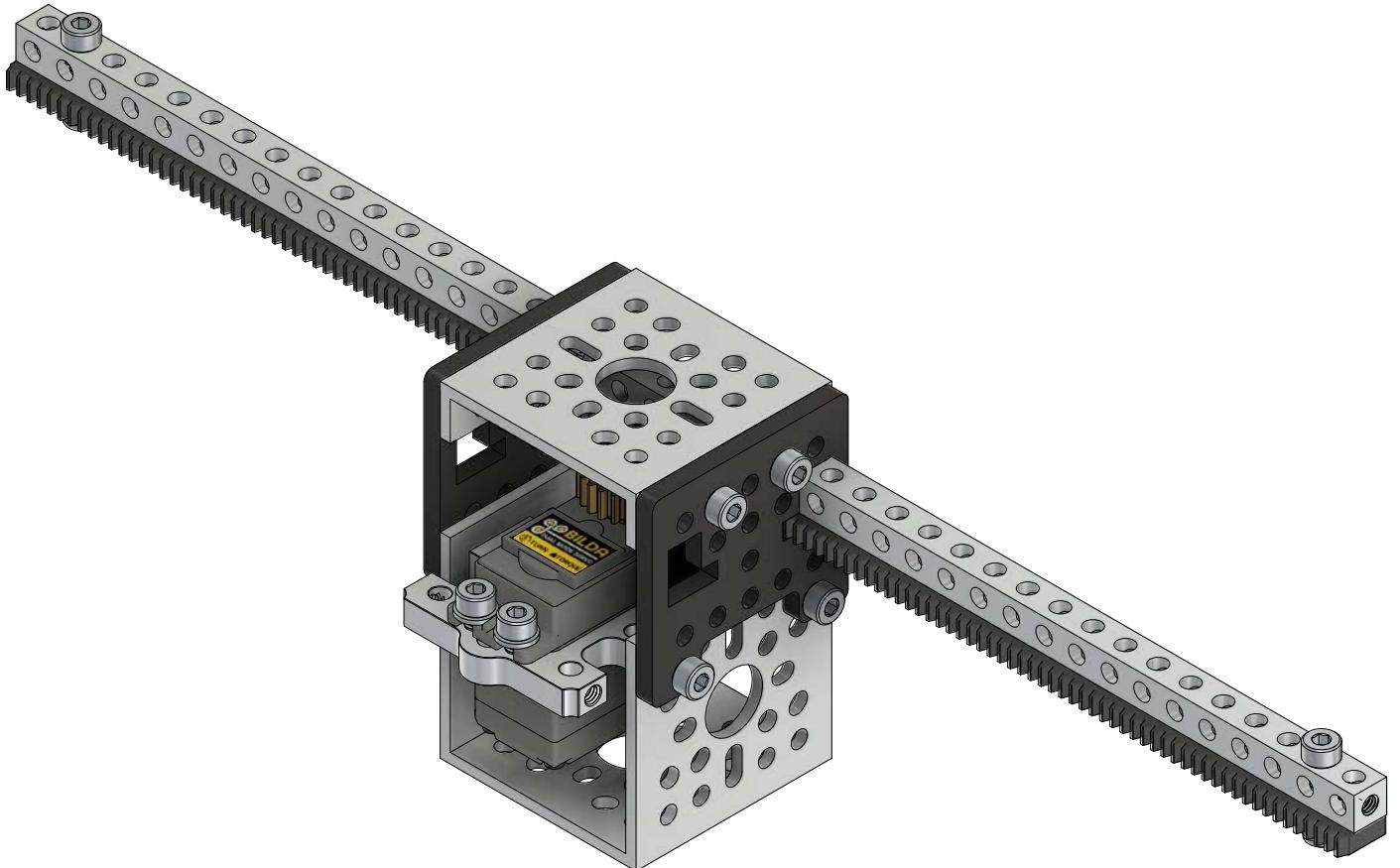




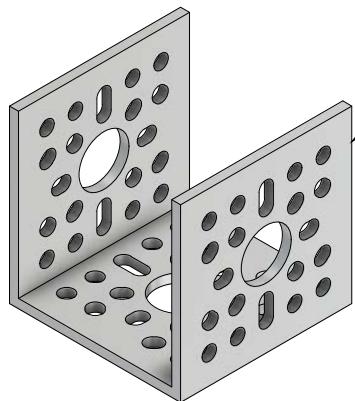
Assembly Instructions for
Servo-Driven Gear Rack Kit

(Single Gear Rack)

SKU: 3207-0001-0001



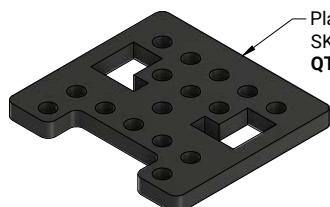
Kit Contents



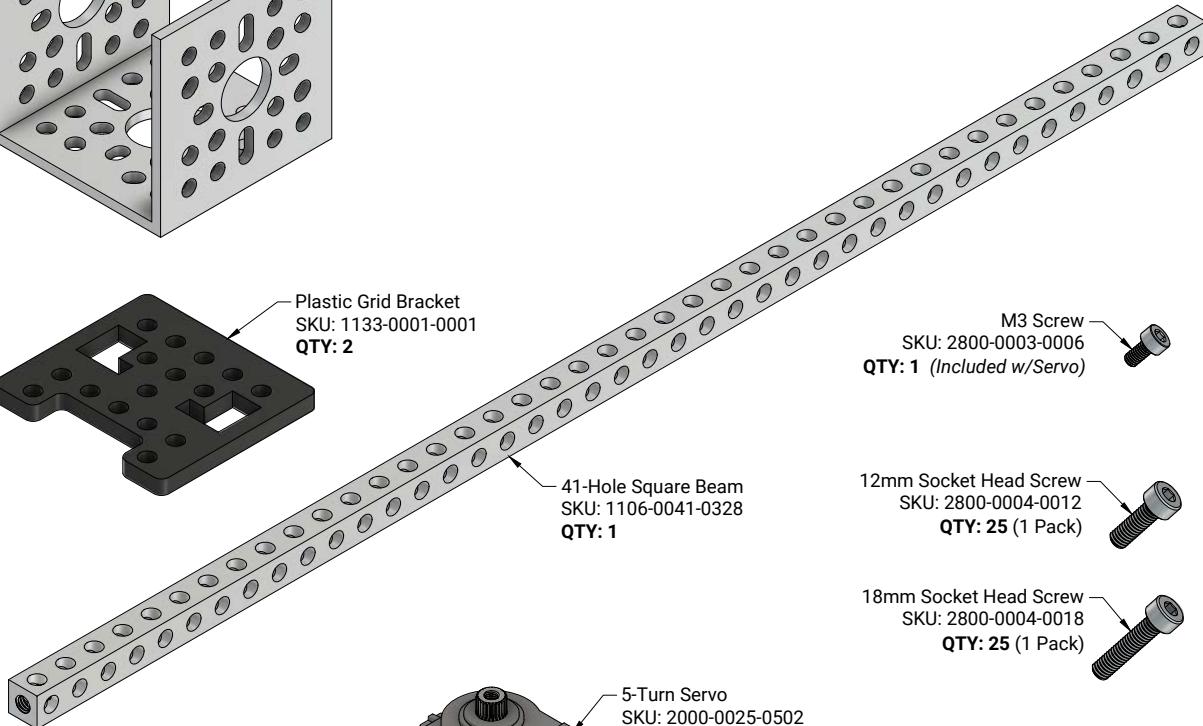
1-Hole U-Channel
SKU: 1120-0001-0048
QTY: 1

Tools Required

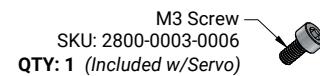
- 2.5mm Hex Key
- 3mm Hex Key
- 7mm Nut Driver



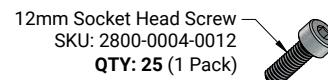
Plastic Grid Bracket
SKU: 1133-0001-0001
QTY: 2



41-Hole Square Beam
SKU: 1106-0041-0328
QTY: 1



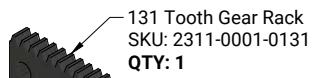
M3 Screw
SKU: 2800-0003-0006
QTY: 1 (Included w/Servo)



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



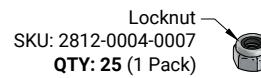
18mm Socket Head Screw
SKU: 2800-0004-0018
QTY: 25 (1 Pack)



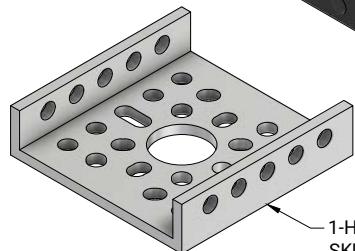
131 Tooth Gear Rack
SKU: 2311-0001-0131
QTY: 1



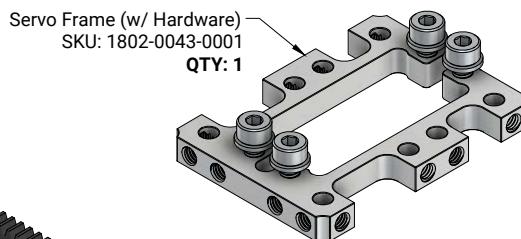
5-Turn Servo
SKU: 2000-0025-0502
QTY: 1



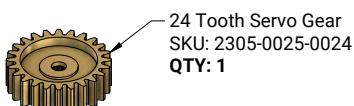
Locknut
SKU: 2812-0004-0007
QTY: 25 (1 Pack)



1-Hole Low-Side U-Channel
SKU: 1121-0001-0048
QTY: 1



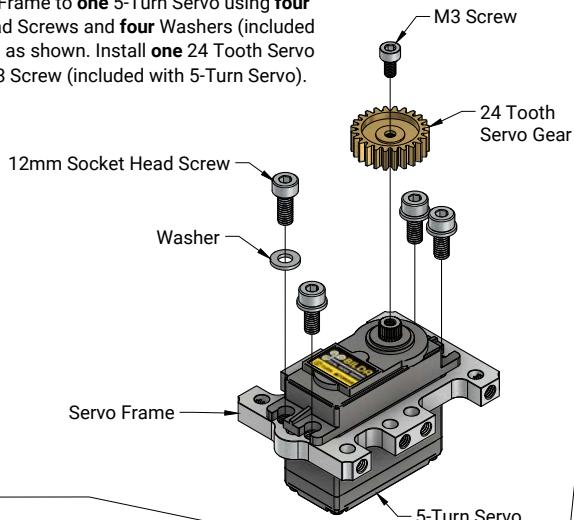
Servo Frame (w/ Hardware)
SKU: 1802-0043-0001
QTY: 1



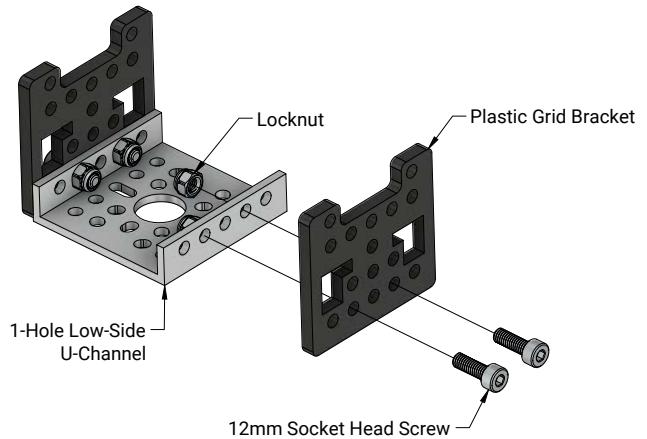
24 Tooth Servo Gear
SKU: 2305-0025-0024
QTY: 1

STEP 1:

Attach **one** Servo Frame to **one** 5-Turn Servo using **four** 12mm Socket Head Screws and **four** Washers (included with Servo Frame) as shown. Install **one** 24 Tooth Servo Gear using **one** M3 Screw (included with 5-Turn Servo).

**STEP 2:**

Using **four** 12mm Socket Head Screws and **four** Locknuts, attach **two** Plastic Grid Brackets to **one** 1-Hole Low-Side U-Channel as shown.

**STEP 3 – Gear Rack Subassembly**

Attach **one** 131 Tooth Gear Rack to **one** 41-Hole Square Beam using **one** 18mm Socket Head Screw and **one** Locknut as shown.

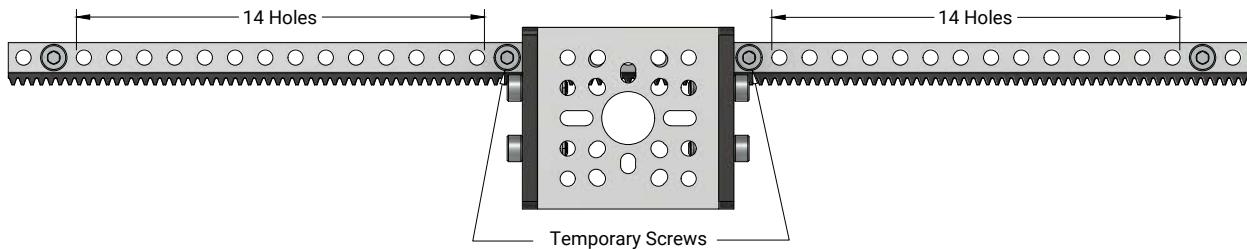
**STEP 4:**

Slide the Gear Rack Subassembly through the Plastic Grid Brackets as shown. Use **one** 18mm Socket Head Screw and **one** Locknut to fasten the opposite side of 131 Tooth Gear Rack to the 41-Hole Square Beam.



STEP 5:

Center the Gear Rack Subassembly so that two temporary screws can be inserted into the Square Beam as shown to keep it centered while completing **STEP 6**.

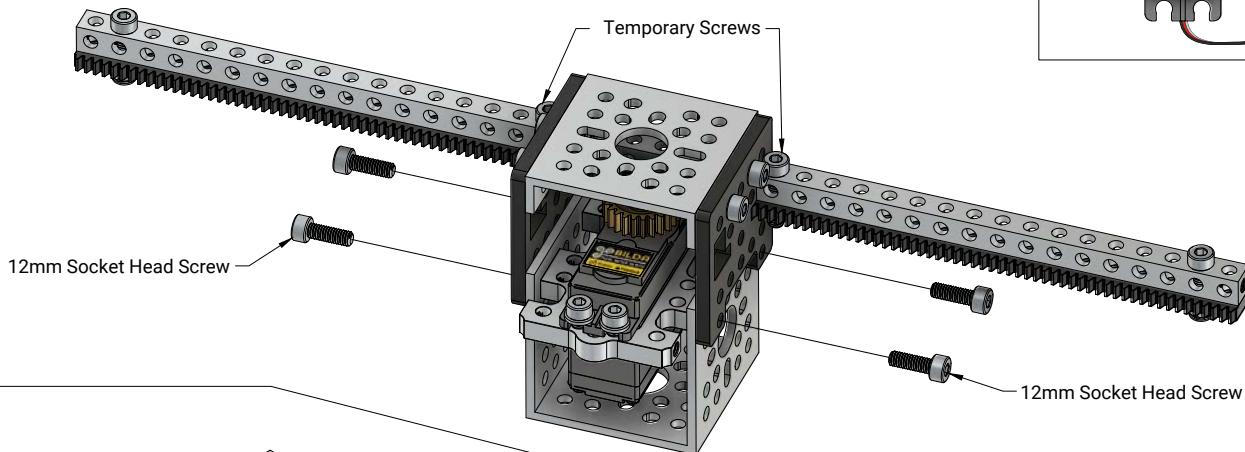
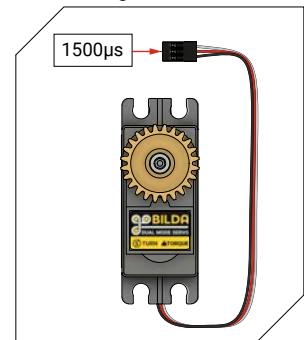
**STEP 6:**

Plug the servo into your servo controller and center the servo by sending a $1500\mu\text{s}$ PWM signal (**Figure 6-A**), then unplug the servo.

Attach the Servo Subassembly from **STEP 1** using **four** 12mm Socket Head Screws as shown.

Remove the Temporary Screws.

Figure 6-A



Congratulations!
You are now ready to plug your servo back in and test out your new Servo Gear Rack Kit!

