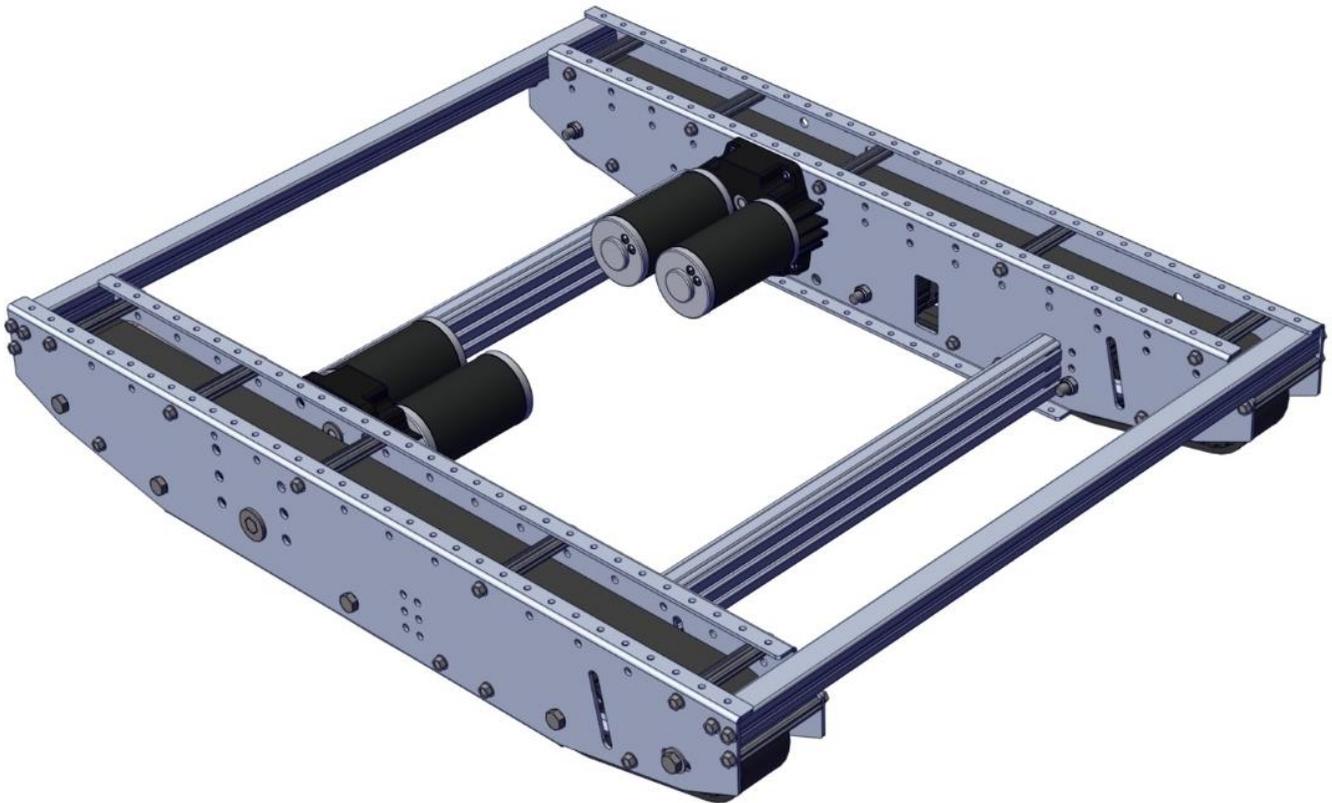




User Guide

Raptor Track Drive



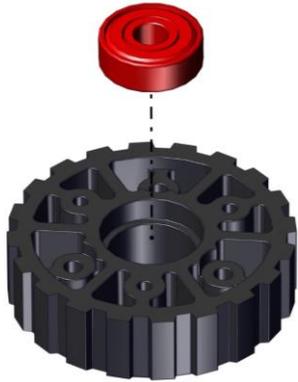
Additional Instructions Available

We encourage customers to seek product information at **AndyMark.com**, contact us via e-mail at **support@andyMark.com**, or call Toll-Free **877-868-4770** with questions about any of our products.

Component	Part Number	QTY
1 - Bearing Kit		
1614ZZ Bearing	(am-0209)	10
FR8ZZ Hex Bearing	(am-2986)	1
1- Motion Hardware Kit		
250 Sprocket/Pulley Spacer	(am-0207a)	1
22T #35 Sprocket	(am-0216)	2
500Hex Hub	(am-2568)	1
Turnbuckle	(am-1429)	2
10-32 Nylock Nut	(am-1042)	6
10-32 x 750 SHCS	(am-1047)	6
Spacer Kit		1
AS62-18-34 AL Spacer	(am-1514)	6
MAS16-10-5 AL Spacer	(am-1515)	4
.125t x 443ID Nylon Spacer	(am-2930)	4
500Hex Molded Spacer x 1in	(am-3948-1000)	2
1 - 500Hex Molded Spacer x 0.188in	(am-3948-188)	1
1 - Axle Kit		
5 - 3/8-16 x 4.25 Bolt	(am-1297)	5
5 - 3/8-16 Nylock Jam Nut	(am-1394)	5
2 - 3/8 Washer	(am-1393)	2
40 - 1/4-20 x 750 Thread Forming Screw	(am-1310)	40
30 - 10-24 x 1.25 Thread Forming Screw	(am-1266)	30
10 - 3.375" Churro	(am-2569)	10
5 - 20T Track Drive Pulley Half, Rev 4	(am-3298a)	5
Side Plates (one pair for each module)		
1 - Raptor Inside Plate, Left	(am-4011L OR R)	1
1 - Raptor Outside Plate, Left	(am-4012L OR R)	1
1 - #35 Roller Chain, 10 ft.	(one per module, am-0367)	1
Blue Nitrile Roughtop Belt OR Black Urethane Flat Belt	(am-3288) OR(am-4017)	1

Drive Pulleys - QTY 2 Assemblies:

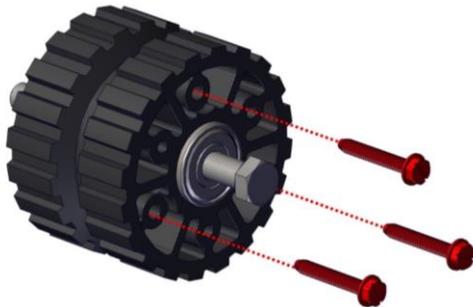
Step 1: Press a 1614ZZ (am-0209) bearing into each Pulley Half (am-3298a_half).



Step 2: Combine two pulley/bearing assemblies together, and temporarily insert a 3/8-16 x 4.25 Bolt (am-1297) through the pulley assembly to keep the bearings aligned.

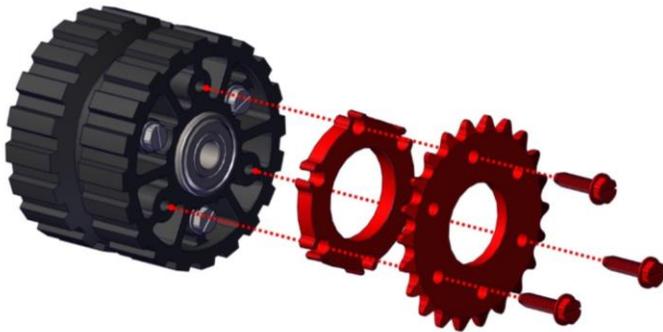


Step 3: Fasten the pulleys together using six 10-24 x 1.25" thread forming screws (am-1266) (three for each side).



Step 4: Remove the axle bolt.

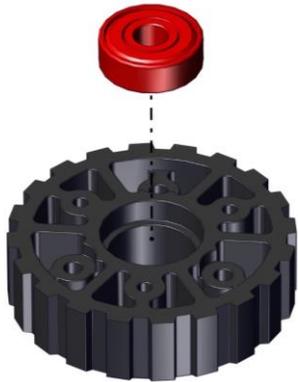
Step 5: Add one 250 Pulley and Sprocket Spacer (am-0207a) and a 22T #35 Sprocket (am-0216) to the pulley assembly. Secure using three 10-24 x 0.750 thread forming screws (am-1123).



Step 6: Repeat to create 2 Assemblies

Idler Pulleys - QTY 8 Assemblies

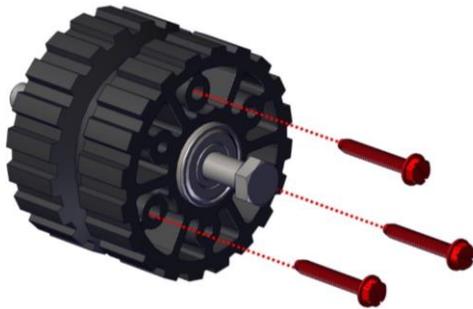
Step 1: Press a 1614ZZ (am-0209) bearing into each Pulley Half (am-3298a_half).



Step 2: Combine two pulley/bearing assemblies together, and temporarily insert a 3/8-16 x 4.25 Bolt (am-1297) through the pulley assembly to keep the bearings aligned.



Step 3: Fasten the pulleys together using six 10-24 x 1.25" thread forming screws (am-1266) (three for each side).



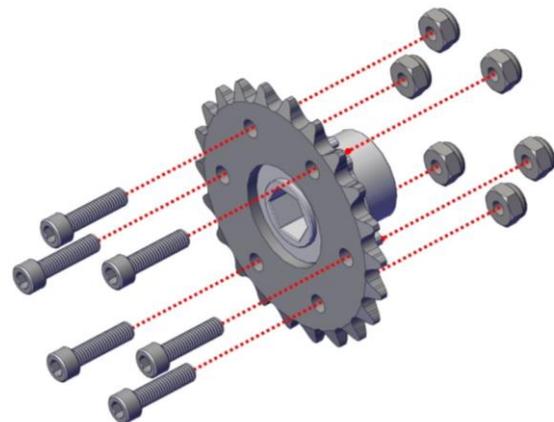
Step 4: Remove the axle bolt.

Drive Sprocket Assembly Instructions – QTY 2

Step 1: Align one 22T #35 Sprocket onto the short side of one 500EX Hex Hub (am-2568).



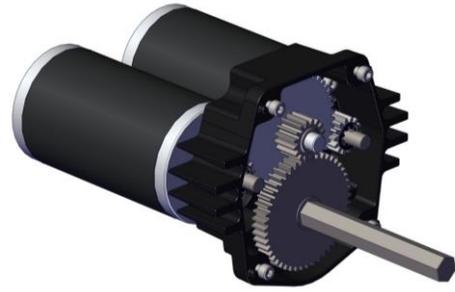
Step 2: Insert six 10-32 x 0.750 SHCS (am-1047) screws through the plate sprocket into the holes in the hub. Secure with six 10-32 Nylock Nuts (am-1042). Be sure to tighten in a star pattern to maintain alignment.



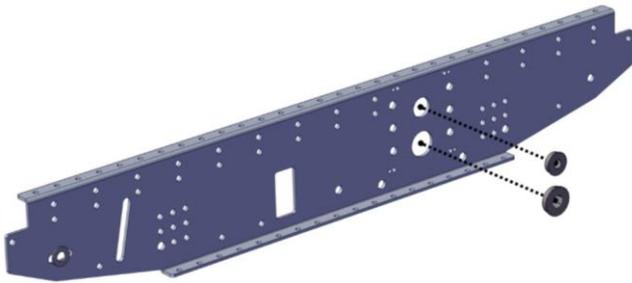
Step 1: Prepare the Walnut and Peanut extrusion pieces by cutting two Peanut extrusions to length (x) and two walnut extrusions to length (x-7"). X will be your total desired chassis width.



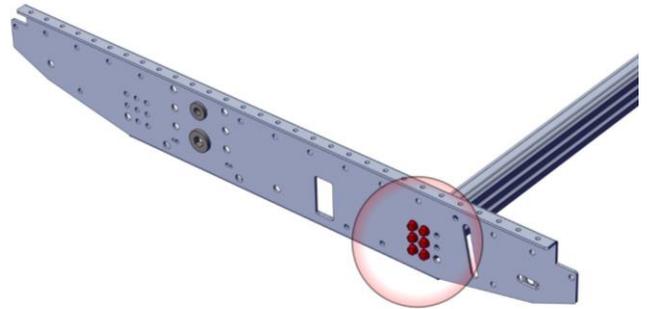
Step 2: Choose a gearbox (Note: Instructions and center shaft spacing developed around the Toughbox Mini.) TB Mini, EVO Slim, EVO Shifter



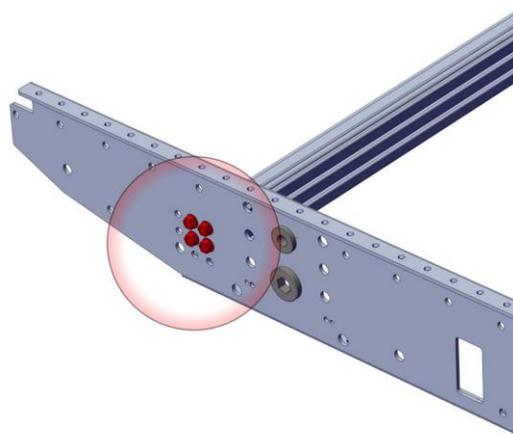
Step 3: Press gearbox bearings into inside plate. The bearing flanges should be on the opposite side than the top flange.



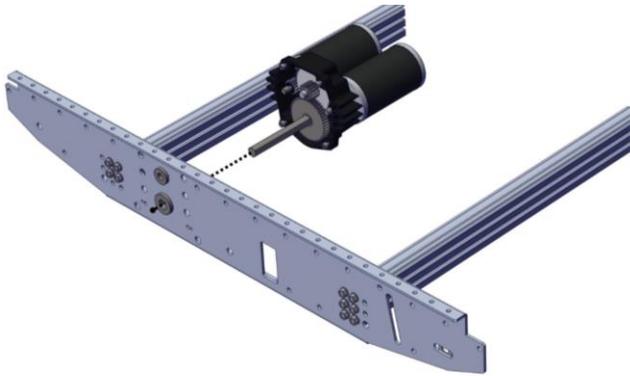
Step 4: Connect a Walnut extrusion to the front end of an Inside Plate (am-4011) as shown using six 1/4-20 x 0.750 thread forming screws (am-1310).



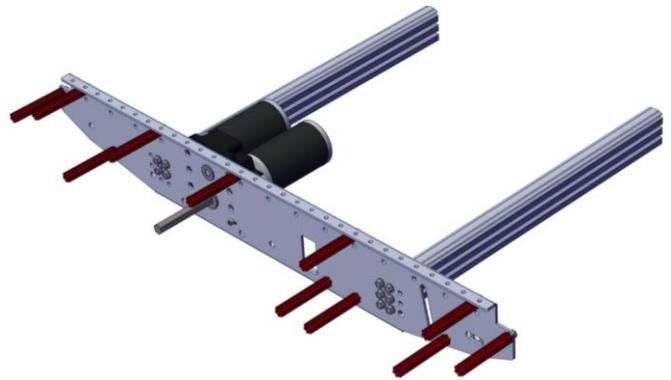
Step 5: Attach the second Walnut extrusions to the rear end of the Inside Plate using eight 1/4-20 x 0.750 thread forming screws (am-1310). Note: Do not install the bottom two screws into the Walnut nearest the Gearbox Mounting holes on each Inside Plate. They will interfere with the chain and should not be installed.



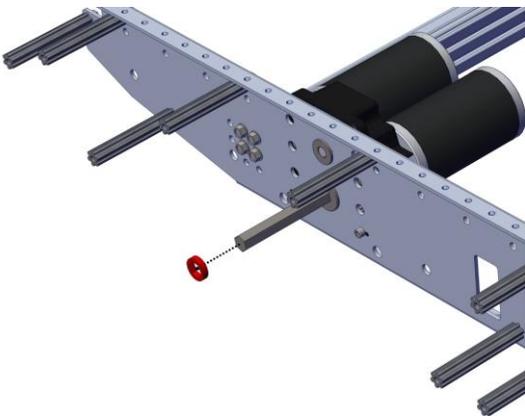
Step 6: Attach your gearbox of choice to each Inside Plate with #10 screws.



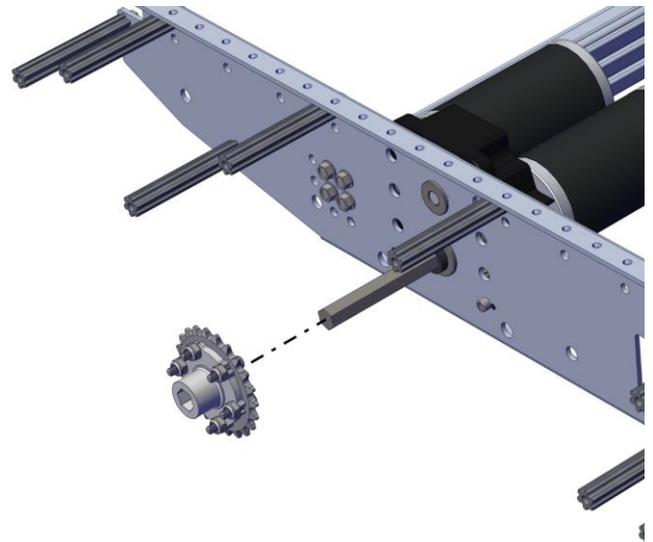
Step 7: Attach eleven 3.375" Churros (am-2569) in the places shown using ten 1/4-20 x 0.750 thread forming screws (am-1310).



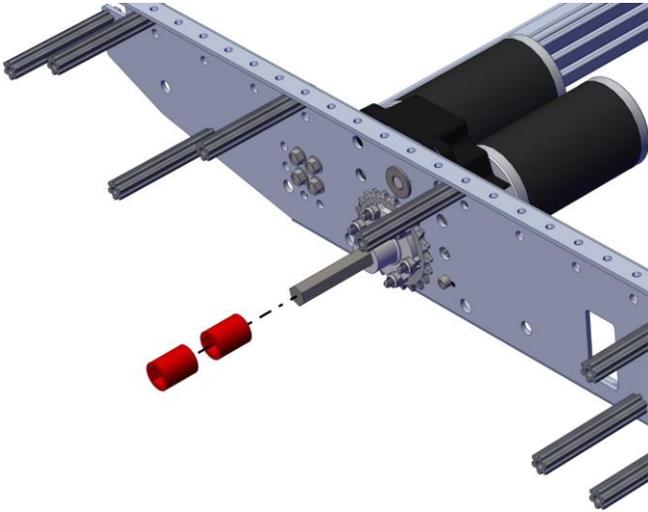
Step 8: Install one 3/16" Hex Spacer (am-3948-188) against the hex bearing of the output gearbox. Note: to use EVO Shifters, use am-14U4_EMK first to install the EVO shifters, and install this 3/16" spacer against the 1/4" hex spacer provided in the EM



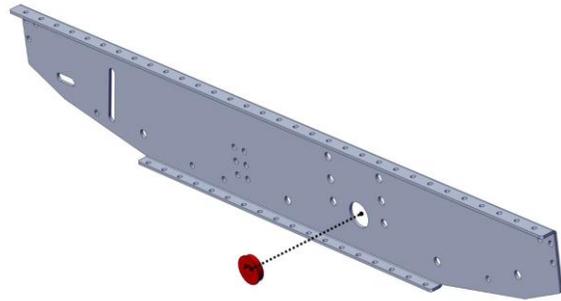
Step 9: Install the Drive Sprocket Assembly onto the gearbox output shaft, with the sprocket facing towards the Inside Plate and touching the 3/16" Hex Spacer (am-3948-188)



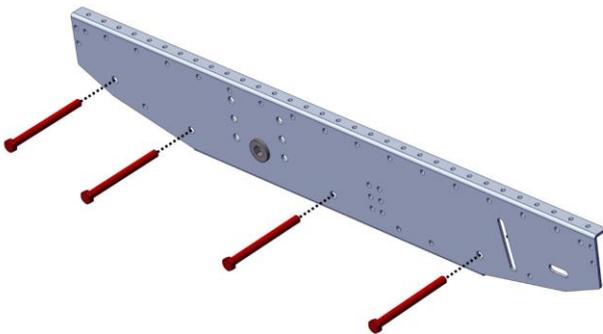
Step 10: Install two 1.00" Molded Hex Spacers (am-3948-1000) back to back along the hex shaft



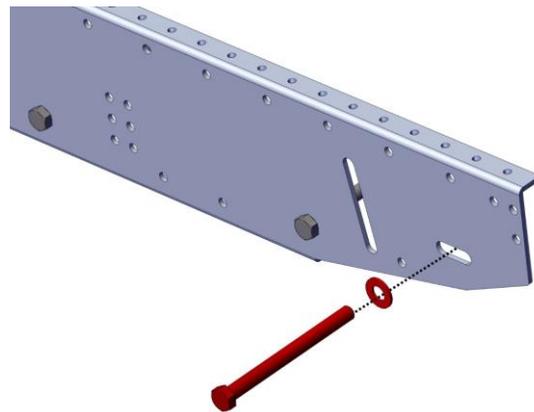
Step 11: Press a hex bearing into each Outside Plate (am-4012) with the flange on the same side as the flanges on the Outside Plate.



Step 12: Step 6: Insert four 3/8-16 x 4.25" Bolts (am-1297) into the Axle Hole locations on the side opposite of the flanges on each Outside Plate (am-4012).

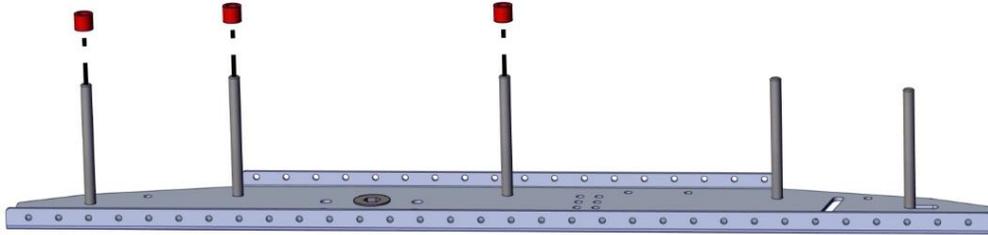


Step 13: Insert one 3/8-16 x 4.25" Bolts (am-1297) into the Axle Slot location on the side opposite of the flanges on each Outside Plate (am-4012). Use a 3/8 washer (am-1393) between the head of the bolt and the Outside Plate

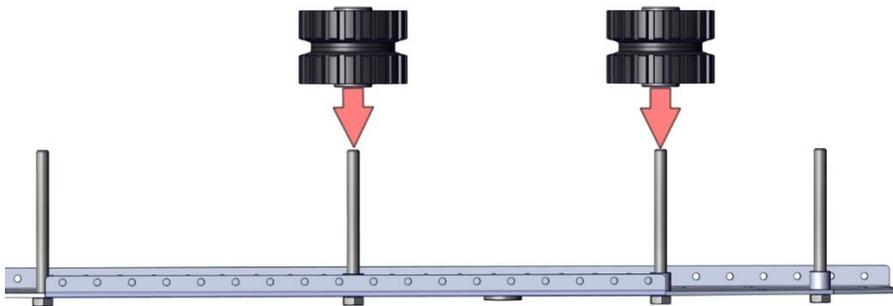


Step 14: Lay the Outside Plate on a table with the flanges of the plate pointing upward, along with the threads of the bolts. Note: at this step, it may be beneficial to tape the heads of the bolts to the Outside Plate to help secure them during installation onto the chassis.

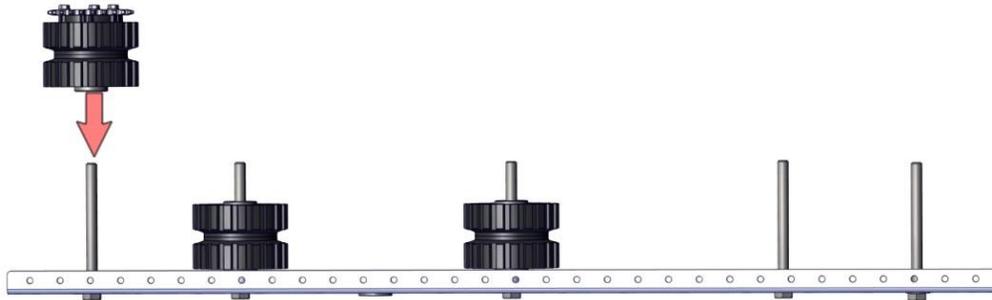
Step 15: Slide one large Aluminum Spacer (am-1514) onto the three axle bolts nearest to the Hex Bearing.



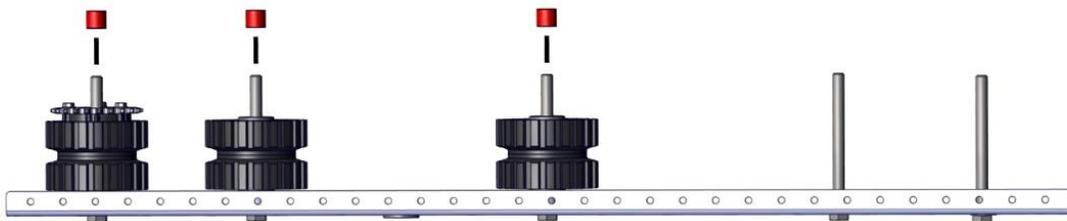
Step 16: install two Idler Pulleys on the two locations nearest the hex bearing



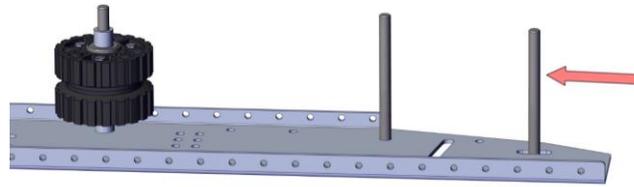
Step 17: Install a Drive Pulley in the third location with the Sprocket facing away from the Outside Plate.



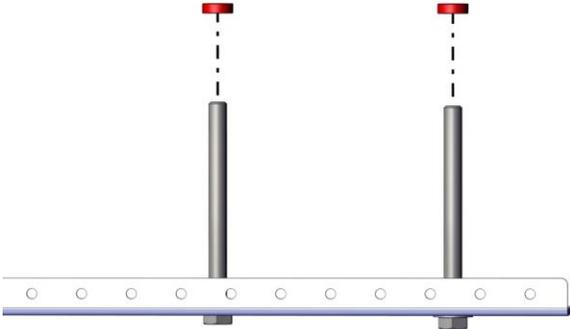
Step 18: Slide one large Aluminum Spacer (am-1514) onto the three axle bolts nearest to the Hex Bearing.



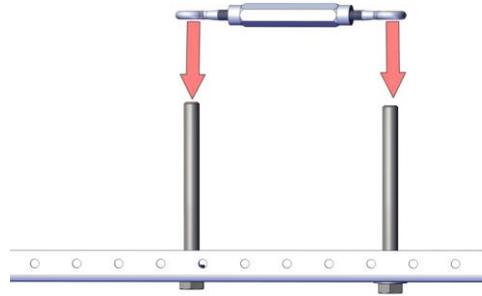
Step 19: Slide the axle bolt in the slot towards the center of the Inside Plate as far as it will go.



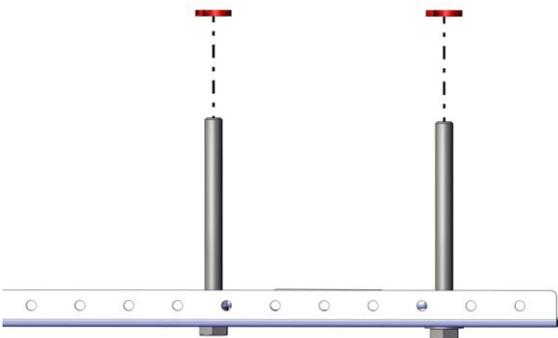
Step 20: Install one Small Aluminum Spacer (am-1515) onto each of the remaining two axle bolts.



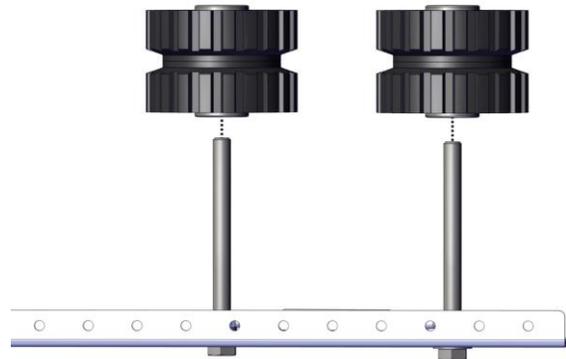
Step 21: Step 10: Adjust the length of each turnbuckle (am-1429) until the eyelets line up with the the two axle bolts towards the rear of the chassis. Then, carefully install one turnbuckle across both axle bolts until it is against the aluminum spacers. Note: this may be a tight fit, and may require slight taps with a mallet to be installed. Tap each eyelet, do not tap the centre of the turnbuckle.



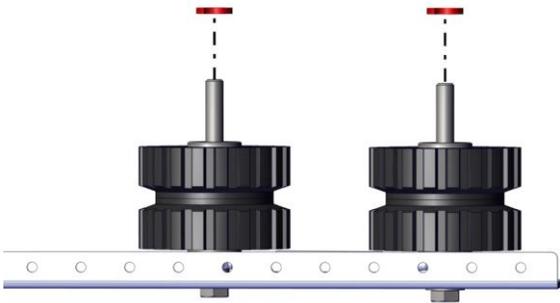
Step 22: Add one .125" Nylon Spacer (am-2930) to each of the two axle bolts, up against the eyes of the turnbuckle.



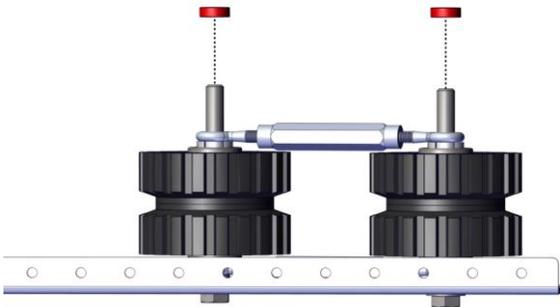
Step 23: Add an Idler Pulley to each of the two axle bolts.



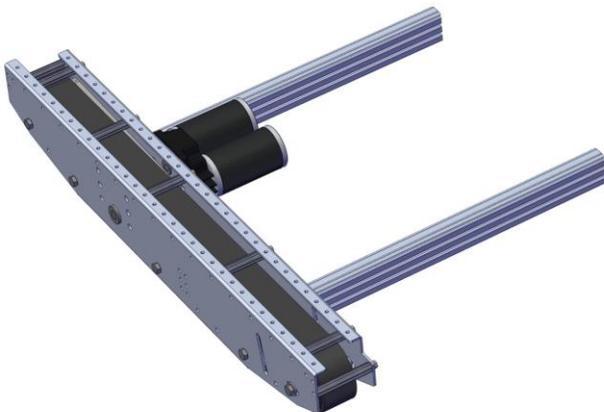
Step 24: Add another .125" Nylon Spacer (am-2930) to each of the two axle bolts, up against each Idler Pulley.



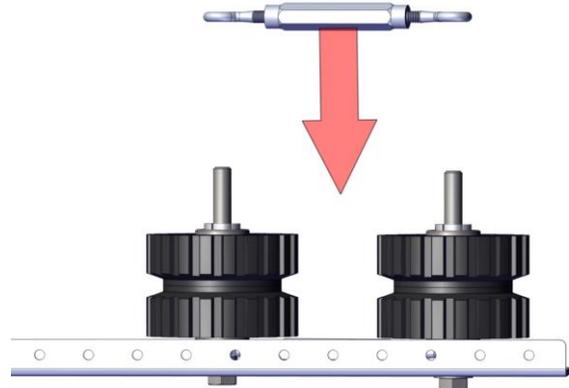
Step 26: Install one Small Aluminum Spacer (am-1515) onto each of the two axle bolts, against the eyes of the turnbuckle.



Step 28: Carefully install the Outer Plate and Pulley Assembly onto the Inside Frame Assembly. Ensure the belt is aligned under the top and bottom side churros, as shown. Note: this may take two people to ensure all the parts are aligned.



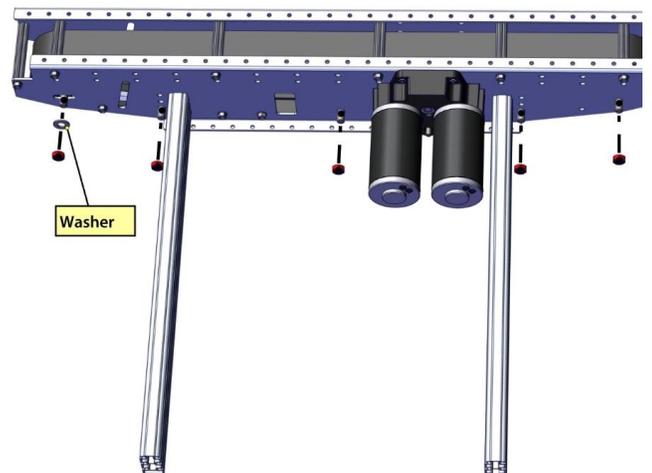
Step 25: Carefully install a second turnbuckle across both axle bolts until it is against the nylon spacers. Note: this may be a tight fit, and may require slight taps with a mallet to be installed. Tap each eyelet, do not tap the centre of the turnbuckle.



Step 27: At this point, all the pulleys should be aligned. Carefully roll the drive belt onto all of the pulleys, beginning with one end. Ensure all pulleys are engaged into the teeth of the belt.



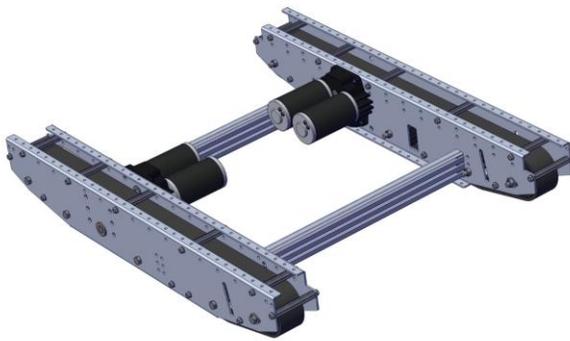
Step 29: Secure each axle bolt using one $\frac{3}{8}$ -16 Nylock Jam Nut (am-1394). Note: for the Nut nearest the Axle Bolt in the slot, use a $\frac{3}{8}$ washer (am-1393) between the nut and the Inside Plate. These bolts should be just barely snug against the Inside and Outside Plates, and should still spin when turned with a wrench.



Step 30: Secure the Outside Plate to the Churros using eleven ¼-20 x 0.750 thread forming screws (am-1310) as shown.



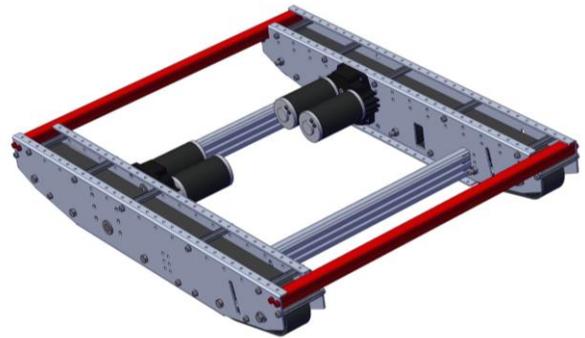
Step 32: Repeat steps 3-30 to create the other side.



Step 34: Cut a chain section that is 26 5/8" long (center to center on the two end inside links.) There should be 70 pins between the two end links. Do not connect the two ends with the supplied master link yet.

Step 31: Connect the other Inside Plate (am-4011) to the other side of the Walnut Extrusions using ¼-20 x .0750 Thread Forming Screws. Ensure the bottom flanges of each Inside Plate are pointing toward each other and ensure the bottom screws in the rear Walnut Extrusion are left out.

Step 33: Add the Peanut Extrusions to the ends of the Raptor Track drive, and secure each with four ¼-20 x 0.750 thread forming screws (am-1310).



Step 35: Loop each chain around the sprockets on the Drive Sprocket and Drive Pulley assemblies, ensuring the chain is routed as shown. Use either a chain puller or small cable tie to bring the ends of the chain together, then install the Master Link (am-0368) such that the pins and clip are on the opposite side of the chain as the bearings from the gearbox. Note: this will require needle nose pliers to do.

