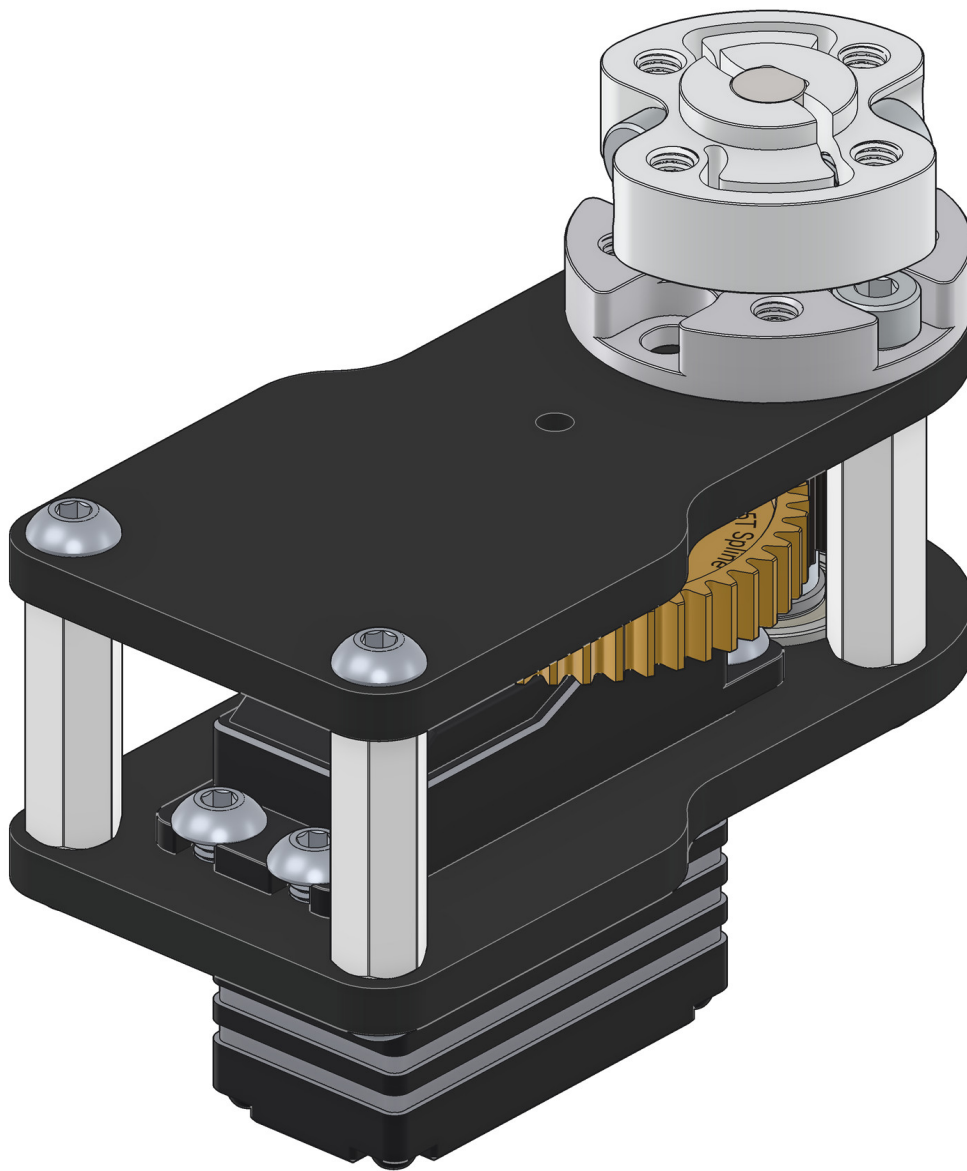




Assembly Instructions for
Axon MAX 1:3.2 Overdrive Kit
SKU: 3221-0016-0003



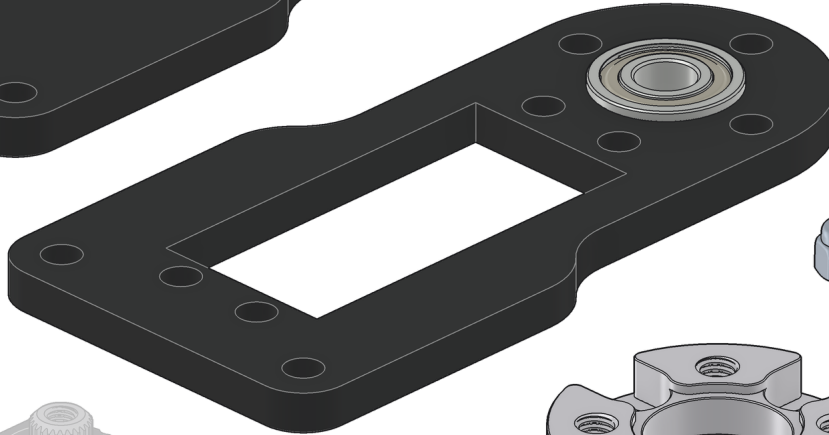
Kit Contents



Top Plate
QTY: 1 (w/ Bearing Installed)



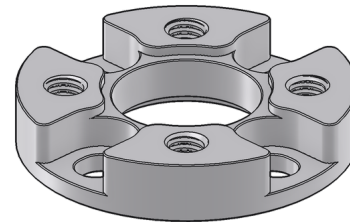
4mm Length, 6mm ID Spacer
SKU: 1521-0008-0040
QTY: 1



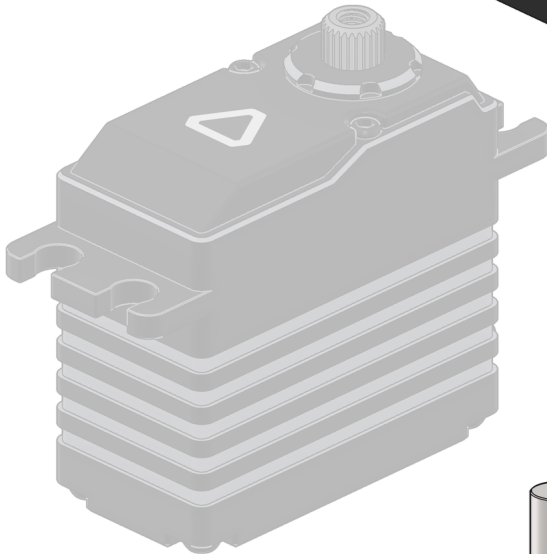
Servo Plate
QTY: 1 (w/ Bearing Installed)



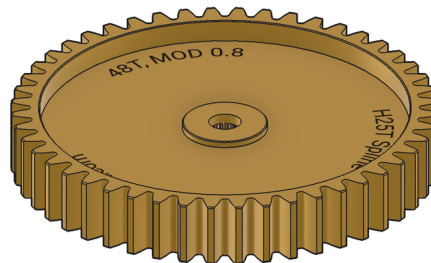
Locknut
SKU: 2812-0004-0007
QTY: 4



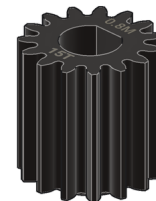
6mm Pattern Spacer
SKU: 1505-0032-0060
QTY: 1



Axon MAX Servo
SKU: 2004-0025-0002
NOT INCLUDED



48 Tooth Servo Gear
SKU: 2305-0025-0048
QTY: 1



15 Tooth Pinion Gear
SKU: 2303-1006-0015
QTY: 1



50mm Length, 6mm D-Shaft
SKU: 2101-0006-0050
QTY: 1



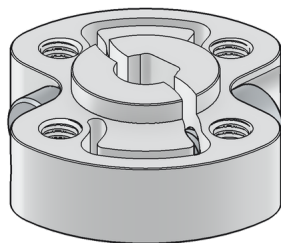
22mm Length, 8mm REX® Standoff
SKU: 1516-4008-0220
QTY: 5



12mm Button Head Screw
SKU: 2802-0004-0012
QTY: 11



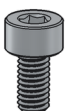
1mm Thick, 6mm ID Shim
SKU: 2807-0609-1000
QTY: 2



6mm D-Bore Sonic Hub
SKU: 1309-0016-1006
QTY: 1 (w/ Hardware)



12mm Socket Head Screw
SKU: 2800-0004-0012
QTY: 3

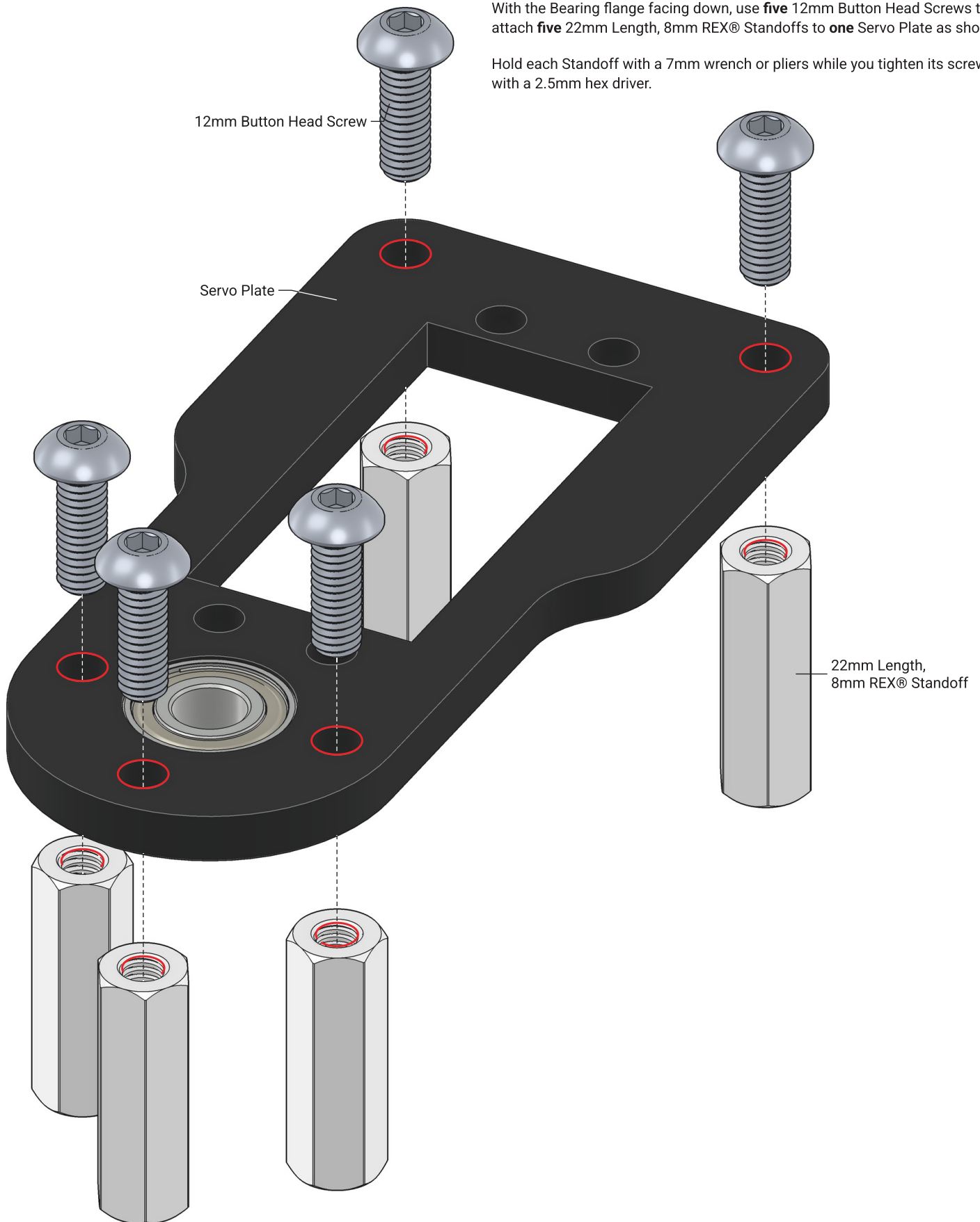


M3 x 6mm Socket Head Screw
SKU: 2800-0003-0006
QTY: 1

STEP 1:

With the Bearing flange facing down, use **five** 12mm Button Head Screws to attach **five** 22mm Length, 8mm REX® Standoffs to **one** Servo Plate as shown.

Hold each Standoff with a 7mm wrench or pliers while you tighten its screw with a 2.5mm hex driver.



STEP 2:

Turn the Servo Plate over. Tilt **one** Axon MAX Servo (not included) so its wire clears the plate and lower it into the Servo Plate at an angle; it will not drop straight in. Fasten it with **four** 12mm Button Head Screws from the top and **four** Locknuts on the underside (**FIGURE 2-A**).

Note the orientation of the Servo: its output spline sits toward the Bearing (**FIGURE 2-B**).

Before tightening, slide the Servo toward the Bearing until it is flush against the edge of the Servo Plate opening closest to the Bearing (**FIGURE 2-C**).

Hold each Locknut with a 7mm wrench or pliers while you tighten its screw with a 2.5mm hex driver.

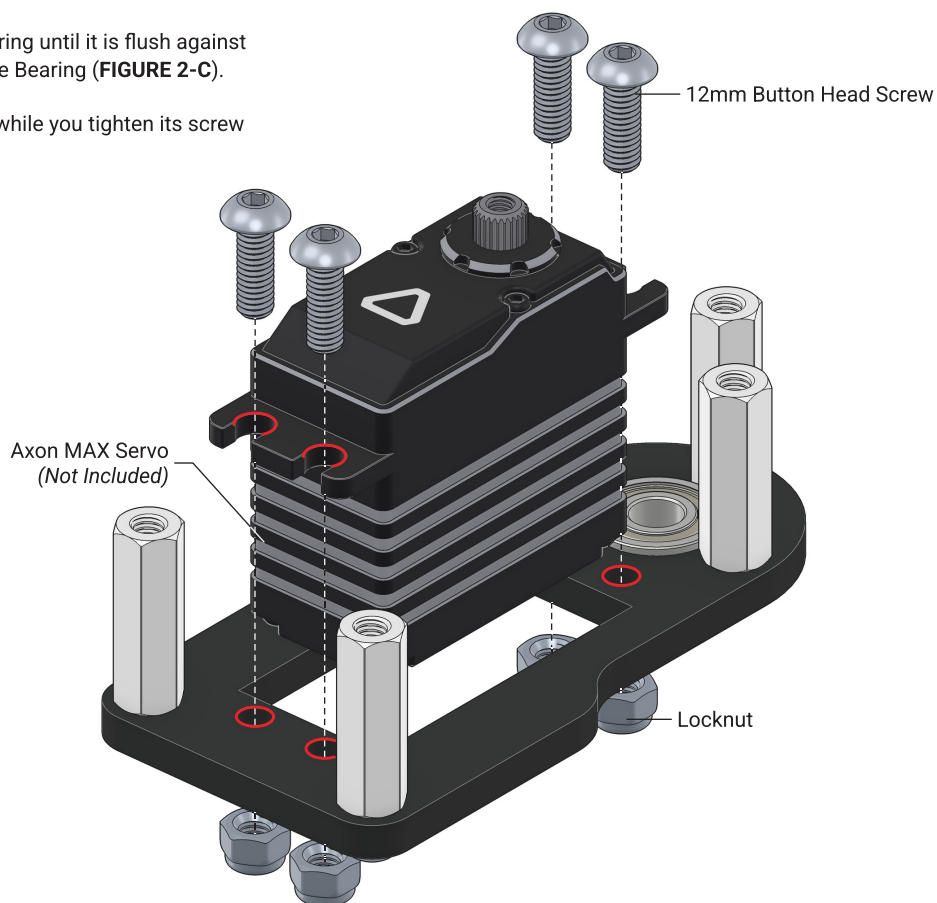


FIGURE 2-A

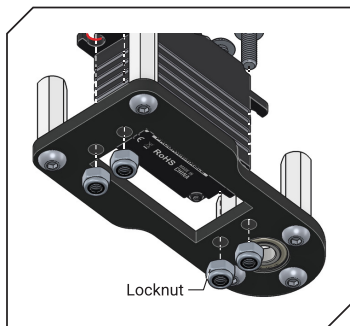


FIGURE 2-B

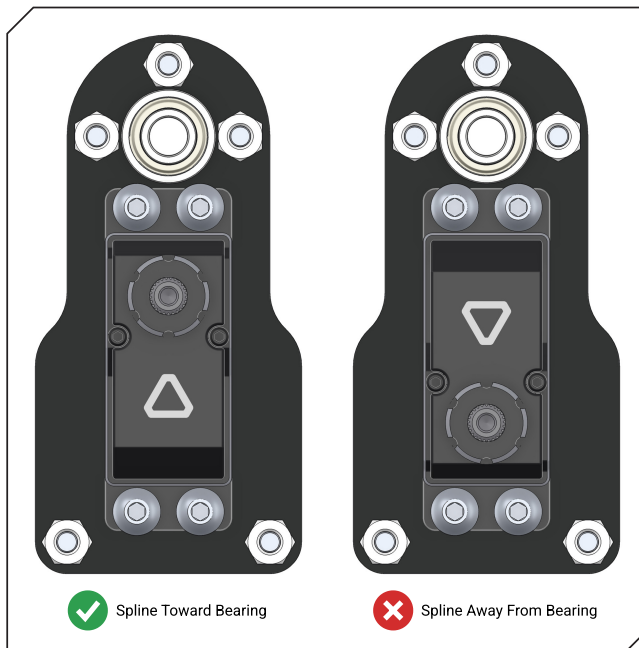
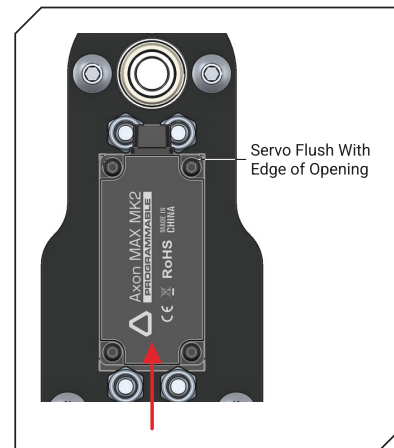


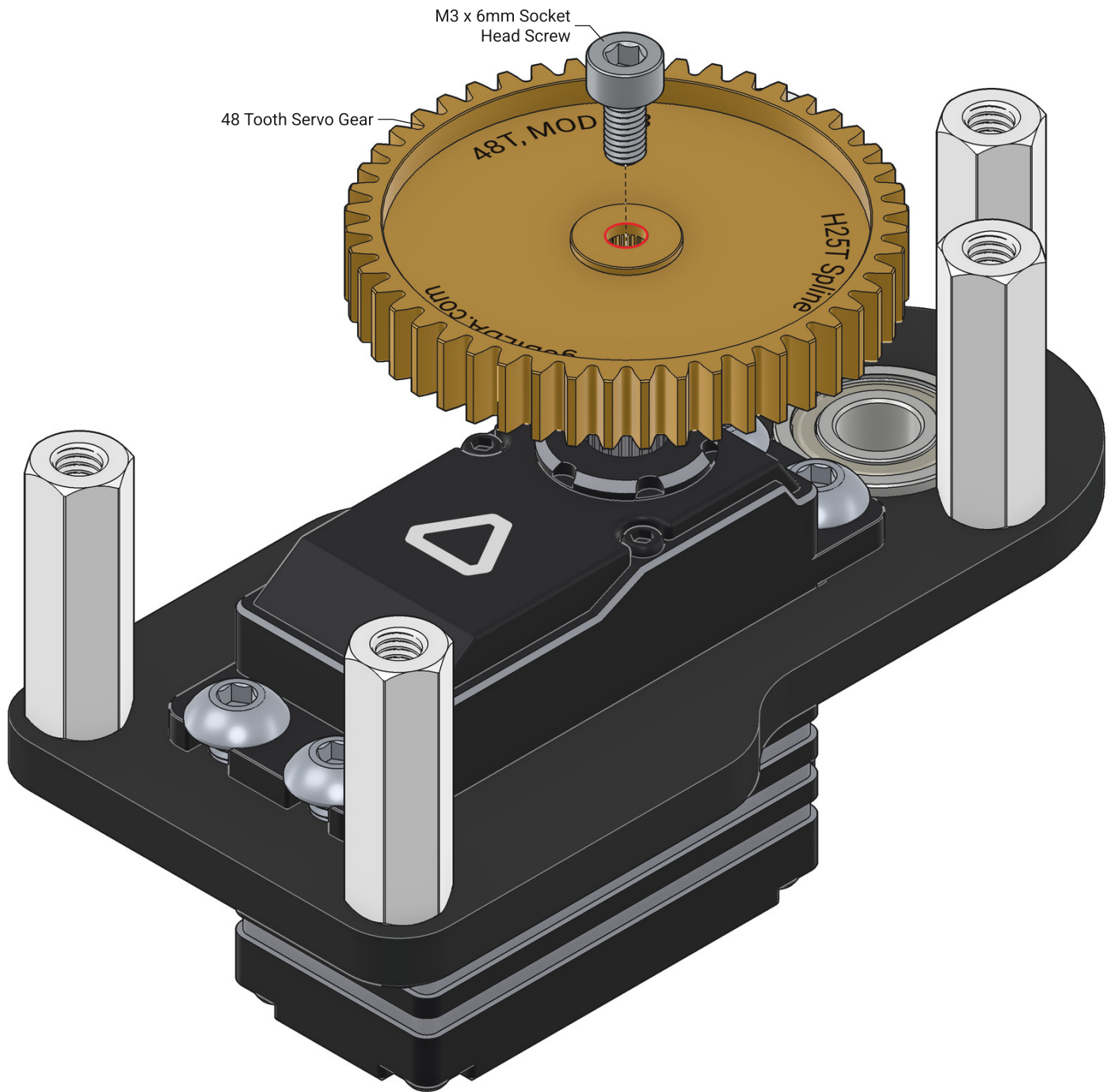
FIGURE 2-C



STEP 3:

Push **one** 48 Tooth Servo Gear onto the Servo's output spline and fasten it with **one** M3 x 6mm Socket Head Screw as shown.

Use a 2.5mm hex driver.



STEP 4:

Insert **one** 50mm Length, 6mm D-Shaft down into the Bearing in the Servo Plate until its end is flush with the bottom of the Bearing (**FIGURE 4-A**).

Keeping the Shaft flush with the bottom of the Bearing, slide **one** 1mm Thick, 6mm ID Shim, **one** 4mm Length, 6mm ID Spacer, **one** 15 Tooth Pinion Gear and **one** more 1mm Thick, 6mm ID Shim down the Shaft in that order.

Note the orientation of the Pinion Gear: its set-screw end goes on first, toward the Bearing (**FIGURE 4-B**).

With the Pinion Gear flush against the Spacer, use a 2.5mm hex driver to tighten its set-screw onto the flat of the Shaft, then rest the second Shim on top of the Pinion Gear.

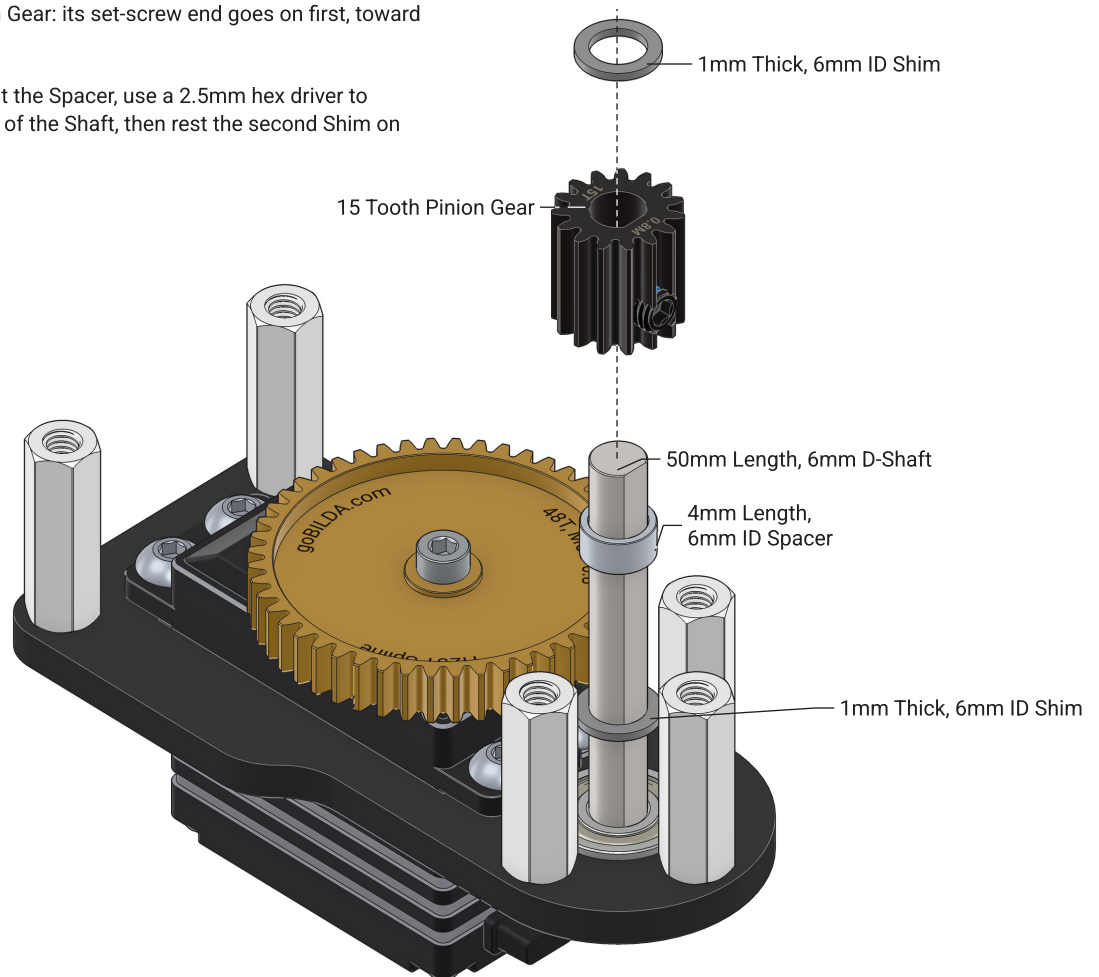


FIGURE 4-A

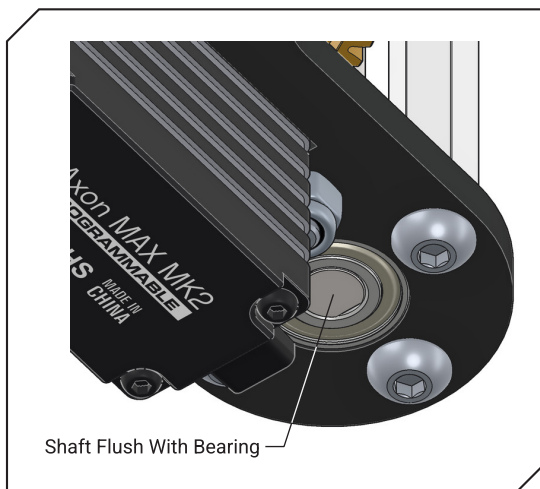
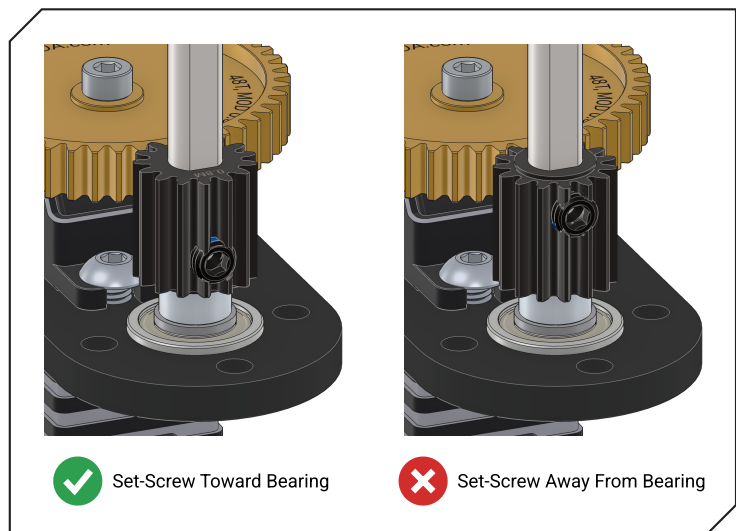


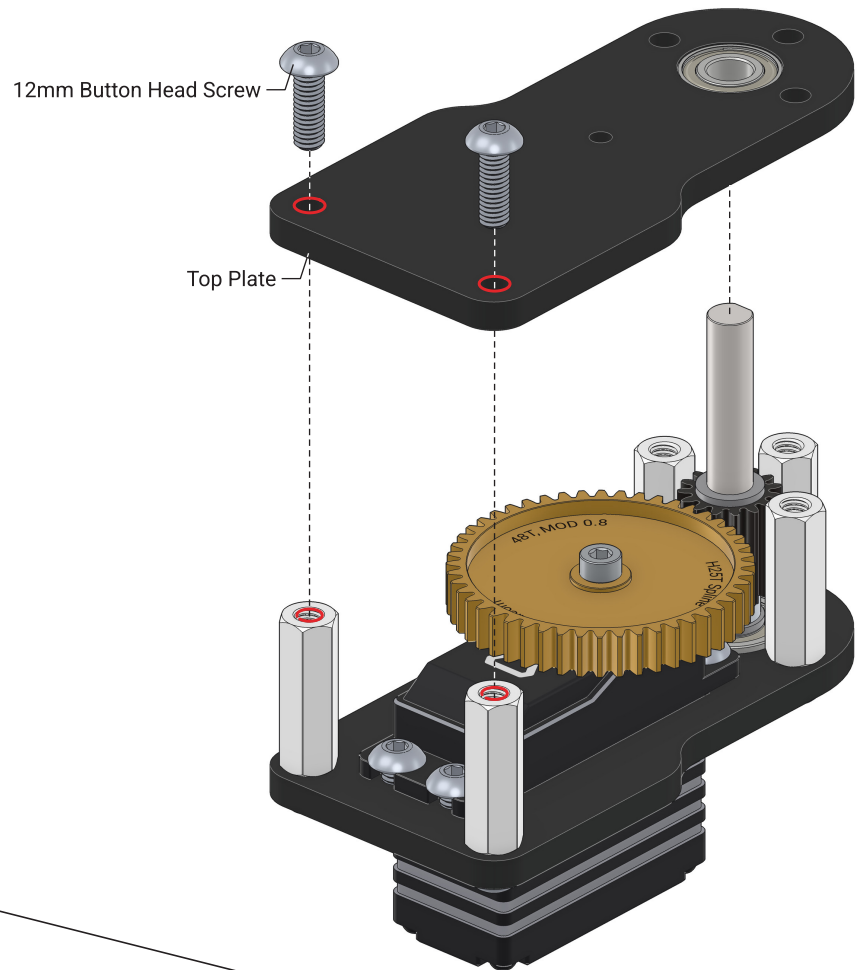
FIGURE 4-B



STEP 5:

With its Bearing flange facing down, slide the Top Plate over the Shaft onto the Standoffs and fasten it with **two** 12mm Button Head Screws as shown.

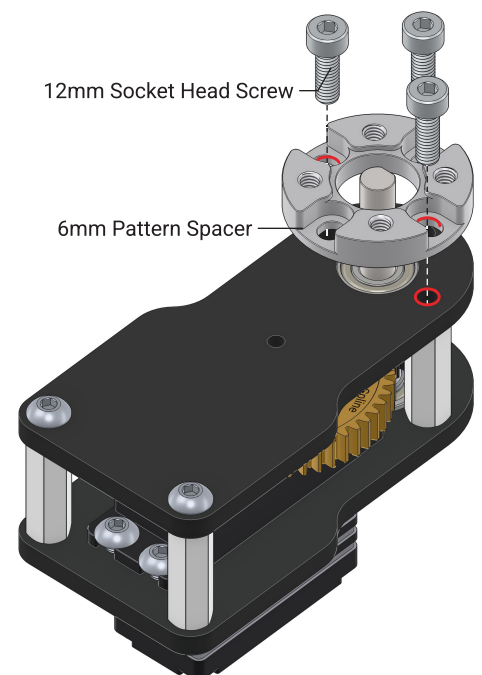
Use a 2.5mm hex driver.



STEP 6:

Use **three** 12mm Socket Head Screws to attach **one** 6mm Pattern Spacer to the Top Plate as shown.

Use a 3mm hex driver.



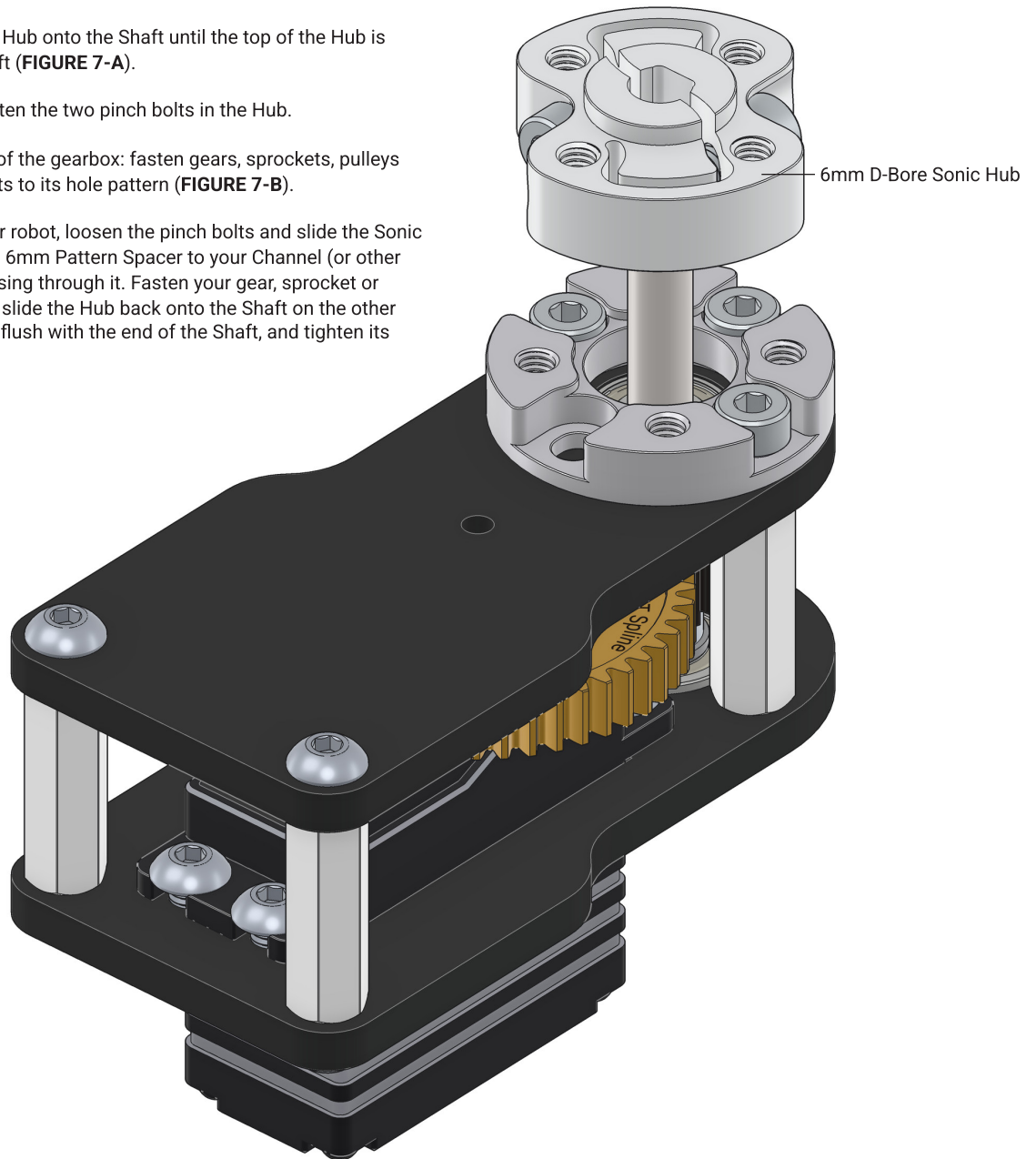
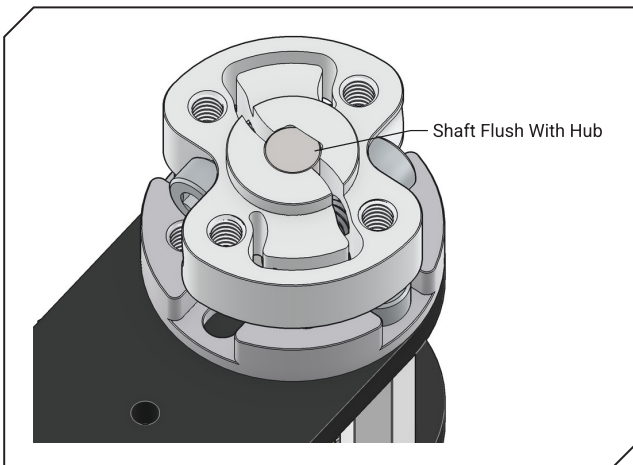
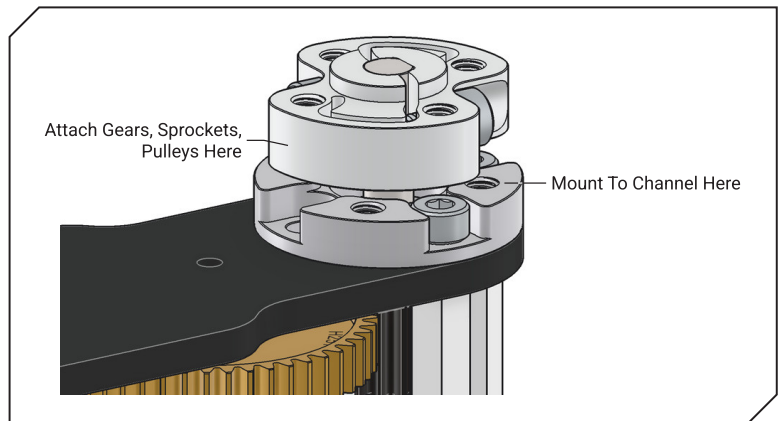
STEP 7:

Slide **one** 6mm D-Bore Sonic Hub onto the Shaft until the top of the Hub is flush with the end of the Shaft (**FIGURE 7-A**).

Use a 3mm hex driver to tighten the two pinch bolts in the Hub.

The Sonic Hub is the output of the gearbox: fasten gears, sprockets, pulleys and other motion components to its hole pattern (**FIGURE 7-B**).

To mount the gearbox to your robot, loosen the pinch bolts and slide the Sonic Hub off the Shaft. Fasten the 6mm Pattern Spacer to your Channel (or other structure) with the Shaft passing through it. Fasten your gear, sprocket or pulley to the Sonic Hub, then slide the Hub back onto the Shaft on the other side of the Channel until it is flush with the end of the Shaft, and tighten its pinch bolts.

**FIGURE 7-A****FIGURE 7-B**

Great Job!

Your Axon MAX 1:3.2 Overdrive Kit is complete.

