



1999 FIRST Robotics Competition
Kit of Parts Album
Gray Container Parts

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Gray Container

The parts pictured on the following pages are included in the gray container. Each bag or group of parts is pictured, followed by an overview of the bag's contents and labeled pictures to assist in the identification of the individual parts.

Bearing Bag



Picture 1 Bearing Bag

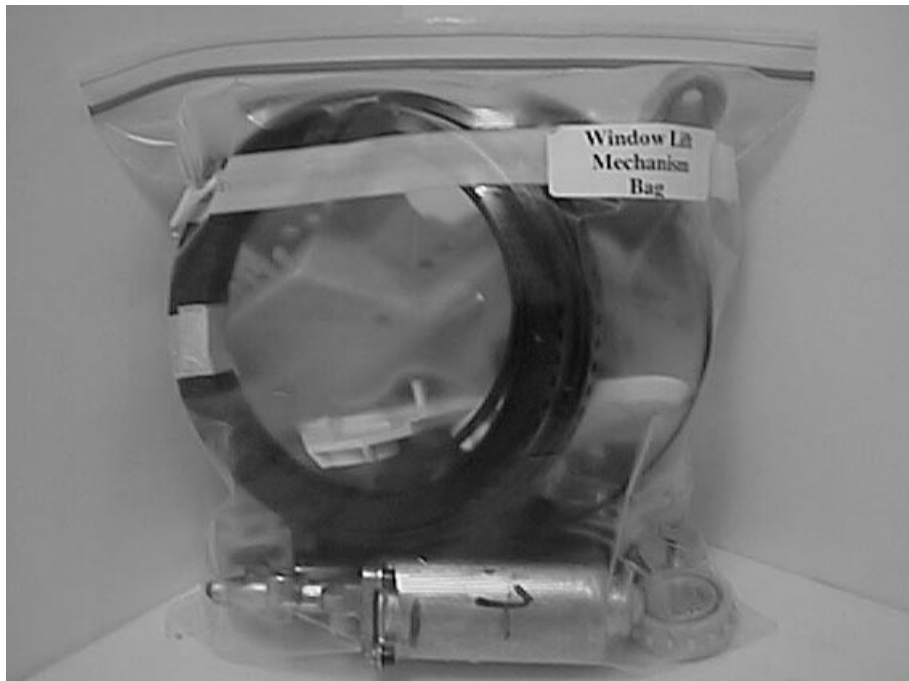
Contents of the Bearing Bag:



Picture 2 Bearing Bag Contents

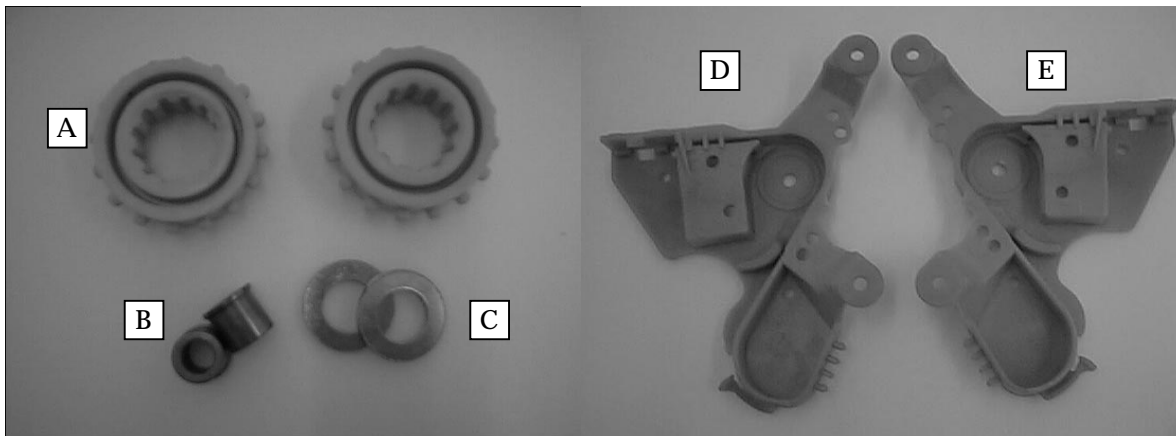
Contents (clockwise from top left): Pillow Block, 1/2in. (2), Radical Ball Bearing with Spherical O.D., 1/2in. I.D., Self locking Collar (2), Single Row Radical Flanged Ball Bearing, 1/4in. I.D. (4), Roller Clutch, 3/8in. I.D. (2), 2 Bolt Self Aligning Flange (8), Single Row Radical Flanged Ball Bearing, 3/8in. I.D. (4).

Window Lift Mechanism Bag



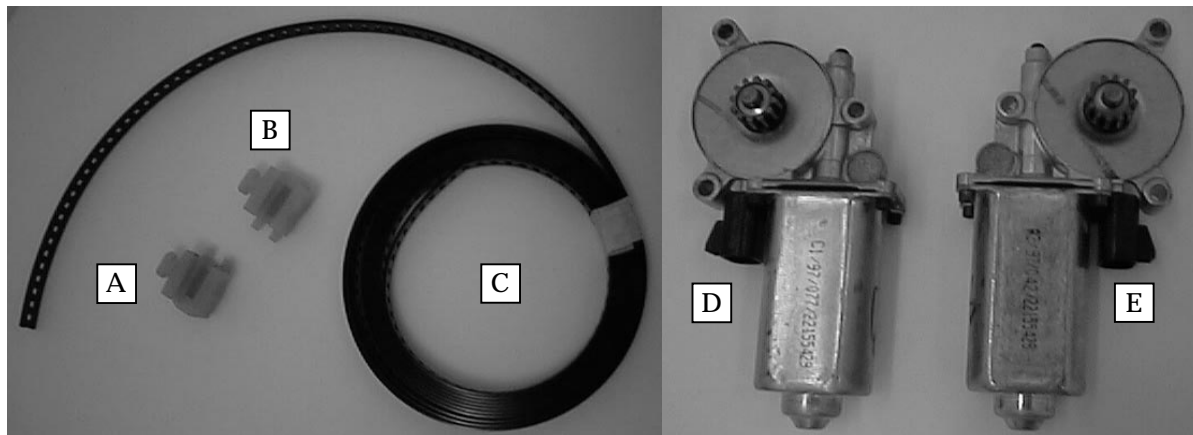
Picture 3 Window Lift Mechanism Bag

Contents of the Window Lift Mechanism Bag:



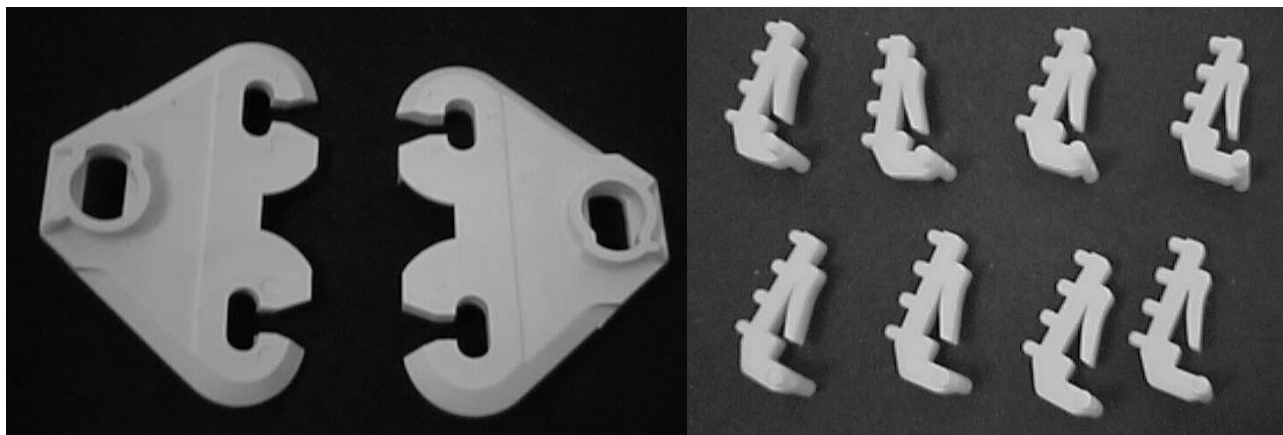
Picture 4

Contents: **A)** Window Lift Gear (2), **B)** Window Motor Bushing (2), **C)** Window Lift Mechanism Washer (2), **D)** Window Lift Bracket, Left Hand (1), **E)** Window Lift Bracket, Right Hand (1)



Picture 5

Contents: A) Window Lift Guide, Right (1), B) Window Lift Guide, Left (2), C) Window Lift Mechanism Tape (1), D) Window Motor, Left Hand (1), E) Window Motor, Right Hand (1)



Picture 6

Contents (left to right): Window Lift Triangular Mount (2), Window Lift Guide Drive (8)

Hardware Bag



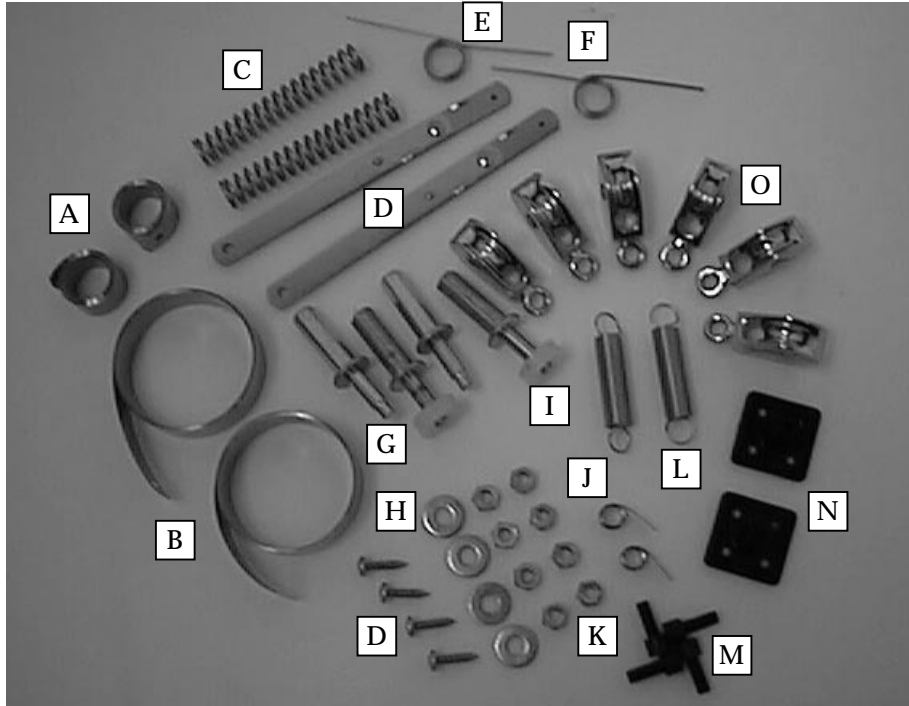
Picture 7 Hardware Bag

Contents of the Hardware Bag:



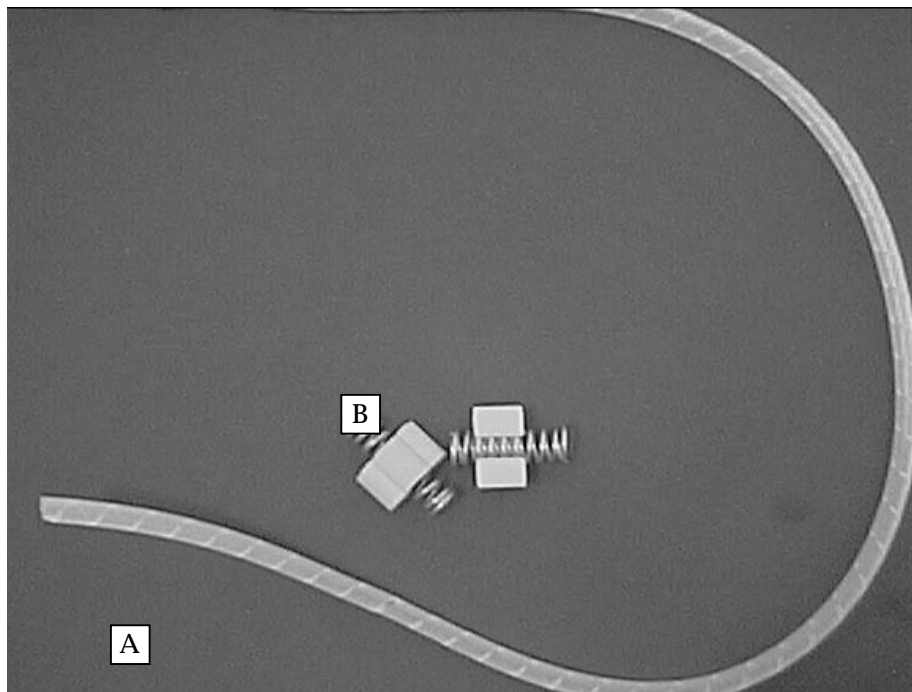
Picture 8

Contents (clockwise from top): Spring Loaded Hinge (2), Screen Door Catch (1), Double Magnet Cabinet Catch (1), Gate Latch (1), 5 Minute Epoxy Gel (1)



Picture 9

Contents: **A**) Constant Force Spring, Medium (2), **B**) Constant Force Spring, Large (2), **C**) Compression Spring (2), **D**) Folding Table Brace + Screws (2), **E**) Torsion Spring, Right Hand (1), **F**) Torsion Spring, Left Hand (1), **G**) Pivot (2), **H**) Flat Washer (4), **I**) Roller Guide (2), **J**) Constant Force Spring, Small (2), **K**) Hex Nut (8), **L**) Extension Spring (2), **M**) Magnet (4), **N**) Flexible Shaft Coupling (2), **O**) Pulley with Fixed Eye (3)

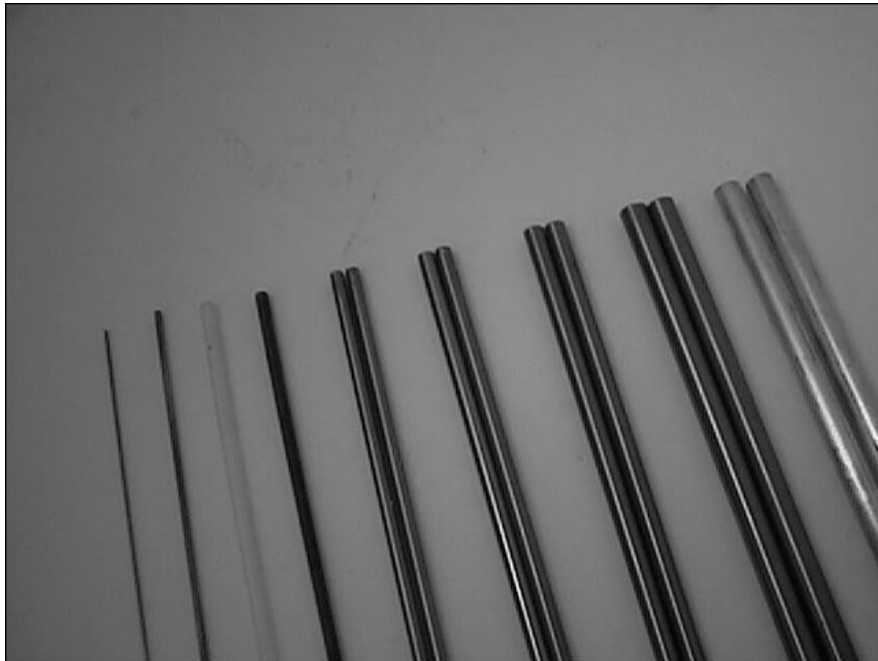


Picture 10

Contents: **A**) Helical Plastic Wire Wrap (1), **B**) Snugger (2)

Documentation

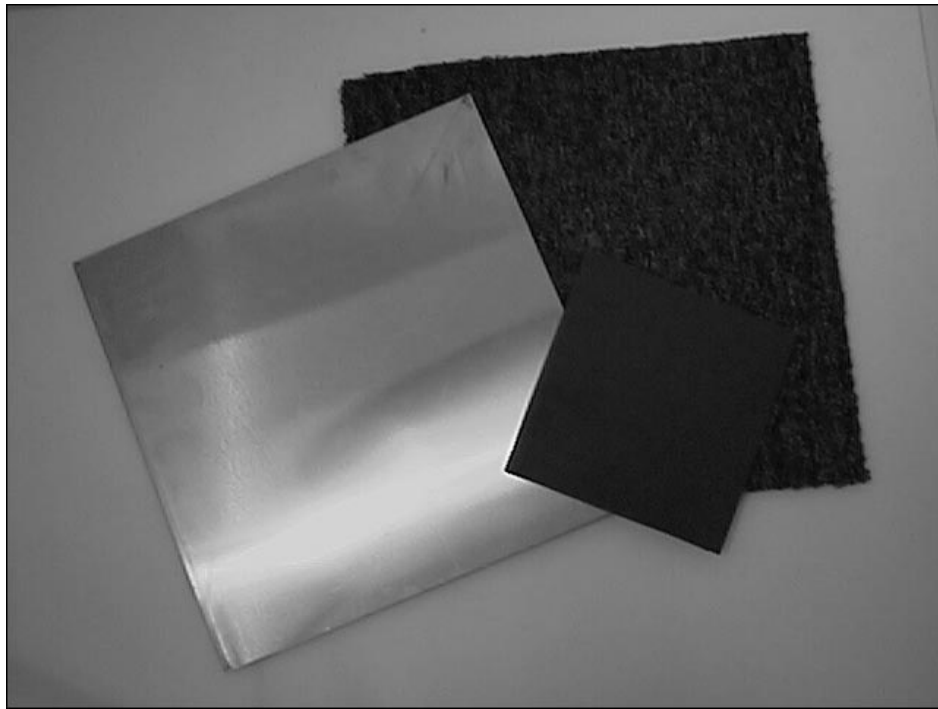
Picture 11 Kee Catalogs for castors & clamp pipe fittings

Rods & Shafts

Picture 12 Rods & Shafts.

Contents of the rods and shafts tube from left to right: Brazing rod, 1/16" x 18", Brazing rod, 1/8" x 18", Delrin (Acetyl) rod, 1/4" x 20", Threaded rod, 1/4" X 18", 20 pitch coarse, Drill rod, 1/4" X 18", Drill rod, 5/16" X 18", Drill rod, 3/8" X 18", Drill rod, 1/2" X 18", and Aluminum rod, 1/2" X 24".

Sheets & Boards

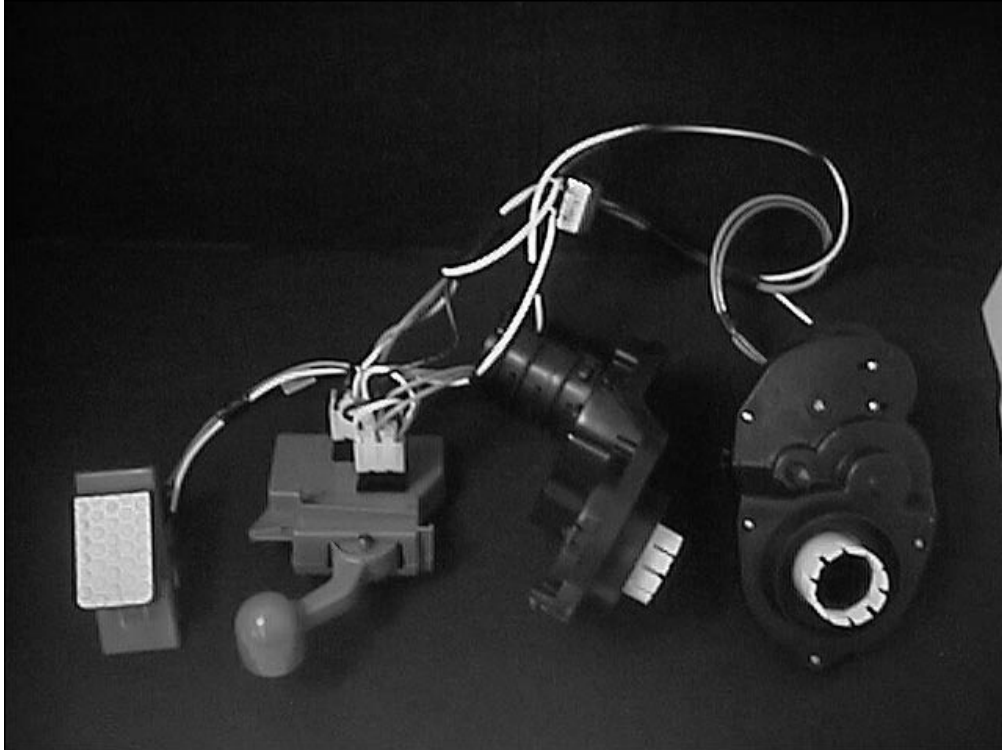


Picture 13 Aluminum Sheet, Rubber Sheet, and Carpet Sample.

Loose Items

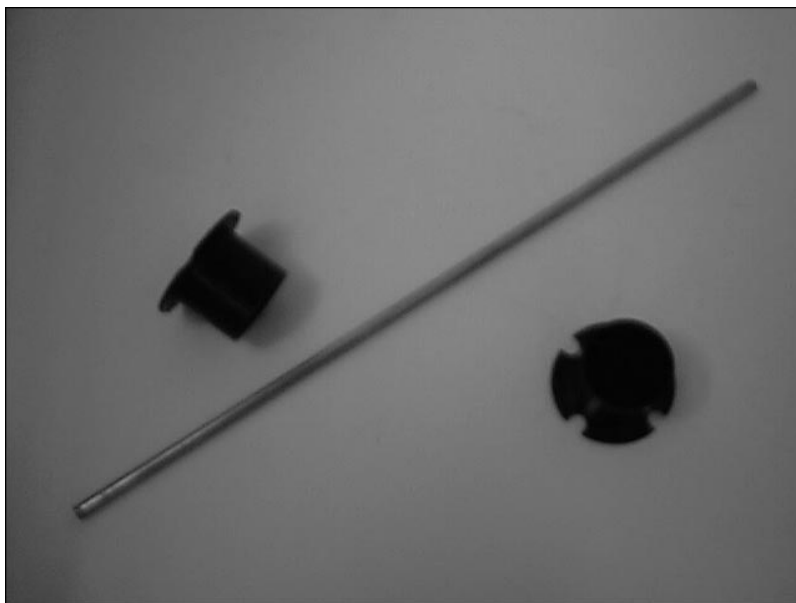
The following pages contain loose items not previously pictured. Only items with potentially greater interest are listed in the Table of Contents.

Fisher-Price Motor/Gearbox



Picture 14 Fisher-Price Motor/Gearbox.

Fisher-Price Axle & Jeep Driver



Picture 15 Fisher-Price Axle & Jeep Driver.



Picture 16 Gutter Guard.



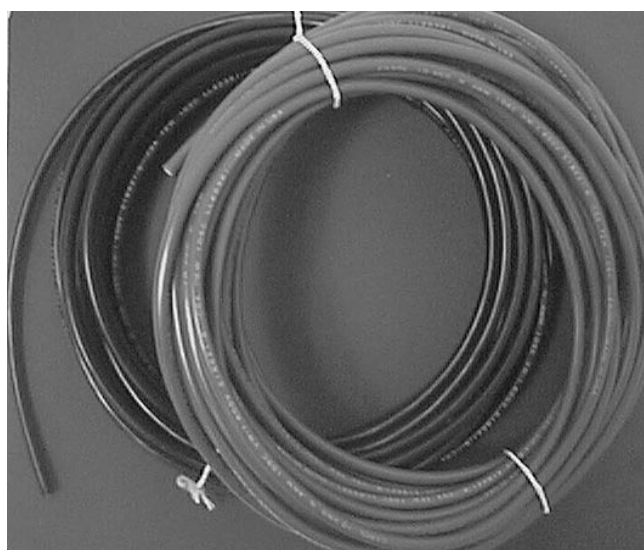
Picture 17 Latex Tubing.



Picture 18 Folding Table Leg Braces, Left & Right Hand.



Picture 19: #16 AWG, 2 Conductor Jacketed Wire, #24 AWG, 2 Conductor Jacketed Wire, #24 AWG, 3 Conductor Jacketed Wire.

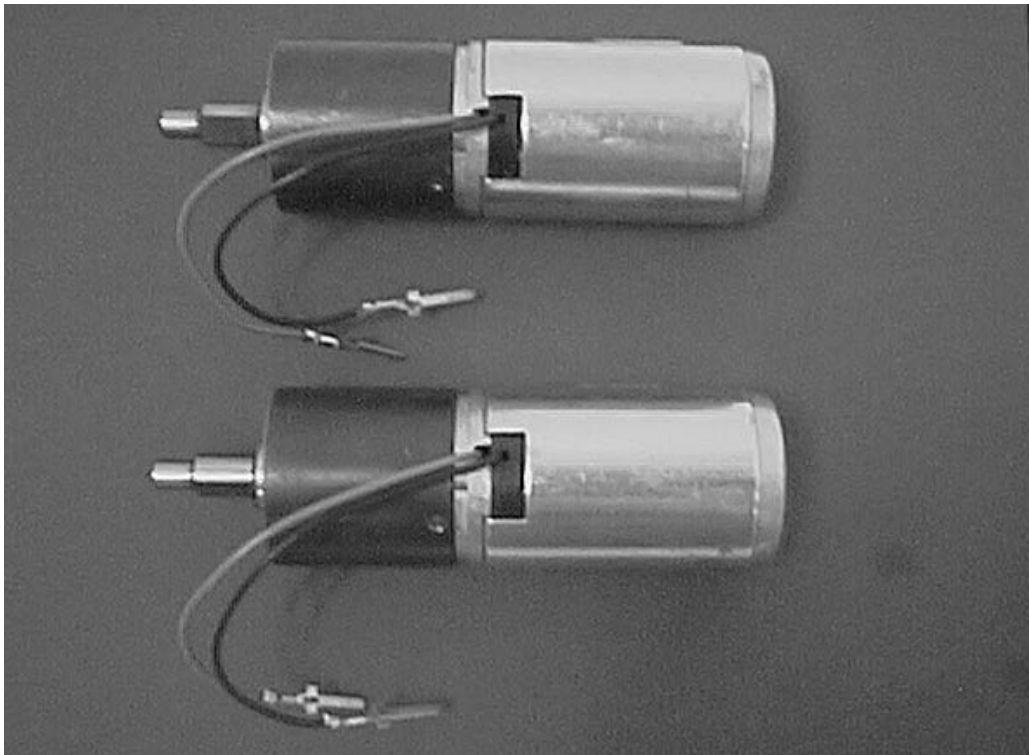


Picture 20: #10 AWG 1 Conductor Wire, colors red & black.



Picture 21: #6 AWG, 1 Conductor Wire, colors red & black.

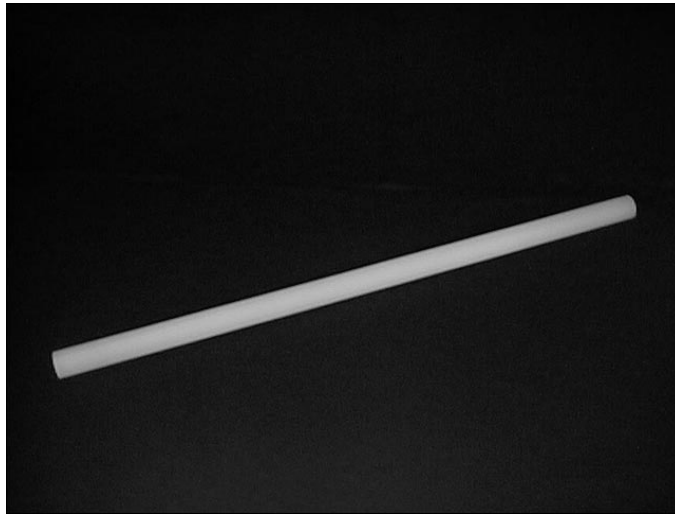
Globe Motor with Drive Assembly



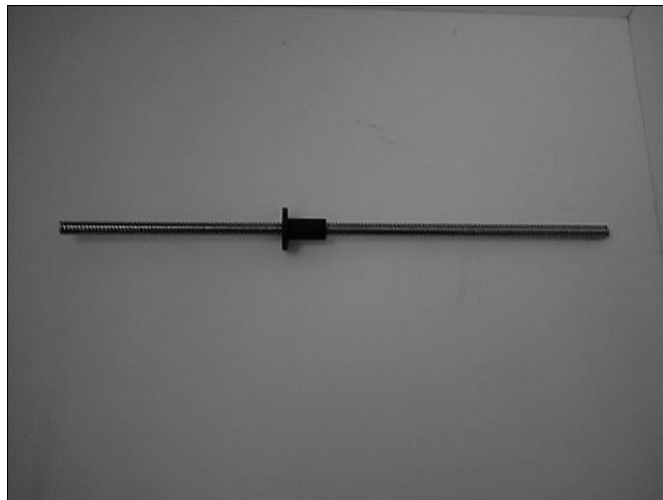
Picture 22 Globe Motor & Drive Assembly.



Picture 23 Ground Plane Assembly.



Picture 24 LDPE Rod



Picture 25 Lead Screw

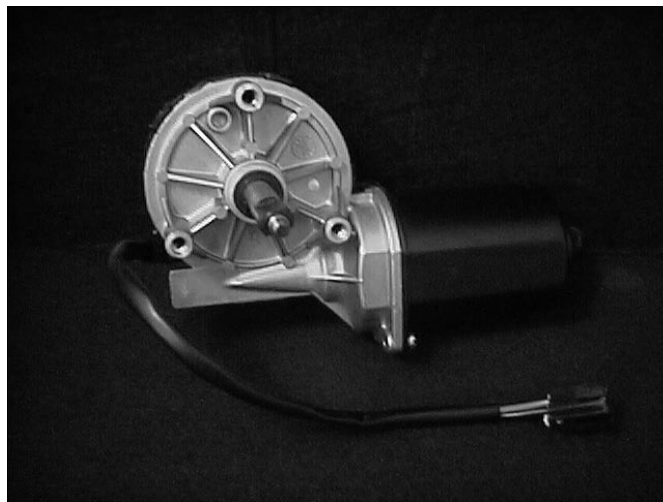


Picture 26 Lower Channel for Seat Positioning Unit.

Seat & Van Door Motors



Picture 27 Seat Motor.



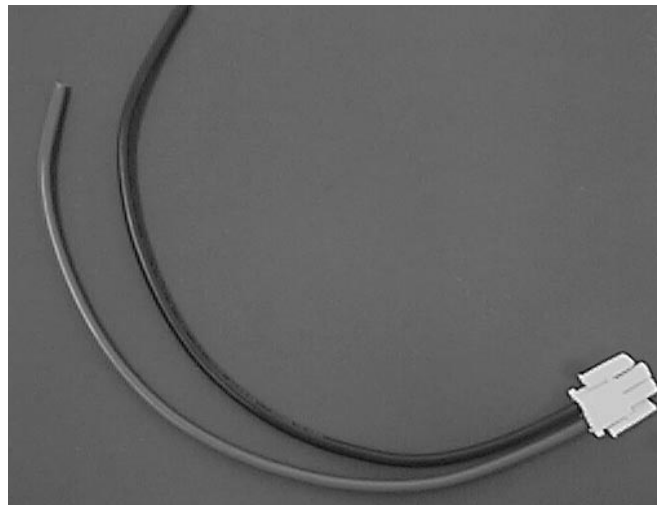
Picture 28 Van Door Motor - Taigene.



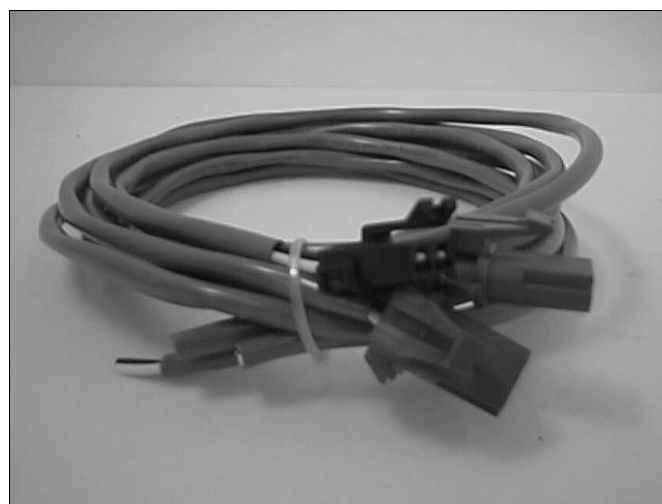
Picture 29 Van Door Motor - Bosch.



Picture 30 Wheel Chair Wheels, 6 & 8 in. diam.

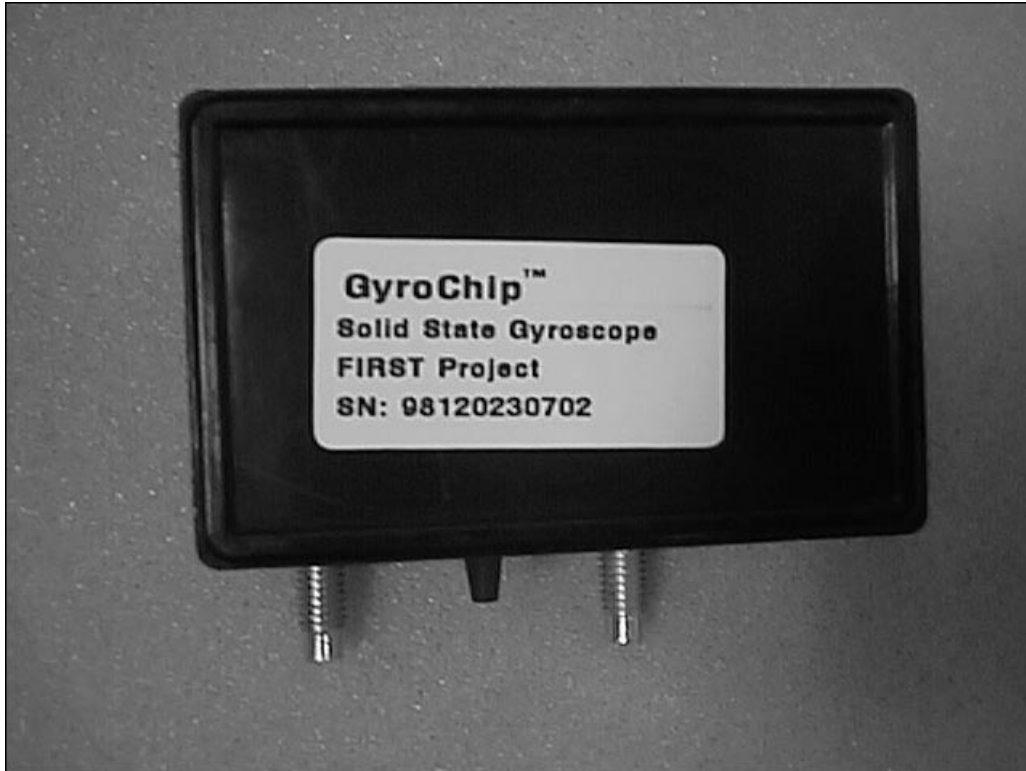


Picture 31 Wiring Harness for Receiver Relay Power.

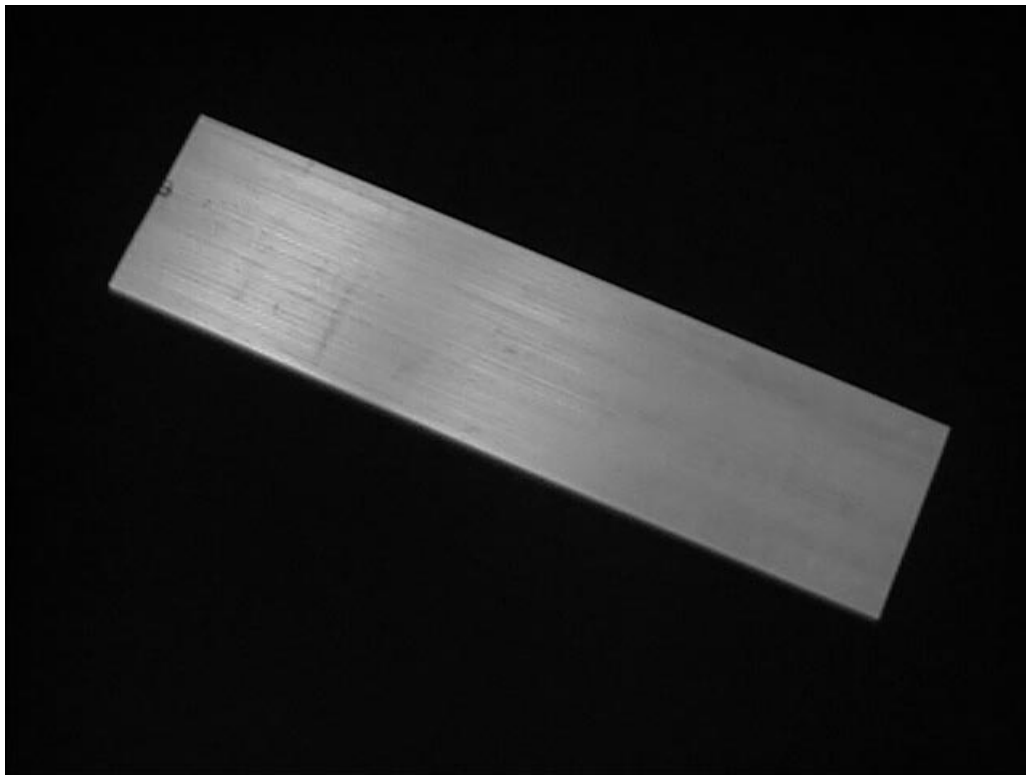


Picture 32 Wiring Harnesses for Seat & Window Motors, # 16 AWG, 5ft. each.

Yaw Rate Sensor



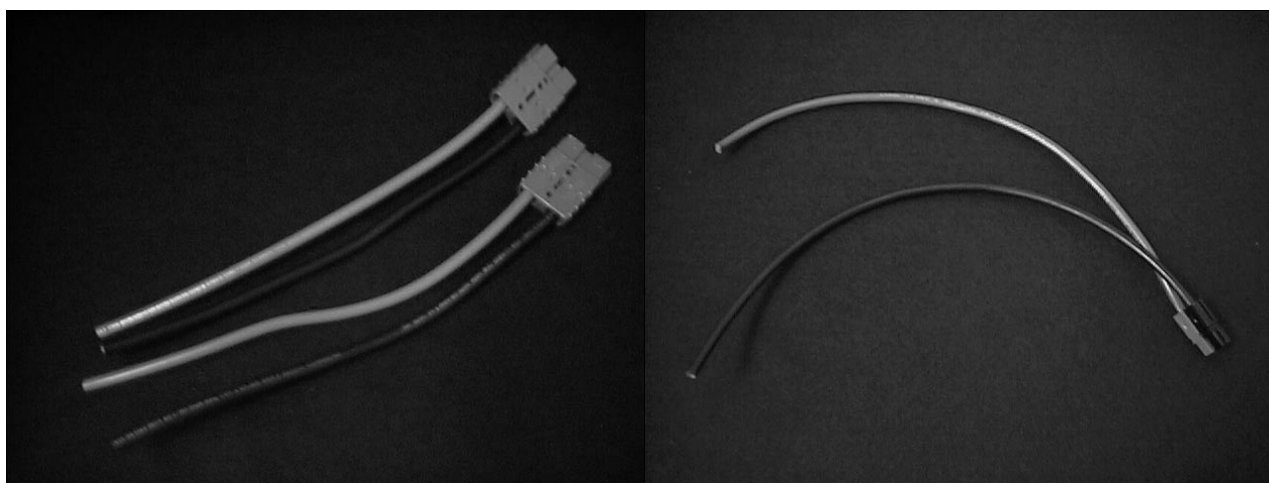
Picture 33 Yaw Rate Sensor or Gyro.



Picture 34 Aluminum Plate, 1/4" x 3" x 12"



Picture 35 Flexible Motor Shafts.



Picture 36 Left to right:#6 AWG and # 10, Quick-Disconnect Power Connectors.

Seat Positioning Unit Bag



Picture 37 Seat Positioning Unit Bag.

Contents of the Seat Positioning Unit Bag:



Picture 38 Contents of Seat Positioning Unit Bag (clockwise from top): Upper Channel(2), Hex Head Bolt(4), Flange Nut(8), and Right & Left Horizontal Actuators(1 ea.)