

Caster Wheel Kit Rev B (#28961)

Features

- Dual 3-inch (76 mm) sealed pneumatic rubber tires made by Du-Bro
- Precision machined 6061 aluminum parts made in-house at Parallax headquarters in California, USA
- High-quality ball bearings for "friction-free" swivel action
- Quick and easy assembly
- Dramatically improves the performance and aesthetic appeal of mid-size robots
- Well-suited for use with the Motor Mount and Wheel Kit –AL, Motor Mount and Wheel Kit –MP
- Designed to mount to the Arlo Robot Base Kit (#28960)



This kit contains a single, precision-machined caster assembly (two are required if you're mounting them to our Arlo Robot Base Kit - #28960). High-quality 6061 machined aluminum components (created in our machine shop in Rocklin, CA), are combined with smooth-rolling ball bearings and durable 3-inch Du-Bro pneumatic rubber tires. The dual independent tire design reduces vibration and drag, as well as increasing its load-carrying capacity.

This caster wheel kit is designed to be completely maintenance-free, and should deliver long life and consistently high performance. The durable, sealed pneumatic tires are low-bounce and provide a smooth ride, even on rough surfaces.

This Caster Wheel Kit is designed to work well with our Motor Mount and Wheel Kit –AL (precision-machined 6061 machined aluminum – #28962) as well as our injection molded plastic version - the Motor Mount and Wheel Kit -MP (#28963) which both include our dual Quadrature Encoder sets (#29321).

The top surface of the Caster Wheel Kit's mounting plate and the top surfaces of the motor bearing blocks in the Motor Mount and Wheel Kit –AL and Motor Mount and Wheel Kit -MP are all designed to be at the same elevation, which simplifies chassis design, whether you choose to create your own, or incorporate into our Arlo Robot Base Kit (#28960).

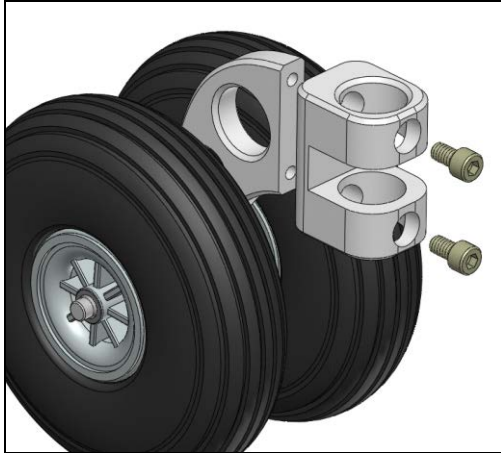
Parts List

Check your kit's contents before beginning. Contact Parallax sales department if parts are missing.

Stock Code	Description	Quantity
730-00010	Arm Assembly	1
730-00020	Swivel Block	1
730-00015	Swivel Rod	1
730-00025	Base Plate	1
700-00086	Socket Cap Screw, #6-32 x 1/4 inch length	2
710-00044	Set Screw, #6-32 x 1/8 inch	1
724-00002	Flange Bearing, 0.25 inch ID, 0.5 inch OD	2
726-00002	Shaft Collar, 0.25 inch ID	1
710-00032	Screw, #6x3/8", Cap, SS	3
725-00021	Ball End Hex key 7/64"	1
725-00025	3/32" Hex Key	1
725-00062	1/16" Hex Key	1

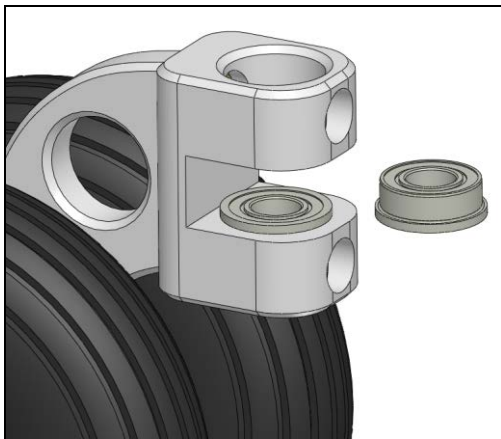
Tools and Materials Required (Not Included)

- 7/64 inch hex key
- 3/32 inch hex key
- Small flat-head screwdriver
- Hammer (optional)
- Thread-locking compound (optional)
- Assembly Instructions



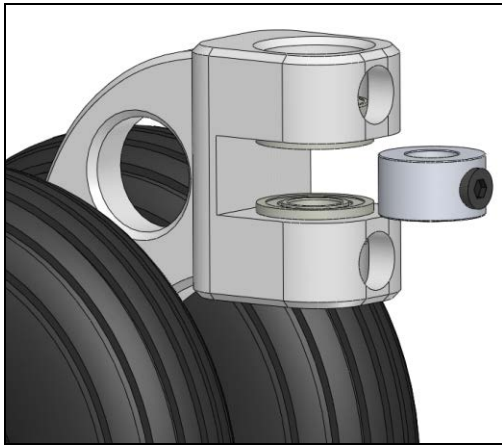
Step 1:

Connect the caster wheel arm assembly to the swivel block using a 7/64 inch hex key and two #6-32 x 1/4 inch socket cap screws.



Step 2:

Insert both bearings as shown facing outward from the center of the swivel block.



Step 3:

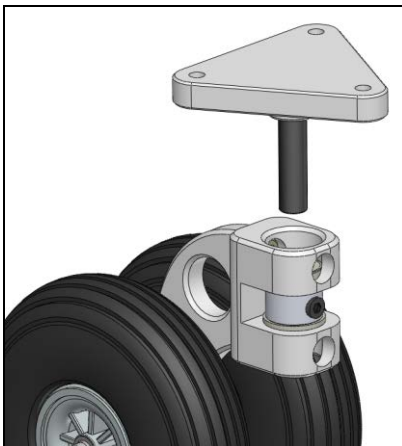
Position the shaft collar between both flange bearings in the swivel block.



Step 4:

Insert the swivel rod into the mounting plate. The machined flat on the rod should face the set screw. Make sure the rod is pressed as far into the plate as possible. This step may require a hammer to lightly tap the rod into the slot.

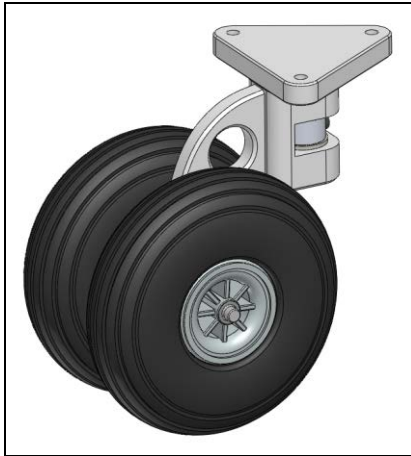
Secure the rod in place using the #6-32 set screw. For improved results, apply a small drop of thread locking compound to the set screw before tightening it into position.



Step 5:

Insert the swivel rod through the center of the bearings and shaft collar. There should be about a 0.1 inch (2.5 mm) gap between the bottom surface of the mounting plate and the top surface of the swivel block.

Using the 3/32 inch hex key, securely tighten the shaft collar set screw to lock the height of the mounting plate. The overall height of the caster wheel assembly can be adjusted if necessary by modifying how far the swivel rod is inserted through the shaft collar.



Assembly Complete!

The caster wheel kit is completely assembled and ready to be installed using three #6 socket cap screws (not included).

For additional product information, check out the Caster Wheel Kit Rev. B (#28961) product page at www.parallax.com.

Compatibility

The difference between the "Caster Wheel Kit" (#28971) and the "Caster Wheel Kit Rev B" (#28961) is that Rev B is about 1/8" taller in mounting height than the original Caster Wheel Kit. This was to accommodate the different mounting styles of the previous Motor Mount and Wheel Kit (#27971). Therefore, "Rev B" (#28961) may not operate as well when being used with the original Motor Mount and Wheel Kit (#27971).