touch Tool Search No Touch Tool

Tech Ed 17-18
 Tech Ed 18-19
 Tech Ed 19-20
 Tech Ed 20-21
 Delta Dart
 Hoverboard
No Touch Tool
 Rings and Things
 Whale
 Tutorials

99461A284_THRE AD-FORMING SCREW FOR PLASTIC.SLDPRT
 BOTTOM.SLDPRT
 HOOK.SLDPRT
 MULTIBODY.SLD PRT
 NO TOUCH TOOL ASSEMBLY.SLDA SM
 TOP.SLDPRT

Fig. 3

C. Insert Screw into Assembly.

Step 1. Open your No Touch Tool Assembly.

Step 2. Click **Insert Components**  on the Assembly toolbar.

Step 3. Select **Screw** file and click Open.

Step 4. Place Screw as positioned in **Fig. 5**.

Step 5. Click OK  in the Property Manager when done.

Step 6. Hide all the sketches in Screw, **Fig. 5**. Click **Hide** and Hide or use View Menu . Hide/Show > Sketches.

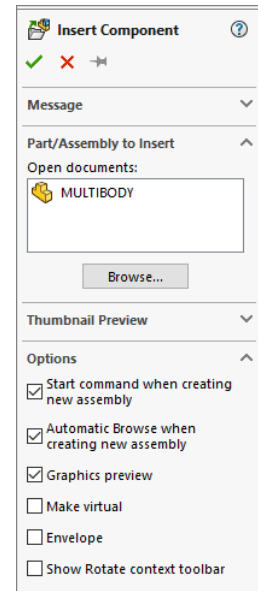


Fig. 4

D. Mate: Screw.

Step 1. Rotate view to view **inside screw boss hole** and Screw and zoom in, **Fig. 6**.

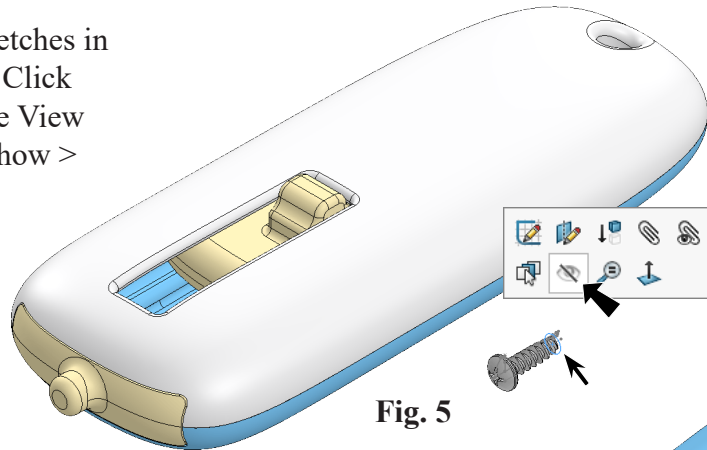



Fig. 5

Step 2. Click **Mate**  on the Assembly toolbar.

Step 3. Click **bottom face of Screw head** and **face of counterbore in screw boss**, **Fig. 7**.

Step 4. Click Add/Finish Mate  in Mate pop-up toolbar to add a **Coincident** mate.

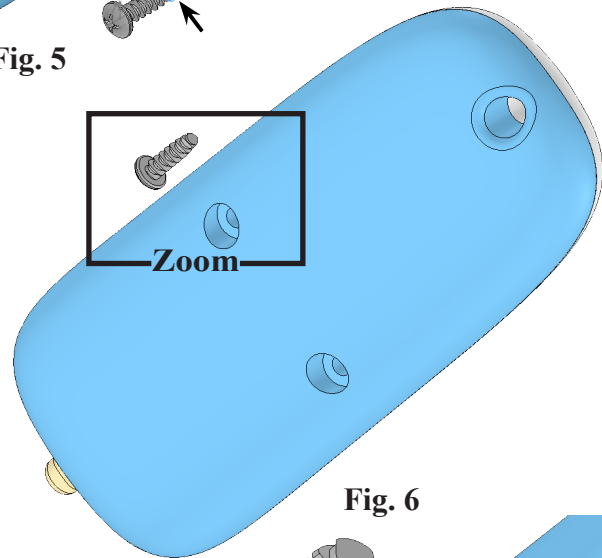


Fig. 6

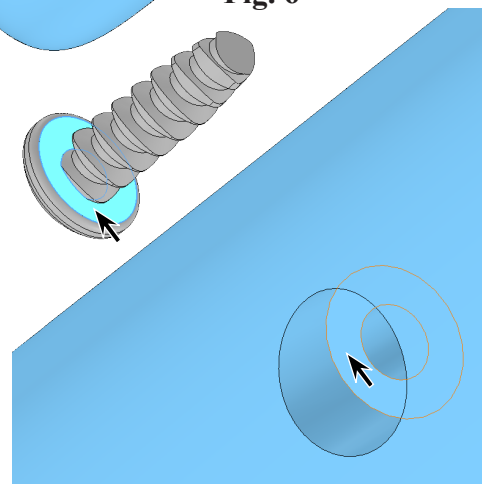


Fig. 7

Step 5. Click **cylindrical face of in Screw head and cylindrical face of screw boss, Fig. 8.**

Tip: Use X key to toggle **Filter Faces** section on and off.

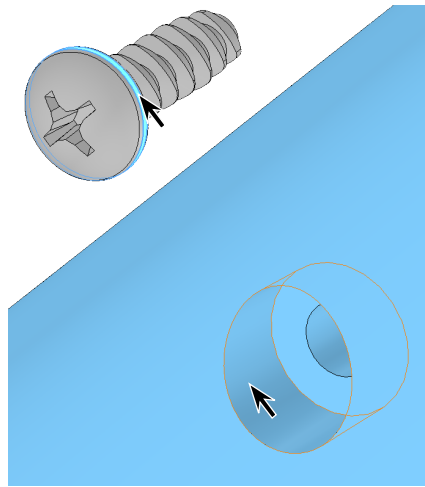


Fig. 8

Step 6. Click Add/Finish Mate to add **Concentric** mate.

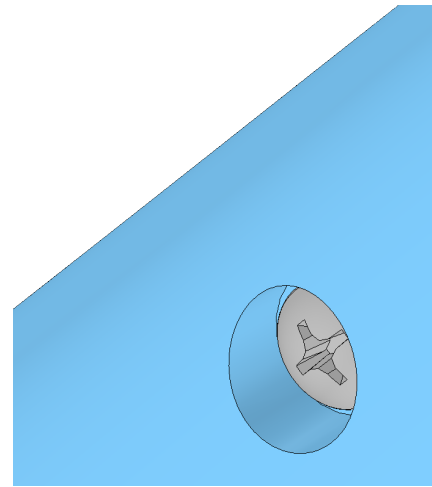


Fig. 9

Step 7. Click OK in the Property Manager.

Step 8. Save (Ctrl-S).

E. Mirror Screw.

Step 1. Click Zoom to Fit (F) on the View toolbar.

Step 2. **Ctrl click Right Plane** and **Screw** in the Feature Manager to select both, **Fig. 10.**

Step 3. Click Insert Menu > Mirror Components.

Step 4. Use Up Arrow key one time to rotate.

Step 5. In the Mirror Property Manager: click OK or Next to see preview, **Fig. 11.**

Step 6. Save (Ctrl-S).

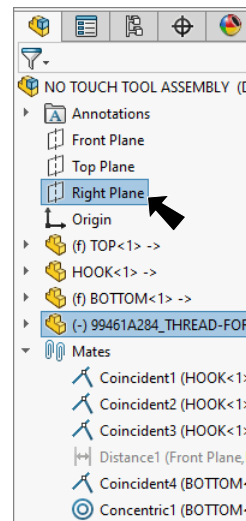


Fig. 10

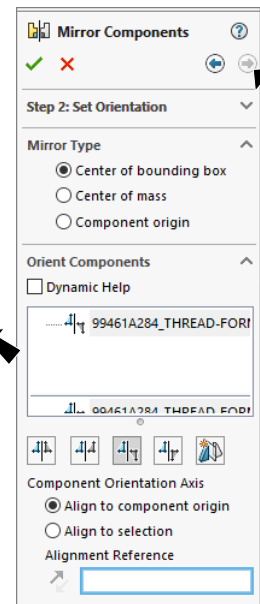


Fig. 11

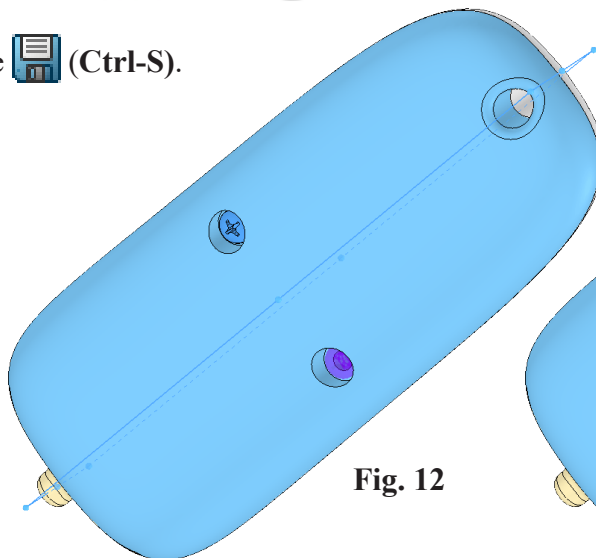


Fig. 12

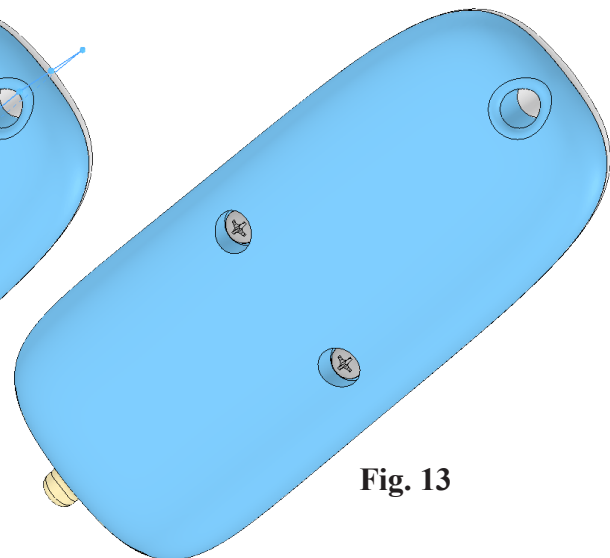


Fig. 13