

7.2 V Motor, Bracket and Wheel Kit (#570-00070)

Congratulations on purchasing the 7.2 V Motor, Bracket and Wheel Kit! This kit contains power, durability and simplicity all in one box. This kit features lightweight and sturdy aluminum brackets which are specifically designed to make mounting the included 7.2 Volt DC motors a breeze. Each bracket is machined in-house at Parallax headquarters in Rocklin, CA. The brackets are machined from 6063 aluminum extrusion and anodized black for improved scratch resistance aesthetic appeal.

High quality 7.2 Volt DC motors feature durable construction and 100% all-metal gears that stand up boldly to rough terrain and abuse. The motors' top speed of ~310 RPM equates to a speed of approximately 6.6 feet/second (2.0 m/s) which is perfect for most medium- to small- size robotic projects. The included machined aluminum hubs solidly engage the 4 7/8 inch (12.4 cm) diameter wheels. The tread is molded directly onto the wheel and offers excellent traction on most common surfaces.

Giving your robot mobility has never been easier!



Features

- Powerful 7.2 VDC brushed motors
- Motors use 100% all-metal gears
- Machined 6063 aluminum brackets anodized black for improved scratch & corrosion resistance
- Four convenient mounting holes for #8-size screws
- Durable 4 7/8 inch (12.4 cm) diameter wheels with high-traction tread
- Strong but light-weight construction
- Designed with the same mounting height as the Caster Wheel Kit (#28971, sold separately)
- Works well with the HB-25 (#29144) motor controllers

Specifications

- Motor ratings (at 7.2 VDC):
 - No-load current: 0.27 A @ 310 RPM
 - Stall current: 4.8 A
 - Max torque: 4.6 lb-in (5.3 kg-cm)
- Dimensions:
 - Wheels: 4 7/8 inch (12.4 cm) diameter x 0.8 inch (2.03 cm) wide
 - Mounting height: 3.86 inch (9.8 cm) from ground to mounting surface
 - Minimum clearance: 1.9 inch (4.8 cm) from ground to lowest point on motor
- Weight: 0.68 lbs. (1.45 kg) per wheel assembly (kit contains 2)
- Wheel tread: Thermoplastic rubber with a durometer rating of 50 Shore A

Bill of Materials

| Part # | Description | Quantity |
|-----------|--|----------|
| 27950 | Motor, 7.2 VDC, 310 RPM, 6 mm Shaft | 2 |
| 710-00021 | Screw, Zinc, Flat Head, Phil., 8 mm Length | 6 |
| 721-00008 | Wheel, 4 7/8 in. Diameter, Blue Tread | 2 |
| 721-00009 | Wheel Hub Assembly, 6mm Shaft I.D., (Hub, Set Screws, Retaining Rings) | 2 |
| 725-00070 | Motor Bracket , Aluminum, Anodized Black | 2 |
| 725-00062 | Hex Key 1/16 in. | 1 |



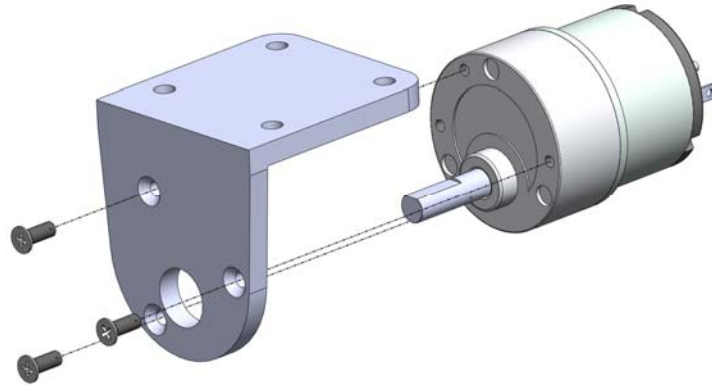
Additional Tools Required (not included)

- #1 Phillips Screw Driver
- Snap ring pliers
- Four 8-32 screws of the length for mounting to your platform
- Eye protection

Assembly Instructions

Step 1:

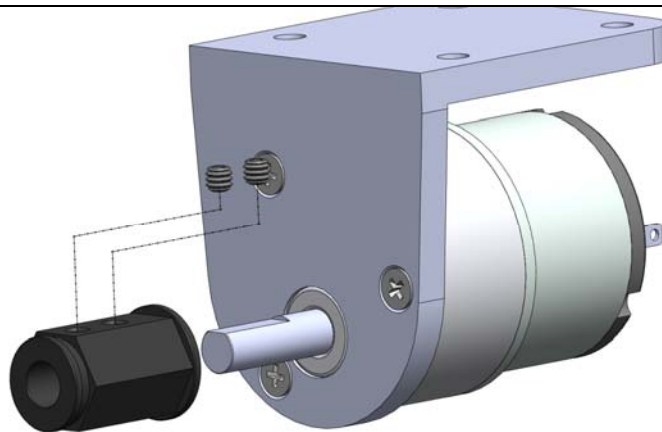
Using three flat-head screws connect each motor to a bracket as shown in drawing. A small amount of the blue Loctite can be used on the screw threads if desired.



Step 2:

Place a hub onto each motor shaft, making sure the set screw holes line up with flat area on the shaft.

Using the hex key provided, insert the set screws into the holes in each hub and tighten until snug against motor shaft.

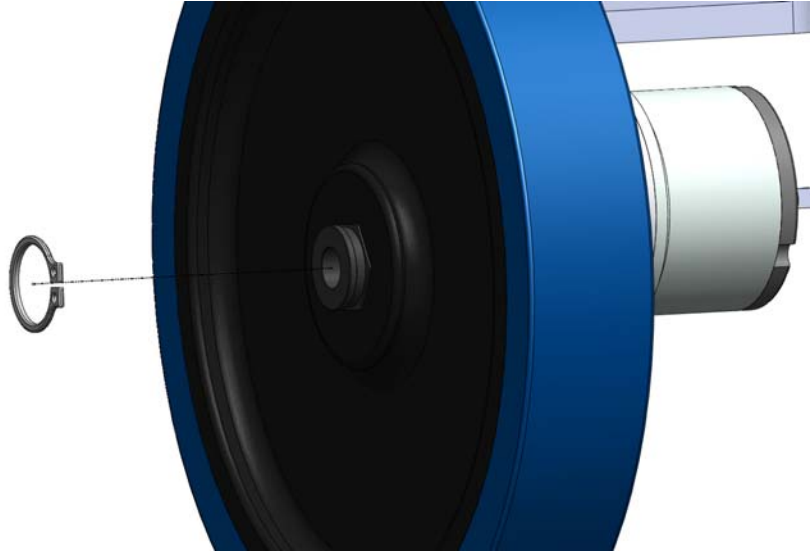


Step 3:

Safety Warning!

During or after installation, the retaining ring could fly off at high velocity if not installed properly. These dangers are minimized by wearing safety glasses during assembly and using the right tools for the job.

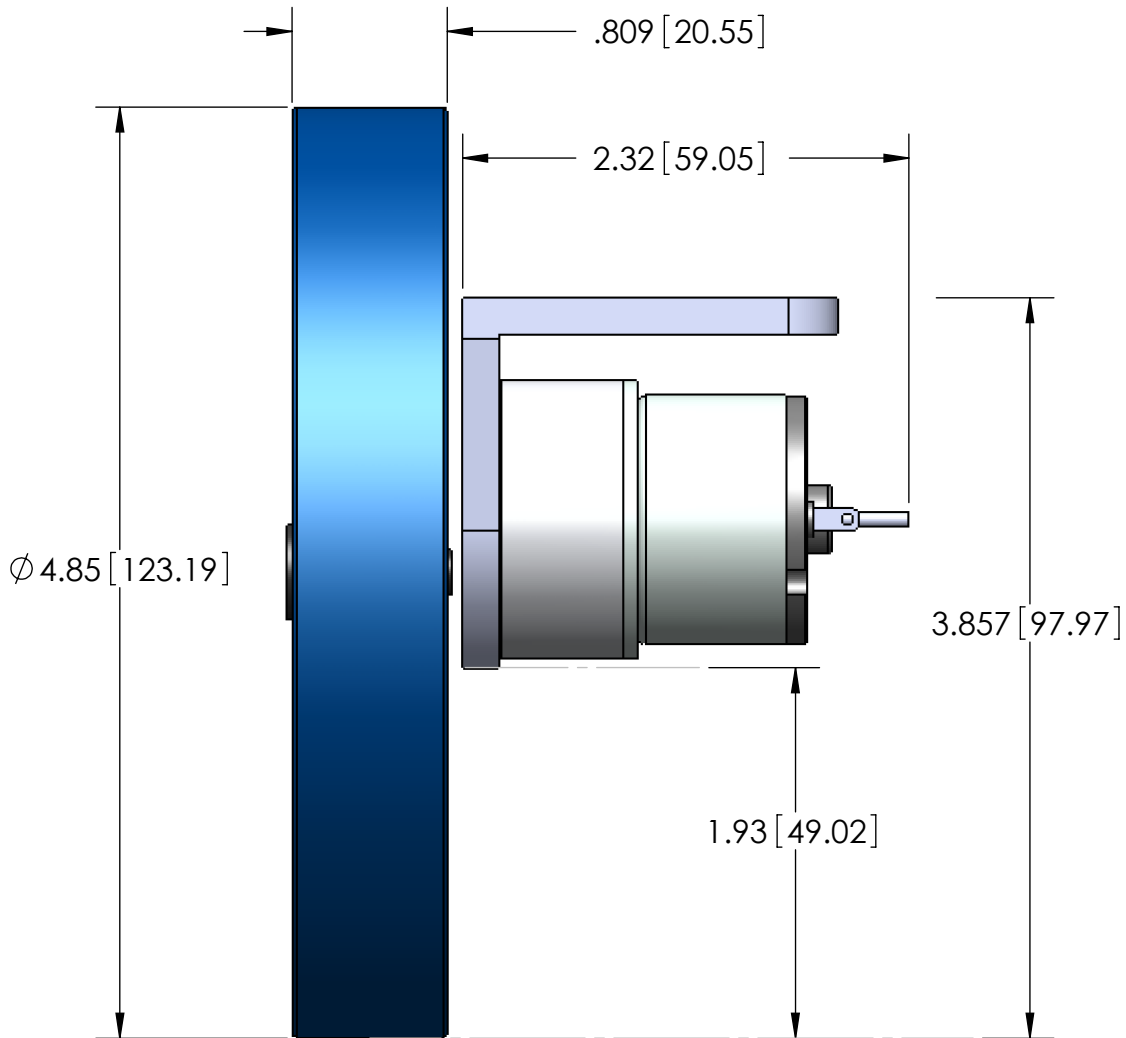
Install a wheel onto each hub. While wearing safety glasses, use snap ring pliers to install a retaining ring around the groove in the outer part of each hub.



Material: Not Specified

NOTES

1. Dimensions are given for reference only and are subject to change without notice.



PROPRIETARY INFORMATION

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UNLESS OTHERWISE SPECIFIED

DIMENSIONS ARE IN INCHES (mm)
LENGTH TOLERANCES:
X.XX ± 0.010 IN
X.XXX ± 0.005 IN
ANGLE TOLERANCES:
X ± 5°
X.X ± 1°

PARALLAX 

599 MENLO DRIVE
ROCKLIN, CA 95765
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DATE 20090725

Part # 570-00070

REV Rev A

Parent Part # ---

TITLE

Motor, Bracket & Wheel Kit Assembly

SCALE: 1:2

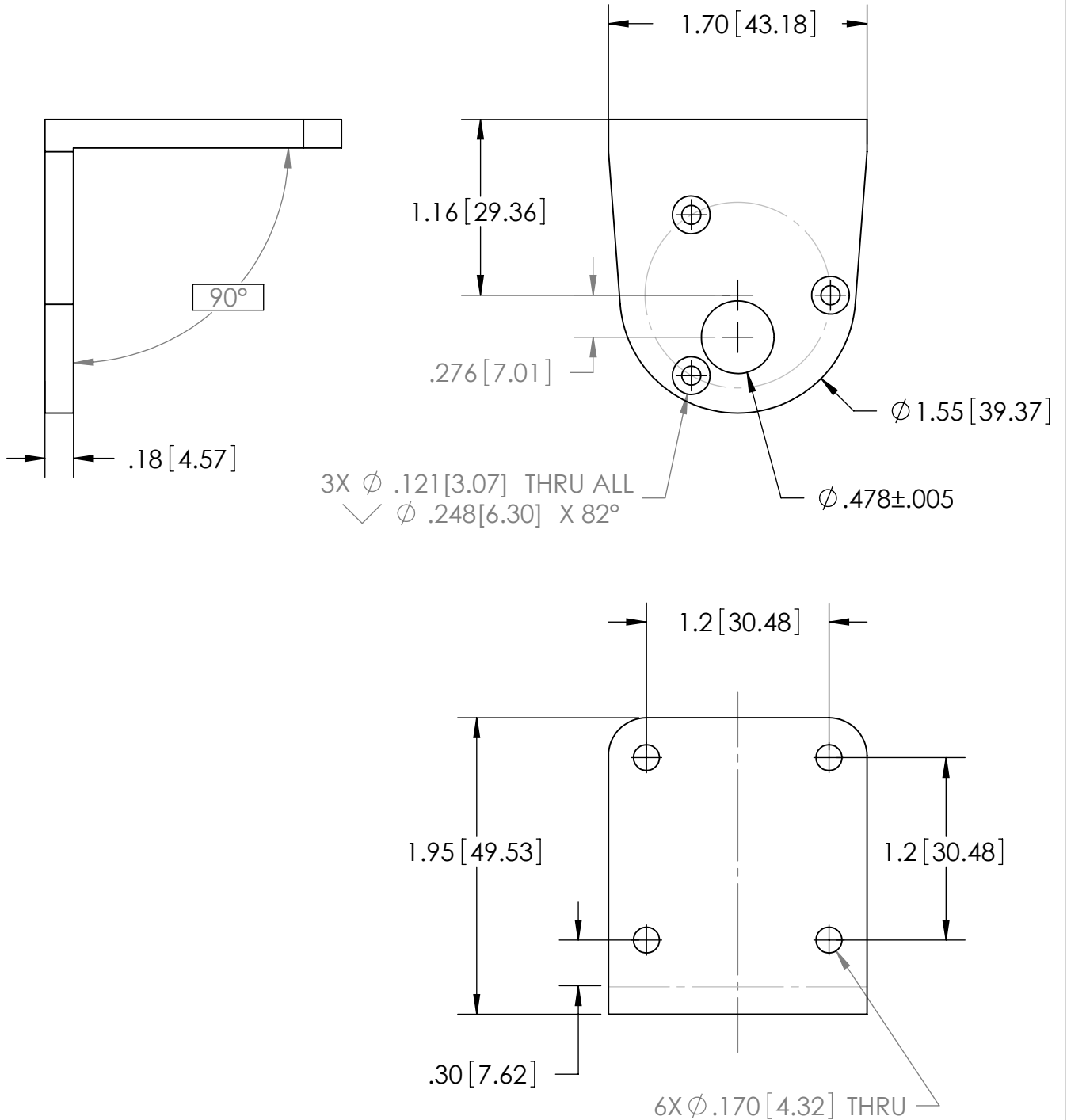
DRAWN BY Matt Huntzinger

SHEET 1 OF 1

Material: 6063 Aluminum-Anodized black

NOTES

1. Part is semmetrical across vertical center lines, excluding circular hole pattern.
2. Dimensions are given for reference only and are subject to change without notice.



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Part # 725-00070 REV A

Parent Part # 570-00070

TITLE

Motor Bracket

SCALE: 1:1

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SHEET 1 OF 1