2000 FIRST ROBOTICS COMPETITION KIT OF PARTS ALBUM

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N.	Part Name/Description	<u>Dimensions</u>	Category	Qty /Kit	Product Supplier
	Pillow Block	1/2"	Bearings	2	The Torrington Company
	Radial Ball Bearing With Spherical O.D.	1/2" I.D., Self Locking Collar	Bearings	4	The Torrington Company
	Roller Clutch	3/8" I.D.	Bearings	2	The Torrington Company
	Single Row Radial Flanged Ball Bearing	1/4" I.D.	Bearings	4	The Torrington Company
	Single Row Radial Flanged Ball Bearing	3/8" I.D.	Bearings	4	The Torrington Company
	Two Bolt Self Aligning Flange	Fits 1/2" Bearing	Bearings	8	The Torrington Company

Gray Container - Hardware Bag

Gra	Gray Container - Hardware Bag							
<u> 1</u>	Part Name/Description	<u>Dimensions</u>	Category	Qty /Kit	Product Supplier			
\square	Compression Spring	0.600" O.D. x 3.5 " Long	Springs	2	Associated Spring Raymond			
	Constant Force Spring, Extra Small	0.34" I.D.	Springs	2	Associated Spring Raymond			
	Constant Force Spring, Large	1.02" I.D.	Springs	2	Associated Spring Raymond			
	Constant Force Spring, Medium	0.59" I.D.	Springs	2	Associated Spring Raymond			
	Constant Force Spring, Small	0.51" I.D.	Springs	2	Associated Spring Raymond			
	Double Magnet Cabinet Catch		Misc Hardware	1	Stanley Hardware			
	Extension Spring	0.650" O.D. x 2.000" Long	Springs	2	Associated Spring Raymond			
	Flat Washers	1/4" I.D., 7/8" O.D.	Misc Hardware	4	Fastenal Company			
	Folding Table Brace	9-1/2" Brass plated	Misc Hardware	1	Stanley Hardware			
	Gate Latch	Steel/Zinc Plated	Misc Hardware	1	Stanley Hardware			
	Helical Plastic Wire Wrap	1/2" Ø x 24"	Fasteners	1	Tyton Hellermann			
	Helical Plastic Wire Wrap	1/4" Ø x 24"	Fasteners	1	Tyton Hellermann			
	Hex Nuts	1/4" I.D., 20 Pitch Coarse Threa	Misc Hardware	8	Fastenal Company			
	Magnet	1/4-20 Plastic Thread	Misc Hardware	2	Honeywell - Microswitch			
	Pivot	5/16" Ø	Misc Hardware	2	Stanley Hardware			
	Polyethylene grommet	1/16" x 24"	Fasteners	1	Tyton Hellermann			
	Polyethylene grommet	3/8" x 24"	Fasteners	1	Tyton Hellermann			
	Pulley With Fixed Eye	1" Ø, For 5/16" Rope	Sprockets & Pulleys	3	Stanley Hardware			
	Roller Guide	7/8" Ø x 1/4" Wheel	Misc Hardware	2	Stanley Hardware			
	Screen Door Holder	Zinc-Plated	Misc Hardware	1	Stanley Hardware			
	Snugger	Spring With Plastic Guide	Springs	2	Stanley Hardware			
	Spring Loaded Hinge/brass	4" x 4", 30 in/lb Maximum	Springs	1	Stanley Hardware			
	Spring Loaded Hinge/gray	4" x 4", 30 in/lb Maximum	Springs	1	Stanley Hardware			
	Torsion Spring, Left Hand	270 Degrees, 0.664" Dia	Springs	2	Associated Spring Raymond			
	Torsion Spring, Right Hand	270 Degrees, 0.664" Dia	Springs	2	Associated Spring Raymond			

Gray Container - Loose

v.	Part Name/Description	<u>Dimensions</u>	Category	Qty /Kit	Product Supplier
	1 Conductor Wire	10', #6 AWG, Black	Control System	1	BICC General
	1 Conductor Wire	10', #6 AWG, Red	Control System	1	Pioneer Packard
	1 Conductor Wire	35', #10 AWG, Black	Control System	1	BICC General
	1 Conductor Wire	35', #10 AWG, Red	Control System	1	BICC General
	2 Conductor Jacketed Wire	30', #24 AWG	Control System	1	BICC General
	2 Conductor Jacketed Wire	35', #16 AWG	Control System	1	BICC General
	3 Conductor Shielded Wire	30', #24 AWG	Control System	1	BICC General
	5 Minute Epoxy Gel	Resealable 1 oz. Dual Syringe	Fasteners	1	Kaman Industrial Technologies
	Aluminum Plate	1/4" x 3" x 12"	Sheets & Boards	1	Cohen Steel Supply Inc.
	Carpet Sample	12" x 12", 20 oz., Closed Loop	Other	1	FIRST
	Caster, W/ Bolt Hole Mount	165 Pounds, swivel	Misc Hardware	2	WT Hight company

Channel For Tape Drive	28" Long	Misc Hardware	4	Delphi Interior and Lighting
Co-Polymer Gutter Guard	6" x 24"	Other	1	Home Depot
Fisher-Price 10 Web Jeep Driver	Black	Motors & Pumps	2	Fisher-Price, Inc.
Fisher-Price Axle	7/16" ∅ x 26"	Motors & Pumps	1	Fisher-Price, Inc.
Fisher-Price Motor/Gearbox	two 12 Vdc motors, switches	Motors & Pumps	1	Fisher-Price, Inc.
Folding Table Leg Brace, Left Hand	Heavy Duty Leg Brace	Other	1	Stanley Hardware
Folding Table Leg Brace, Right Hand	Heavy Duty Leg Brace	Other	1	Stanley Hardware
Globe Motor with Drive Assembly	12Vdc	Motors & Pumps	2	Globe Motors
HDPE Block	1" x 2" x 6"	Sheets & Boards	1	Plastic Supply
Kee Klamp Pipe Fitting Catalog		Documentation	1	Kee Industrial Products
Latex Tubing	1/4" I.D., 3/8" O.D., 5'	Springs	1	Gulf South Medical Supply
LDPE Rod	1" Ø x 24"	Rods & Shafts	1	Plastic Supply Inc.
Lead Screw	12" Long	Rods & Shafts	1	Kerk Motion Products, Inc.
Lower Channel for Seat Positioning Unit	2.25" x 17" Channel	Misc Hardware	1	Lear Corporation
Muffin Fan	12 Vdc	Control System	1	EBM Industries
Project Box	Black	Control System	1	Serpac
Seat Motor	12 Vdc	Motors & Pumps	2	Delphi Automotive
Small Parts Catalog		Documentation	6	Small Parts, Inc.
Van Door Motor - Tiagene	12 Vdc, 75 RPM	Motors & Pumps	2	Delphi Interior and Lighting
Wheelchair Wheel	6" Ø, 5/16" I.D. Bearings, 1-1/2"	Misc Hardware	2	Skyway Recreation Products
Wheelchair Wheel	8" Ø, 5/16" I.D. Bearings, 1-1/2"	Misc Hardware	2	Skyway Recreation Products
Yaw Rate Sensor		Control System	1	BEI Systron Donner

Gray Container - Seat Positioning Unit Bag

€.	Part Name/Description	<u>Dimensions</u>	Category	Qty /Kit	Product Supplier
	Flange Nut for Seat Positioning Unit	M6 x 1.0 Pitch	Misc Hardware	8	Lear Corporation
	Flexible Motor Shaft	13.5" Long, Fits Seat Motor	Rods & Shafts	2	Grand Rapids Controls
	Flexible Shaft Coupling	Black	Misc Hardware	2	DEKA
	Hex Head Bolt for Seat Positioning Unit	M6 x 1.0 Pitch x 30mm	Misc Hardware	4	Lear Corporation
	Horiz. Act. (L) for Seat Positioning Unit, Left	Natural Color	Misc Hardware	1	Lear Corporation
	Horiz. Act. (R) for Seat Positioning Unit, Righ	Black and Natural Color	Misc Hardware	1	Lear Corporation
	Upper Channel for Seat Positioning Unit	1.3125" x 9.875" Channel with	Misc Hardware	2	Lear Corporation

Gray Container - Tube

art Marrie/Description	<u>Dimensions</u>	Category	Qty /Kit	Product Supplier
uminum Rod	1/2" Ø x 24"	Rods & Shafts	2	Cohen Steel Supply Inc.
elrin (Acetal) Rod	1/4" Ø x 20"	Rods & Shafts	1	Plastic Supply
rill Rod	1/2" Ø x 18"	Rods & Shafts	2	Cohen Steel Supply Inc.
rill Rod	1/4" Ø x 18"	Rods & Shafts	2	Cohen Steel Supply Inc.
rill Rod	3/8" Ø x 18"	Rods & Shafts	2	Cohen Steel Supply Inc.
rill Rod	5/16" Ø x 18"	Rods & Shafts	2	Cohen Steel Supply Inc.
nreaded Rod	1/4" Ø x 18", 20 Pitch Coarse	Rods & Shafts	1	McMaster-Carr Supply
r	uminum Rod Irin (Acetal) Rod III Rod III Rod III Rod	minum Rod 1/2" Ø x 24" Islrin (Acetal) Rod 1/4" Ø x 20" Ill Rod 1/2" Ø x 18" Ill Rod 3/8" Ø x 18" Ill Rod 3/8" Ø x 18"	Iminum Rod 1/2" Ø x 24" Rods & Shafts Islin (Acetal) Rod 1/4" Ø x 20" Rods & Shafts Iil Rod 1/2" Ø x 18" Rods & Shafts Iil Rod 1/4" Ø x 18" Rods & Shafts Iil Rod 3/8" Ø x 18" Rods & Shafts Iil Rod 5/16" Ø x 18" Rods & Shafts	Iminum Rod 1/2" Ø x 24" Rods & Shafts 2 Islrin (Acetal) Rod 1/4" Ø x 20" Rods & Shafts 1 Ill Rod 1/2" Ø x 18" Rods & Shafts 2 Ill Rod 1/4" Ø x 18" Rods & Shafts 2 Ill Rod 3/8" Ø x 18" Rods & Shafts 2 Ill Rod 5/16" Ø x 18" Rods & Shafts 2

Gray Container - Velcro Bag

N.	Part Name/Description	<u>Dimensions</u>	Category	Qty /Kit	Product Supplier
	Velcro 1" Hook & Loop Tape	36" Length, Adhesive Backing	Fasteners	1	Velcro USA, Inc.
	Velcro 1" One Wrap Tape	24" Lengths, Black	Fasteners	1	Velcro USA, Inc.
	Velcro 18" One Wrap grip tie	1"x18" grip tie, lemon	Fasteners	2	Velcro USA, Inc.
	Velcro 5/8" One Wrap Tape	24" Lengths, Black	Fasteners	1	Velcro USA, Inc.
	Velcro 8" One Wrap grip tie	1"x8" grip tie, Cranberry	Fasteners	10	Velcro USA, Inc.
	Velcro grip tie	6"x 1"	Fasteners	2	Tyton Hellermann

┙╚	Velcro Sticky Back Coins	5/8" Ø x 36" (48 sets)	Fasteners	1	Velcro USA, Inc.
ray	y Container - Window Lift M	echanism Bag			
<u> </u>	Part Name/Description	<u>Dimensions</u>	Category	Qty /Kit	Product Supplier
ַן וַ	Window Lift Bracket, Left Hand	Color Natural	Misc Hardware	1	Delphi Interior and Lighting
] [Window Lift Bracket, Right Hand	Color Natural	Misc Hardware	1	Delphi Interior and Lighting
<u> </u>	Window Lift Gear	Use with Window Tape,	Misc Hardware	2	Delphi Interior and Lighting
<u> </u>	Window Lift Guide Drive	Use with Guide, Channel,	Misc Hardware	8	Delphi Interior and Lighting
<u> </u>	Window Lift Guide, Left Hand	Attach to Triangular Mount,	Misc Hardware	1	Delphi Interior and Lighting
<u> </u>	Window Lift Guide, Right Hand	Attach to Triangular Mount,	Misc Hardware	1	Delphi Interior and Lighting
<u> </u>	Window Lift Mechanism Tape	16' Length	Misc Hardware	1	Dymetrol Company, Inc.
	Window Lift Triangular Mount	White, Window Lift Mechanism	Misc Hardware	2	St. Clair Plastics Company
	Window Motor, Left Hand	12 Vdc, 12 Tooth Pinion, 16 pitc	h Motors & Pumps	1	ITT Automotive
] [Window Motor, Right Hand	12 Vdc, 12 Tooth Pinion, 16 pitc	h Motors & Pumps	1	ITT Automotive
ree	en Container - Drill Bag				
	Part Name/Description	<u>Dimensions</u>	Category	Qty /Kit	Product Supplier
٦г	Drill Drive Assembly	225 in. lbs Maximum Torque	Motors & Pumps	2	S-B Power Tool Company
] [Drill Housing Cover	W/ Shift Lever	Misc Hardware	2	S-B Power Tool
] [Drill Housing Screws	#4 x 3/4, Pan Head - Phillips	Fasteners	10	Fastenal Company
] [Drill Motor	12 Vdc	Motors & Pumps	2	S-B Power Tool
] [Drill Motor Mounting Flange Fastening	M4 x 6mm, Button Head 19	Fasteners	4	Fastenal Company
ׅ֡֝֝֟֝֞֝֟֝֝֝֞֝֝֓֓֓֓֓֓֓֓֓֓֓֓֡֝	Part Name/Description 15 Pin Solder Cup Connector	DB15 Male	Control System	2	AMP Foundation
ļĽ	15 Pin Solder Cup Connector	DB15 Male	Control System	2	AMP Foundation
i H	25 Pin Solder Cup Connector	DB25 Male	Control System	2	AMP Foundation
í H	Battery Fuse	60 A, Maxi-Fuse	Control System	1	Bussmann
i H	Battery Fuse Holder	Maxi-Fuse, 6 AWG leads	Control System	1	Bussmann
í⊢	Cable Tie	7" x 0.09"	Fasteners	12	Thomas & Betts Corp.
ī 🟲	Cable Tie Mounting Base	Self-Adhesive, #8 Holes	Fasteners	10	Thomas & Betts Corp.
í H	Circuit Breaker For Motors	30 amp,12 volt, Auto-Resetting	Control System	12	Snap-Action, Inc.
íH	Diode	Max:1 Amp, 50V (peak rev.)	Control System	2	Brevan
íF	Fuse Panel	ATC, 6 fuseable, 12 unfused	Control System	2	Bussmann
ĭ⊨	Heat Shrink Tubing	1/2"Ø x 6", Black, 2:1 Shrink	Control System	1	Brevan
i H	Heat Shrink Tubing	1/4"Ø x 6", Black, 2:1 Shrink	Control System	1	Brevan
i H	Heat Shrink Tubing	1/8"Ø x 6", Black, 2:1 Shrink	Control System	1	Brevan
i H	Heat Shrink Tubing	3/16"Ø x 6", Black, 2:1 Shrink	Control System	1	Brevan
í H	Heat Shrink Tubing	3/4"Ø x 6", Black, 2:1 Shrink	Control System	1	Brevan
ĭ⊨	Heat Shrink Tubing	3/8"Ø x 6", Black, 2:1 Shrink	Control System	1	Brevan
i H	Knob for Potentiometer	1" Hexagon, Fits 1/4" Shaft	Control System	2	Radio Shack
i H	LED, Panel Mount	Amber, 12V	Control System	4	Chicago Miniature Lamp, I
i H	LED, Panel Mount	Green, 12V	Control System	4	Chicago Miniature Lamp, I
íF	LED, Panel Mount	Red, 12V	Control System	4	Chicago Miniature Lamp, I
ĭ⊢	Limit Switch		Control System	10	Honeywell - Microswitch
īF	Momentary Rocker Switch		Control System	4	Honeywell - Microswitch
i H	Muffin Fan (Tiny)	12 Vdc	Control System	3	EBM Industries
≒ ⊨	Plastic Shield for 25 Pin Connector	fits DB25 Connector	Control System	2	AMP Foundation
111	Potentiometer	100KΩ, Linear	Control System	6	Bourns, Inc.

Hitec/JR-style, 36" Long

Hitec/JR-style, 24" Long

Control System

Control System

8

PWM/Relay Cable

PWM/Relay Y Cable

Innovation First

Innovation First

	Reed Switch	Normally Open, Magnet	Control System	4	CP Clare
	Ring Connector	# 10-12 Awg, #6 lug	Control System	20	Thomas & Betts Corp.
	Ring Connector	# 14-16 Awg, #6 lug	Control System	10	Thomas & Betts Corp.
	Ring Connector	# 22-26 Awg, #6 lug	Control System	20	Thomas & Betts Corp.
	Ring Connector	# 6 Awg	Control System	10	Thomas & Betts Corp.
	Rocker Switch Cover	Blue	Control System	1	Honeywell - Microswitch
╗	Rocker Switch Cover	Green	Control System	1	Honeywell - Microswitch
╗	Rocker Switch Cover	Red	Control System	1	Honeywell - Microswitch
T	Rocker Switch Cover	Yellow	Control System	1	Honeywell - Microswitch
ಠ	Servo	42 oz. in. Peak, 0.19 s/60°	Control System	2	Hitec RCD, Inc.
Ħ	Spade Connector	Female, 12-10 AWG, Yellow	Control System	10	Thomas & Betts Corp.
Ħ	Spade Connector	Female, 16-14 AWG, Blue	Control System	10	Thomas & Betts Corp.
f	Spade Connector	Female, 22-18 AWG, Red	Control System	10	Thomas & Betts Corp.
Ħ	Spade Connector	Male, 12-10 AWG, Yellow	Control System	10	Thomas & Betts Corp.
╡	Spade Connector	Male, 16-14 AWG, Blue	Control System	10	Thomas & Betts Corp.
╡	Spade Connector	Male, 22-18 AWG, Red	Control System	10	Thomas & Betts Corp.
╡	Wire Nut	Wire Nut for Wire Sizes #18-10	Control System	10	Thomas & Betts Corp. Thomas & Betts Corp.
_		Wile Nut for Wile Sizes #10-10	Control System	10	Thomas & Betts Corp.
Gre	een Container - Loose	D '	0.1	0. //.:	Declara Occupie
⁴-	Part Name/Description	<u>Dimensions</u>	Category		Product Supplier
┥	15 Pin Molded Cable	DB15 pin M-F, 6 feet	Control System	2	Innovation First
┥	9 Pin Cable	DB9 Male to Female, 6',	Control System	4	Innovation First
4	Anderson Power Products Catalog	Catalog	Control System	1	Anderson Power Products
ᅥ	BASIC Stamp Programming Disk	CD-ROM	Documentation	1	Parallax, Inc.
닉	BASIC Stamp Programming Manual		Documentation	1	Parallax, Inc.
닉	Battery	12 volt	Control System	2	Exide
닉	Battery Charger	Sealed Lead Acid Battery, 4 am	Control System	1	Xenotronix
ᆜ	Connector for Seat Motor	2 pin, 16 AWG x 12" cable	Control System	2	Delphi Packard Electric
4	Connector for Window Motor	2 pin, 16 AWG x 12" cable	Control System	2	Delphi Packard Electric
ᆜ	Connector for Yaw Rate Sensor	3 pin, 24 AWG x 12" cable	Control System	1	Delphi Packard Electric
ᆜ	Crimping Tool for Spade/Ring Connectors	Orange/Black Color	Tool	1	Thomas & Betts Corp.
ᆜ	Drill Housing	T-Handle Style Grip, Left/Right	Motors & Pumps	2	S-B Power Tool
╛	Flightstick Joystick	7" Cable with Male DB15	Control System	2	CH Products
╝	Operator Interface		Control System	1	Innovation First
╝	Power Supply for Operator Interface	9 Vdc	Control System	1	Innovation First
╝	Quick-Disconnect Power Connector	#6 AWG Red/Black Wire	Control System	2	Anderson Power Products
	Radio Modem for Operator Interface	RS-422, 9 pin F, metal antenna	Control System	1	Innovation First
	Radio Modem for Robot Controller	RS-422, 9 pin F, rubber antenna	Control System	1	Innovation First
	Relay Module (Spike)	12V, 20A Max	Control System	4	Innovation First
	Robot Controller		Control System	1	Innovation First
	Speed Controller (Victor 883)		Control System	4	Innovation First
	Tri-lens Revolving Light	Light w/ red and blue domes	Control System	1	North American Signal
 Kir	k Off				
 V	Part Name/Description	<u>Dimensions</u>	Category	Qtv /Kit	Product Supplier
'n	The 2000 FIRST Robotics Competition		Documentation	1	FIRST
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ve √	ndor will drop ship to teams	<u>Dimensions</u>	Category	Oty /ki	Product Supplier
4	Part Name/Description Pneumatic Training Manual CD	Dimensions	Documentation	1	SMC Pneumatics, Inc.
	Frieumatic Training Manual CD	Ī	Documentation	1 1	SIVIC PHEUMATICS, INC.

Pneumatics Bag

SMC

Other