

# EXP Clawbot Build Instructions




280-7735-752

# Parts List

All EXP Control System, gears, wheels, wires, and structure are not to scale  
All other parts listed are 1:1 scale.

 **46x** #8-32 Low Profile Nut

 **4x** #8 0.032" Thick Washer

 **8x** Star Drive Screw  
8-32 x 0.250" Locking

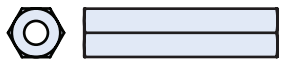
 **42x** Star Drive Screw  
8-32 x 0.375"

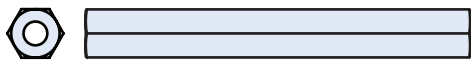
 **13x** Star Drive Screw 8-32 x 1.000"

 **8x** High Strength Shaft Adapter  
(1/8" Square Bore, 1/2" Long)

 **4x** High Strength Shaft Adapter  
(#8 Round Bore, 1/2" Long)

 **4x** Standoff 0.50"

 **1x** Standoff 1.00"

 **2x** Standoff 2.00"

 **15x** Rubber Shaft Collar

 **1x** 12T High Strength Gear

 **10x** #8 Click-On Spacer 0.125"

 **10x** #8 Click-On Spacer 0.250"

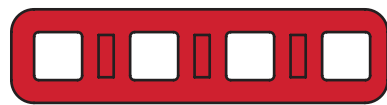
 **10x** 1 Post Standoff Retainer  
with Bearing Flat

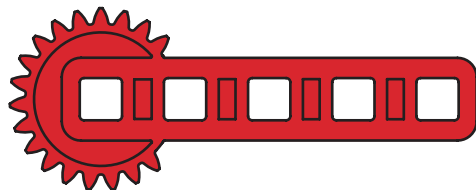
 **8x** 1 Post Standoff Retainer

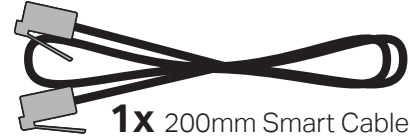
 **5x** Low Profile Bearing Flat

 **9x** Shaft Collar Retainer  
with Bearing Flat

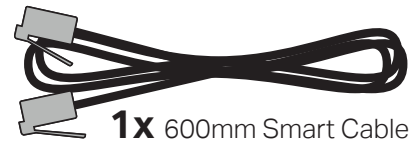
**9x** Shaft Collar Retainer  
with Bearing Flat

 **2x** 1x4 Plastic Linkage Beam

 **2x** 1x5 Crank Arm with 23T Gear

 **1x** 200mm Smart Cable

 **2x** 300mm Smart Cable

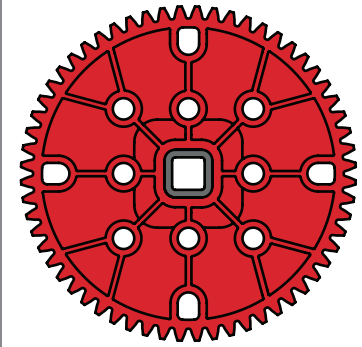
 **1x** 600mm Smart Cable

 **2x** 5" Shaft

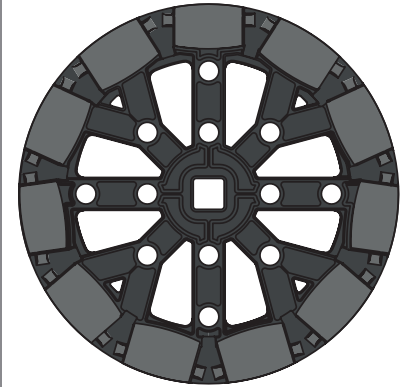
 **2x** 2.5" Capped Shaft

 **2x** 2.5" Shaft

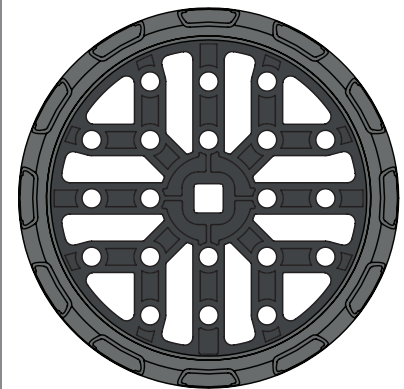
 **4x** 2" Shaft



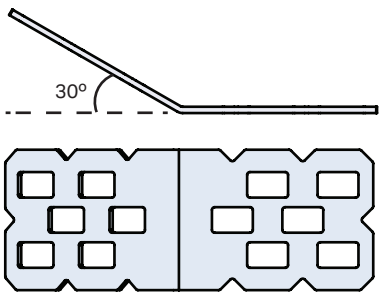
**1x** 60T High Strength Gear



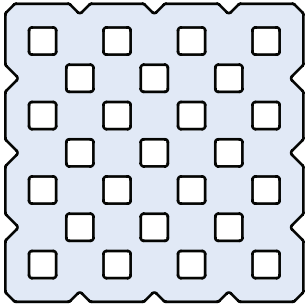
**2x** 3.25" (260 mm Travel) Anti-Static  
Omni-Directional Wheel



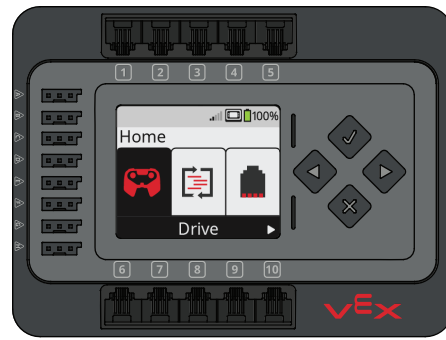
**2x** 3.25" (260mm Travel) Anti-Static  
Wheel



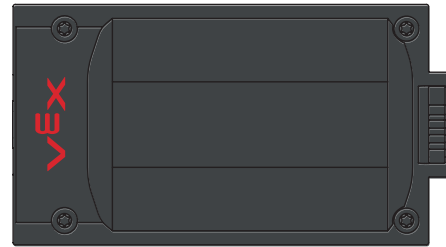
**2x** 30 Degree Bent Gusset



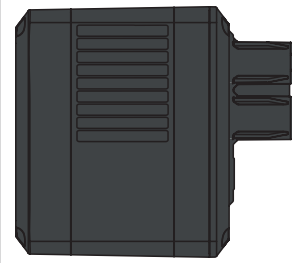
**1x** 4x4 Flat Plate



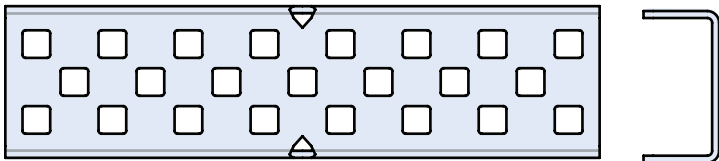
**1x** EXP Robot Brain



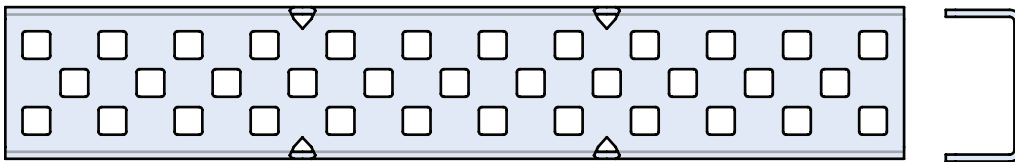
**1x** EXP Robot Battery Li-Ion 2500 mAh



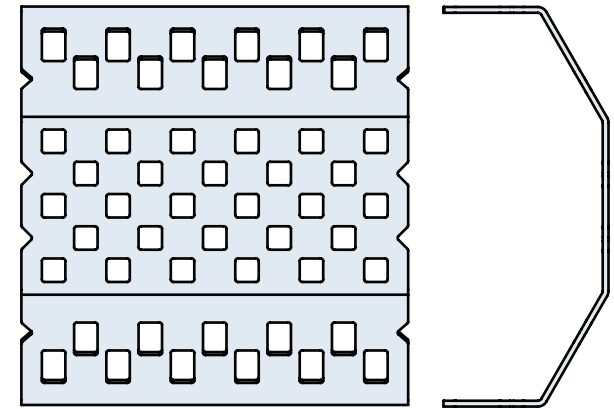
**4x** V5 Smart Motor (5.5W)



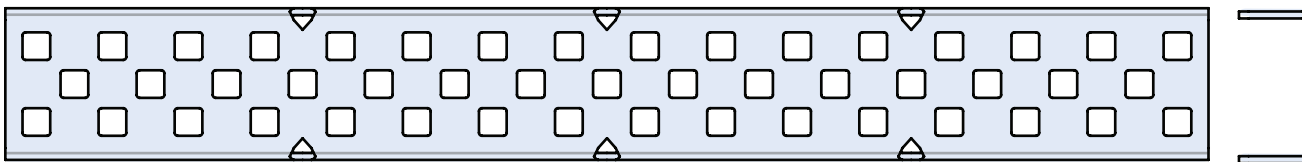
**2x** 1x2x1x8 Channel



**2x** 1x2x1x12 Channel

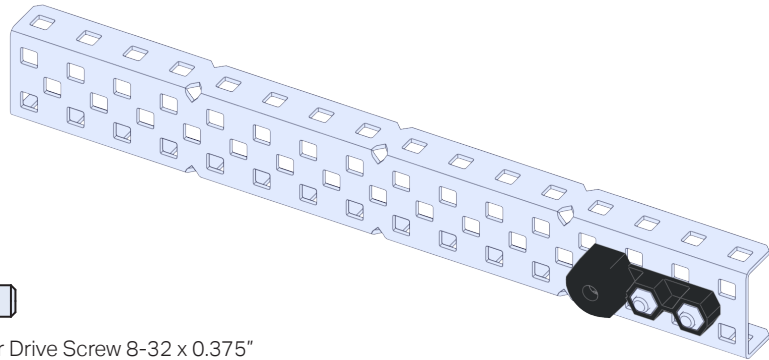
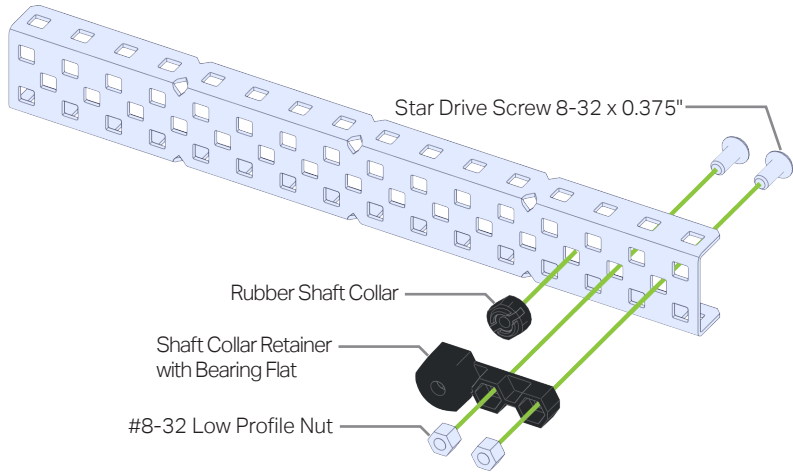


**1x** EXP Robot Brain Mounting Bracket



**6x** 1x2x1x16 Channel

 **2X**



**4x** Star Drive Screw 8-32 x 0.375"



**4x** #8-32 Low Profile Nut

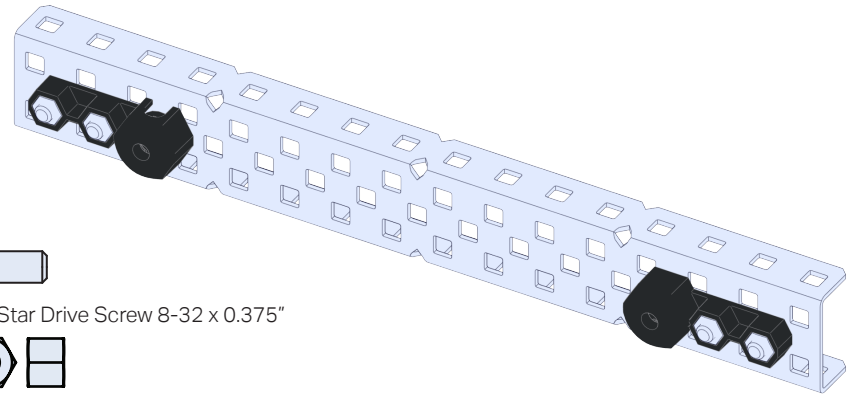
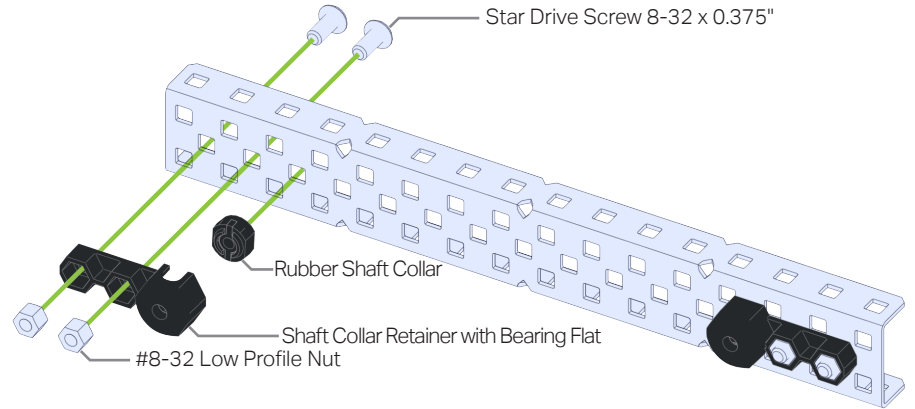


**2x** Rubber Shaft Collar



**2x** Shaft Collar Retainer with Bearing Flat

 **2X**



**4x** Star Drive Screw 8-32 x 0.375"



**4x** #8-32 Low Profile Nut



**2x** Rubber Shaft Collar

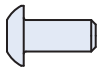
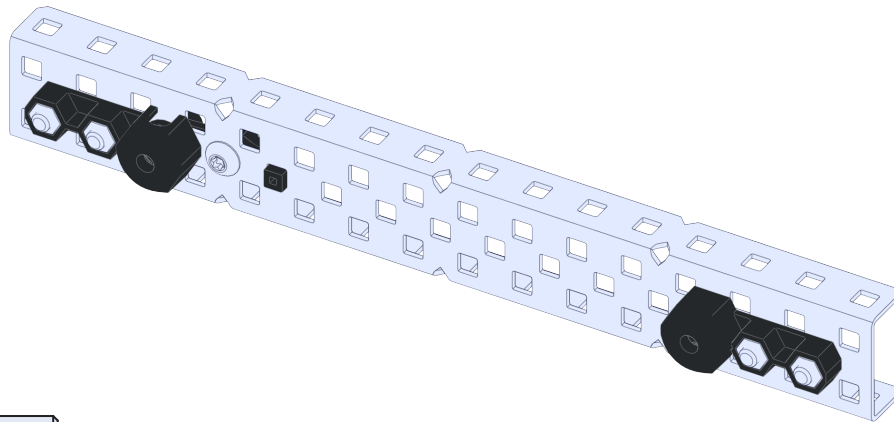
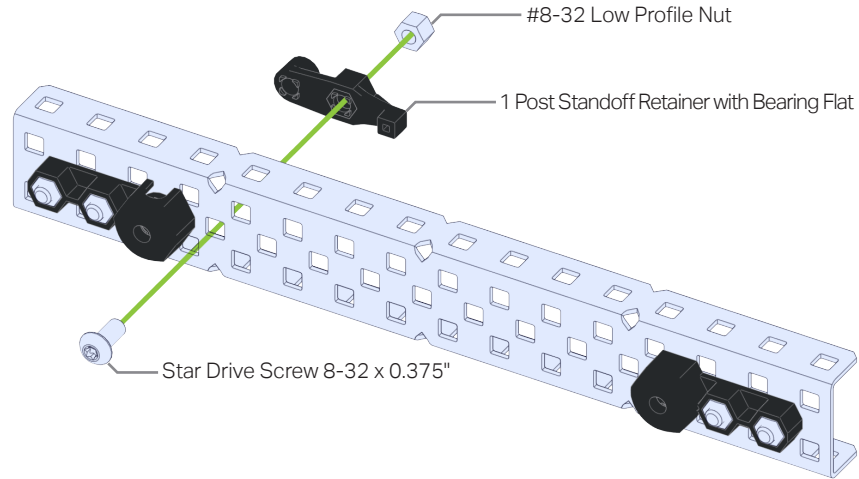


**2x** Shaft Collar Retainer with Bearing Flat



3

2X



2x Star Drive Screw 8-32 x 0.375"



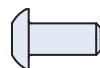
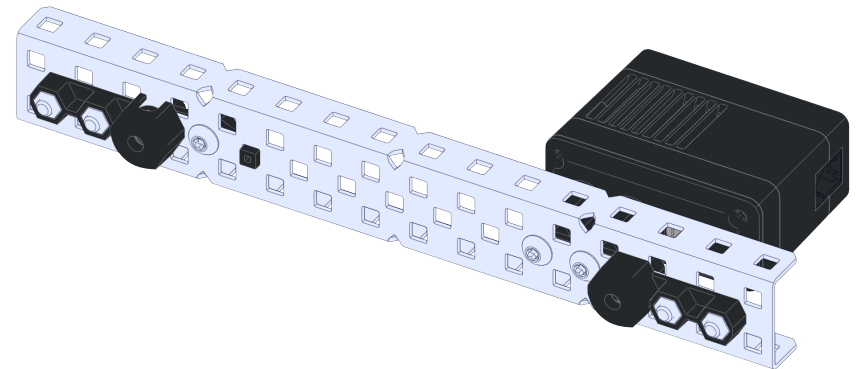
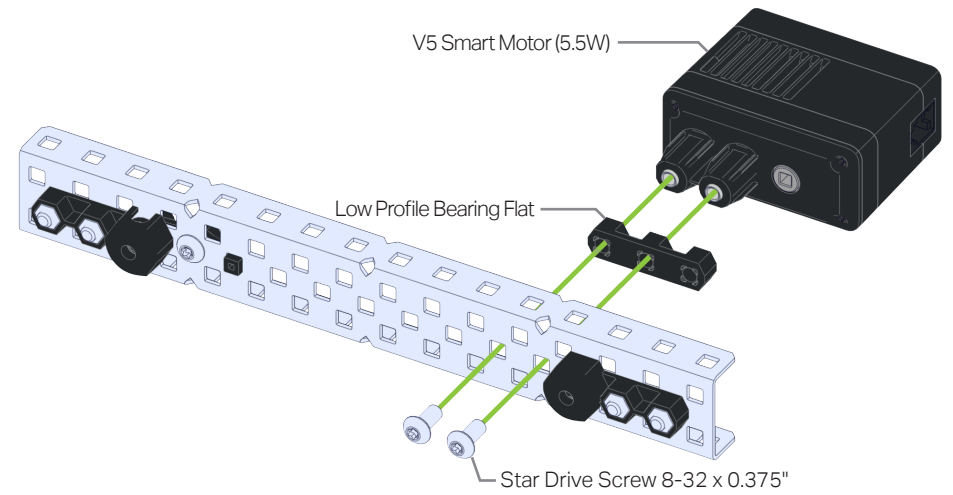
2x #8-32 Low Profile Nut



2x 1 Post Standoff Retainer with Bearing Flat

4

2X



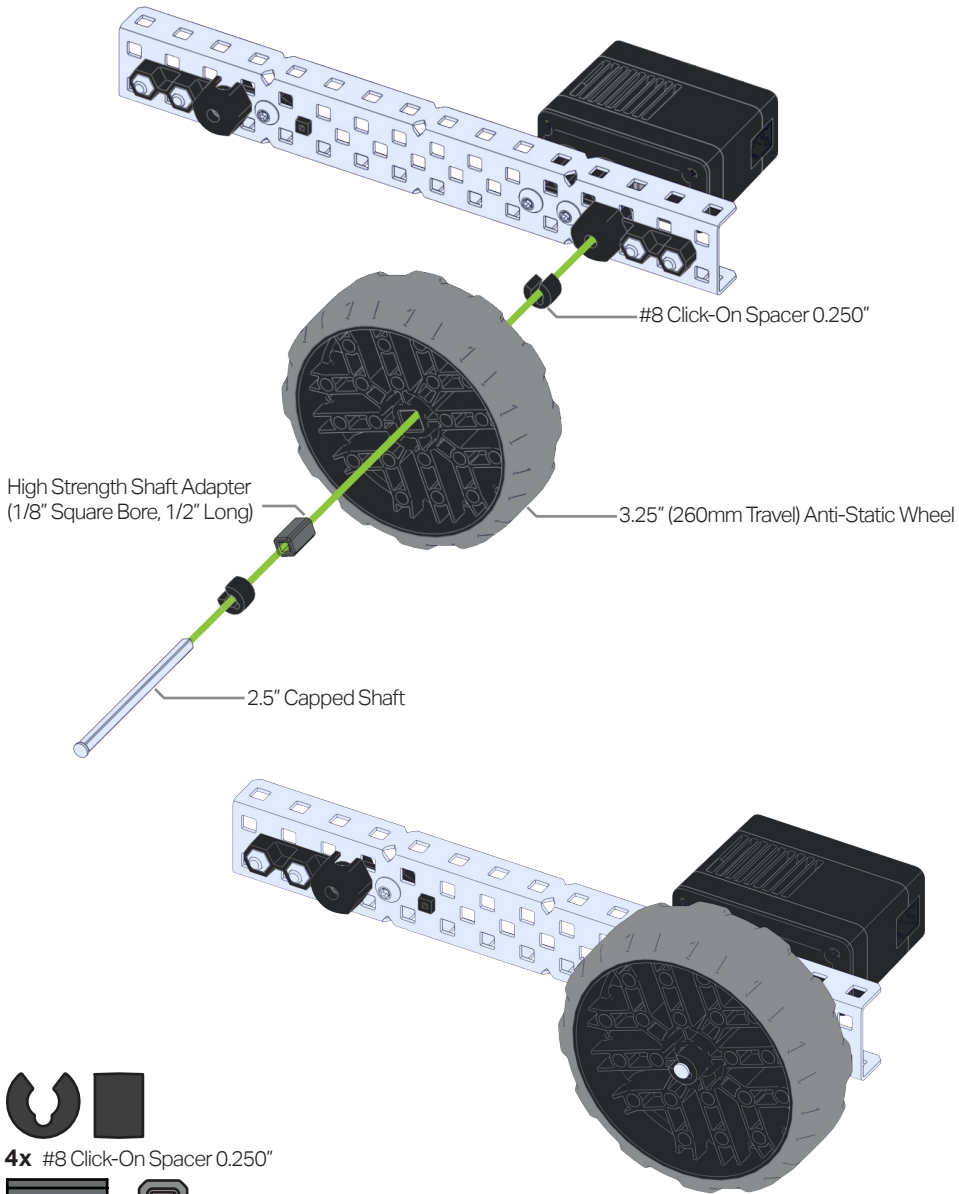
4x Star Drive Screw 8-32 x 0.375"



2x Low Profile Bearing Flat

5

2X



4x #8 Click-On Spacer 0.250"



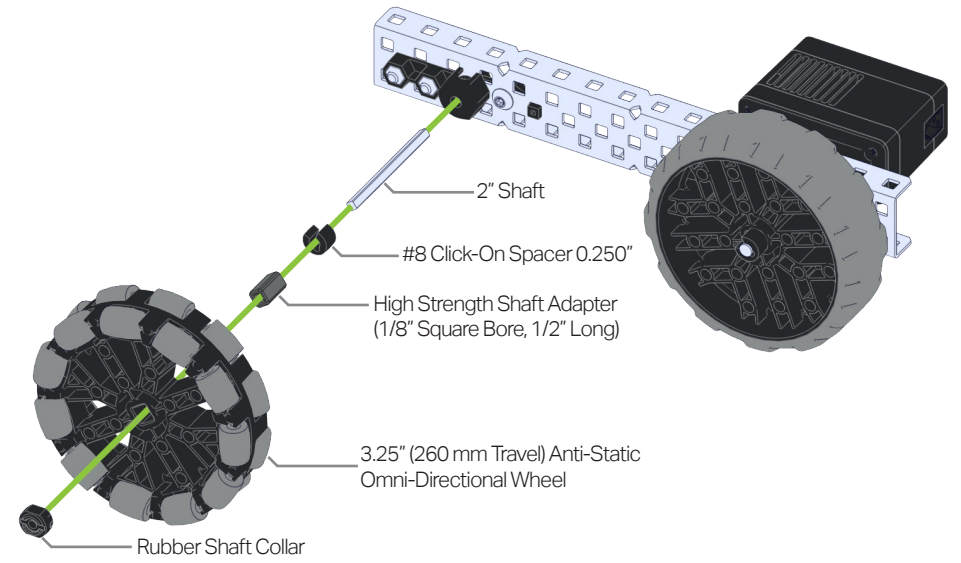
2x High Strength Shaft Adapter (1/8" Square Bore, 1/2" Long)



2x 2.5" Capped Shaft

6

2X



2x Rubber Shaft Collar



2x #8 Click-On Spacer 0.250"

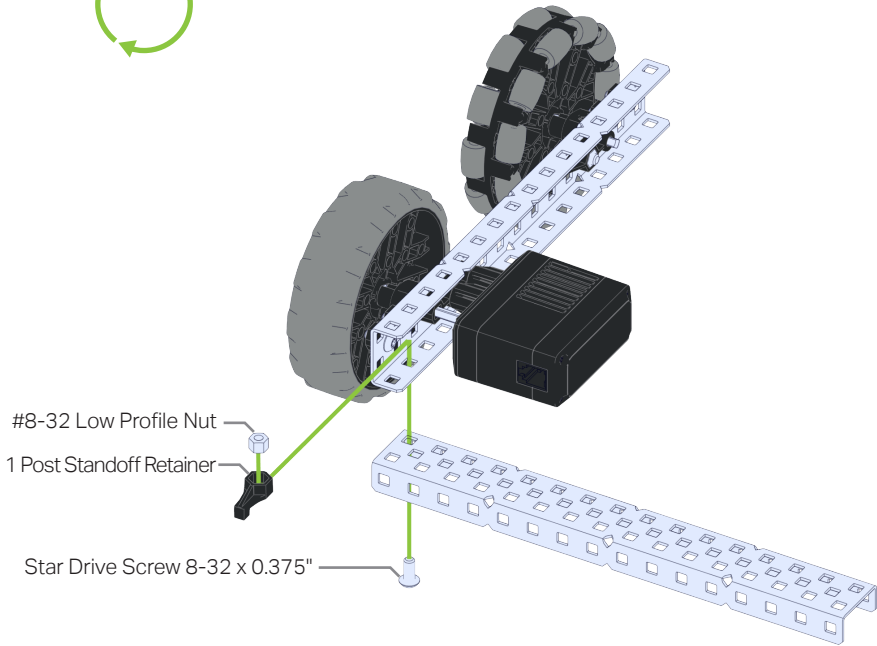


2x High Strength Shaft Adapter (1/8" Square Bore, 1/2" Long)



2x 2" Shaft

7



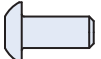
#8-32 Low Profile Nut

1 Post Standoff Retainer

Star Drive Screw 8-32 x 0.375"



1x #8-32 Low Profile Nut

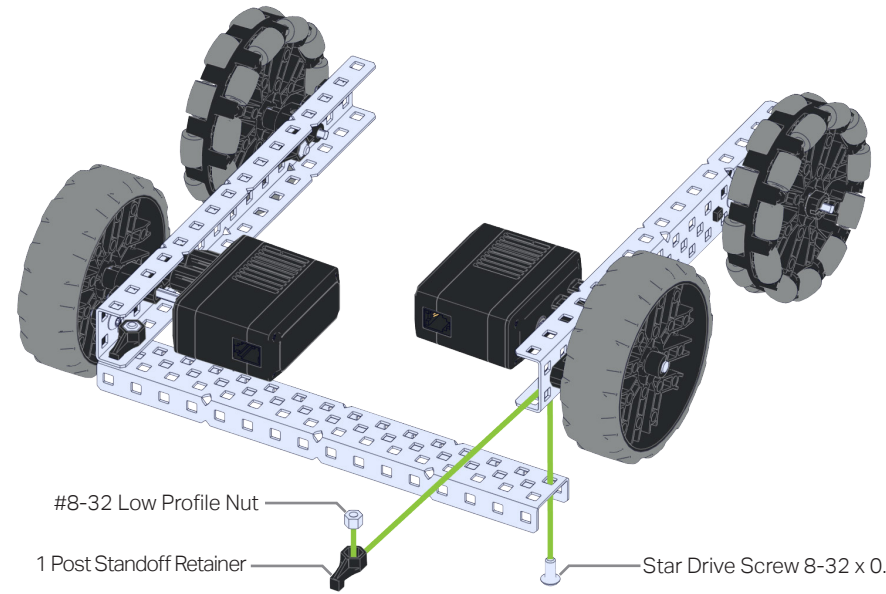


1x Star Drive Screw 8-32 x 0.375"



1x 1 Post Standoff Retainer

8



#8-32 Low Profile Nut

1 Post Standoff Retainer

Star Drive Screw 8-32 x 0.375"



1x #8-32 Low Profile Nut



1x Star Drive Screw 8-32 x 0.375"



1x 1 Post Standoff Retainer



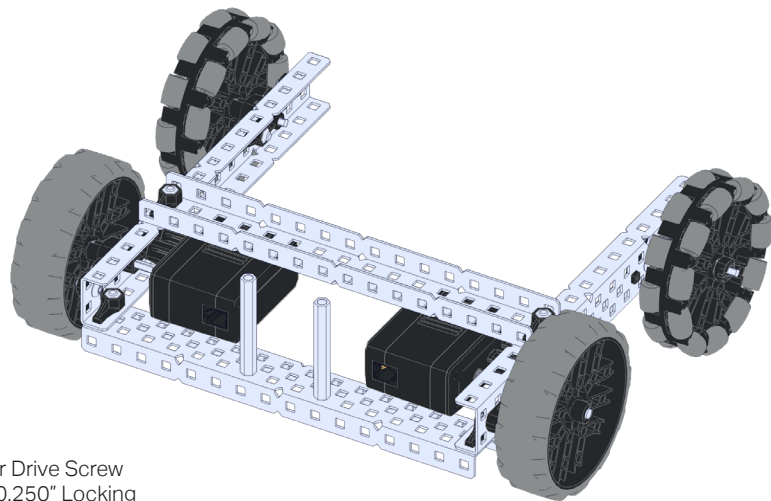
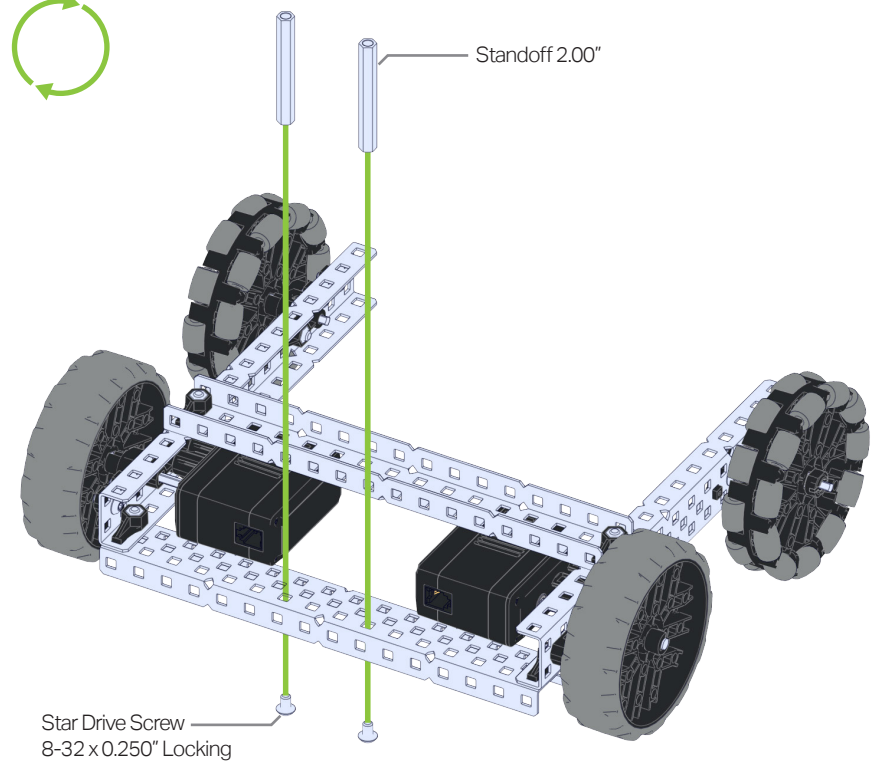
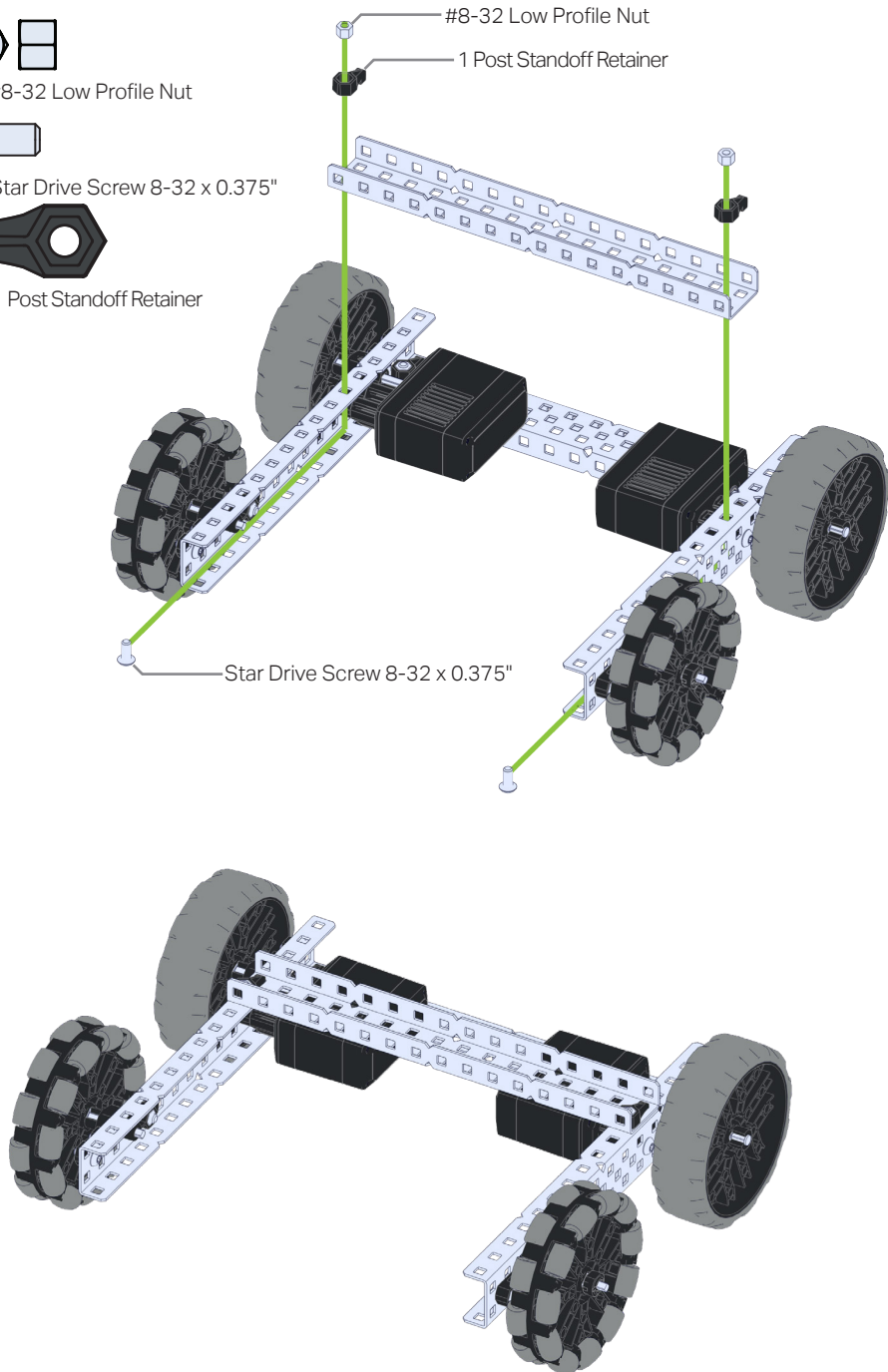
2x #8-32 Low Profile Nut



2x Star Drive Screw 8-32 x 0.375"



2x 1 Post Standoff Retainer



2x Star Drive Screw 8-32 x 0.250" Locking

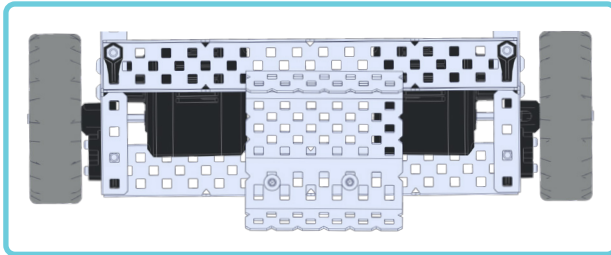
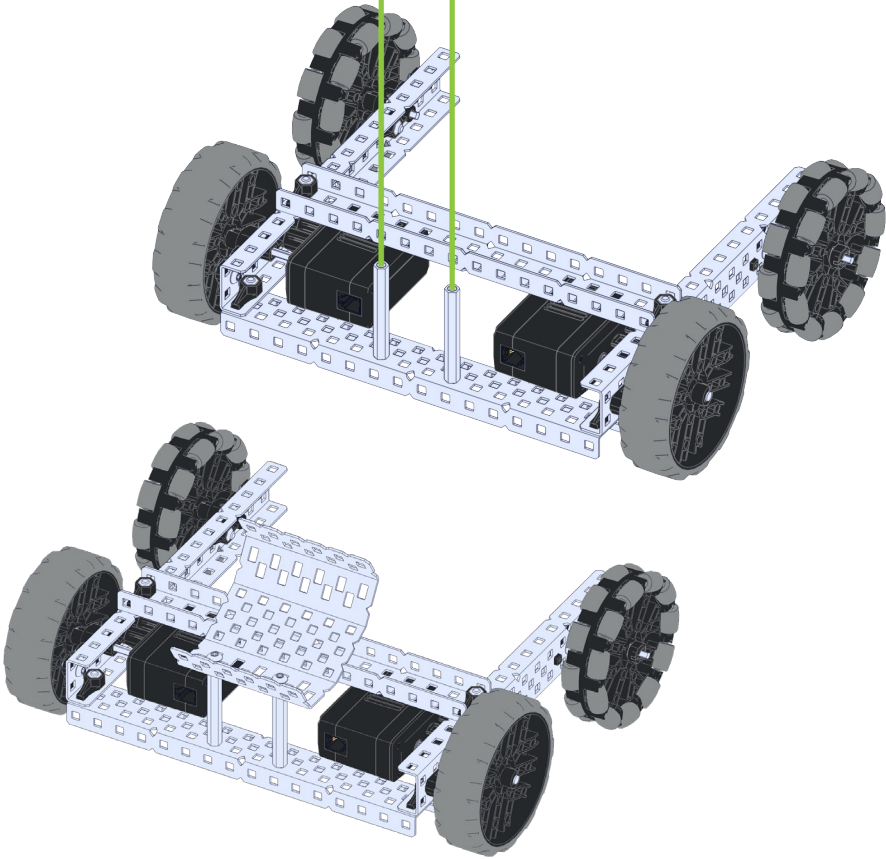
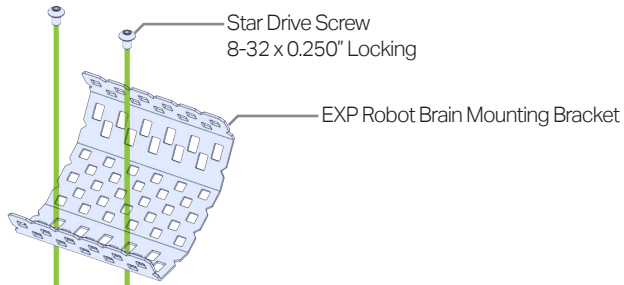


2x Standoff 2.00"

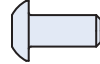




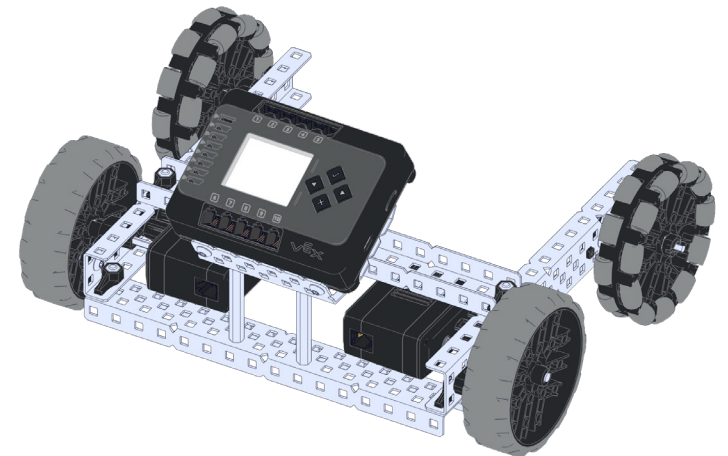
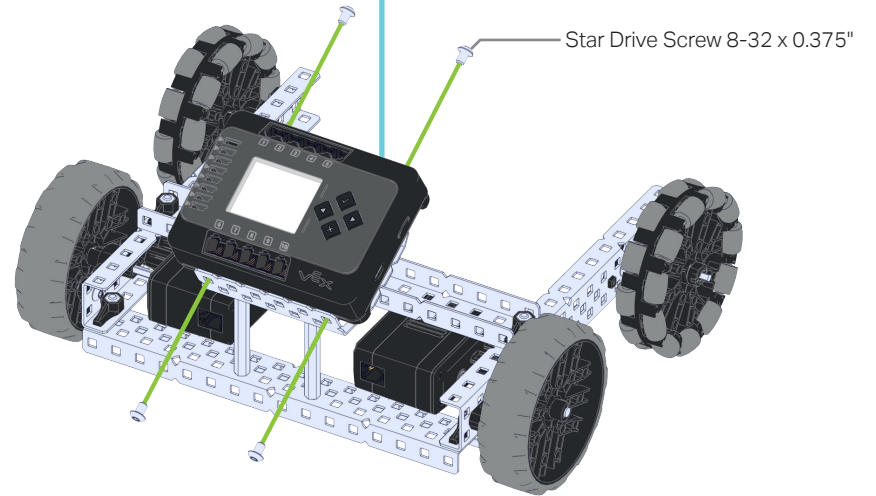
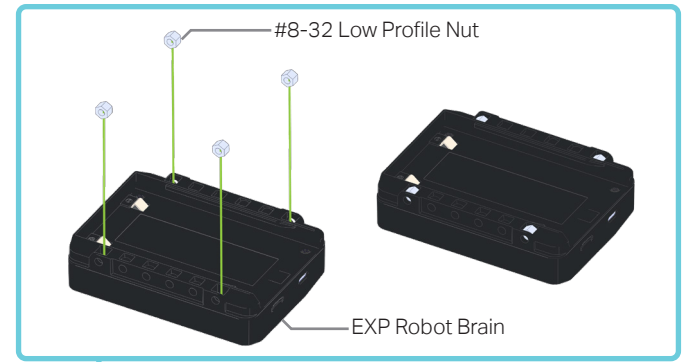
**2x** Star Drive Screw  
8-32 x 0.250" Locking

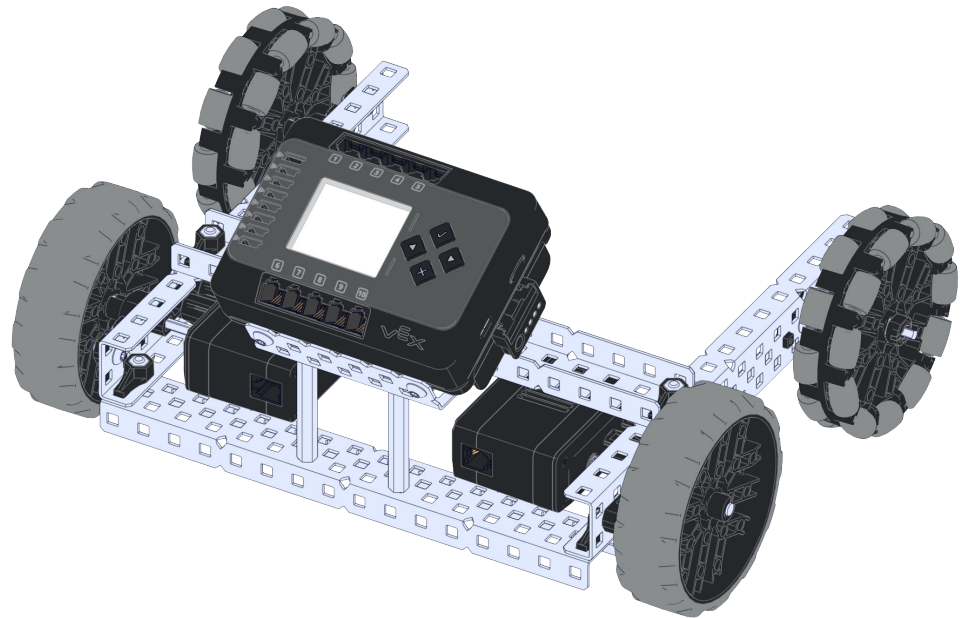
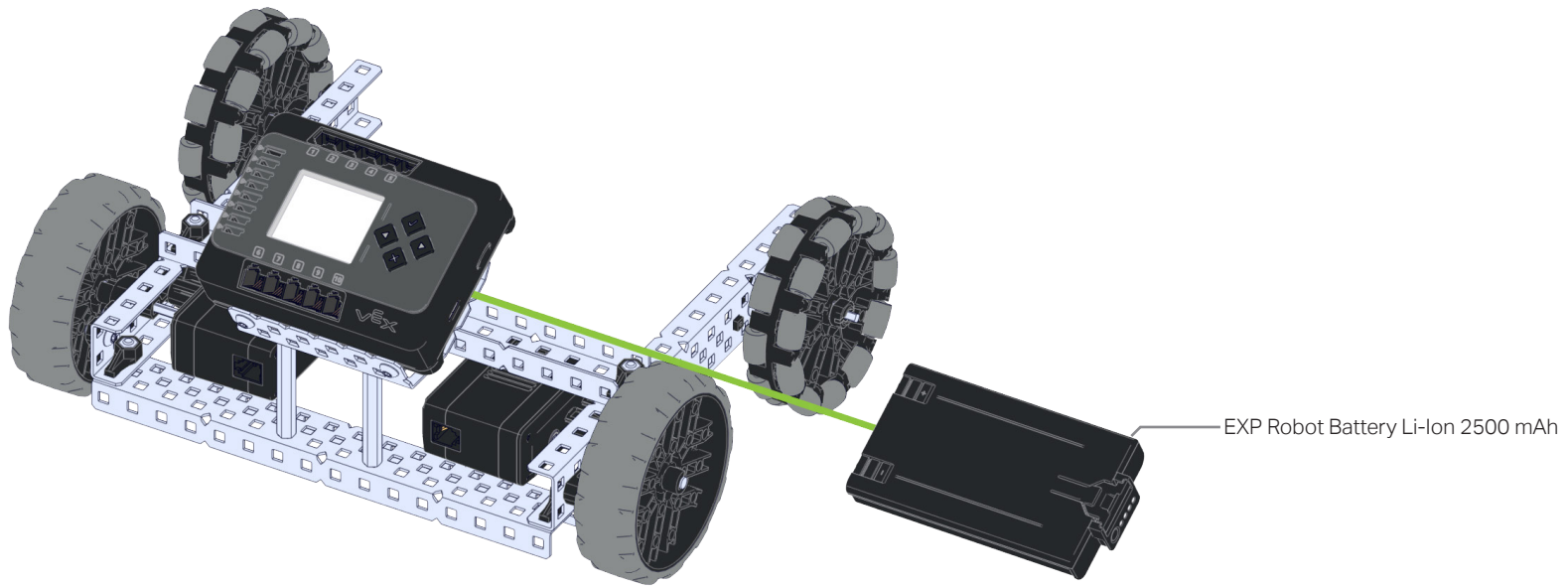


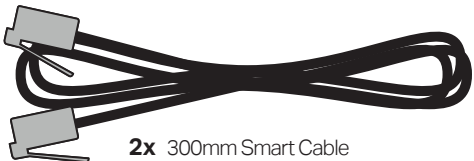
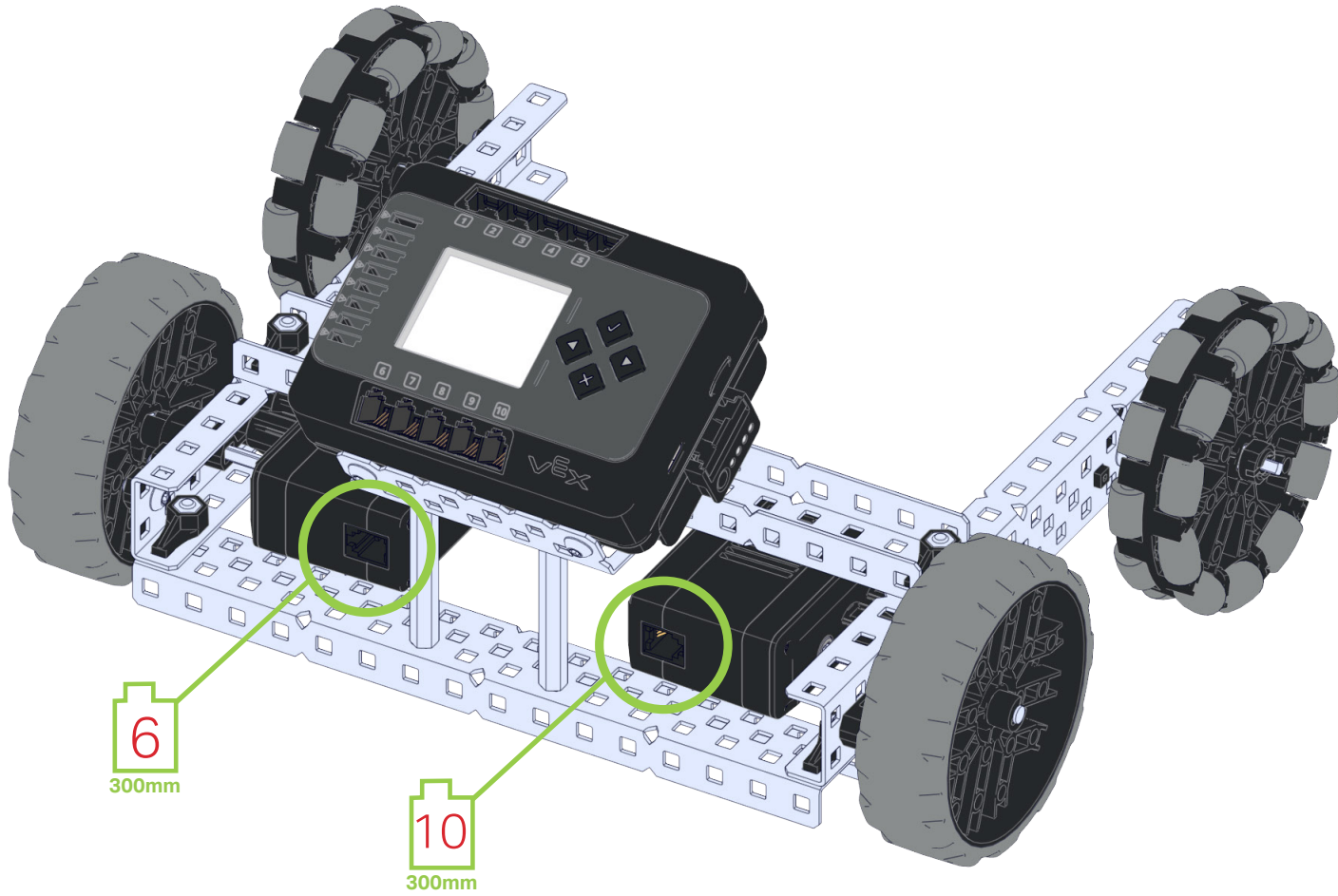
**4x** #8-32 Low Profile Nut



**4x** Star Drive Screw  
8-32 x 0.375"

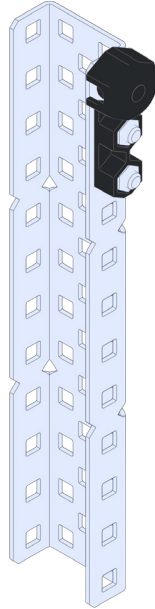
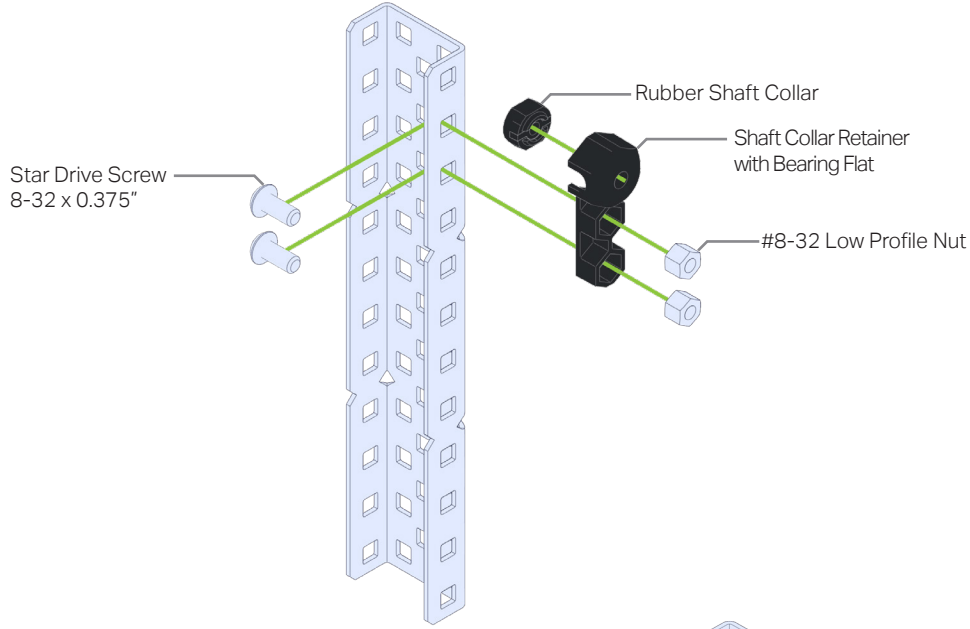






2x 300mm Smart Cable

15



2x Star Drive Screw 8-32 x 0.375"



2x #8-32 Low Profile Nut

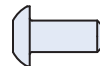
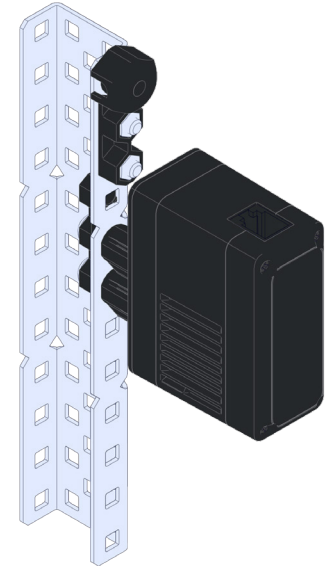
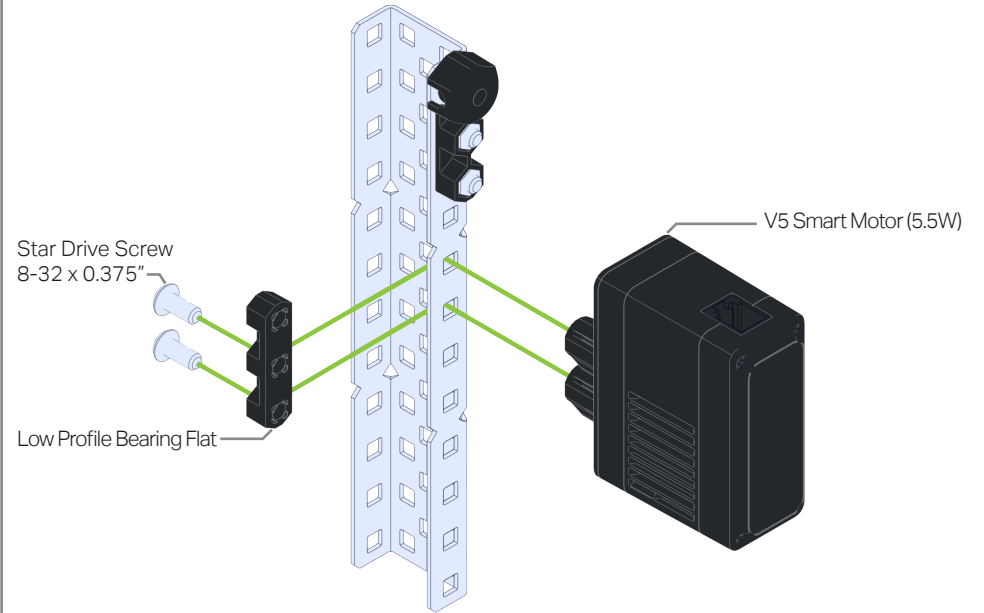


1x Rubber Shaft Collar



1x Shaft Collar Retainer with Bearing Flat

16

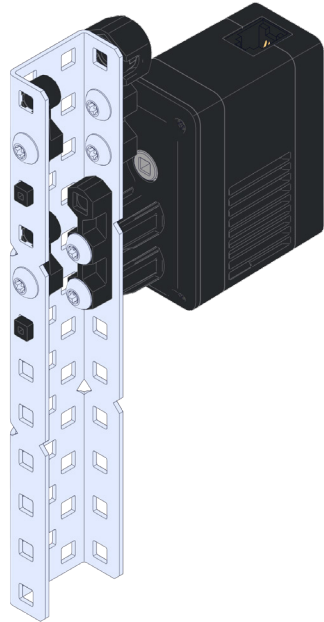
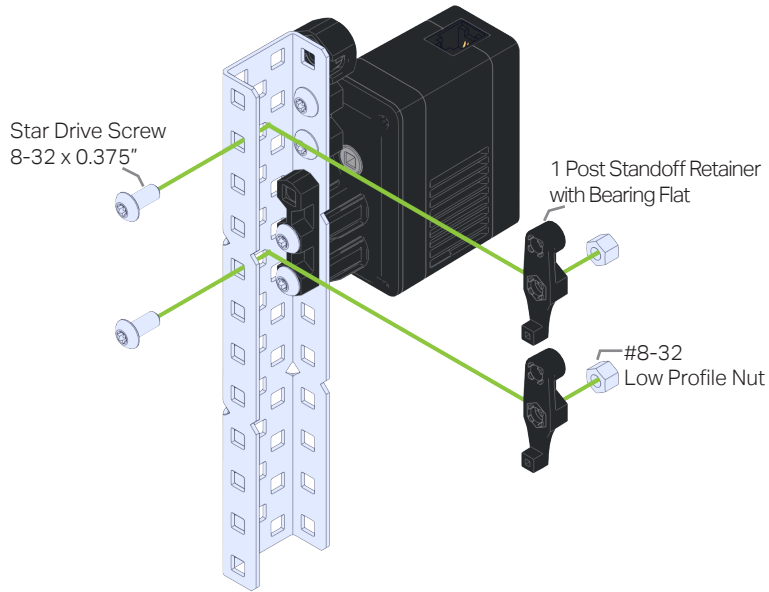


2x Star Drive Screw 8-32 x 0.375"



1x Low Profile Bearing Flat





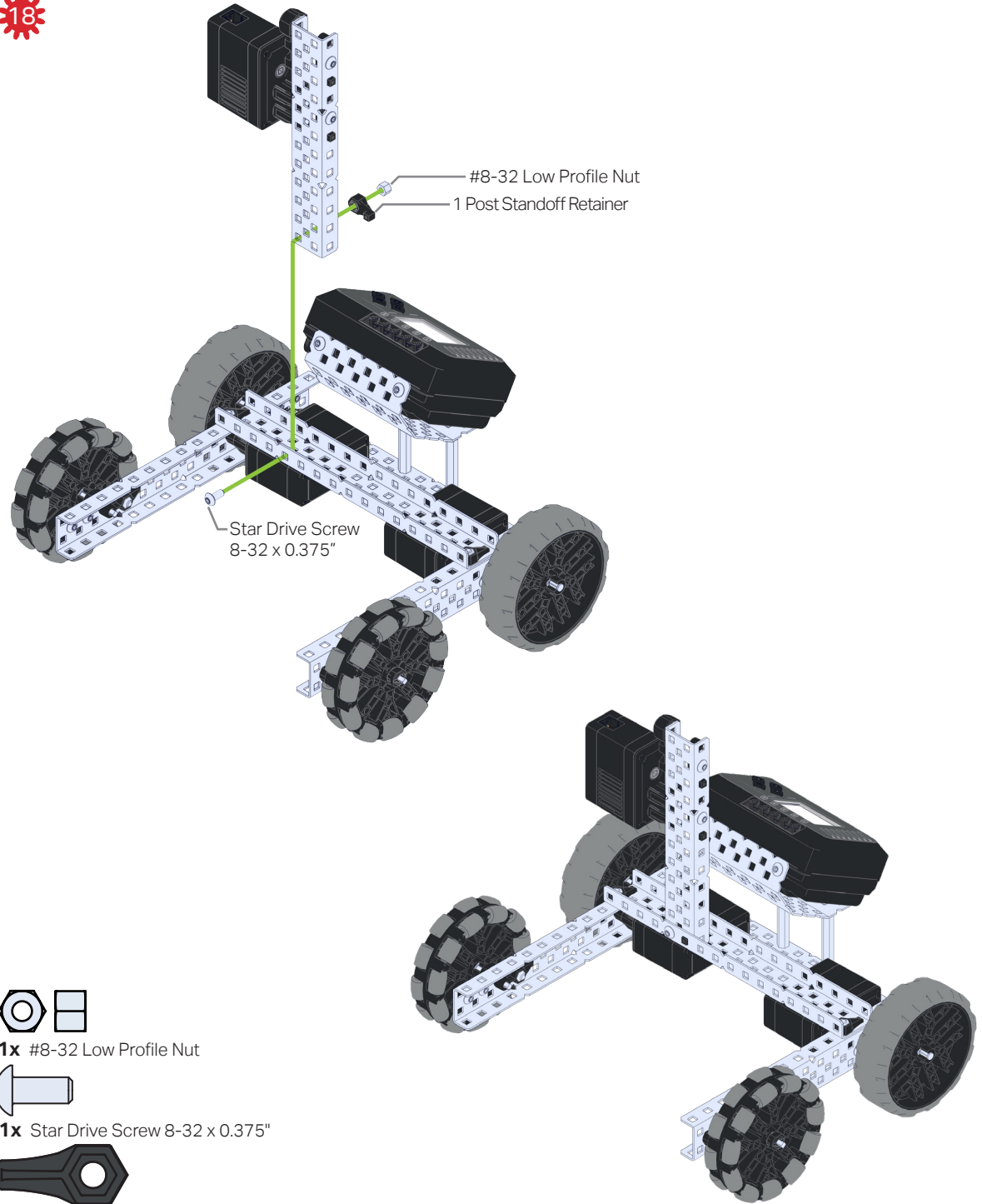
**2x** Star Drive Screw 8-32 x 0.375"



**2x** #8-32 Low Profile Nut



**2x** 1 Post Standoff Retainer with Bearing Flat



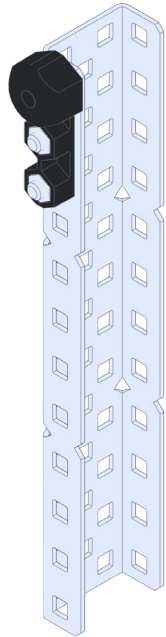
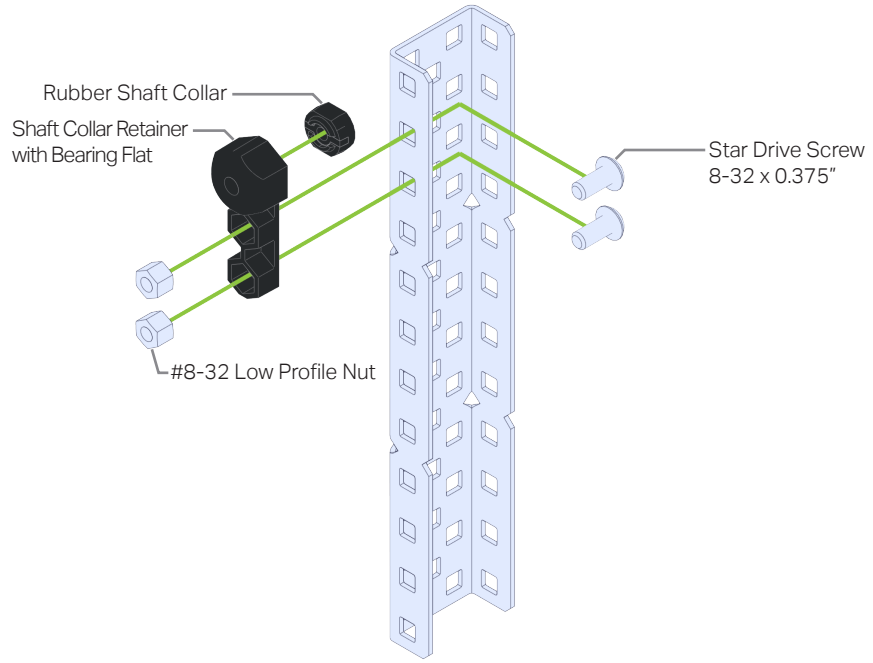
**1x** #8-32 Low Profile Nut



**1x** Star Drive Screw 8-32 x 0.375"



**1x** 1 Post Standoff Retainer



2x Star Drive Screw 8-32 x 0.375"



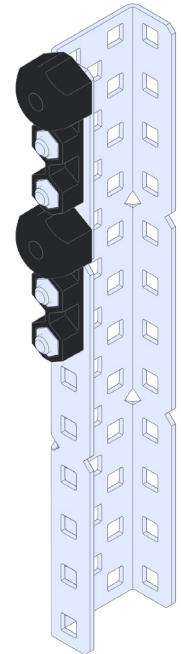
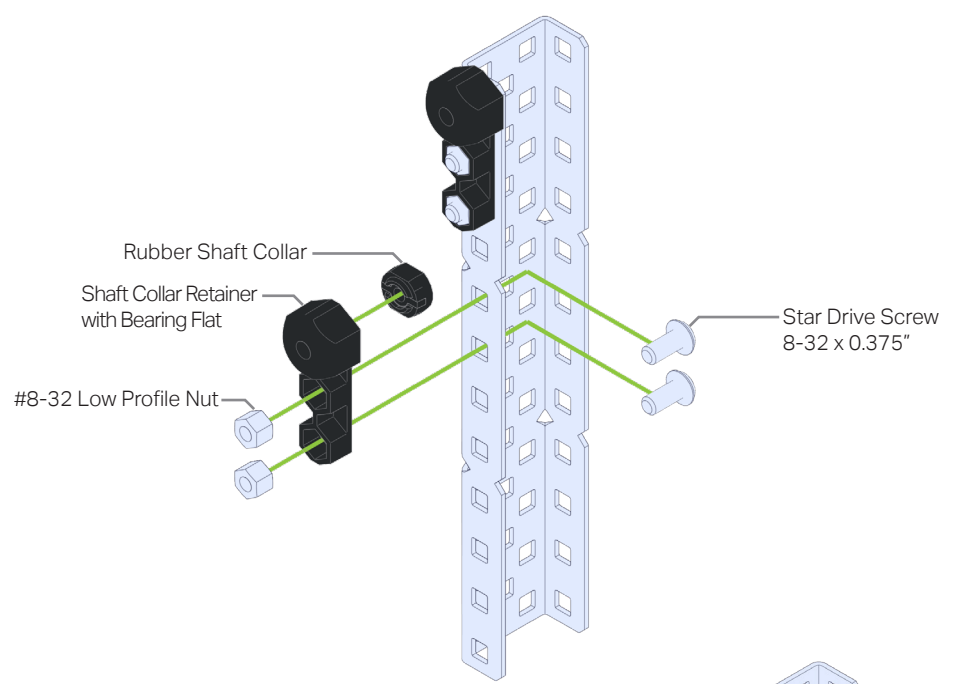
2x #8-32 Low Profile Nut



1x Rubber Shaft Collar



1x Shaft Collar Retainer with Bearing Flat



2x Star Drive Screw 8-32 x 0.375"



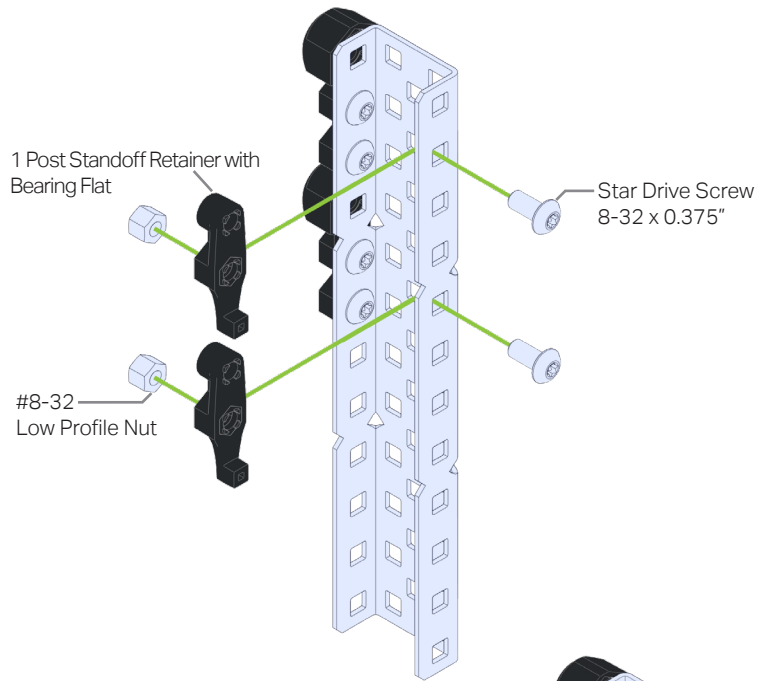
2x #8-32 Low Profile Nut




1x Rubber Shaft Collar



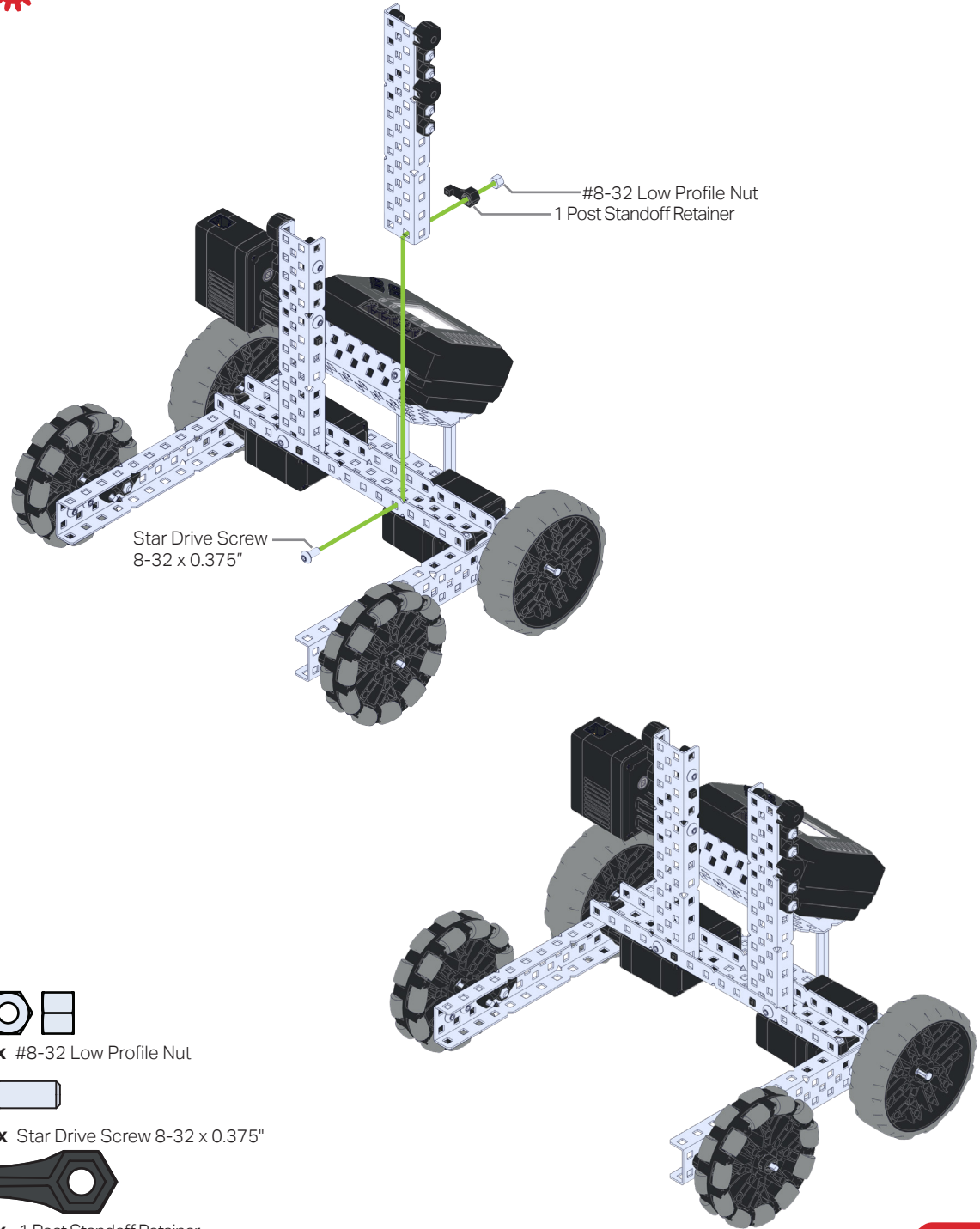
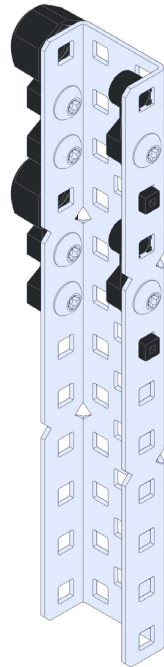
1x Shaft Collar Retainer with Bearing Flat




 2x Star Drive Screw 8-32 x 0.375"

 2x #8-32 Low Profile Nut

 2x 1 Post Standoff Retainer with Bearing Flat

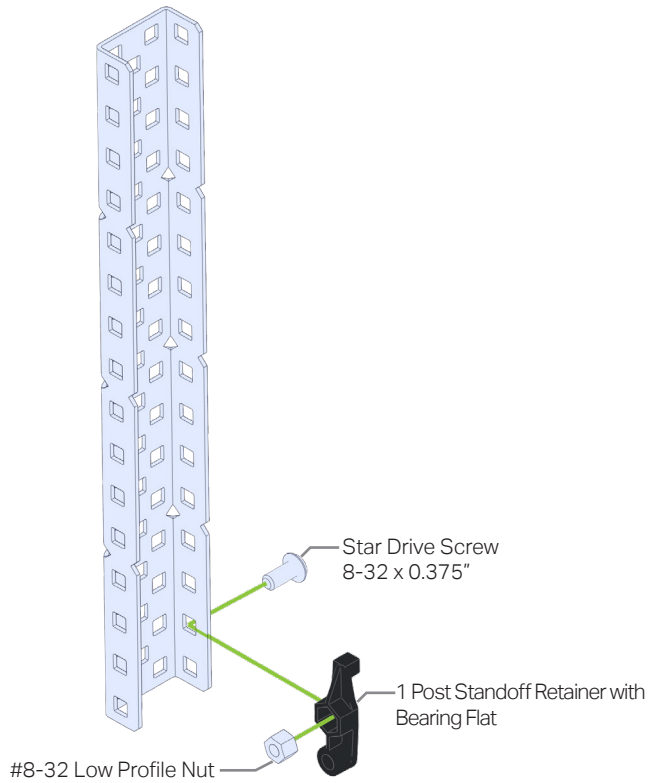


 1x #8-32 Low Profile Nut

 1x Star Drive Screw 8-32 x 0.375"

 1x 1 Post Standoff Retainer

23



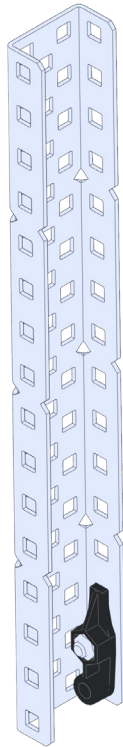
1x Star Drive Screw 8-32 x 0.375"



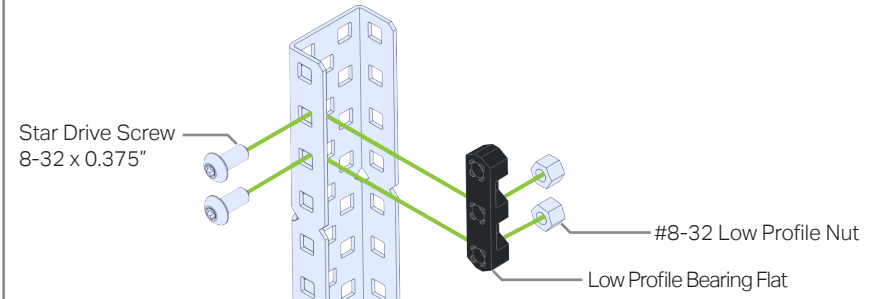
1x #8-32 Low Profile Nut



1x 1 Post Standoff Retainer with Bearing Flat



24



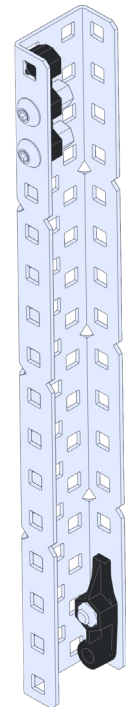
2x Star Drive Screw 8-32 x 0.375"



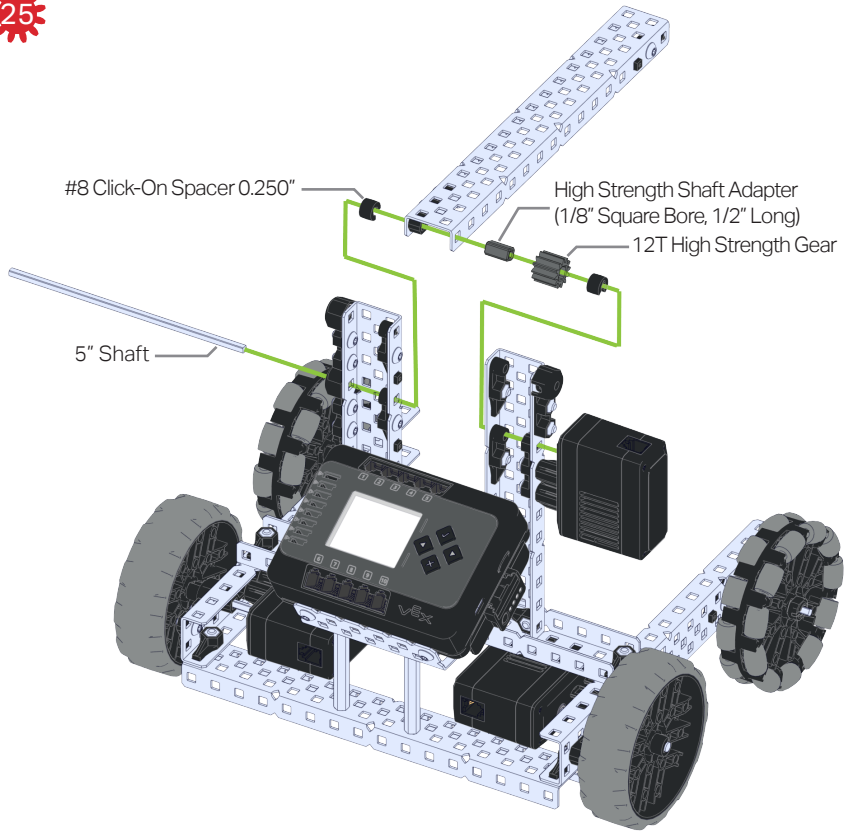
2x #8-32 Low Profile Nut



1x Low Profile Bearing Flat





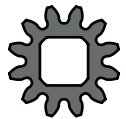


#8 Click-On Spacer 0.250"

High Strength Shaft Adapter  
(1/8" Square Bore, 1/2" Long)

12T High Strength Gear

5" Shaft



1x 12T High Strength Gear

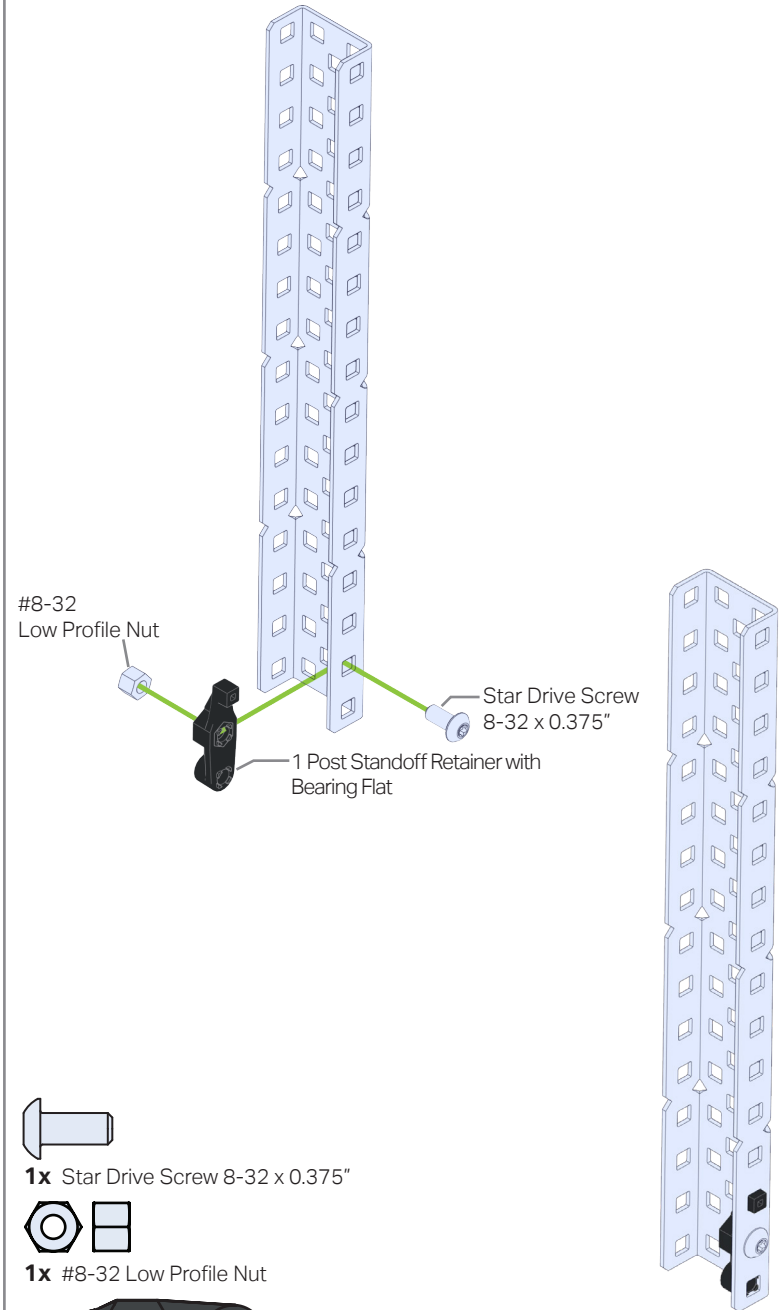
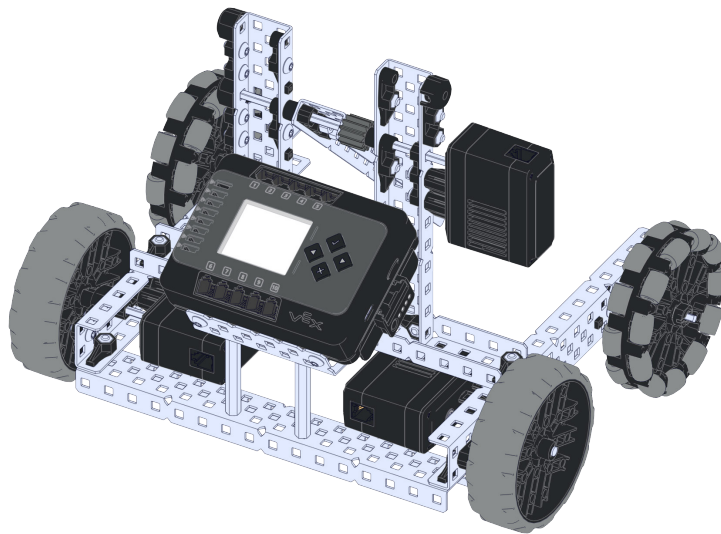


2x #8 Click-On Spacer 0.250"



1x High Strength Shaft Adapter  
(1/8" Square Bore, 1/2" Long)

1x 5" Shaft



#8-32  
Low Profile Nut

Star Drive Screw  
8-32 x 0.375"

1 Post Standoff Retainer with  
Bearing Flat



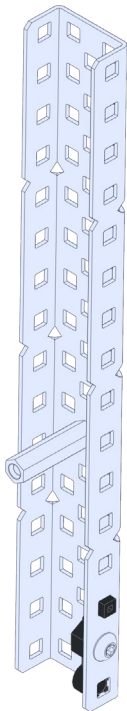
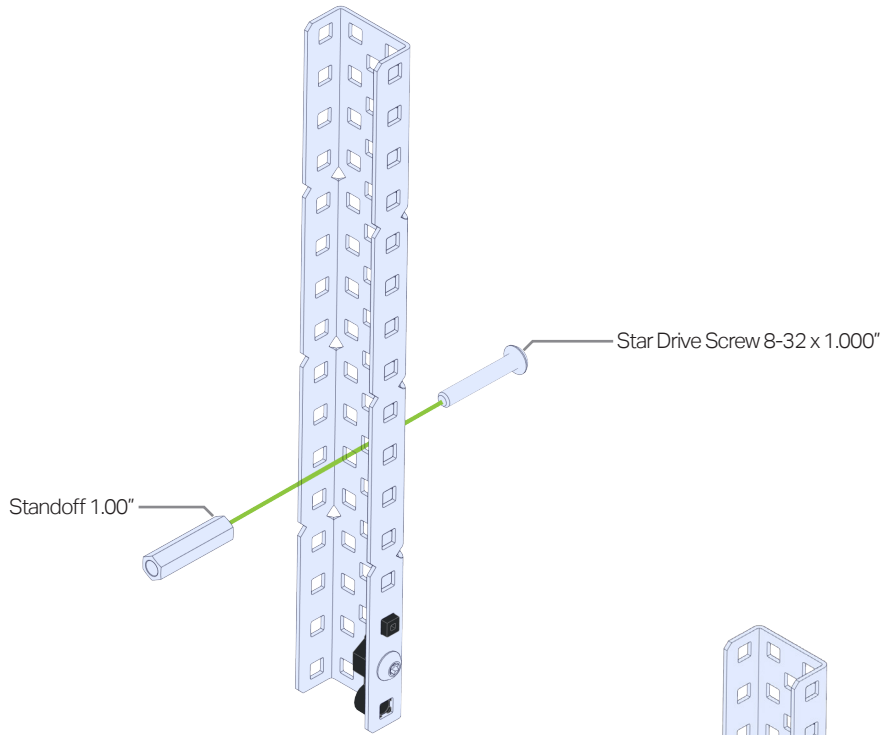
1x Star Drive Screw 8-32 x 0.375"



1x #8-32 Low Profile Nut



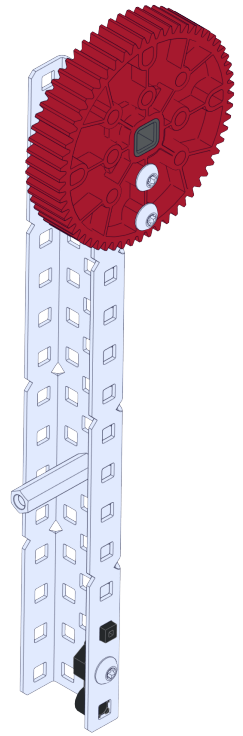
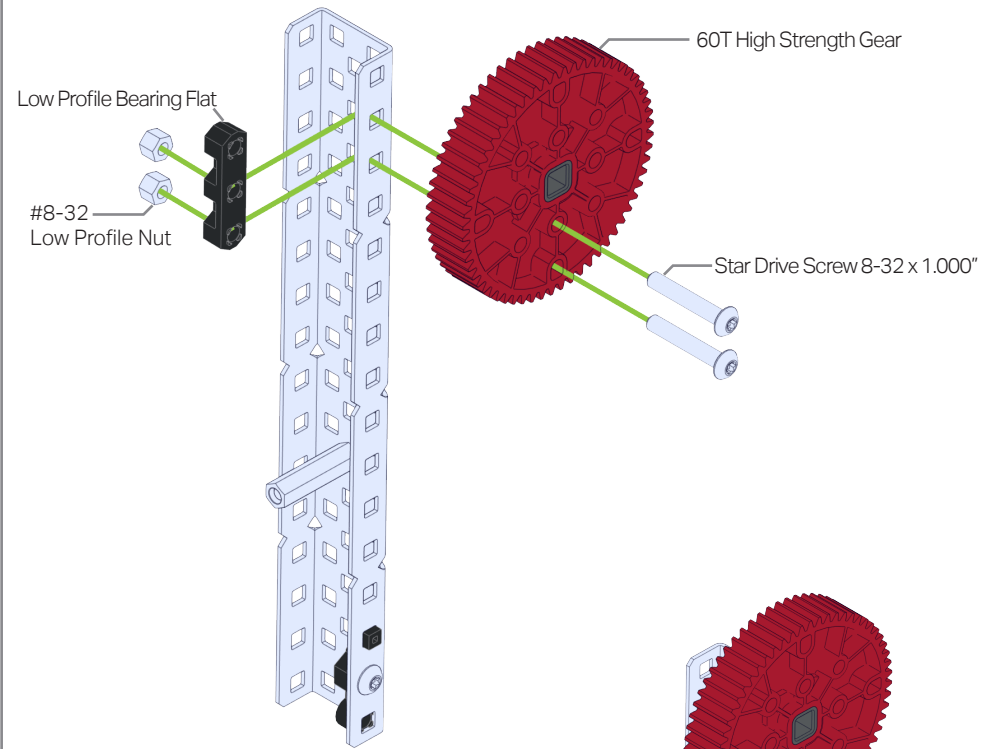
1x 1 Post Standoff Retainer with Bearing Flat



1x Star Drive Screw 8-32 x 1.000"



1x Standoff 1.00"



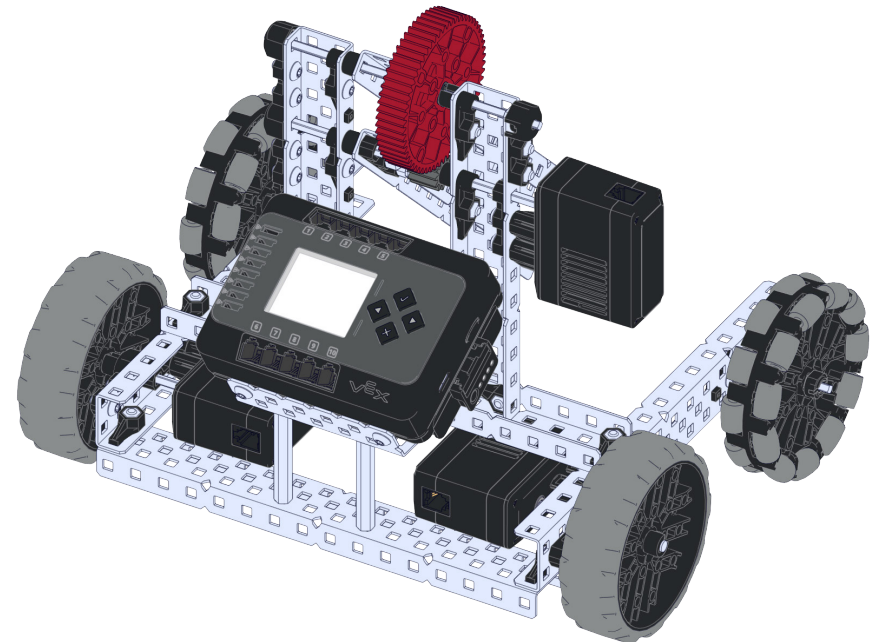
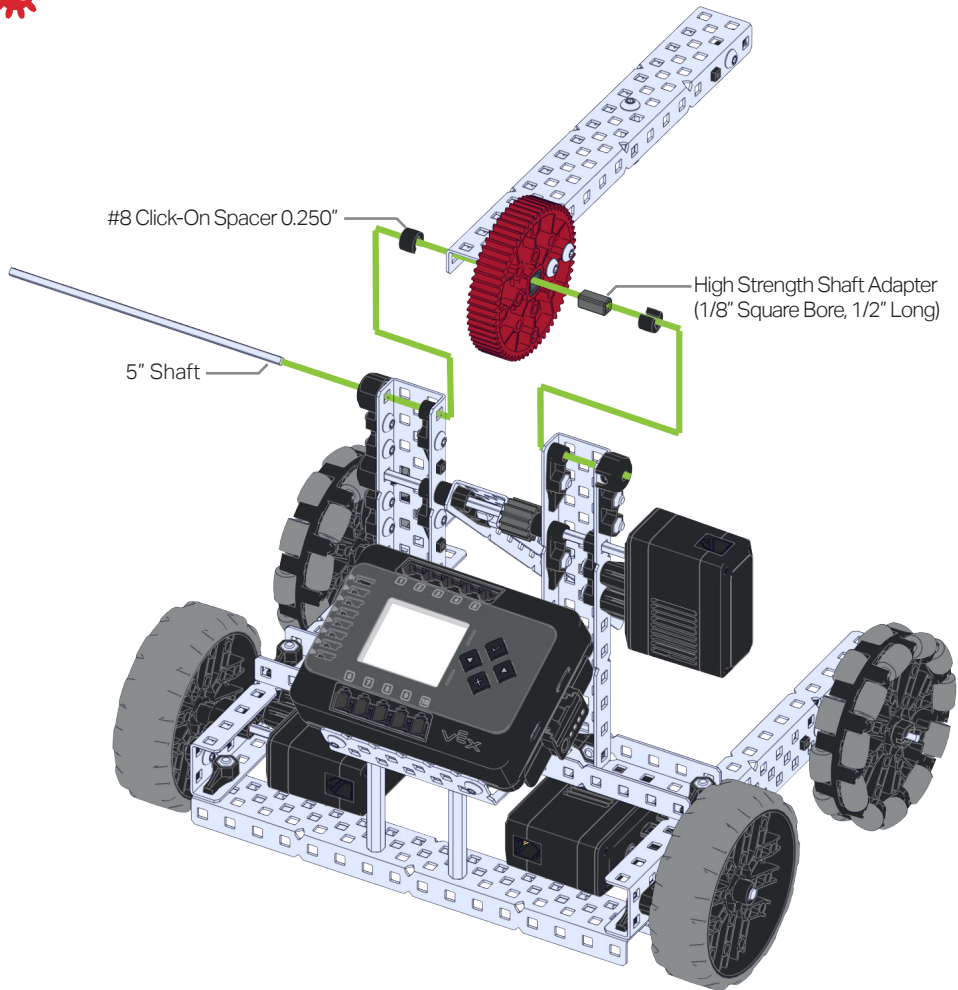
2x #8-32 Low Profile Nut



2x Star Drive Screw 8-32 x 1.000"



1x Low Profile Bearing Flat



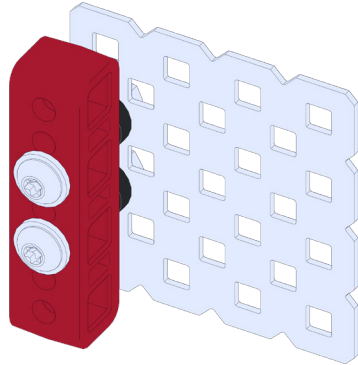
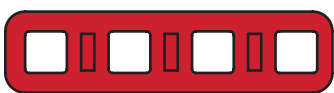
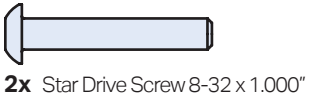
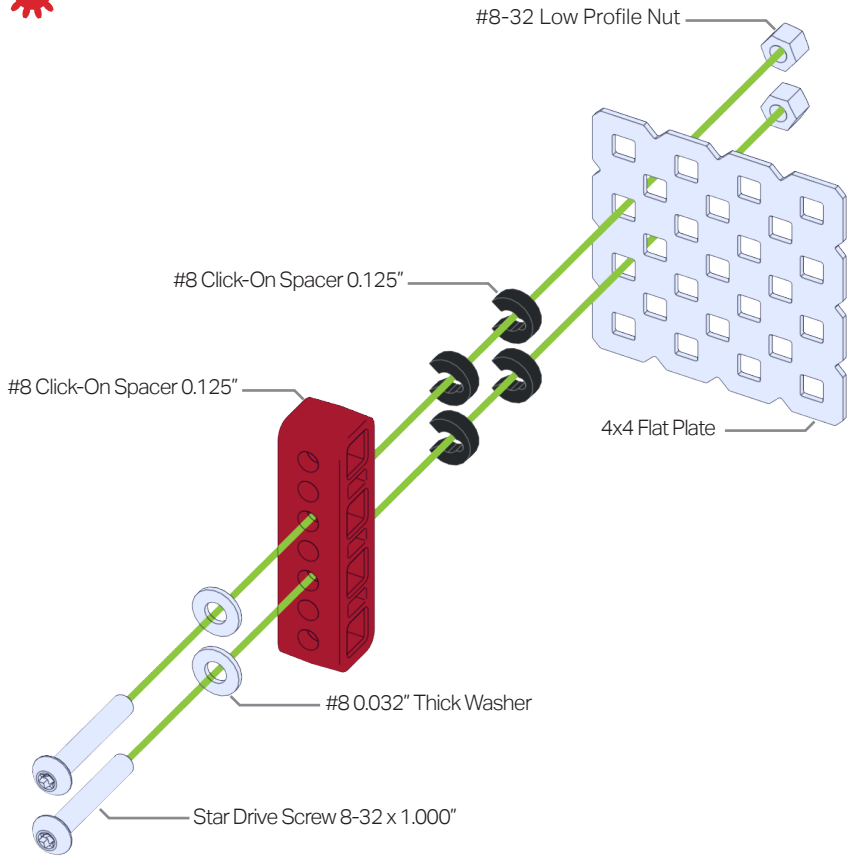
**2x** #8 Click-On Spacer 0.250"



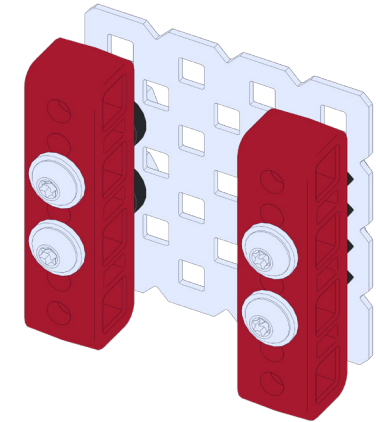
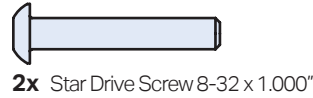
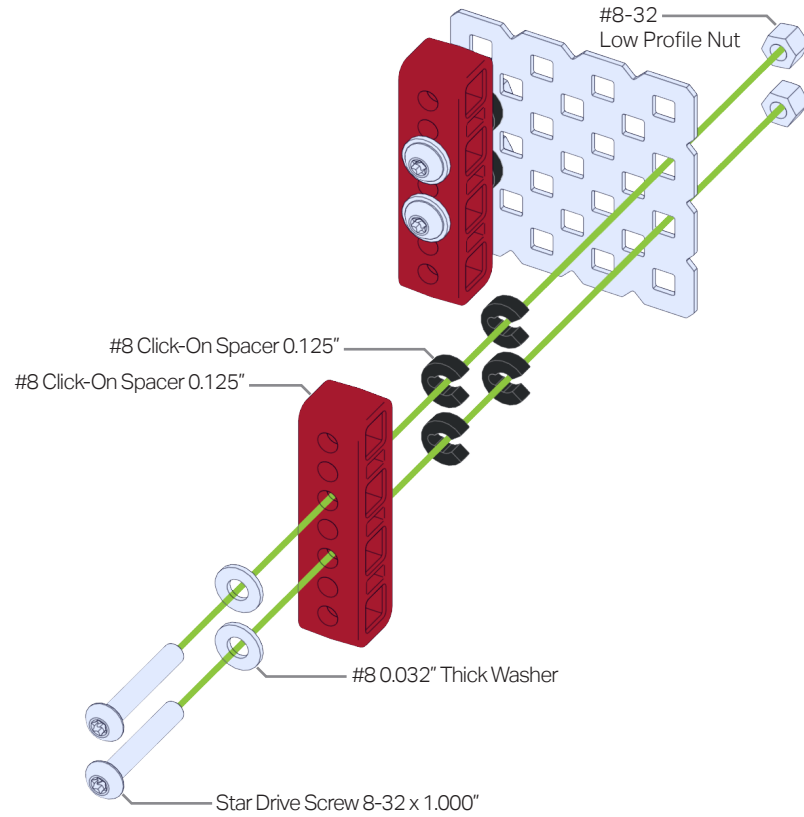
**1x** High Strength Shaft Adapter  
(1/8" Square Bore, 1/2" Long)

**1x** 5" Shaft

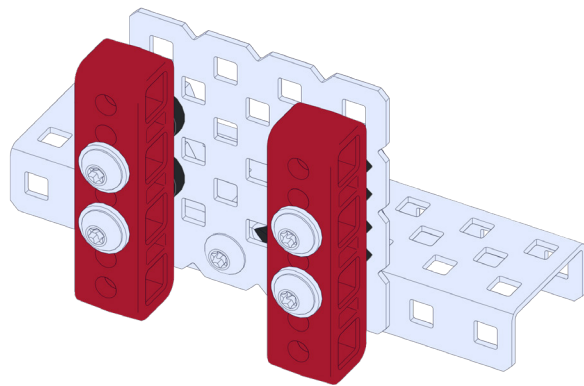
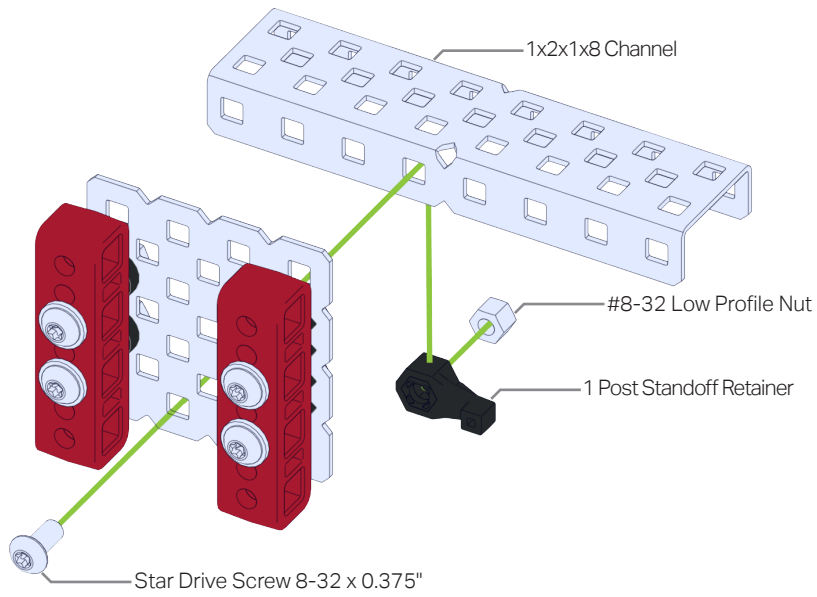
30



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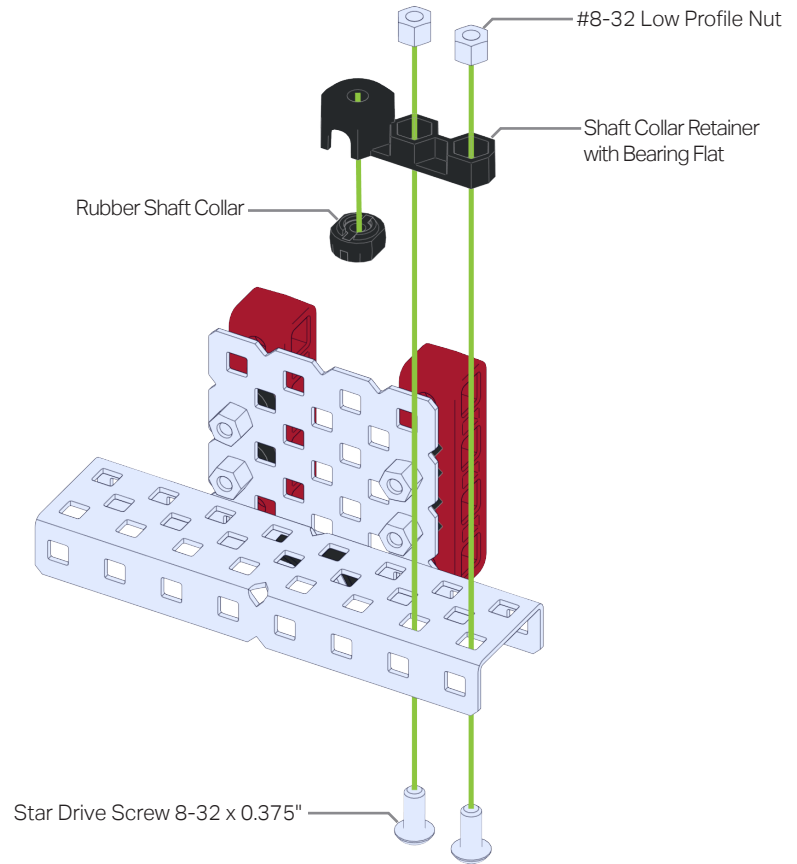
1x #8-32 Low Profile Nut



1x Star Drive Screw 8-32 x 0.375"



1x 1 Post Standoff Retainer



2x Star Drive Screw 8-32 x 0.375"



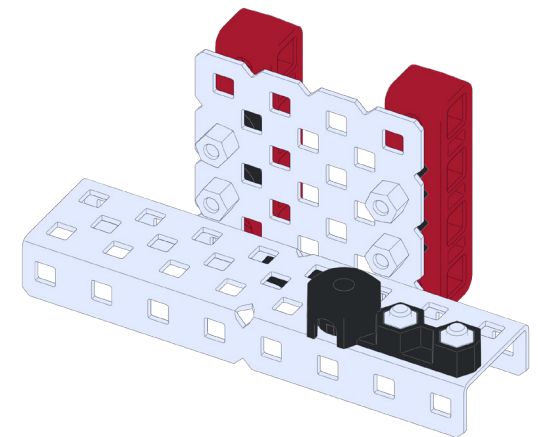
2x #8-32 Low Profile Nut



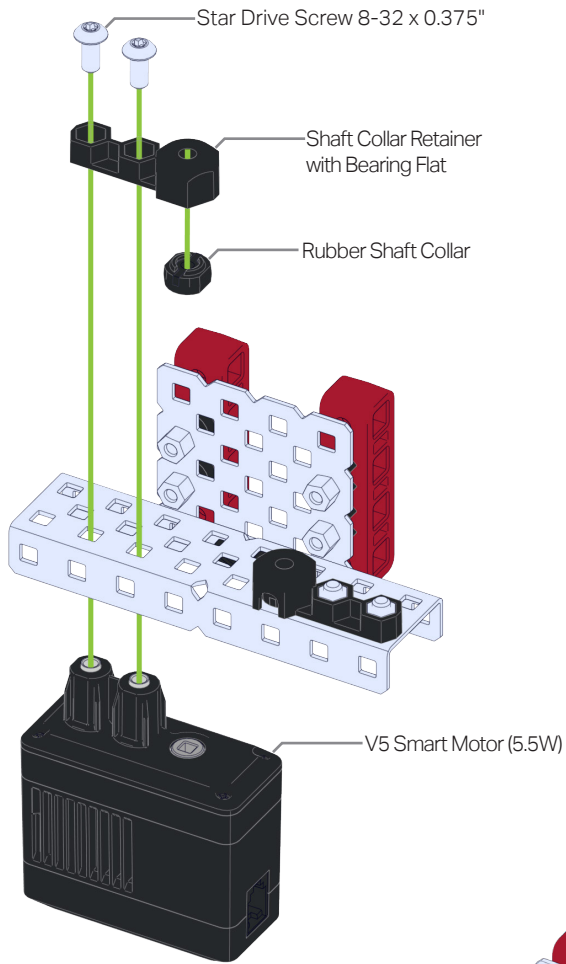
1x Rubber Shaft Collar



1x Shaft Collar Retainer with Bearing Flat



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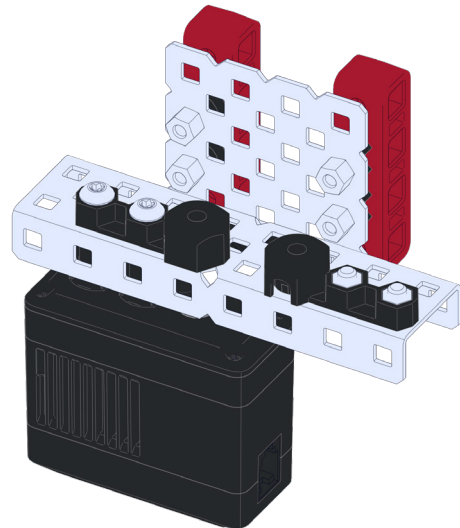
2x Star Drive Screw 8-32 x 0.375"



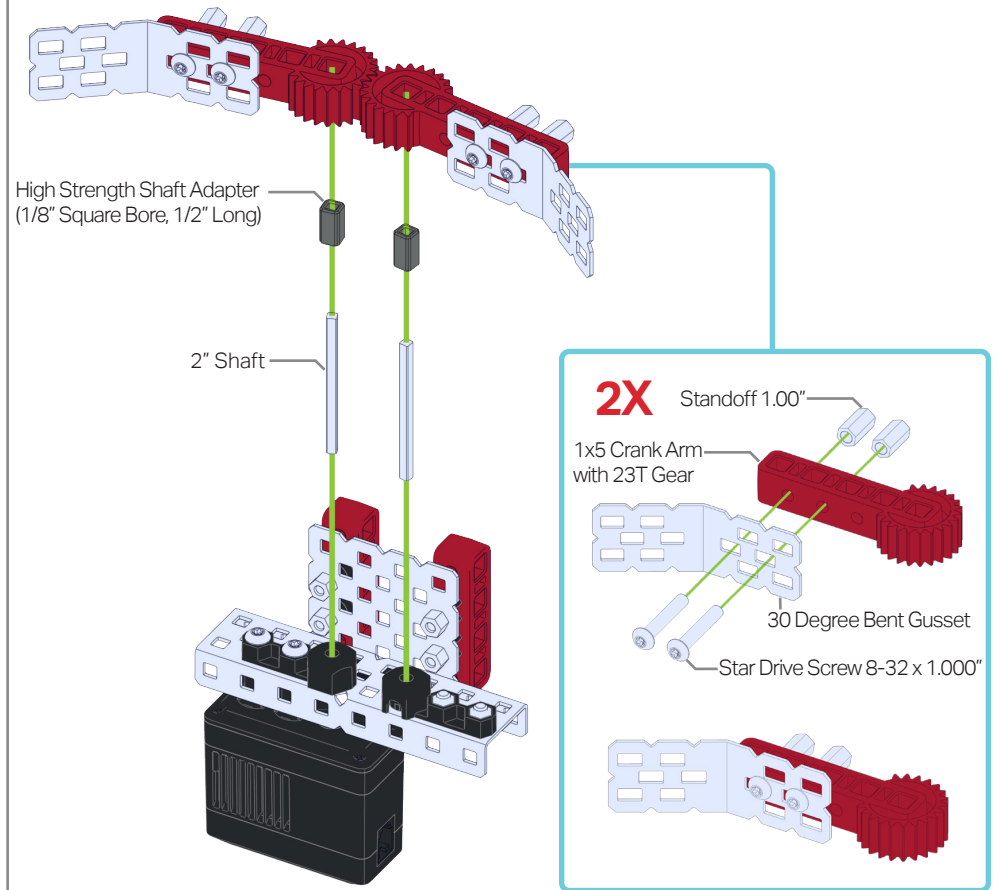
1x Rubber Shaft Collar



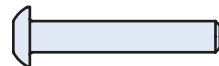
1x Shaft Collar Retainer with Bearing Flat



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2x High Strength Shaft Adapter (1/8" Square Bore, 1/2" Long)



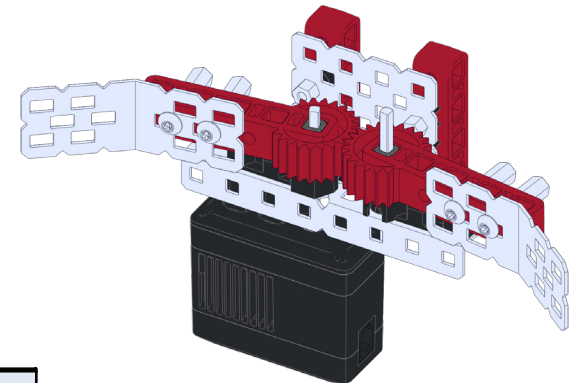
4x Star Drive Screw 8-32 x 1.000"



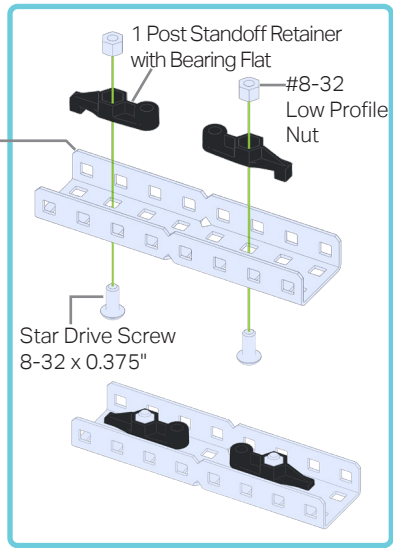
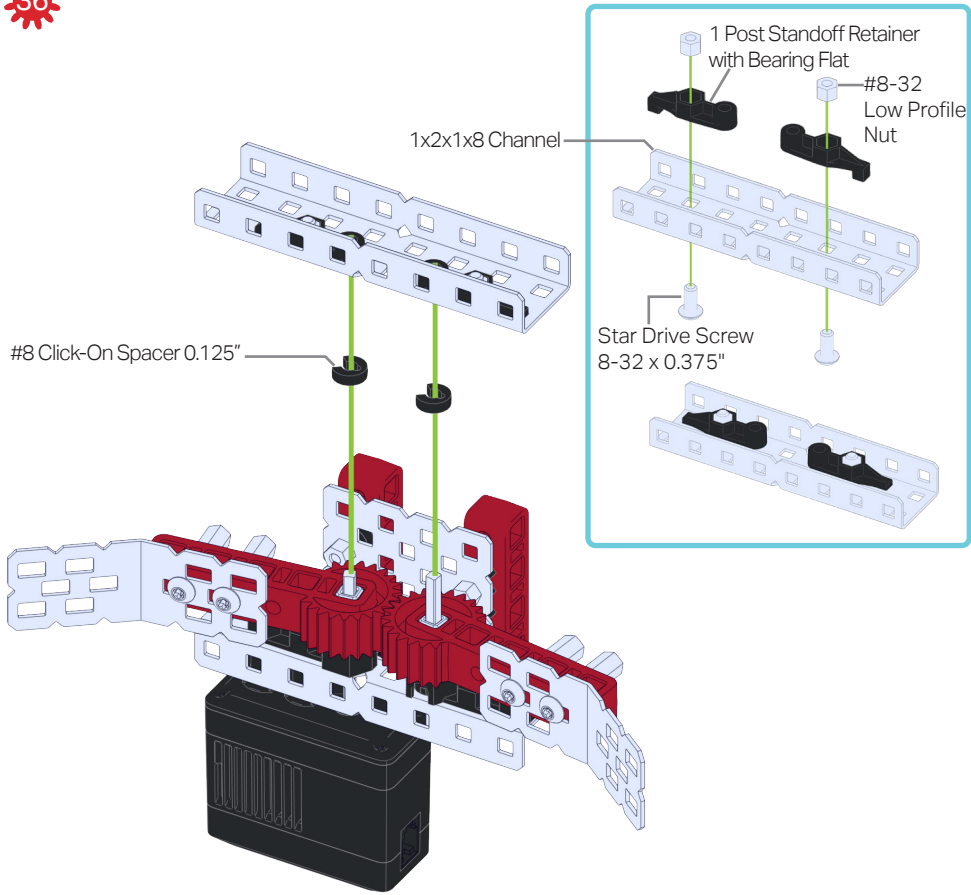
4x Standoff 1.00"



2x 2" Shaft



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2x #8 Click-On Spacer 0.125"



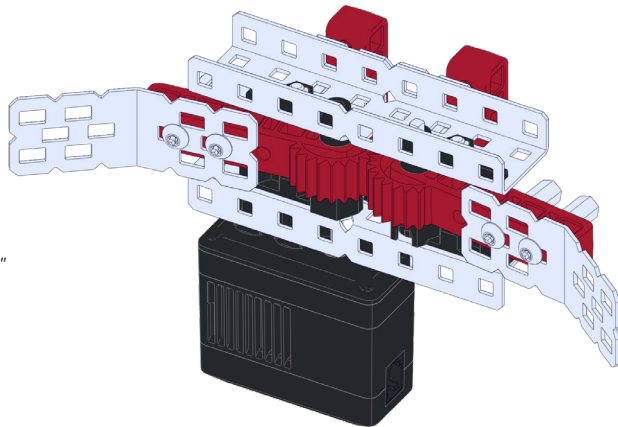
2x Star Drive Screw 8-32 x 0.375"



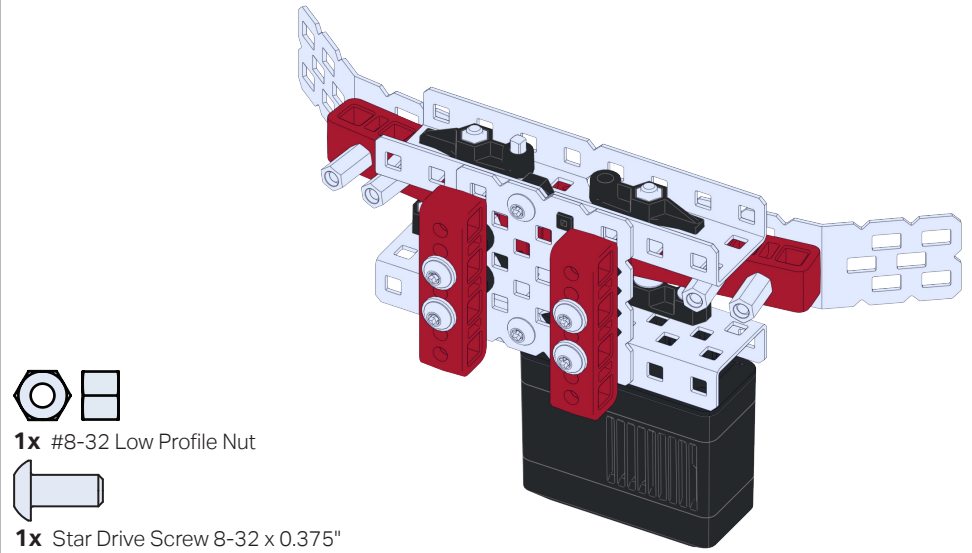
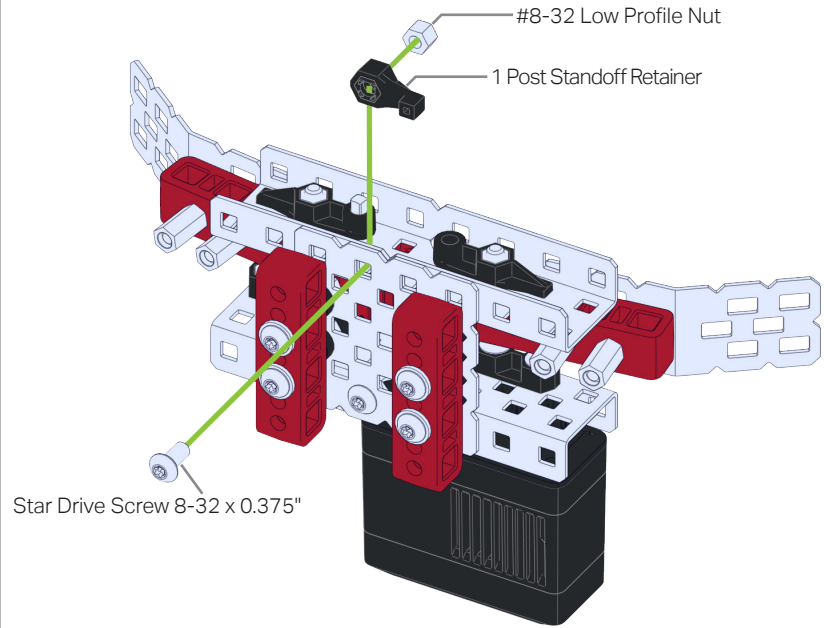
2x #8-32 Low Profile Nut



2x 1 Post Standoff Retainer with Bearing Flat



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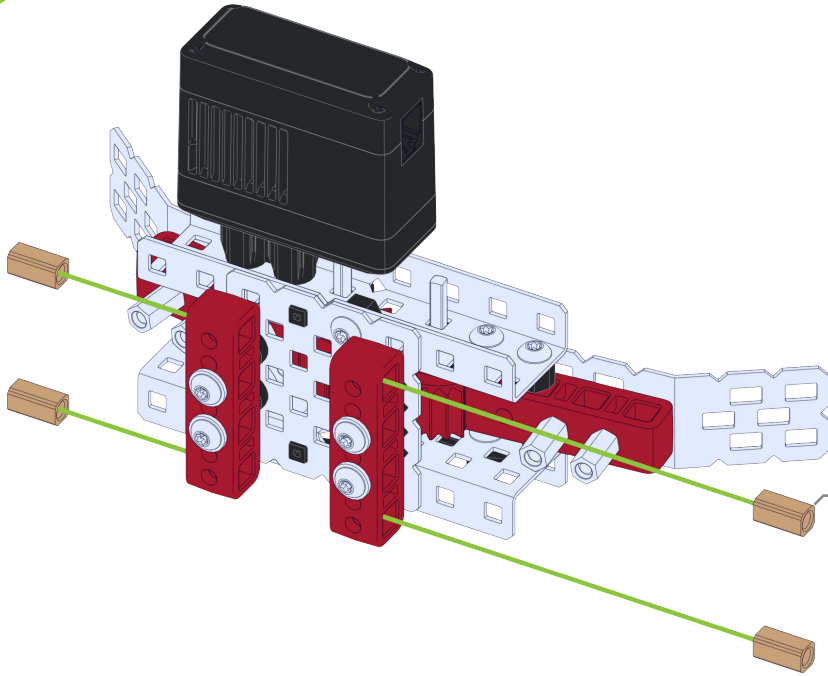
1x #8-32 Low Profile Nut



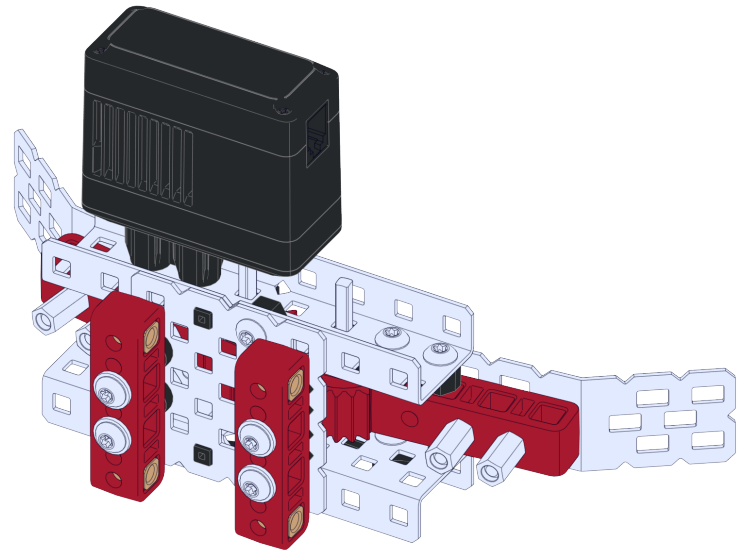
1x Star Drive Screw 8-32 x 0.375"



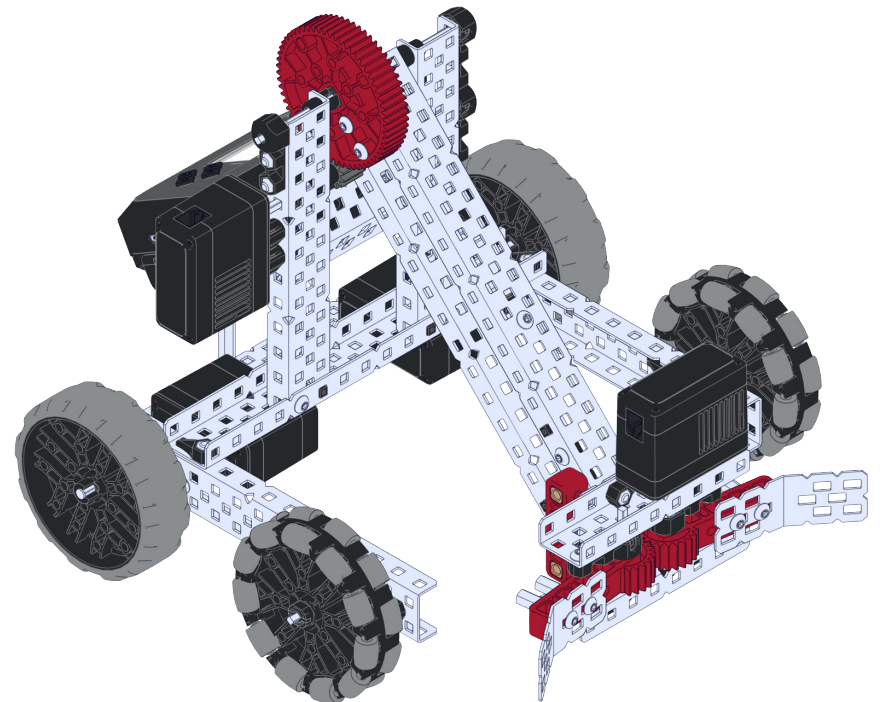
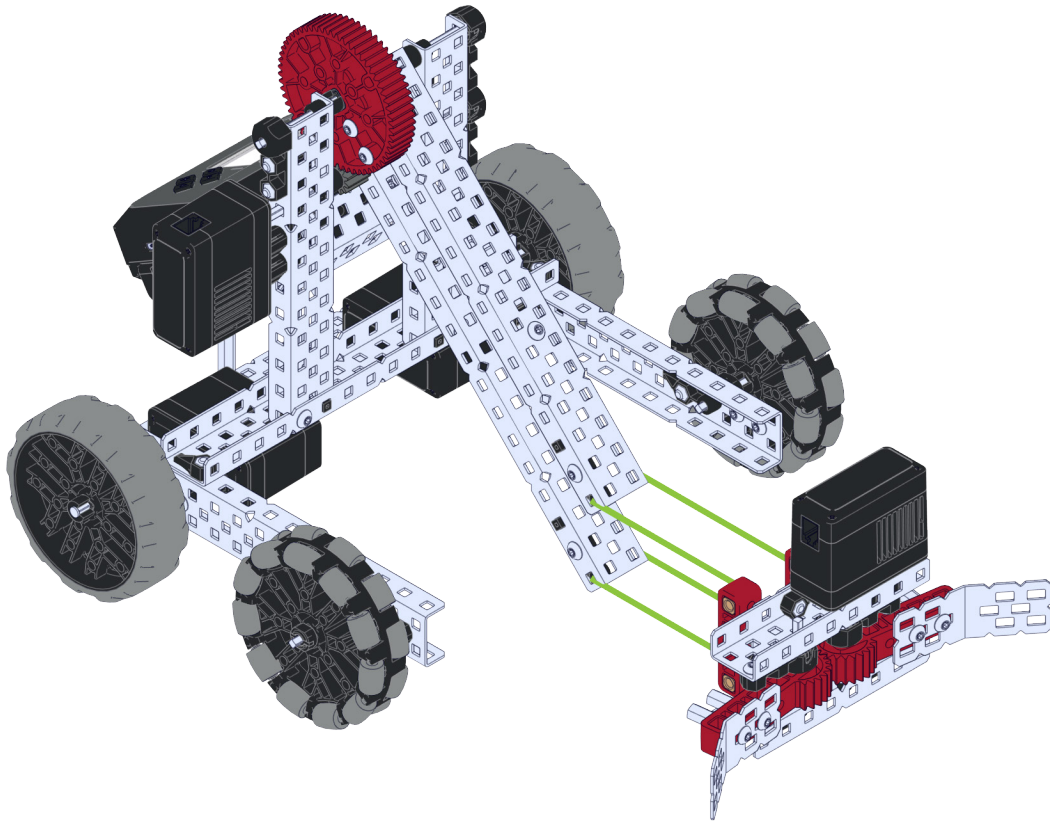
1x 1 Post Standoff Retainer



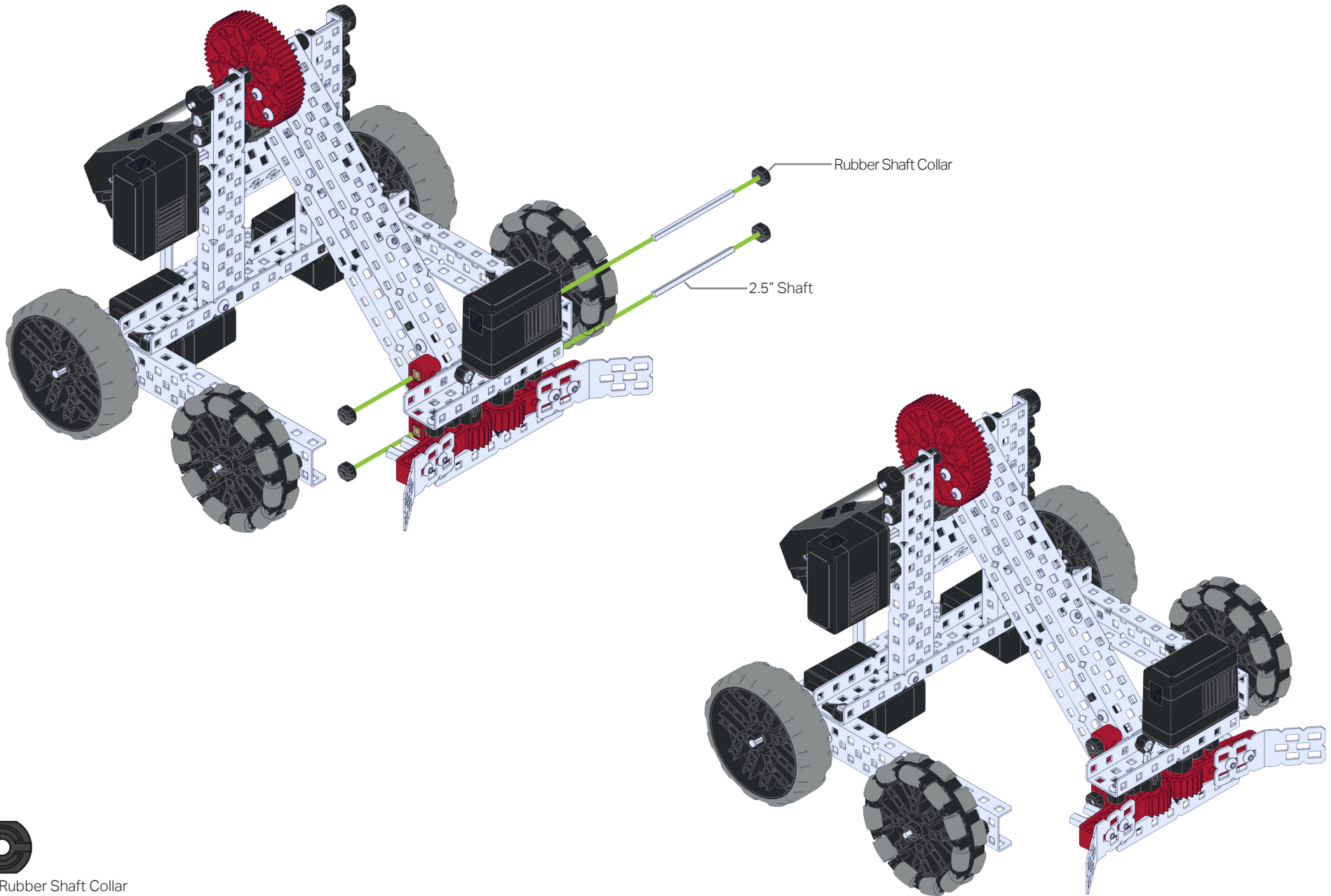
High Strength Shaft Adapter  
(#8 Round Bore, 1/2" Long)



**4x** High Strength Shaft Adapter  
(#8 Round Bore, 1/2" Long)



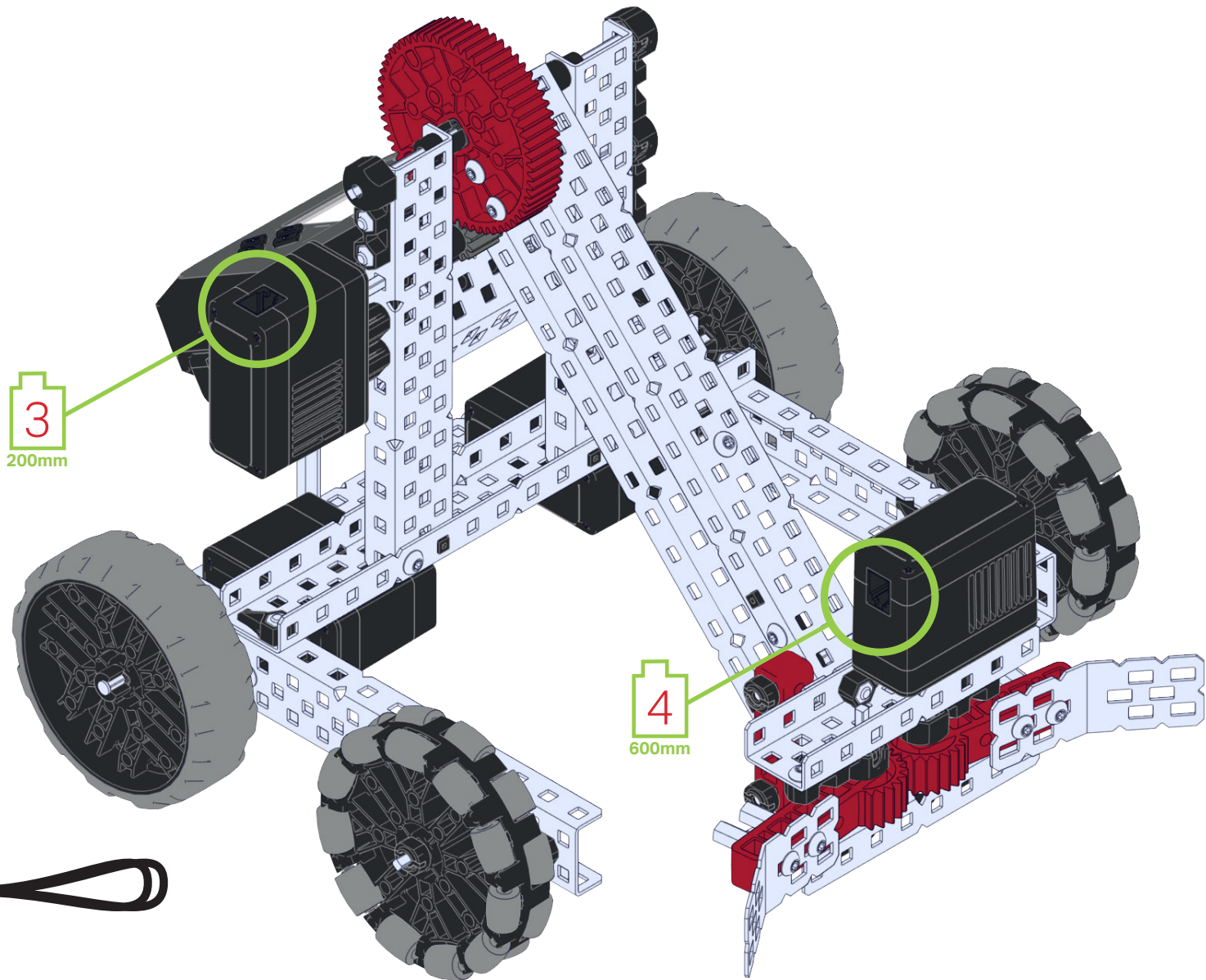




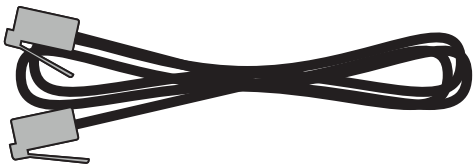
4x Rubber Shaft Collar



2x 2.5" Shaft



1x 200mm Smart Cable



1x 600mm Smart Cable

# EXP Clawbot Build Instructions

280-7735-752 Rev3



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