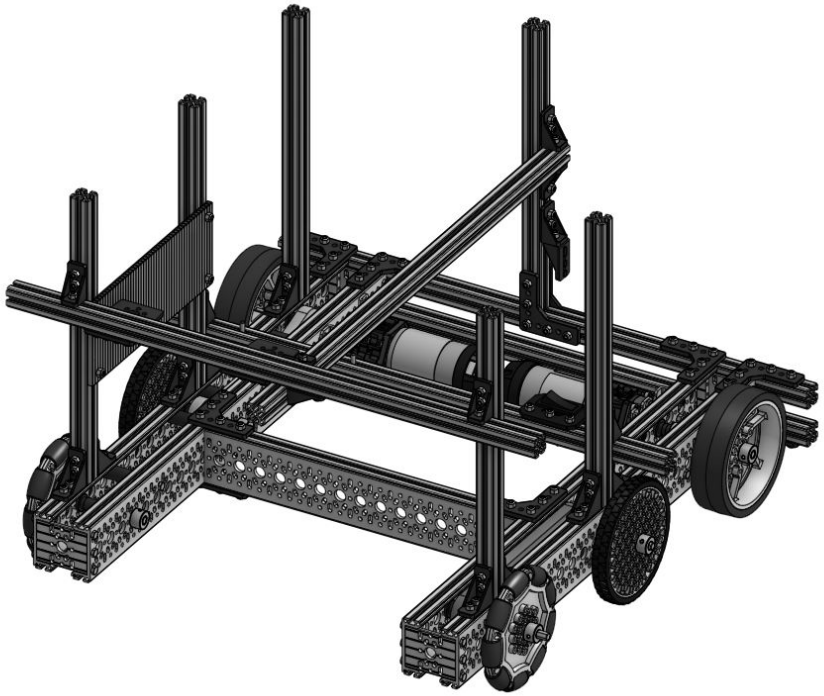
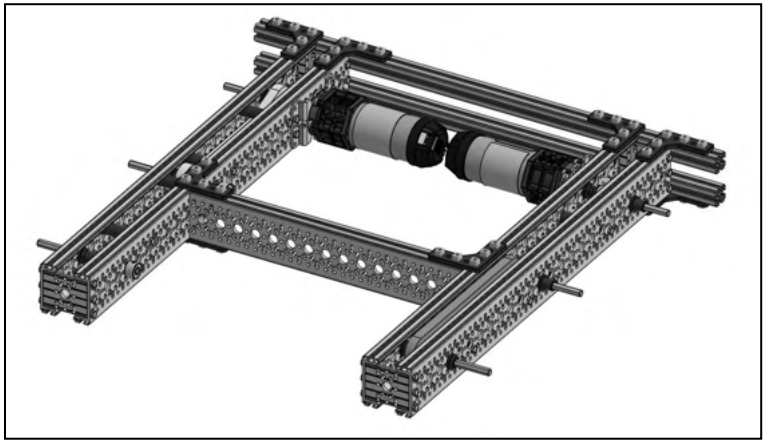
Superstructure



1

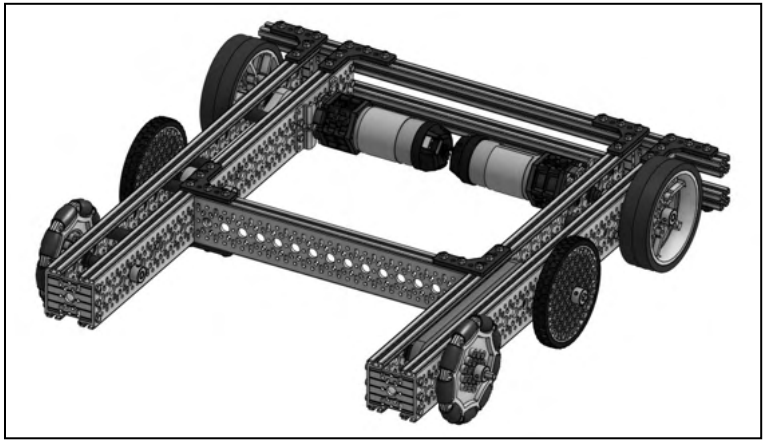


Get:

- 1 - Channel Drivetrain

Remove all wheels from the Channel Drivetrain.

2

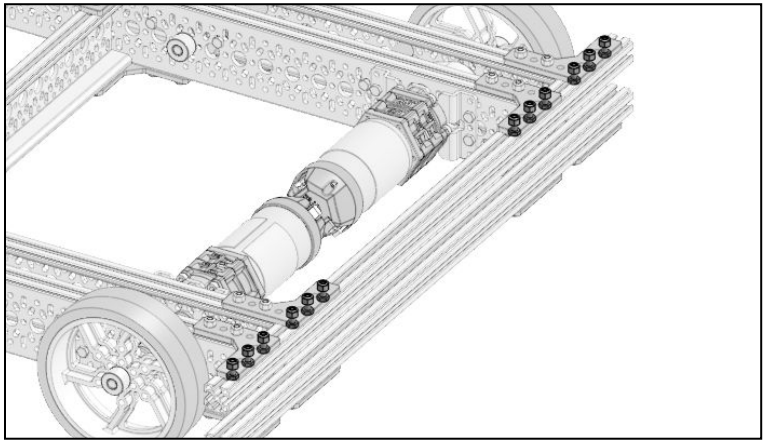


Get:

- 2 - 90mm Traction Wheels
- 2 - 90mm Grip Wheels
- 2 - 90mm Omni Wheels
- 6 - Shaft Collar

Place 6 wheels on the Channel Drivetrain, Grip Wheels by the motor, Traction Wheels in the middle, and Omni Wheels at the end. Secure them to each Hex Shaft with a Shaft Collar.

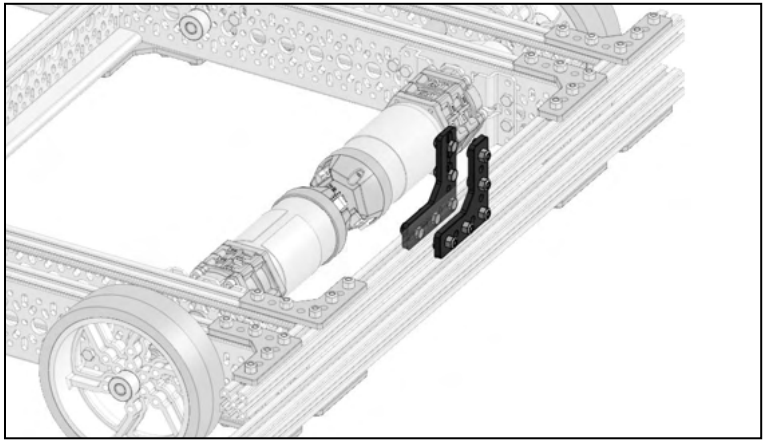
3



Loosen 12 screws on the back side of the Channel Drivetrain. Do not fully remove the nyloc nuts.

Slide this piece of extrusion so that the end is accessible to add on an additional bracket.

4

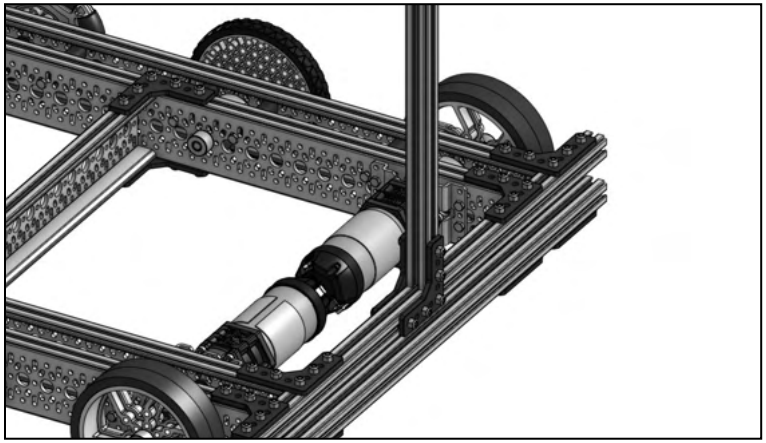


Get:

- 2 - 15mm Plastic 90 Degree Bracket
- 10 - M3 x 8mm Hex Cap Screw
- 10 - Nyloc Nut

Pre-load two Plastic 90 Degree Brackets with Screws and Nuts, then slide them into the center of the extrusion. Then, slide the extrusion back into place on the Channel Drivetrain and secure all brackets.

5



Get:

- 1 - 15mm Extrusion - 225mm

Place the 255mm long piece of Extrusion in the open slot of the 90 Degree brackets and secure by tightening the nuts.

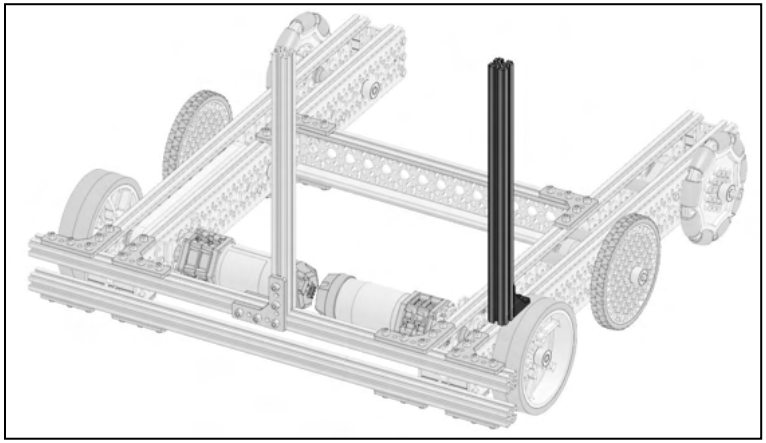
6

Get:

- 1 - 15mm Extrusion - 225mm
- 1 - 15mm Plastic Inside Corner Bracket
- 4 - M3 x 8mm Hex Cap Screw
- 4 - Nyloc Nut

Pre-load an Inside Corner Bracket with Screws and Nuts, then attach one piece of 255mm long Extrusion to the bracket as shown.

7



Slide the Inside Corner Bracket and Extrusion assembly on to the outer right rail of the Channel Drivetrain and secure.

8

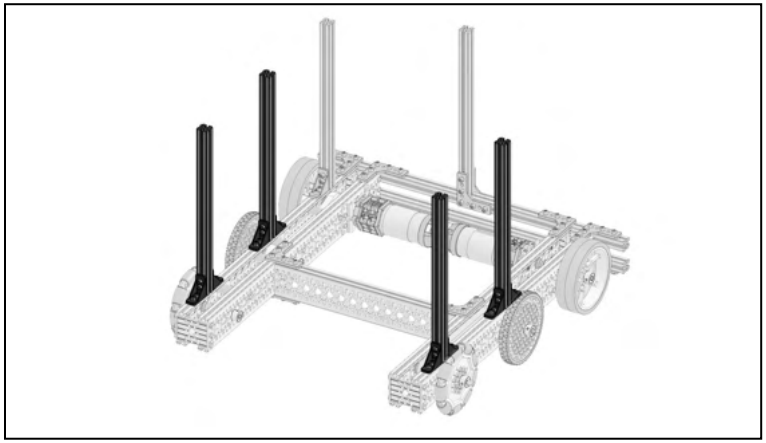
Get:

- 4 - 15mm Extrusion - 225mm
- 8 - 15mm Plastic Inside Corner Bracket
- 32 - M3 x 8mm Hex Cap Screw
- 32 - Nyloc Nut

Pre-load two Inside Corner Brackets with Screws and Nuts, then attach one piece of 255mm long Extrusion to the brackets as shown.

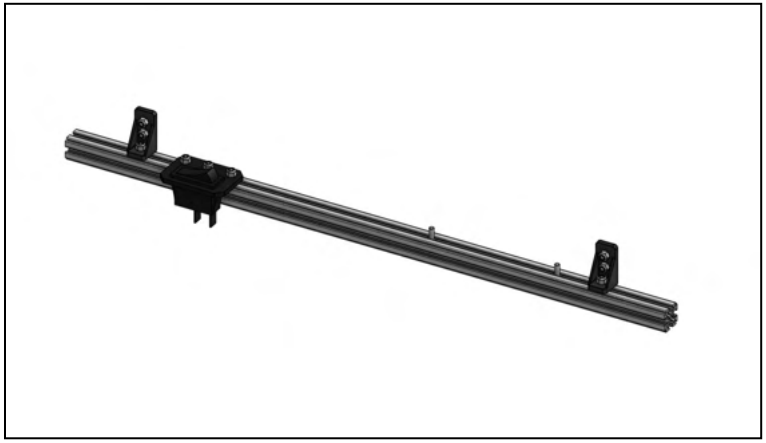
Make 4 of these assemblies.

9



Slide on two Extrusion and Corner Bracket assemblies to each outer rail. Secure them in line with the centers of the Traction Wheels and Omni Wheels.

10



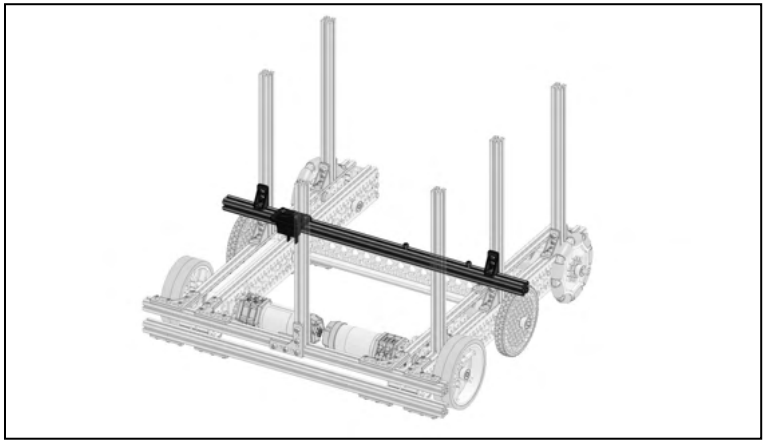
Get:

- 1 - 15mm Extrusion - 420mm
- 2 - 15mm Plastic Lap Corner Bracket
- 1 - Switch Cable and Bracket
- 11 - M3 x 8mm Hex Cap Screw
- 9 - Nyloc Nut

Pre-load the brackets with screws and nuts, then slide them along the extrusion and loosely secure.

Note: the two floating screws can be left loose

11



Slide the assembly from the previous step onto the extrusion as shown.

Secure the Lap Corner Brackets.

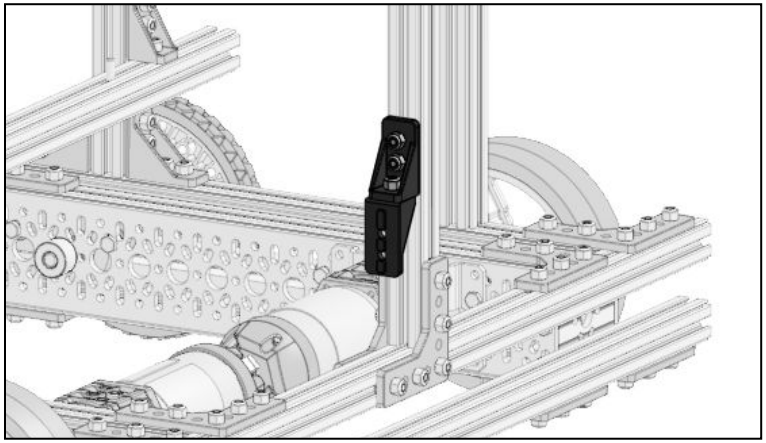
12

Get:

- 2 - 15mm Plastic Lap Corner Bracket
- 3 - M3 x 8mm Hex Cap Screw
- 3 - Nyloc Nut

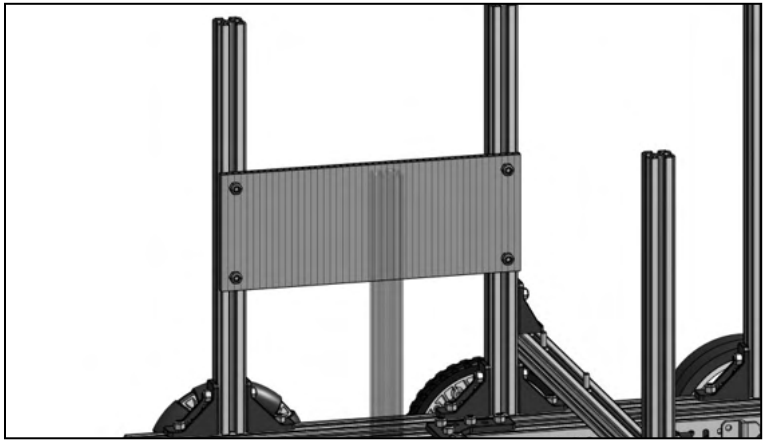
Attach two Lap Corner Brackets as shown, on the upper bracket, pre-load two screws with nuts.

13



Slide on and secure the Lap Corner Bracket assembly from the previous step onto the Extrusion piece on the Drivetrain's back rail.

14

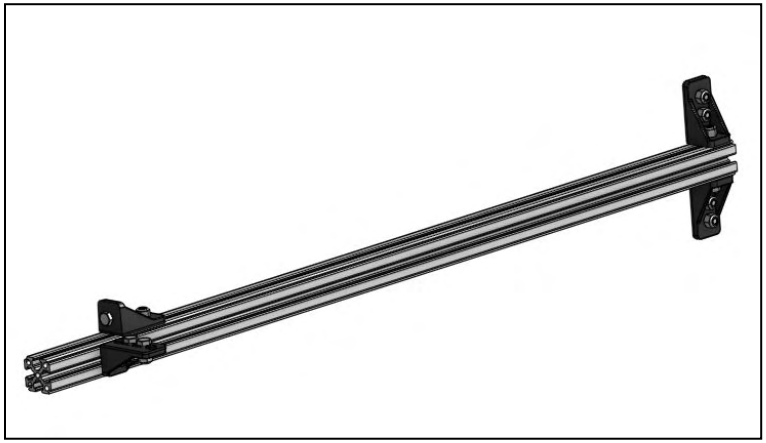


Get:

- 1 - Hopper Side
- 4 - M3 x 8mm Hex Cap Screw
- 4 - Nyloc Nut

Attach the Hopper Side panel to the Extrusion as shown using Screws and Nuts.

15



Get:

- 1 - 15mm Extrusion - 420mm
- 4 - 15mm Plastic Lap Corner Bracket
- 12 - M3 x 8mm Hex Cap Screw
- 12 - Nyloc Nut

Pre-load 4 Plastic Lap Corner Brackets and mount them to the Extrusion piece as shown.

Note: the screw located on the short side of the Lap Bracket may be hard to access.

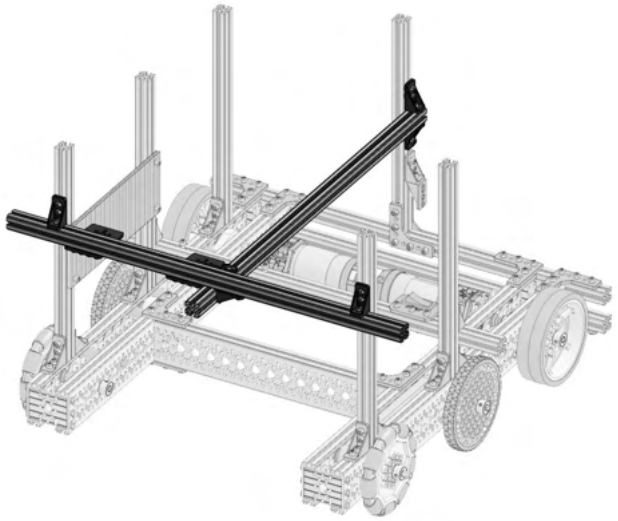
16

Get:

- 1 - 15mm Extrusion - 420mm
- 2 - 15mm Plastic Lap Corner Bracket
- 2 - 15mm Plastic Motion Bracket
- 12 - M3 x 8mm Hex Cap Screw
- 12 - Nyloc Nut

Pre-Load the Lap Brackets and Motion Brackets. Then, slide them onto the empty Extrusion.

Next, slide the new assembly on to the one from the previous step so that the motion brackets are on the left side of the connecting lap corner bracket.



Slide this assembly onto the superstructure already mounted to your robot.

Loosen brackets as needed to secure. Then, once everything is connected as shown, tighten all nuts.