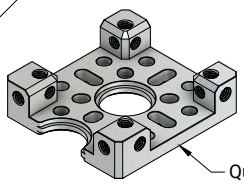
Assembly Instructions for

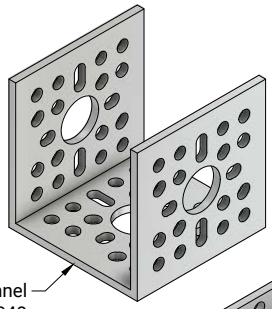
4 Stage Viper-Slide Kit (Belt-Driven, 336mm Slides)

SKU: 3210-0003-0004

Kit Contents:

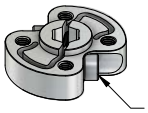


Quad Block Mount
SKU: 1201-0043-0005
QTY: 1

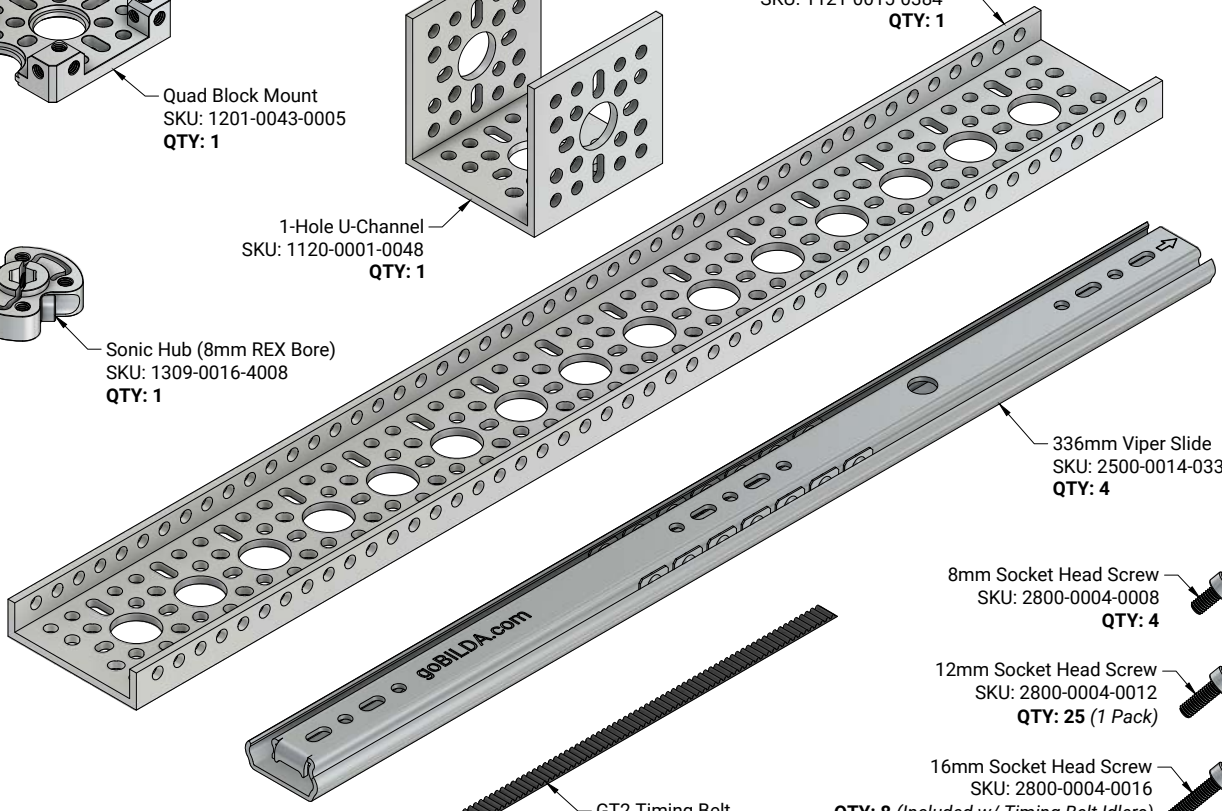


1-Hole U-Channel
SKU: 1120-0001-0048
QTY: 1

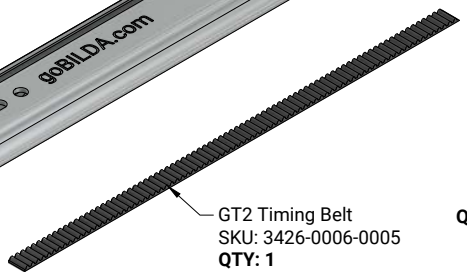
15-Hole Low-Side U-Channel
SKU: 1121-0015-0384
QTY: 1



Sonic Hub (8mm REX Bore)
SKU: 1309-0016-4008
QTY: 1



336mm Viper Slide
SKU: 2500-0014-0336
QTY: 4



GT2 Timing Belt
SKU: 3426-0006-0005
QTY: 1

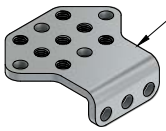
Belt Clamp (w/ Hardware)
SKU: 3409-0004-0001
QTY: 2 *(1 Pack)*

60 Tooth GT2 Timing Belt Pulley
SKU: 3421-0014-0060
QTY: 1

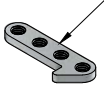
6mm ID Bearing
SKU: 1611-0514-0006
QTY: 2 *(1 Pack)*

90° Angle Bracket
SKU: 1216-0001-0001
QTY: 1

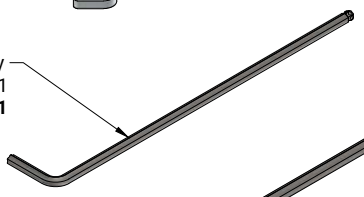
Timing Belt Idler (w/ Hardware)
SKU: 3427-0002-0001
QTY: 8 *(2 Packs)*



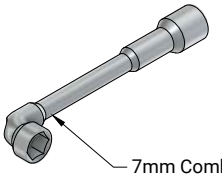
Pulley Bracket (w/ Hardware)
SKU: 2501-0001-0002
QTY: 8 *(2 Packs)*



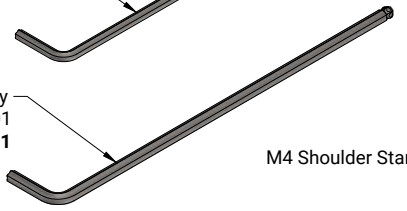
End-Stop Plate (w/ Hardware)
SKU: 2501-0001-0001
QTY: 12 *(2 Packs)*



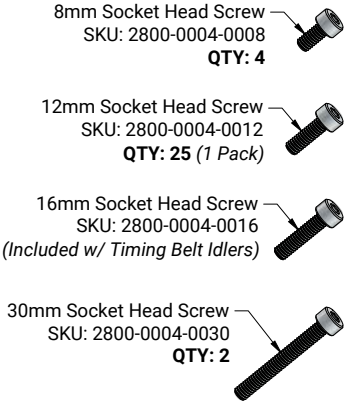
2.5mm Ball End Hex-Plus L-Key
SKU: 5027103001
QTY: 1



7mm Combination Nut Driver
SKU: 4206-0070-0001
QTY: 1



3mm Ball End Hex-Plus L-Key
SKU: 5027104001
QTY: 1

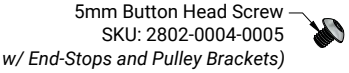


8mm Socket Head Screw
SKU: 2800-0004-0008
QTY: 4

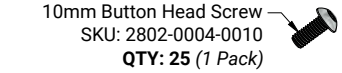
12mm Socket Head Screw
SKU: 2800-0004-0012
QTY: 25 *(1 Pack)*

16mm Socket Head Screw
SKU: 2800-0004-0016
QTY: 8 *(Included w/ Timing Belt Idlers)*

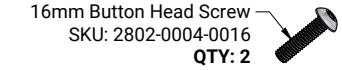
30mm Socket Head Screw
SKU: 2800-0004-0030
QTY: 2



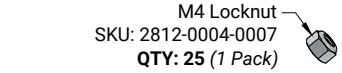
5mm Button Head Screw
SKU: 2802-0004-0005
QTY: 64 *(Included w/ End-Stops and Pulley Brackets)*



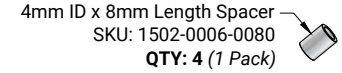
10mm Button Head Screw
SKU: 2802-0004-0010
QTY: 25 *(1 Pack)*



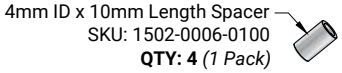
16mm Button Head Screw
SKU: 2802-0004-0016
QTY: 2



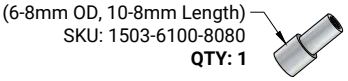
M4 Locknut
SKU: 2812-0004-0007
QTY: 25 *(1 Pack)*



4mm ID x 8mm Length Spacer
SKU: 1502-0006-0080
QTY: 4 *(1 Pack)*



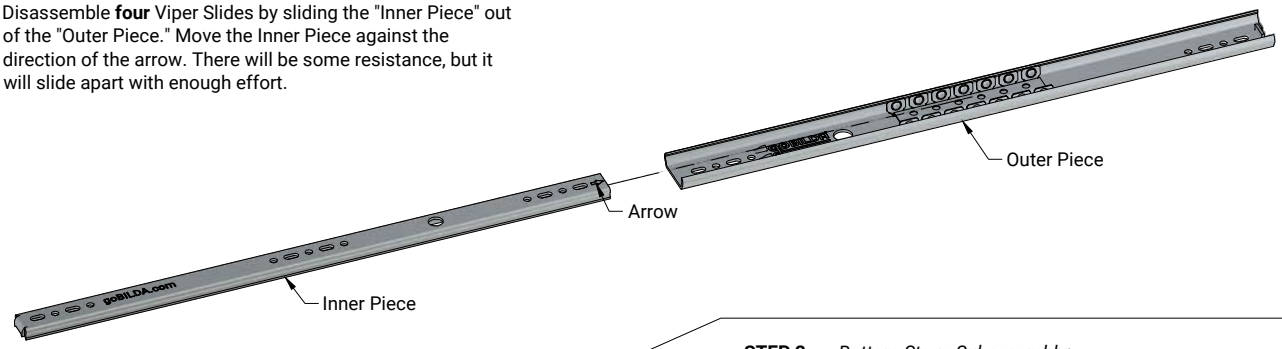
4mm ID x 10mm Length Spacer
SKU: 1502-0006-0100
QTY: 4 *(1 Pack)*



M4 Shoulder Standoff (6-8mm OD, 10-8mm Length)
SKU: 1503-6100-8080
QTY: 1

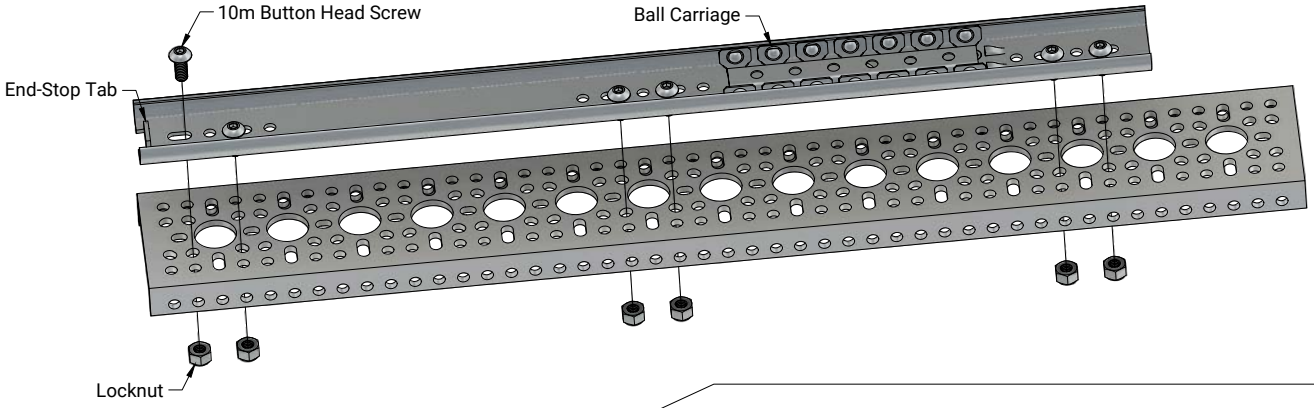
STEP 1:

Disassemble **four** Viper Slides by sliding the "Inner Piece" out of the "Outer Piece." Move the Inner Piece against the direction of the arrow. There will be some resistance, but it will slide apart with enough effort.



STEP 2 — *Bottom Stage Subassembly:*

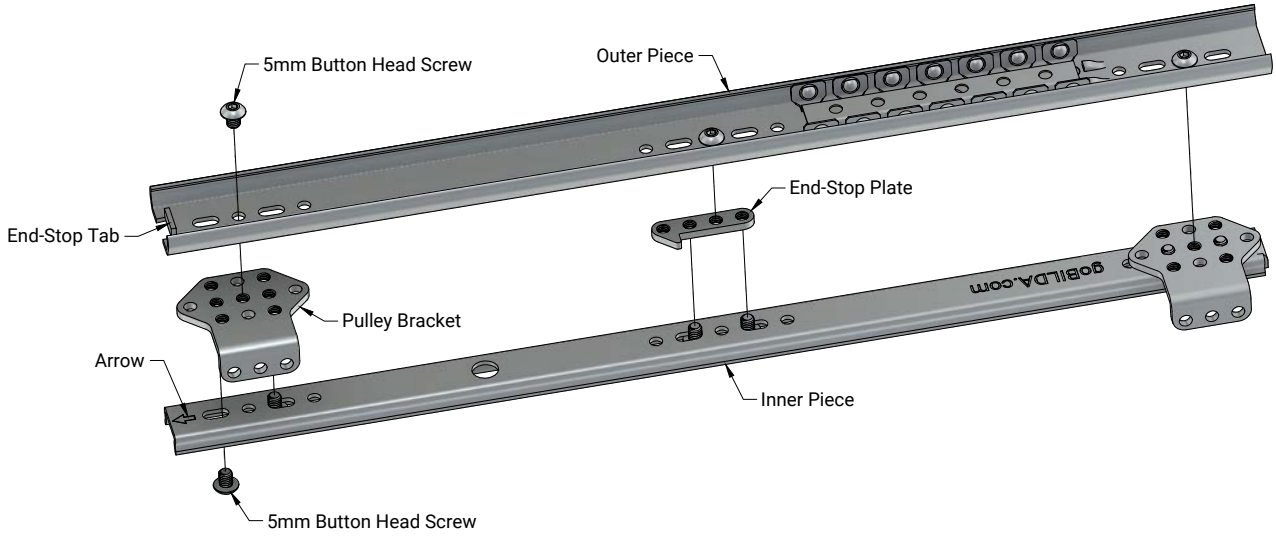
Fasten **one** Outer Piece to **one** 15-Hole Low-Side U-Channel with **six** 10mm Button Head Screws and **six** Locknuts. Slide the Ball Carriage to access the holes in the middle. Align the "End-Stop Tab" with the left-hand side of the Low-Side U-Channel as shown.



STEP 3 — *Middle Stage Subassembly:*

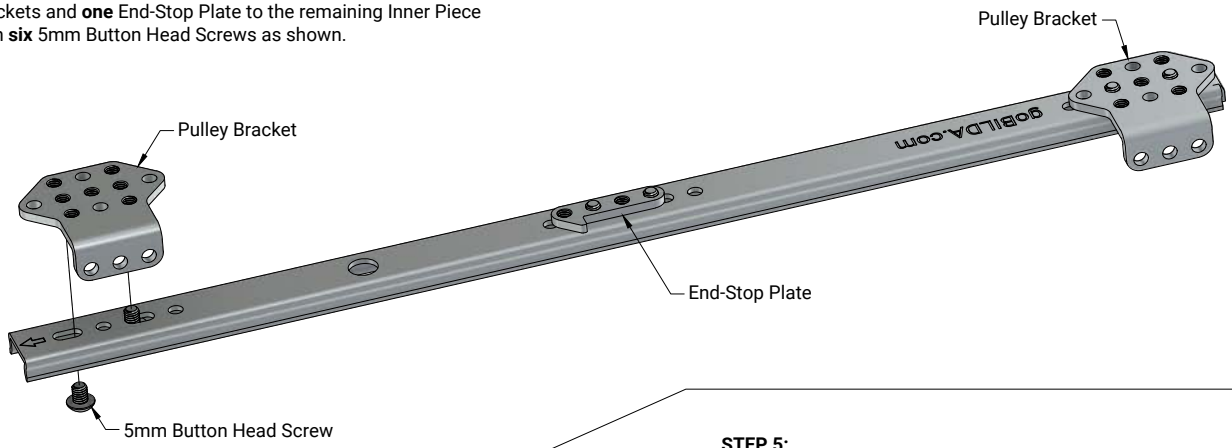
Build a new subassembly by using **nine** 5mm Button Head Screws to fasten **one** Outer Piece and **one** Inner Piece to **two** Pulley Brackets and **one** End-Stop Plate in the positions shown. Note that the End-Stop Tab on the Outer Piece should align with the Arrow on the Inner Piece as shown.

Repeat this step twice to build three identical Middle Stage Subassemblies.



STEP 4 — *Top Stage Subassembly:*

Build another new subassembly by attaching **two** Pulley Brackets and **one** End-Stop Plate to the remaining Inner Piece with **six** 5mm Button Head Screws as shown.



STEP 5:

Slide a Middle Stage Subassembly on to the Bottom Stage Subassembly. Note the positions of the End-Stop Tabs for this step. Continue sliding until this first stage assembly is fully extended (**FIGURE 5-A**). This action aligns the Ball Carriage with the working range of the slide.

Repeat this process for the remaining two Middle Stage Subassemblies.

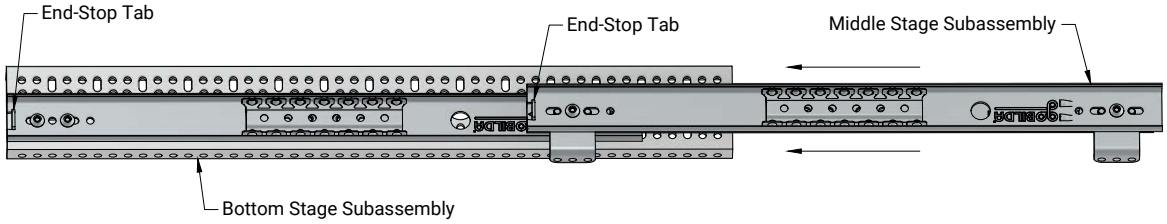
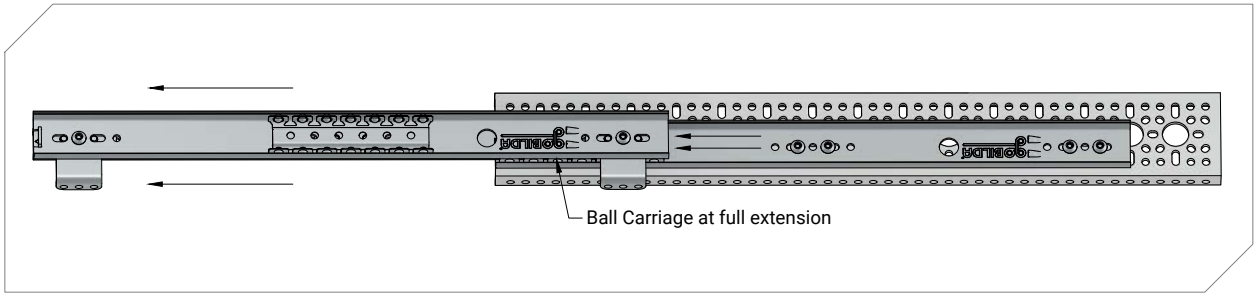
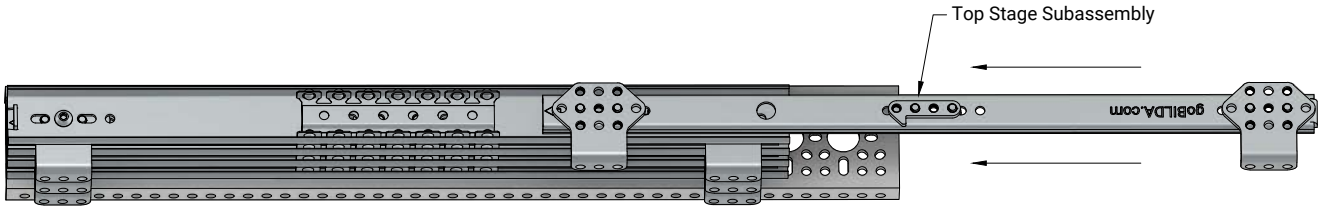


FIGURE 5-A



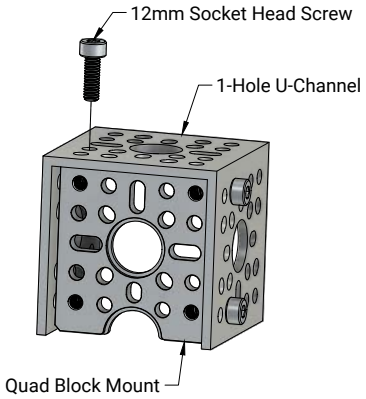
STEP 6:

Using the same procedure from **STEP 5**, add the Top Stage Subassembly to the Middle Stage Subassemblies.



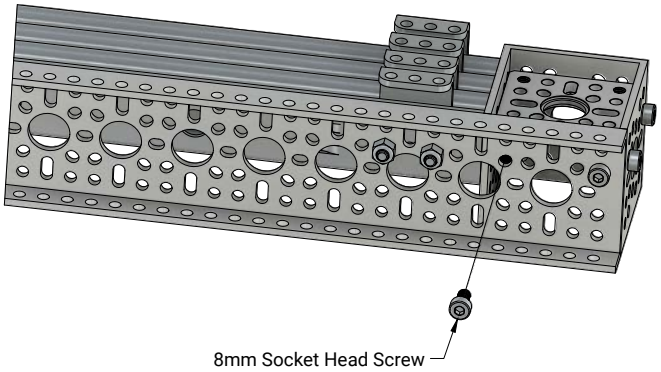
STEP 7:

Starting with **one** 1-Hole U-Channel, fasten **one** Quad Block Mount as shown with **three** 12mm Socket Head Screws.



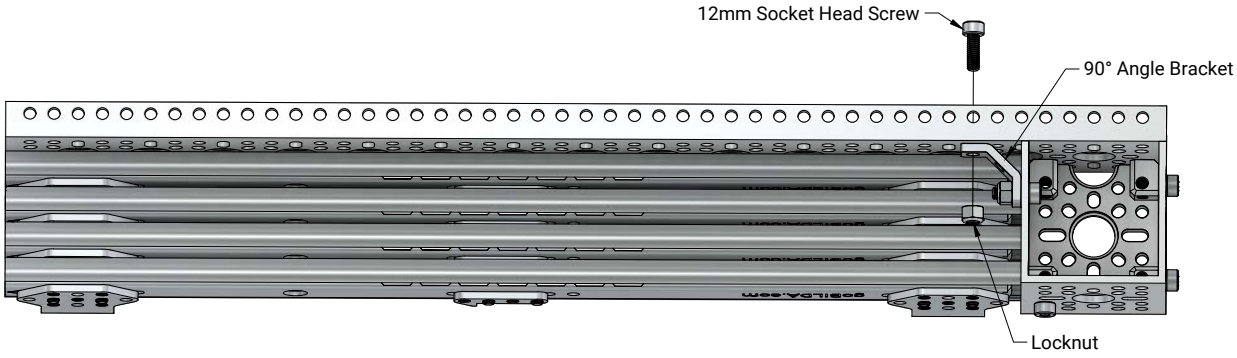
STEP 8:

Fasten the subassembly from **STEP 6** to the open face of the Quad Block Mount with **two** 8mm Socket Head Screws as shown.



STEP 9:

Fasten **one** 90° Angle Bracket between the 15-Hole Low-Side U-Channel and the 1-Hole U-Channel with **two** 12mm Socket Head Screws and **two** Locknuts as shown.



STEP 10:

Create two Idler Pulley Subassemblies (**FIGURE 10-A**) using **two** 30mm Socket Head Screws, **two** Timing Belt Idlers, and **two** 4mm ID x 8mm Spacers. Fasten these subassemblies to **two** Locknuts in the side of the 15-Hole Low-Side U-Channel in the positions shown.

Assemble one Tensioner Pulley Subassembly (**FIGURE 10-B**) with **one** M4 Shoulder Standoff, **two** 6mm ID Bearings, and **one** 8mm Socket Head Screw. Fasten this Tensioner Pulley Subassembly as shown with **one** 8mm Socket Head Screw.

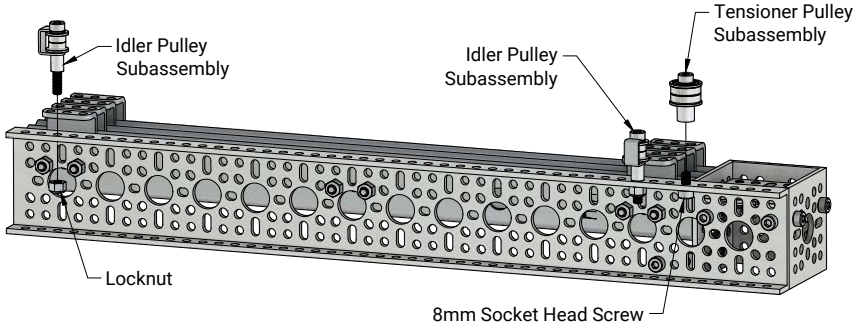


FIGURE 10-A

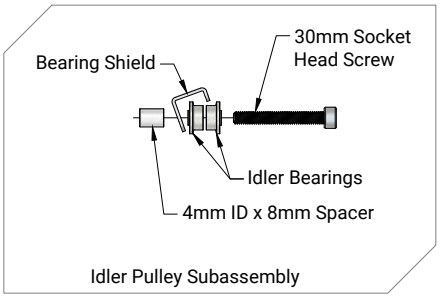
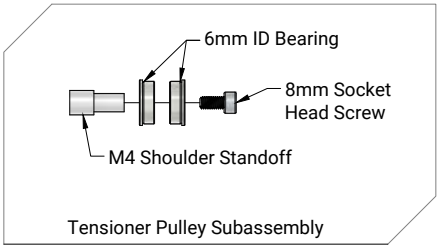


FIGURE 10-B



STEP 11:

Attach **two** End-Stop Plates to the top stage Pulley Brackets with **two** 5mm Button Head Screws, **two** 16mm Button Head Screws, and **two** 4mm ID x 10mm Spacers. Orient the End-Stop Plates to be in the "Active" configuration (**FIGURE 11-A**).

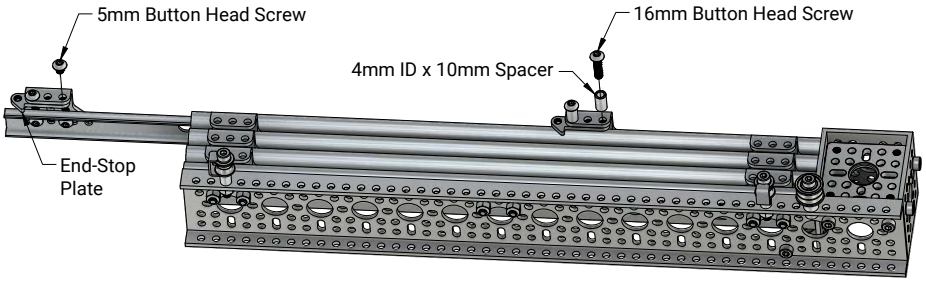
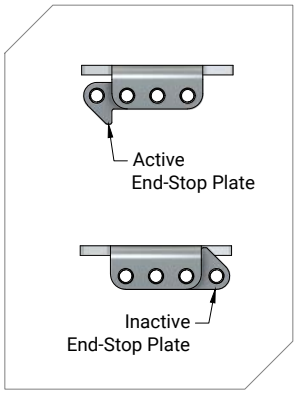


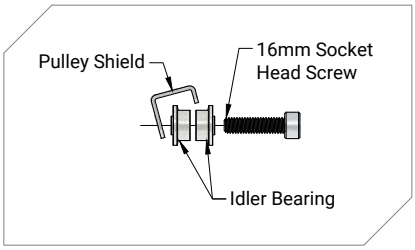
FIGURE 11-A



STEP 12:

Create six Idler Pulley Subassemblies using **six** 16mm Socket Head Screws and **six** Timing Belt Idlers (**FIGURE 12-A**). On the six remaining Pulley Brackets, fasten six Idler Pulley Subassemblies and **six** 5mm Button Head Screws into **four** Active End-Stop Plates and **two** Inactive End-Stop Plates as shown. **FIGURE 12-B** shows the correct orientation of all End-Stop Plate positions.

FIGURE 12-A



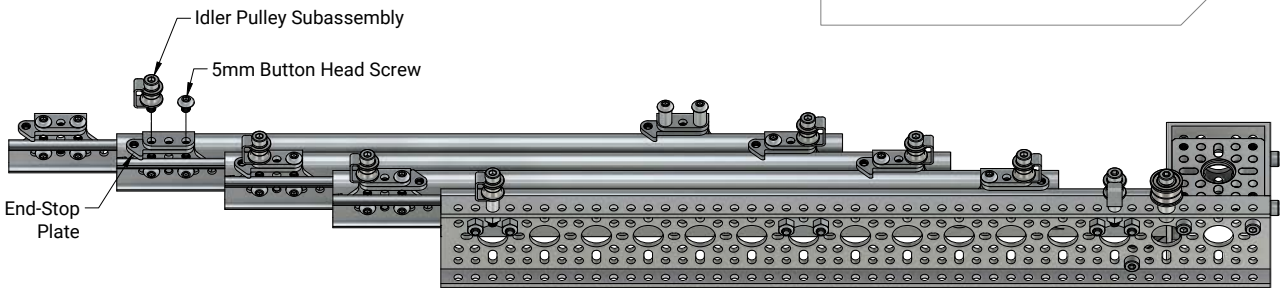
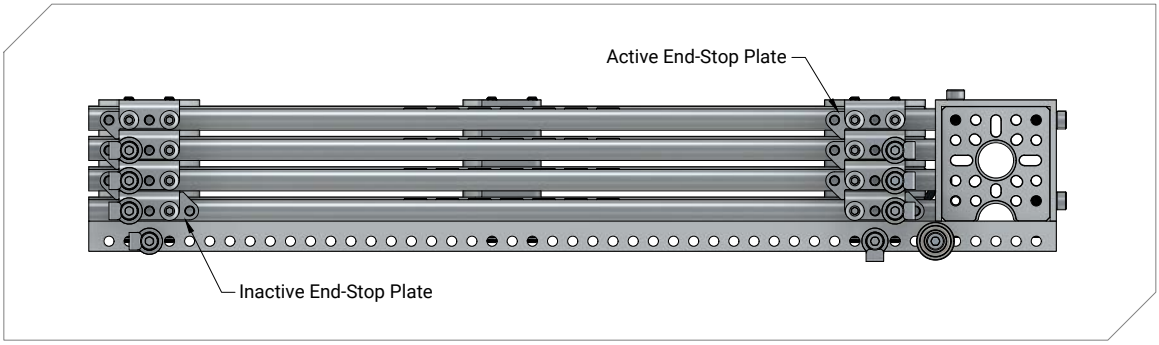
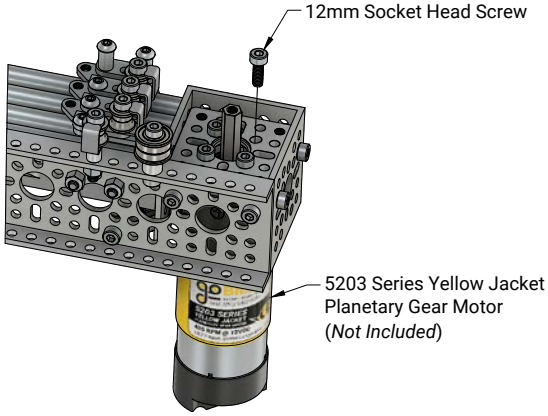


FIGURE 12-B



STEP 13:

Fasten **one** 5203 Series Yellow Jacket Planetary Gear Motor (*Not Included*) to the Quad Block Mount with **four** 12mm Socket Head Screws in the positions shown.



STEP 14:

Using **four** 12mm Socket Head Screws, fasten **one** 60 Tooth GT2 Timing Belt Pulley to **one** Sonic Hub. Slide the Sonic Hub on the output shaft of the 5203 Series Yellow Jacket Planetary Gear Motor (*Not Included*) and align the Timing Belt Pulley with the Timing Belt Idler and Bearing Tensioner (**FIGURE 14-A**). Tighten the Sonic Hub's Pinch Bolts completely.

Tech Tip: A credit card is approximately 1mm thick and can be helpful in spacing the Sonic Hub away from the U-Channel to achieve proper alignment.

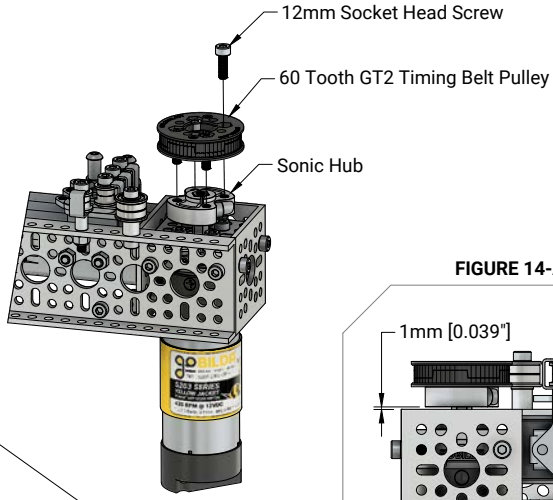
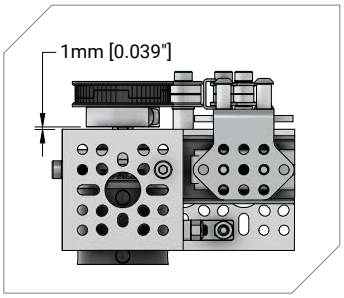


FIGURE 14-A



Congratulations!

Your 4-Stage Belt-Driven Viper Slide Kit is now assembled.
Watch this tutorial to learn how to rig your assembly.

https://bit.ly/3J6Fn2q