

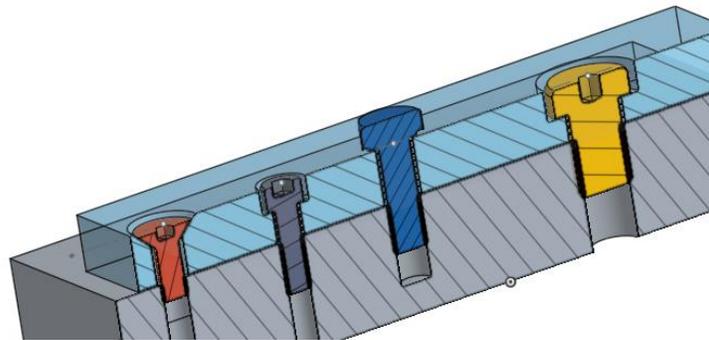
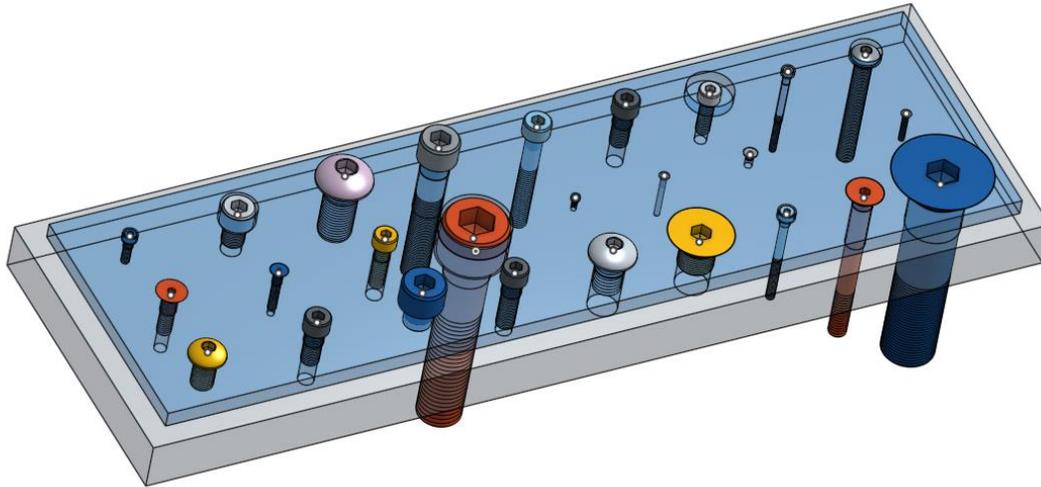


PARAMETRIC
PARTS

Cap Screw Module (BETA)

V3.1.1

The Cap screw module makes it easy to insert standard ANSI or ISO cap screws into your OnShape design:



Features

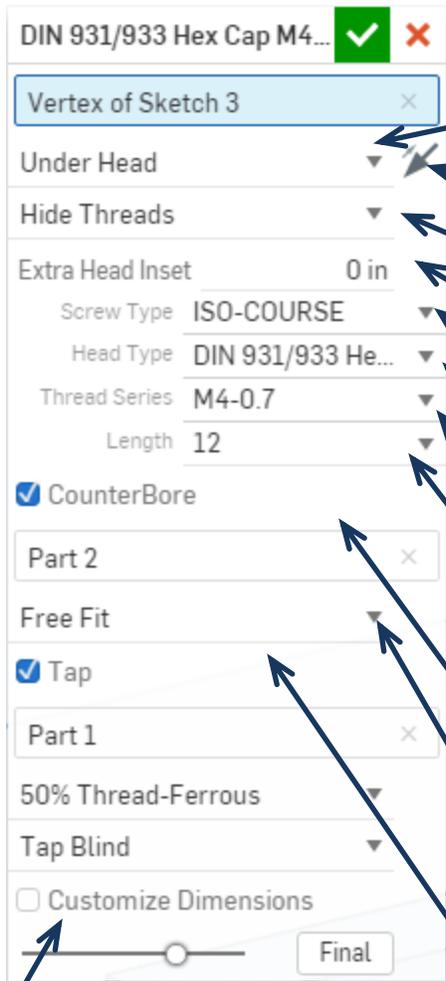
- ISO or ANSI, fine, course, and extra-fine series
- 5 head types:
 - Socket Button (ISO 7380)
 - Socket cap (DIN 912)
 - Socket flat (DIN 7991)
 - Low-profile socket cap (DIN 7984)
 - Hex cap (DIN 931/933)
- Automatically **counterbore** and **tap** joined parts
- Customizable head inset

- Choose close/free fit drills, 50% and 75% thread
- Select from common sizes and lengths
- All dimensions are customizable
- Optional cosmetic threads

Basic Usage



Screws will be placed at each selected vertex



Does the reference plane define the top of the head or the underside?

Switch direction the screw goes.

Cosmetic or No threads

Extra head inset

ANSI or ISO thread series?

Head Type: Socket Cap, Button, or Flat

Thread pitch

Length. Only standard, lengths are shown, unless customized dimensions are selected

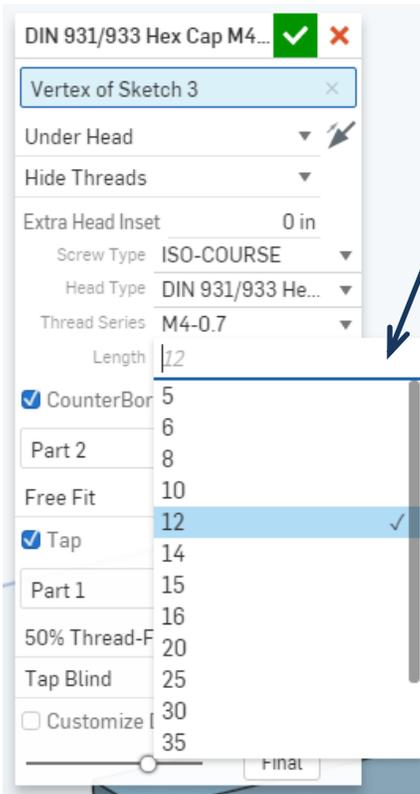
Counterbore. Any selected entities are counterbored for the screw.

Free/Close fit for counterbore. Based on standard clearance tables

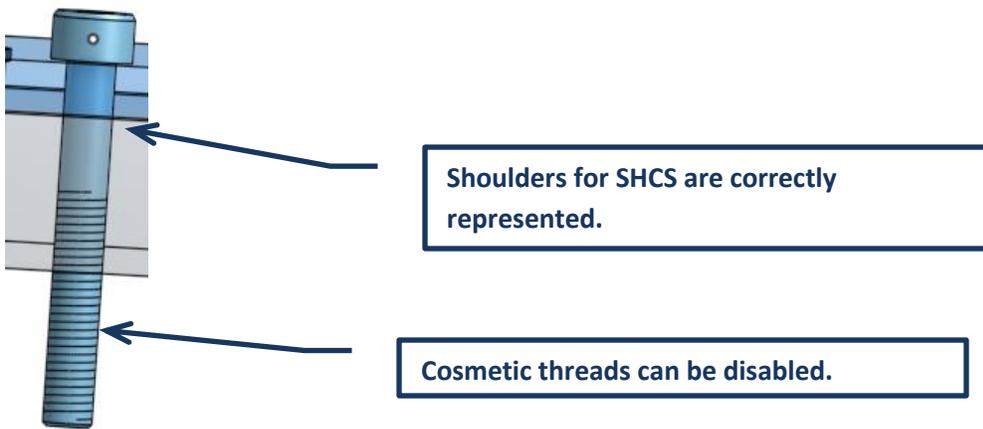
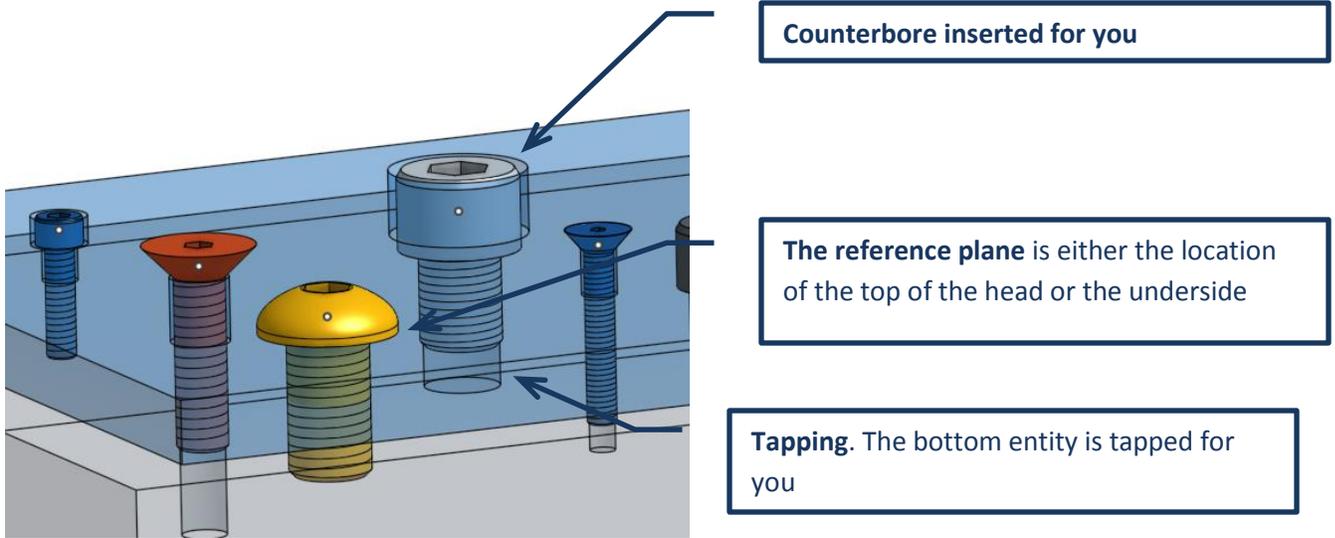
Tap any selected entities

Choose this to customize any dimensions

NOTE: When tapping or counterbore options are selected, the entities are automatically modified based on where they intersect the created screw(s). If the entities do not intersect, no counterbore/tap will be performed.

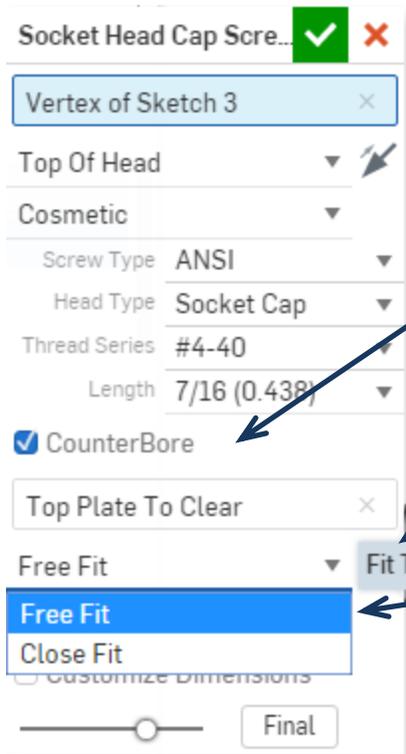


Standard Lengths are based on the choices of screw type and thread series



CounterBoring

The module can automatically counterbore entities you select to clear the inserted screws.



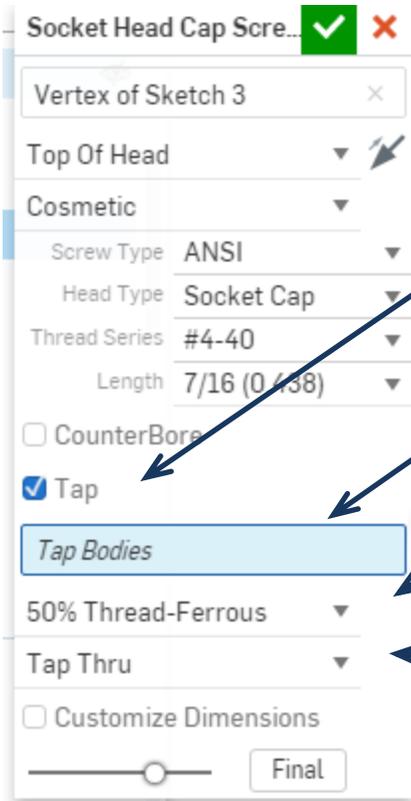
CounterBore. Click to enable counterboring

CounterBore Entities. You can select multiple. If they do not intersect the screw, nothing happens.

Free/Close Fit.

Tapping

The module can automatically tap entities you select to accept the inserted screws.



Tap. Click to enable tapping

Choose bodies to tap. Only the areas that intersect the screw threads are tapped.

Choose thread type. 50% or 75% threads

Choose tap depth. Standard depth is 5 thread pitches for blind, or through the selected object if Thru is chosen

Customizing Dimensions

After selecting options, you can optionally customize any of the values.

Re-selecting the standard options will reset the values you have customized.

Socket Head Cap Scre... ✓ ✕

Vertex of Sketch 3 ✕

Top Of Head ▾ ↗

Cosmetic ▾

Screw Type ANSI ▾

Head Type Socket Cap ▾

Thread Series #4-40 ▾

Length 7/16 (0.438) ▾

CounterBore

Tap

Customize Dimensions

Head Diameter 0.183 in

Head Height 0.11 in

Side Height 1 in

Wrench Width 0.094 in

Wrench Depth 0.051 in

Screw Diam 0.112 in

Screw Length 0.438 in

Thread Length 0.438 in

Thread Pitch 0.025

Head Cbore 0.219 in

Body Cbore 0.136 in

Tap Diam 0.096 in

Final

Changing these will re-set the bottom section to the defaults

Override Any Values you want. Standard depth is 5 thread pitches for blind, or through the selected object if Thru is

Using Onshape Featurescript

Featurescript is a way to extend Onshape with powerful, easy to use new features. You can learn more about it at <https://www.onshape.com/featurescript>

Support

For support, please email dev@parametricparts.com or visit <http://store.parametricparts.com/contact.html>

Warranty

No warranty is provided, explicit or implied.