KELVIN® ENGINEERING IN SCHOOL





2024 KELVIN®

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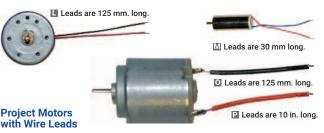


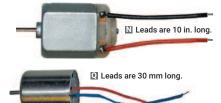




Project Motors with Solder Tabs Always Great Prices & Great Value!

Volt. Range (V)	Nom. Volt. (V)	Current (A)	Speed (rpm)	Torque (g/cm)	Shaft Dia. (mm)	Shaft L. (mm)	Size (mm)	Stock #	Fig.	\$ ea.	\$ ea./10+	\$ ea./100+
0.9 - 1.6	1.5	0.1	6,500	_	10	_	10 x 12.4	851257	Α	3.45	3.25	2.95
1 - 6	6	0.041	10,500	4.3	1.5	4	15.5 x 24.1	851255	В	2.65	2.45	2.25
1.2 - 3	1.5	0.34	10,200	6.81	2	8.1	20 x 25	850646	С	1.95	1.75	1.65
1.5 - 3	2.4	0.096	15,800	2.7	1	3.6	12 x 15	851256	D	3.65	3.45	2.95
1.5 - 3	3	0.7	14,400	12.4	2	8.1	20 x 25	851254	3	2.25	1.95	1.75
1.5 - 6	6	0.12	12,000	_	1.5	3.5	18 x 10 x 19	851165	E	1.65	1.55	1.45
3 - 6	6	0.26	17,000	20.72	2	6.5	23.5 x 27	850647	G	2.25	1.95	1.75
6 - 12	12	0.14	12,500	44.2	2	10	24 x 32	850887		2.75	2.45	2.25
6 - 12	12	0.7	16,200	236.5	3	8.5	35.7 x 71.5	850941		6.95	6.45	5.95
6 - 18	12	0.75	7,205	587	2.2	13.7	37.5 x 27.8	851934	J	5.95	5.75	5.45
12 - 30	30	1.31	12,800	238.4	3	8.5	35.7 x 71.5	850962	K	9.95	8.95	8.45





Volt. Range (V)	Nom. Volt. (V)	Current (A)	Speed (rpm)	lorque (g/cm)	Shaft Dia. (mm)	Shaft L. (mm)	Size (mm)	Stock #	Fig.	\$ ea.	\$ ea./10+	\$ ea./100+
0.7 - 5	2	0.018	2,200	2.8	2	6	25 x 13.5	851105	Ш	3.35	2.95	2.75
1 - 2.4	1.5	0.056	21,300	6.4	1	4.2	7 x 16.6	851259	M	3.35	2.95	2.75
1.2 - 3	1.5	0.34	10,200	6.81	2	8.1	20 x 25	851949	N	2.95	2.75	2.45
1.5 - 3	1.5	0.30	10,000	60	2	8.5	23.5 x 27	851230	0	3.15	2.85	2.55
3 - 6	6	0.26	17,000	20.72	2	6.5	23.5 x 27	851950	Р	3.25	2.95	2.65
3.6 - 6	4.5	0.029	28,580	9.4	1	2.8	10 x 12.4	851258	Q	3.95	3.55	3.25



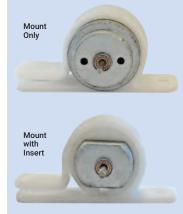
Competition Sprint Motors

Model #	Volt. Range (V)	Current (mA)		Torque (g/cm)	Shaft Dia. (mm)		Size (mm)	Stock #	Fig.	\$ ea.	\$ ea./10+
260	1.5 - 3	120	6.500	51	2	6	23 x 31	851342	R	2.25	1.95
280	1.5 - 3	200	8,200	142	2	10	23 x 34	851343	S	2.25	1.95
370	12	16	3,500	119	2	9	24 x 33	851360	T	9.95	8.95



Includes: racing wheels, big project wheels, cd to wheel adapters, gear wheels, axles, super economy gear sets, cam sets, economy pulley sets, sprocket chain, worm gears, bevel gears, project motors, 3blade propellers, motor/syringe mounts, crank handles, springs, motor & gearbox kits and a storage drawer. See kelvin.com for full description.

9/1329	Valued at \$725 \$545



KELVIN® Universal Motor Mount

This unique motor mount can be used with the insert for smaller motors (like 850646 or 851949) or it can be used without the insert for bigger motors (like 850647, 850887, 851230, and 851950). Set includes mount and insert.

990364 10/pkg.\$7.95 or \$7.45 ea /10+

	Syringe	S Fits 1/8 i	n. dia	. tubing.
10.0	Volume	Stock #	Qty.	\$ ea.
3	3 cc	390975	10	3.95
5	6 cc	390976	10	4.95
7	10 cc	390977	10	5.95
9	20 cc	390978	10	8.95
	30 cc	390979	10	14.95
-	35 cc	390980	10	15.95
1	60 cc	390981	10	16.95

Tubing	
Cut to length and use	
what you need. Fits 1/8 in.	
390450 Plastic, 5 ft	\$3.9
842601 Vinyl, 10 ft\$9.	95 or \$8.95 ea./3

390314 Vinyl, 100 ft. \$24.95



Fits 1/2 in. dia. / 10 cc Straight Syringe

Fits 3/4 in. dia.*/ 30 cc Luer Syringe

*850647, 851950, 851230, 850887, 851105. 390967 🖪\$1.25 or \$1.05 ea /5+

Fits 1 in. dia. / 60 cc Luer Syringe 390962 A\$1.69 or \$1.60 ea /5+

Fits 3/4 in. dia. .\$2.95 or \$2.50 ea /5+

390726 B Fits 1-1/4 in. dia.

390727 B

Fits 3/4 in. dia.* / 20 cc Luer Syringe *Fits: 850646 and 851949. 390588\$9.95 or \$8.95 ea /5+

Fits 7/8 in. dia.* / 30 cc Luer Syringe

*850647, 851950, 851230, 850887, and 851105. 390572 🖸\$9.95 or \$8.95 ea /5+





KELVIN® Dragster Wheels w/ End Caps - Fits 1/8 in. dia. axle

Dia. in.	T in.	Туре	Color	Stock #	Fig.	Qty.	\$ ea.	\$ ea./5+
1-3/8	3/16	Front	Black	990319	Α	100	10.95	9.95
1-5/8	5/8	Rear	Black	990320	В	100	14.95	13.95

KELVIN® Gear Wheels - Fits 1/8 in. dia. axle

Dia. in.	I in.	Type	Color	Stock #	Fig.	Qty.	\$ ea.	\$ ea./5+
1-3/8	3/8	Front	Black	990172	С	100	21.95	17.95
1-5/8	1/2	Rear	Black	990173	D	100	34.95	29.95

KELVIN® Big Wheels Turn big 3 in. dia. wheels into

gear wheels using the center holes to mount gears with screws and nuts. Push fits 1/8 in. axle. Works with 990199 (see left).

Blue and yellow. 4/pkg.

990176\$4.95 or \$3.95 ea./10+





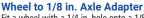


KELVIN® Big Project Rear Wheels

Ideal wheel for your mousetrap dragster or other projects. This wheel measures 4-3/4 in. dia. (same size as a CD) fits 1/4 in. dia. axle. Includes our 1/8 in. insert. 990181 10/pkg.\$8.95 or \$8.45 ea./10+

KELVIN® CD to Wheel Adapter

Cleverly convert any CD into a project wheel. Adapter fits a wheel or CD with a 5/8 in. hole with a 1/4 in. diameter axle. Use with the adapter below to fit a 1/8 in. diameter axle. CD not included. 20/pkg. 990182 A.....\$2.95 or \$2.75 ea./10+



Fit a wheel with a 1/4 in. hole onto a 1/8 in. dia. axle. Can be used with adapter above. 990317 **I** 10/pkg.\$2.45 or \$1.95 ea./10+

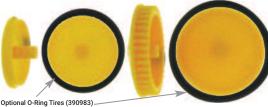






KELVIN® Racing Style Dragster Wheels - Fits 1/8 in. dia. axle

Dia. in.	T in.	Туре	Color	Stock #	Fig.	Qty.	\$ ea.	\$ ea./5+
1-3/8	3/32	Front	Black	990168	Ε	100	10.95	9.95
1-3/8	3/32	Rear	Grn, Yel	990169		100	11.95	10.95
1-3/8	3/16	Front	Black	990170	F	100	10.95	9.95
1-3/8	3/16	Rear	Grn, Yel	990171		100	11.95	10.95
1-1/2	5/8	Rear	Black	990166	G	100	14.95	13.95
1-1/2	5/8	Rear	Grn, Yel	990167		100	15.95	14.95



KELVIN® Project Wheels Set

Features [2] 1-3/8 in. dia. wheels with a rim and [2] 1-3/4 in. dia. back wheels with a rim

and built-in gear (2-gear ratio; fits a 2mm shaft and matches the big wheels, 990176). Also includes a small double gear and [3] axles.

390983 O-Ring Tires (Optional), 4/pkg.



2-1/2 in. Dia.

KELVIN® Super Lightweight Wheels Set

Ideal where reduced weight and friction are important, these wheels weigh 2.9 grams without adapters. Fits 3mm axle or use adapters to fit 2mm or 1/8 in. axle. Includes [2] 2-1/2 in. dia. wheels, [2] 2mm adapters and [2] 1/8 in. adapters.\$2.95 or \$2.45 ea./10+



KELVIN® High Speed Wheels Set

Set includes: [4] 1-1/8 in. dia. wheels with a 3/8 in. wide tread (fits a 3/32 in. dia. axle) and [4] 1 in. long plastic axles.

.....\$1.45 or \$1.35 ea./10+ or \$1.25 ea./50+

High Speed Steel Axles

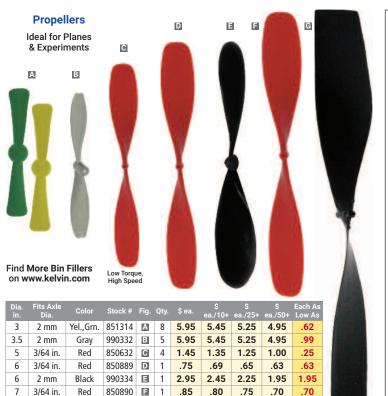
Zinc-coated steel axles are precision machined. 1 in. long and 0.0870 in. dia. with 0.2 in. dia. head.

391480 50/pkg..... \$13.95 391087 100/pkg......\$24.95 or \$21.95 ea./3+

Ball Bearing Wheel

Low friction wheel is ideal for projects where smooth travel is useful. 1-7/8 in. dia. 390735\$3.95 or \$3.50 ea./10+





3.45

.90

2.95

.85





Rubber Bands & Motor Loops

C

					-
Length	W in.	Stock #	Fig.	Qty.	\$ ea.
1.77 in.	1/16	391358	Α	100	7.95
2.36 in.	1/16	391359	Α	100	7.95
2-1/2	1/16	420436	Α	1 lb.	7.95
3	1/8	420231	Α	1/4 lb.	6.95
3	1/8	420230	Α	1 lb.	14.95
3-1/2	1/4	420235	Α	1/4 lb.	12.95
3-1/2	1/4	420236	Α	1 lb.	19.95
Assor	ted	420312	Α	2 oz.	10.95
7 in.	1/8	850695	В	35	9.95
50 ft.	1/8	850658	C	1	12.95
225 ft.	1/8	420749	C	1	39.95



2.45

.80

2.45

.80

Dia. in.	Stock #	Fig.	Qty.	\$ ea.	\$ ea./10+	\$ ea./25+	\$ ea./50+	Each As Low As
3	990175		8	5.95	5.45	5.25	4.95	.62
3	851315	I	8	5.95	5.45	5.25	4.95	.62
3	851459	J	4	6.95	6.75	5.95	5.60	1.40

Dia. in.	Stock #	Fig.	Qty.	\$ ea.	\$ ea./10+	\$ ea./25+	\$ ea./50+	Each As Low As
4.5	851107	K	1	2.95	2.45	2.25	1.95	1.95
5	850891		1	3.45	3.25	2.95	2.65	1.85

KELVIN® Economy Gear Set

7

9

2 mm

3/64 in.

Black

Black

990335 **I** 1 **3.95**

850926 **G**

1

.95

Set of [4] different-sized gears with holes for attaching to each other with screws. Large gear diameter is 1-5/8 in. Small gear fits 2mm toy motor shafts. The other gears push-fit 3mm (1/8 in.) shaft/axle. Made of 1/4 in. thick durable plastic.

990179 Blk......\$1.25 or \$1.15 ea./10+ or 95¢ ea./50+ 990174 Green\$1.45 or \$1.25 ea./10+

KELVIN® Economy Pulley Set

An economical set of [4] pulleys includes: 10mm. dia, pulley fits 2mm shaft. 20mm dia. pulley fits 1/8 in. shaft. 30mm dia. pulley fits 1/8 in. shaft. 40mm dia. pulley fits 1/8 in. shaft.

841538 Set......\$1.95 or \$1.75 ea./10+ or \$1.65 ea./100+ 841539 Bulk Pack of 20 Sets (4 pulleys a set)...\$14.95 KELVIN® Adv. Gear Set Evenly spaced holes near the edge can be used to attach gear to a wheel, pulley or other objects. Gears measure: 9/16 in. dia. (13 teeth), 3/4 in. dia. (18 teeth), 1-9/16 in. dia. (38 teeth), and 2-11/32 in. dia. (58 teeth). Set includes four center hole

inserts to 1/8 in. and one insert to 2mm. Gears are 1/4 in. thick.
391128\$2.45 or \$1.95 ea/10+

Slotted Optocoupler
Use with 391128 to measure velocity, acceleration or distance.
270115 5V DC\$3.95







10	Worm Gear	10	Gear/Pulley Combo	
10	Super Economy Gear Sets (4/set)	5	Economy Pulley Sets (4/set)	
10	Adv. Gear Sets (4/set)	2	Sprocket Chain, 36 in.	
10	Gear/Motor Mounting Bracket	20	Rubber Band, 2-3/4 in. L	
5	Bevel Gear	2	Cam Sets (4/set)	



KELVIN® Kre8® Safety Propellers

Dual purpose, push-fit propeller. Can be used as a free flier or a normal propeller.

ı	Stock #	Dia. in.	Quantity	\$ ea.
	391369	2.95	10	14.95
	391384	2.95	20	28.95



Force fits onto any small electric motor with 2mm dia. shaft but has the advantage of a safety ring preventing contact with spinning blade tips. Blue. 125mm (4.92 in.) dia.

......\$19.95 or \$15.95 ea./3+ 990338 10/pkg.









851219

850654

990337

851458

Α

В

С

D 4

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1.95

99

9.95

9.95

1.85

.85

8.95

8.95

1.75

.75

8.45

7.95

1.65

.65

7.95

7.45

0.21 x 0.45

0.135 x 0.35

0.3125 x 0.09375

0.25 x 0.125

Boat Propellers

Dia. in.	Fits Axle Dia.	Color	Stock #	Fig.	\$ ea.	\$ ea./10+	\$ ea./25+	\$ ea./50+
1	2 mm	Red	851102	B	1.35	1.25	1.15	1.05
1-1/4	3 mm	White	850651		1.75	1.65	1.55	1.45
1-3/4	3 mm	White	851166	G	1.75	1.65	1.55	1.45
2-1/4	2 mm	Blue	990324		1.95	1.75	1.65	1.55









5

6

5.9

	,	9				
Dia. in.	Hole in.		Stock #			
1/2	3/16	1/8	640096	С	.49	.44
3/4	1/4	1/4	640095	С	.35	.30

Disc Magnets

Dia. in.	T in.	Stock #	Fig.	\$ ea.	\$ ea./50+	\$ ea./100+
1/2	1/4	640097	Α	.19	.17	-
3/4	3/16	640098	Α	.19	.17	-
1	5/32	640099	Α	.65	.60	.55

Neodymium Disc Magnets

Dia. in.	T in.	Grade	Stock #	Fig.	\$ ea.
1/4	1/4	N42	640131	В	1.25
3/8	1/8	N42	640127	В	3.25
1/2	1/8	N42	640128	В	1.95
1/2	1/4	N42	640121	В	1.59
1/2	1/2	N42	640129	В	2.95
3/4	1/8	N42	640122	В	2.25
1	3/8	N48	640123	В	9.95

Find Magnet Strips & Magley Magnets at www.kelvin.com



Neodymium Ring Magnet

3/4 in. dia. with 1/4 in. dia. hole. 1/4 in. thick. 640130 D\$4.95



Bar Magnets

1/4 1/4 3/32 640100 .59 49 1/2 3/16 .39 1/4 640091 .35

Ceramic Bar Magnet

Red ceramic bar magnet with north and south polarity marked. Measures 1/4 x 5/16 x 13/16 in. 64010945¢ or 43¢ ea./3+ or 39¢ ea./6+

KELVIN® Magnets Bulk Pack

[25] Maglev Magnets,

[10] Square Magnets, [2] Bar Magnets,

[5] Rectangular Magnets,

[10] Disc Magnets (1/2 in. dia.), [5] Disc Magnets (3/4 in. dia.), [5] Ring Magnets. 841584 62 Magnets\$15.95 or \$14.95 ea./6+

Magnet Set

[90] Disc Magnets (small, medium, large),

[40] Ring Magnets (small, large), [40] Bar Magnets (small, medium).

640106 170 Magnets ..\$21.95 or \$19.95 ea./3+



Valued at \$79 **Magnets Bin Filler**

[10] N/S Magnets, [50] Bar Magnets (2 sizes), [10] Neodymium magnets, [50] Disc Magnets, [50] Ring Magnets, and [50] Holed Magnets. 430520 220 Magnets\$75 or \$65 ea./3+



Rubber Band & Propeller Car

Kit includes: [4] wheels, [2] axle straws, propeller, wood (1/4 x 1-1/2 x 12 in.) and a rubber band. 841205 Kit\$5.95 or \$5.75 ea./10+ or \$5.45 ea./25+ 841954 Bulk Pack of 50\$4.50 Per Kit \$225



w/ Wood Blank & w/ Hi-Speed Wheels

Kit includes: wood block (1-1/4 x 1-3/4 x 7 in.) w/ pre-cut axle grooves, axles & hi-speed wheels. 841592 Kit\$7.95 or \$6.95 ea./10+ 841817 Bulk Pack of 30...\$5.95 Per Kit \$178.50



Includes: motor, wheels, axles, gear set (4 gears per set), battery holder, switch and wood base. Requires [2] AA batteries.

841016 Kit\$7.95 or \$6.95 ea./10+ or \$6.35 ea./25+

Bulk Pack

Per Kit Price

As Low As

\$345



KELVIN® Economy Build A Better® Mousetrap Racer™

Includes [2] KELVIN® CD inserts, [2] CDs for wheels, [2] 1-3/8 in. dia. front wheels, mousetrap, dowel, cable ties, wood base and [2] axles.

841282 Kit\$3.95 or \$3.75 ea./10+ or \$3.45 ea./25+ 841414 Bulk Pack of 100\$3.45 Per Kit \$345



Bulk Pack Per Kit Price As Low As

KELVIN® Solar Boat

Kit includes: foam blank (1 x 3 x 12 in.), solar motor, solar cell, propeller, and [2] red wire leads. 841252 Kit\$16.95 or \$15.95 ea./10+ or \$14.95 ea./25+

842621 Bulk Pack of 10... \$7.90 Per Kit \$79



Kit includes: floating bag, foam, motor, propeller, battery holder and switch. Requires [4] AAA batteries as well as tools for cutting and shaping. 842389 Kit.....\$15.95 or \$14.95 ea./10+ 842391 Bulk Pack of 15....\$9.99 Per Kit \$149.95



KELVIN® Pre-Cut Rubber Band & Propeller Car

Kit includes: [4] wheels, [2] axles, straw, propeller, laser cut wood, rubber bands, and hardware.

....\$9.95 or \$8.95 ea./10+ 842593 Bulk Pack of 25\$7.80 Per Kit \$195





283803 Bulk Pack of 10 \$13.50 Per Kit \$135

Kit includes: wood blanks, motors, gears, battery holders, wheels and axles. Requires drilling or gluing with hot glue.

841396 Kit\$8.95 or \$7.95 ea./10+ 841425 Bulk Pack of 25...\$6.95 Per Kit \$173.75



Includes: [2] 4-3/4 in. dia. rear wheels, [2] 1-3/8 in. dia. front wheels, mousetrap, wood dowel, cable ties, wood base and [2] axles.

841206 Kit\$4.95 or \$4.45 ea./24+ 842427 Bulk Pack of 50\$4 Per Kit \$200



[2] foam blanks (2 x 2 x 8 in.), wood, propeller, switch and AA battery holder.

841251 Kit\$12.95 or \$11.95 ea./10+ or \$10.95 ea./25+ 842623 Bulk Pack of 20\$9.95 Per Kit \$199



Kit includes: [2] motors, foam tray, [2] propellers, 9V battery snap, slide switch, wire, dowel rod, craft stick and clip.



842618 Bulk Pack of 10\$12.50 Per Kit \$125 841420 Bulk Pack of 20 \$12.50 Per Kit \$250



2-Lane CO2 dragster launcher is easy to store and carry to competition sites. Self-contained mechanism doesn't have dangerous spring tension hammers that can cause injury. Works with the CO₂ Racing Track (841097). Requires adult supervision. Grades 6-12. ..\$595 840711 2-Lane.



Kits & Blanks w/ Pre-Drilled CO₂ Holes Pre-Drilled CO₂ Hole Per Kit Price As Low As \$545 **KELVIN® Dragster Kit** for CO₂ w/ Blank 12 in. L Cartridge

Pre-Drilled w/ CO₂ Cartridge Holes

Each kit includes: pre-drilled wood blank, wheels, axles, straw, screw eyes, washers, and instructions. Requires CO₂ cartridge, shaping, and assembly.

Kit w/ Pre-Drilled Pine Wood Blank

842640 Kit\$6.95 or \$6.45 ea./10+ 841422 Bulk Pack of 50....\$5.45 Per Kit \$272.50

Kit w/ Pre-Drilled Basswood Blank\$8.95 or \$8.45 ea./10+ 842641 Kit

842357 Bulk Pack of 50\$8 Per Kit \$400 Kit w/ Pre-Drilled Balsa Wood Blank 842642 Kit.....\$14.95 or \$14.25 ea./10+

842599 Bulk Pack of 20 \$13.95 Per Kit \$279 842358 Bulk Pack of 50.. \$12.94 Per Kit \$647.50



CO₂ Cartridge for CO₂ w/ Blank 12 in. L Pre-Drilled w/ Axles & CO₂ Cartridge Holes

Perfect for anyone that doesn't have equipment to drill perpendicular 1/8 in. dia. axle holes. Each kit includes: pre-drilled wood blank, wheels, axles, straw, screw eyes, washers, and instructions. Requires CO₂ cartridge, shaping, and assembly. 842377 Kit\$7.95 or \$7.45 ea./10+ 842379 Bulk Pack of 50.. \$6.95 Per Kit \$347.50

Pre-Drilled Wood Blank (Axles & CO₂ Holes) 970387 50/pkg.\$6.50 Per Blank \$325

CO₂ Cartridges

For safety, KELVIN® recommends teachers only provide CO2 cartridges during supervised competitions. 8g,10/pkg.

500025 *\$7.95 or \$7.45 ea./10+ 500053 ★ w/ Cap......\$8.95 or \$8.45 ea./10+ For safety, we only ship CO₂ cartridges



Requires CO₂ Cartridge **KELVIN® Essential Dragster Parts**

Each kit includes: [2] rear wheels, [2] spoke wheels, axles, straw, screw eyes, and washers. Requires CO₂ cartridge for CO₂ dragsters. 842643 Kit\$3.95 or \$3.45 ea./10+

842356 Bulk Pack of 50..**\$2.95 Per Kit \$147.50**



KELVIN® Kel-Air™ Original Air-Powered Dragster Launcher

Launcher ONLY

This launcher has no display, it uses the analog display on your compressor. Requires air compressor. 840814

Launcher PLUS Track

Kel-Air™ Launcher, Track: 24 ft. long (in three 8 ft. long sections), Portable Air Compressor and [10] Vehicle Kits.

842447Shippina Add \$350 **\$1.095**

Launcher PLUS Track & Motion Timer

Kel-Air™ Launcher, Track: 24 ft. long (in three 8 ft. long sections), hand-held motion timer, portable air compressor, sensor mounting stands, instructions and [10] vehicle kits.

841100Shipping Add \$350 **\$1,495**



KELVIN® Kel-Air™ Air-Powered Dragster Launcher w/ Digital Gauge

Launcher ONLY

Features a digital display pressure gauge for exact competition pressure every time (requires air compressor which can adjust air pressure). Other features include enhanced pneumatic valve controls, finish gate bumpers and a launch switch.

851967

\$345

Launcher PLUS Track & Kel-Timer[™] Motion Timer Kel-Air™ Launcher w/ digital display, track: 24 ft. long (in three 8 ft. long sections), hand-held motion timer, portable air compressor, sensor stands, instructions and [10] vehicle kits.

842596Shipping Add \$350 \$1,565



LANE 2 LANE 1 ★ Pickup at KELVIN® for \$1.000 discount is also

available; please email us (kelvin@kelvin.com) for this option before purchasing.

Launcher, ClassView™ Timer w/ power supply, track (24 ft. long in three 8 ft. long sections), start/finish sensors gates (pre-wired), hand controller set, [50] dragster kits and [2] portable air compressors. 110 V AC. USA plug. 841564U.S. Shipping Included \$4,500 🖈

Kits & Blanks w/ Pre-Drilled Air Input Holes



straw, screw eyes, washers, and instructions. Requires shaping and assembly.

7-1/2 in. L Kit w/ Pre-Drilled Wood Blank 841091 Kit\$4.95 or \$4.45 ea./10+ 840917 Bulk Pack of 10 \$4.25 Per Kit \$42.50 10 in. L Kit w/ Pre-Drilled Wood Blank 841093 Kit\$5.95 or \$5.45 ea./10+

840918 Bulk Pack of 10 \$4.95 Per Kit \$49.50 841423 Class Pack of 50\$4.50 Per Kit \$225 Pre-Drilled Wood Blank (Air Input Hole Only)

Drill axle holes with teacher supervision.

7-1/2 in. L x 3/4 W Pre-Drilled Wood Blank 390691 50/pkg.\$2.50 Per Blank \$125 10 in. L x 1-1/4 W Pre-Drilled Wood Blank 390690 50/pkg.\$2.95 Per Blank \$147.50

Kits & Blanks w/ Pre-Drilled Axle & Air Input Holes Pre-Drilled re-Drille Air Input Hole **5**45 **KELVIN®** Air-Powered **Dragster Kit**

w/ Pre-Drilled Blank (Axle & Air Input Holes)

Kit includes: pre-drilled wood blank, wheels, axles, straw, screw eyes, washers, and instructions. Requires shaping and assembly.

10 in. L Kit w/ Pre-Drilled Wood Blank 842378 Kit\$6.95 or \$5.95 ea./10+ 842380 Bulk Pack of 50..... \$5.45 Per Kit \$272.50

Pre-Drilled Wood Blank (Axle & Air Input Holes) Holes fit bushings for 1/8 in. axles.

10 in. L Pre-Drilled Wood Blank 970386 50/pkg. \$4.45 Per Blank \$222.50

KELVIN® Essential Dragster Parts Bulk Pack 🚢

Kit includes: [2] rear wheels, [2] spoke wheels, axles, straw, screw eyes, and washers. 842356 Bulk Pack of 50\$2.95 Per Kit \$147.50

Pre-Drilled Blanks w/ NO HOLES



Dragster Wood Blank Axle holes and air input hole are to be drilled with teacher supervision.

7-1/2 in. L x 3/4 W Poplar

390556 100/pkg.\$1.50 Per Blank \$150

7-1/2 in. L x 3/4 W Basswood

970218 50/pkg.\$1.85 Per Blank \$92.50 10 in. L x 1-1/4 W Poplar

KELVIN® Dragster Blank Drilling Jig

Makes it easier for students to hold the blank while trying to drill air input holes. 7-1/2 in. L Jig

970046\$49.95 10 in. L Jig 970047\$59.95

Works with a Hand Drill like 950311





841673 A Kit ..

KELVIN® PowerPole™ Foam Plane w/ Power Jack Connector

.....\$17.95 or \$15.95 ea./10+ 842133 B Kit ... 842102 Bulk Pack of 10 \$149.95

KELVIN[®] Electric PowerPole™ Design Challenge

Students in middle school and up, can learn about aeronautics and problem-solving while they build a complete model from provided kit material and then test how it flies around the Electric PowerPole™. Planes can be controlled to fly faster and higher.

To begin the challenge, middle school students design the top wing; advanced and high school students design the whole plane. Planes are attached to the power pole for a controlled, 12foot dia. flying area. Planes are evaluated on speed (rpm), load, and how high they can fly.

Includes: Electric PowerPole™ and [2] balsa plane kits (842446). Requires power supply



870118 **G**\$4.95 or \$3.95 ea./10+ or \$3.75 ea./10+ KELVIN® Electric PowerPole™ Timer

Goes on top of PowerPole[™] to track plane distance, time, revolutions, and speed. 8 sensors is 8x more accurate. 841260 1 Sensor, Win, USB\$99.95 841894 8 Sensors, Win, USB......\$199.95



KELVIN® PowerPole™ Older Models Upgrade Kit

For older PowerPole® models with the phone swivel connector. Comes with: 3/4 in. PVC Pipe (15 in. Long), [2] Acrylic Arms, [4] Acrylic Rings, PVC Cap with Jack Connector, 30 ft. Twisted Wire and [4] Bumper Squares.

851509

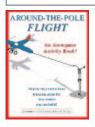


Scan The

Code For

Product

Video



KELVIN® Around the Pole **Flight Activity Booklet**

Bulk Pack

This consumable booklet contains instructions and patterns for constructing two planes that can fly around the KELVIN® PowerPole™ (851956, see above). Requires one booklet per student and Electric PowerPole[™] (851956).

650973 Booklet\$6.95 or \$6.45 ea./12+







weights, rubber bands and instructions. 280614 Kit.... \$3.95

280606 Bulk Pack of 20.. \$2.95 Per Kit \$59.00



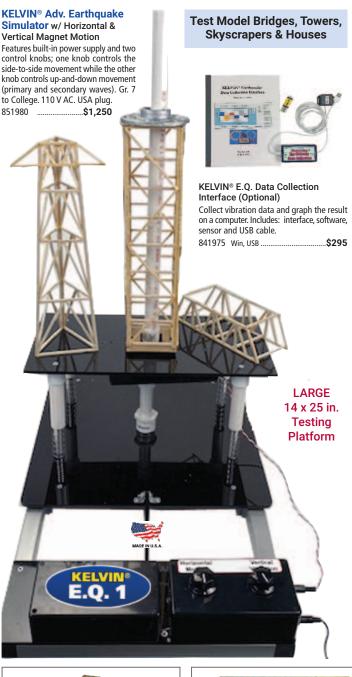


Kit includes: foam that students cut and shape, motor, super capacitor, propeller, magnet, reed switch, wire and instructions.

841800 Kit\$15.95 or \$14.95 ea./10+ 841801 Bulk Pack of 10.......\$13.50 Per Kit \$135



supervision. School use only. 283185 Bulk Pack of 20......\$7.50 Per Kit \$150





The activity starts with development of a floor plan using a 1/2 in. = 1 ft. scale. Using the provided templates, students will model the structure from balsa wood sticks. Detailed instructions include construction and architecture vocabulary as well as explanation for framing techniques. Studs are precut to size. Sill plates and beams must be measured and cut by the students. Measures 9 in. L x 4 in. W x 6-1/8 in. H.

842551 Kit\$23.95 or \$20.95 ea./10+ or \$18.95 ea./20+

KELVIN® Advanced 2-Story House **Framing**

Learn more about construction and framing techniques. Plans, instructions and materials can be used to design and build a 2-story house or a structure the student designs. Scale is 1/2 in. = 1 ft. Framing materials are made from easy to cut balsa wood.

Drawings serve as templates in which each elevation frame is assembled by pinning the wood to the template. Requires cutting tools (like StiKutter™) for cutting balsa.

Kit includes: balsa sticks (18 in. L), foam base (1 in. T), pink foam to imitate insulation (small sq. piece), pins, wood glue, and instructions. The completed house measures 7-1/2 x 7-1/8 x 13 in. when built to scale.

Advanced 2-Story House Framing Kit

842576\$49.95 or \$44.95 ea./5+ or \$39.95 ea./10+

Visit KELVIN.com to see and purchase our other Model House Kits, Bridge & Tower Kits, Catapult Kits, and Crane Kits.

KELVIN® Bungalow Model House **Framing**

Kit includes: balsa beams, glue, grid paper, mounting board for help with assembly, detailed instructions, and drawings. Requires cutting tools.

842583 Kit\$39.95 or \$37.95 ea./10+ or \$34.95 ea./20+

842516 Bulk Pack of 10....\$29.50 Per Kit \$295

KELVIN® Roof Framing Kit

Kit includes: 1/8 x 3/8 balsa wood, grid paper, glue, pins and instructions.

841773 Kit......\$49.95 or \$47.95 ea./10+ 841888 Bulk Pack of 10....\$44.50 Per Kit \$445

KELVIN® 1-Story **House Framing** Kit includes: balsa beams (1/8 x 3/8 in.), grid paper, glue, pins, detailed instructions,

and drawings. Foam base (420781) and roof (841773) not included. 841771 Kit\$79.95 or \$74.95 ea./10+

841886 Bulk Pack of 10....\$69.50 Per Kit \$695









Kit includes: wood, plastic cup and ping pong ball. Requires assembly, hand tools, measuring, cutting, hammering, sawing and drilling. 841229 Kit\$11.95 or \$10.95 ea./10+

or \$10.45 ea /25+ 841814 Bulk Pack of 24....\$9.95 Per Kit \$238.80

KELVIN® Solar Energy Houses

These kits will guide your students through activities focused on the conversion of light into electrical energy as well as heat transfer and the storage of it for space and water heating. Requires a light source.



7 x 7 x 8 in. dvanced Energy 7 x 14 x 8 in. Solar House Template Only

Activity includes: template for 1-room house, stick-on thermometer, solar cell, motor, propeller, aluminum sheet, and an instructions sheet. Assembled house measures 7 x 7 x 8 in.

841748 Template Only\$24.95 or \$22.95 ea./3+

Solar House Template Kit

In addition to the contents of 841748 (above), this kit also includes: a ceramic tile and alligator leads. Assembled house measures 7 x 7 x 8 in. long.

......\$36 or \$29.95 ea./3+

Solar House Lab

In addition to the contents of 841635 (above), this lab includes: liquid thermometer, motor (2 total), propeller (2 total), water pump, foam cutter, knife switch, beaker, battery holder, tubing, LEDs, clothespins, wood, and foam board. Assembled house measures 7 x 7 x 8 in.

841603 Lab..\$85 or \$75 ea./3+

Solar House Advanced Lab

In addition to the contents of 841603 (above), this lab includes: template for multiple room house, solar cell (3 total), socket, lamp, 50 LE multimeter, and car kit. Assembled house measures 7 x 14 x 8 in.

\$175 or \$165 ea./3+

KELVIN® Hands-On Science® Alternative **Energy Battery Charger w/ Solar Cell**

Includes: Solar Cell (2 V, 200 mA, 2 x2 in.), AA battery holder and insulated alligator clips with leads. Requires [1] AA NiCad battery (220025, see below).

220163\$5.95 or \$5.65 ea./10+

KELVIN® Hands-On Science® Alternative Energy Battery Charger w/ Solar Cell and Solar Motor

Includes: Solar Motor (851105) and Solar Cell with Alternative Energy Battery Charger (220163 above). Requires [1] AA NiCad battery (220025).

842411 .\$6.95 or \$6.75 ea./6+ 220025 Ni-Cad Battery, AA, 500 mAH \$1.95 or \$1.75 ea./10+



Solar Cells with Leads

Red and black stranded wires. Leads measure 10 in. long

3 V, 100 mA 2 x 2 in. 220103 ..\$7.95 or \$7.45 ea./10+

2 V. 550 mA 4 x 4 in.

260197 ..\$9.95 or \$8.95 ea./10+



Laminated Solar Cells

Laminated in a high quality resin on a PC board with excellent moisture resistance. Each cell has a solder lug for attaching wire. 260188 0.5 V, 250 mA, 32 x 60 x 4 mm\$7.95 or \$7.45 ea./6+ 260189 0.5 V, 500 mA, 62 x 46 x 4 mm\$9.95 or \$8.95 ea./6+ 260190 1 V, 250 mA, 62 x 46 x 4 mm\$10.95 or \$10.45 ea./6+ 260193 1.5 V, 500 mA, 62 x 120 x 4 mm ..\$22.95 or \$20.95 ea./6+



For AA and 9V batteries with included adapters or us switch to select different DC voltages (3, 6, 9, or 12). 600 mW. 165 x 89 x 25 mm.

280202\$21.95 or \$20.95 ea./10+



KELVIN® Turn On At Night Light & Battery Charger

Sunlight and a solar cell charges a rechargeable battery during the day. An IC senses voltage change and turns on a LED at dark. Kit includes PC board, LED light, battery holder, rechargeable AA battery and solar panel. 842432 Kit. .\$12.95 or \$11.95 ea./10+



resistor light circuit that is installed into the model home.

Each model house snaps into the power grid base and picks up current from overhead wires. Measure power output using a multimeter. The house can also work off the grid using energy from solar cells (included), batteries or wind turbine generator (both sold separately).

Class pack includes: grid base, pre-printed mini home cardstock, electronic parts, solar cells and multimeter. Requires assembly and, for off grid use, [4] AA batteries or wind turbine generator (shown).

.\$295 or \$275 ea./3+ 842082 Class Pack for 24

652520 Bulk Pack of 10.......\$4.99 Per Kit \$49.95

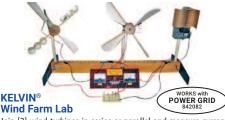
Comes with pre-printed cardstock, special LED, LED

holder, wires, connector, and alligator clips. Requires

Power Grid Mini

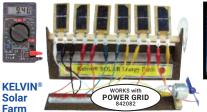
Homes Bulk Pack

Power Grid (842082).



Join [3] wind turbines in series or parallel and measure current and voltage for each generator or the total output as load is varied. Lab includes base, analog display, wind blower and instructions.

	, , , , , , , , , , , , , , , , , , , ,	
842100	Lab	\$345
	Data Collection Interface, USB, IBM	
	Lab with Laptop & Interface	



Teach the basics of solar voltaic energy! Includes: [5] 0.5 volt encapsulated solar cells mounted to a movable arm. Jumpers are used to connect the cells in series or parallel. Also included are 50LE multimeter, [10] LEDs, breadboard, motor, fan prop, protractor to measure the cell angle and instructions.

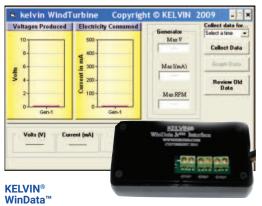
842035 Assembly Required......\$99.95 or \$89.95 ea./3+

How the **Electric** Utility System Works

Learn how electricity is

made, transmitted, and distributed. Also covers how the electric industry started, energy use, and future industry directions. Booklet. 652497, **\$14.95**

or \$13.95 ea./6+



Data Collection Interfaces

Add data collection to either Experimental Wind Turbine. Students can monitor 3 or 6 motor generators while the graph displays voltage on a computer. For best results, use with motor 851363.

842363 Win Data™ 6 - Up to 6 Motors

KELVIN® Experimental Wind Turbine House

Students fold a cardstock model house and then create a LED circuit to plug into the wind turbine generator.

Each kit includes: cardstock, LED with holder, resistor, wire, clips, and connectors

Requires an Experimental Wind Turbine, soldering and wiring.

Bulk Pack of 10

652613**\$32.95**



KELVIN® Experimental Wind Turbine w/ WIND-UP MOTOR GENERATOR & TRANSFORMER

Advanced students can build a motor generator and wind the motor coil. Kit includes: motor generator parts, hub, corrugated plastic for blades, PVC stand with sturdy base, multimeter, LEDs, breadboard, printed house layout, wire, terminals, and instructions. Requires a fan indoors.



842258 Advanced Kit w/ Stand.. 842257 Assembled w/ Stand....

\$295

Transformer Generator Kit Only - Build Your Own®

Kit includes motor generator parts and hub. Requires motor/coil winding and assembly. Does NOT include blades, PVC stand or wind turbine parts.

.....\$99 or \$89 ea./5+ 851925 Advanced Kit - No Stand

Assembled **Wind Turbine** is over 45 in. **TALL**



Students Design, Make & Test the Blades for the Wind Turbine

Test rotor and blade designs by varying the rotor sweep, blade size

and blade shape to change the electrical output of the generator. Viewcal rotor output with the included multimeter or see how many LEDs are lit. Wind turbines can power a model house's LEDs!



Students can build a wind turbine that uses a motor generator. Kit includes: motor generator, gearbox parts, hub, corrugated plastic for blades, PVC stand with sturdy base, multimeter, LEDs, breadboard, printed house layout, wire, terminals, and instructions. Requires a fan indoors.

842267 Kit w/ Stand 842268 Assembled w/ Stand..... \$135 \$225

Motor Generator Kit Only - Build Your Own®

Comes with motor generator, gearbox parts and hub. Does NOT include blades, PVC stand or wind turbine class parts.

851924 Kit - No Stand\$85 or \$75 ea./5+



Kit includes: hub, motor, motor holder, and a red LED. Requires scrap cardboard, wood and blower.

842353 Bulk Pack of 20\$3.95 Per Kit \$79



Kit includes: hub, [9] dowels, [20] corrugated board sheets (6 x 12 in.), [50] red LEDs and Super Capacitor Dragster Car kit.

851462 Bulk Pack of 10.. \$9.99 Per Kit \$99.95



283733 Kit\$22.95 or \$18.95 ea./10+ 283740 Bulk Pack of 20....\$17.95 Per Kit \$359

KELVIN® Chain Reaction Contraption Kit includes: plywood, wood aluminum strips, magnets, plastic cups, steel ball, wire, battery holder, buzzer, hardware, and instructions. Requires assembly,

841856 Pack of 10......\$29.95 Per Kit \$299.95

Generator Headlamp shop tools, and [2] AA batteries. Kit includes: motor, crank handle, tube, stranded 841854 Kit\$39.95 or \$34.95 ea./6+ wire, [3] three super bright LEDs, enclosure, and or \$32.95 ea./10+

KELVIN® Hand Crank

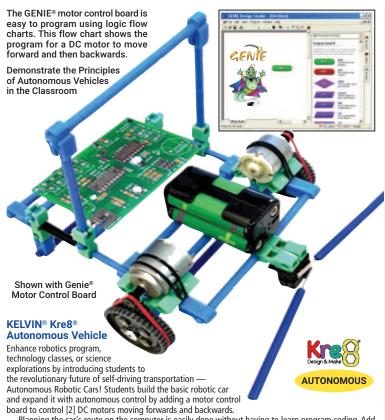
adjustable head strap. Requires assembly. 842444 Kit\$19.95 or \$14.95 ea./10+



KELVIN® Hand Crank Flashlight

Kit includes: pre-scored cardstock, motor, crank handle, tube, wire, super bright LED, and hardware. Requires assembly.

842442 Kit\$14.95 or \$13.95 ea./10+



Planning the car's route on the computer is easily done without having to learn program coding. Add conditions like what to do if an obstacle is sensed (left sensor?, right sensor? or both sensors?, go back?, how far?) or the destination is reached (make a left turn? Continue?).

When finished, download the program to the car using the included USB download cable. Disconnect the download cable and turn the power switch on. The car will then move as programmed on the class floor or teacher-designed mat with additional obstacles. The assembled car measures 17 x 18 cm. Once built, the car can be taken apart and rebuilt by the next group.

Two versions of the kit are available, featuring a GENIE® or Arduino® control board (FREE control software is available online). Both versions also include an Autonomous Vehicle Kit with: touch sensor package, wheels and body frame parts, [2] DC motors, AA battery holder and USB download cable. Requires AA batteries, Kre8® Tube Cutter (283653, below) or snips. Grades 6-9 with teacher support.

Kre8® Autonomous Vehicle Kit with Assembled GENIE® Control Board 842537 Shown Above - Requires [4] AA Batteries \$99.95 or \$94.95 ea./5+ or \$89.95 ea./10+

Kre8® Autonomous Vehicle Kit with Arduino® Control Board

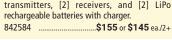
Kre8® kits can be assembled in regular classrooms. Optional Kre8® cutter (283653) can

be used to score and snap tubes to length. Use snips (480009) to cut sheet materials and light blue tubes. Kits require proper hand tools, soldering, advanced assembly and adult supervision. Kre8⁸ is a registered trademark of KELVIN L.P.

Get Experience Working with Hand Tools KELVIN® XZXT™ Robot Build a robotic car, crane, SUMO Car Wrestler® or, a Mars rover for remote tasks. For control, choose a wired, wireless controller or Autonomous Motor Control. Students will experience using school hand tools for constructing their robotic structures (with teacher supervision). Each reusable kit includes: frame parts, [3] gear motors, motor, gear, pulley pack, metal chain, [2] side wheels, swivel wheel, screws and nuts. 842451...\$95 or \$89.95 ea./5+ or \$84.95 ea./10+ Add WIRED Remote Control **KELVIN® WIRED Hand Controller** Controls 4 motors. Includes: [4] directional switches and 15 ft. long cable. Requires D batteries (220014). 842306 Assembled ..\$39.95 or \$34.95 ea./10+ dd WIRELESS Remote Control KELVIN® 4+2 WIRELESS Remote Controller Reusable and shareable. Each pair (a transmitter and receiver) controls 4 project motors and 2

Build Your Own[®]

Robot



Two motors are used for moving the car and the

other two for other purposes. Includes: [2]

servo motors.

Computer Interface Sensor (shown w/ 842625)

KELVIN® Lift & Drag Sensors Measure lift and drag of wings, vehicles, boat hulls. Attach test item to the sensor rod. Works

with most wind tunnels.

841410 Win, USB

No display. View, store, graph and compare test data using



KELVIN® The Wright Wind Tunnel™

Comes with Plane Wing Design Kit (990380). 19 x 9 x 9 in. testing chamber; 60 x 16 x 19 in. overall. Air Flow is 728 CFM.

Wind Tunnel w/ 841410 Sensor, Laptop & Pre-Loaded Software \$5,995 *

842626 Win, USB ★ Pickup Price; Shipping Add \$1,000

842625



KELVIN® Kel-Wind™ Wind Tunnel

Air intake provides smooth laminar air flow. Wind tunnel includes: Plane Wing Design Kit (990380), holding fixture, and built-in variable speed blower. 41 knots wind speed; 1604 CFM Laptop & Software, 842605, \$6,995 ★★ air flow. 19 x 9 x 9 in. testing chamber; 77 x 23 x 20 in. overall. ★★ Pickup Price; Shipping Add \$1,500



KELVIN® Plane Wing Design Kit

[5] foam sheets, wood, and hardware. Requires hand tools for shaping. 990380, \$12.95

.\$3.500 *

or \$10.95 ea./10+

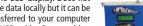
Instantly view test data on the 2-line LCD display. Does not store data locally but it can be transferred to your computer via USB cable. Comes with a power supply.

Display (shown w/ 842625)

841722 Win, USB



.\$1,250



Mechanical Lift & Drag Tester

Includes: lift tester, drag indicator, pre-shaped airfoil, [2] airfoil blanks, streamer and hooks.

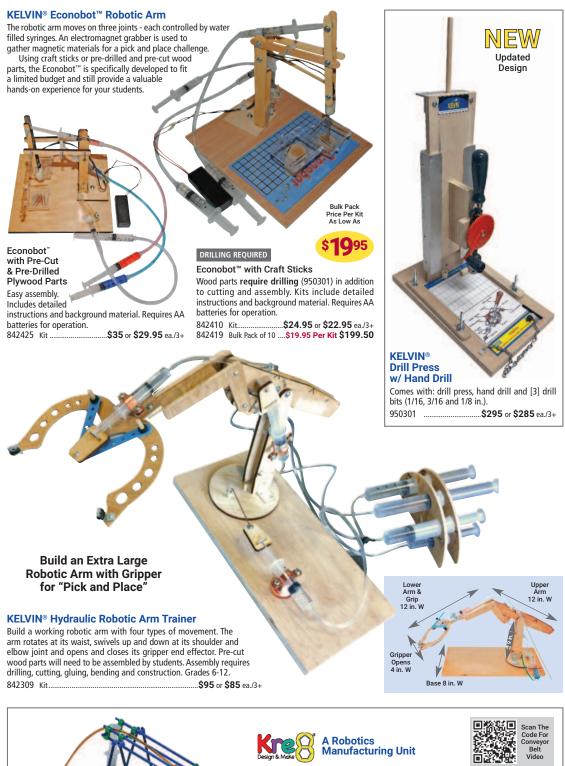
842617 Requires a Wind Tunnel.....

Wind Tunnel, 840614, \$4,995 ★★

Wind Tunnel w/ 841410 Sensor,

Laptop & Software-841697, \$6,795 ★★

Wind Tunnel w/ 841722 Sensor,





KELVIN® Kre8® Hydraulic Robotic Arm

Assemble a hydraulic robotic arm, with teacher help, to explore construction, operation and control.

283767 Kit - Grades 6+\$39.95 or \$35.95 ea./3+ or \$32.95 ea./10+ Kre8* kits can be assembled in regular classrooms. Optional Kre8* cutter (283653) can be used to score and snap tubes to length. Use snips (480009) to cut sheet materials and light blue tubes. Kits require proper hand tools, soldering, advanced assembly and adult supervision. Kre8* is a registered trademark of KELVIN L.P.

KELVIN® Kre8® Conveyor Belt

Construct a conveyor belt to demonstrate motion, speed ratios, gravity and compound gears. Changes angles. Kit includes switched battery holder. Requires [2] AA batteries.

283650 Kit - Grades 6+\$37.95 or \$34.95 ea./3+ or \$32.95 ea./10+



Adv	ranced Electronics Bin Fi	ller	Valued at \$331
10	Battery Holder w/ Leads, AA, 2	3	Project Motor, 0.7 - 5 V
5	Battery Holder w/ Leads, AA, 4	5	Super Bright LED, Red
50	Pre-Cut Wire, Stranded, Red	5	Diffused LED, Green
50	Pre-Cut Wire, Stranded, Black	5	Wire Lead Buzzer
2	Electrical Tape, Black	10	Photo Cell, 450 Ohm
20	Alligator Clips w/ Leads, 9 in. L	10	Battery Snap, 9 V, I-Shape
10	Slide Switch, SPST	10	Pushbutton Switch, 110 V, Black
5	Pushbutton Switch, 14 V, On-Off	5	Slide Switch, SPDT
10	Bulb Socket, Threaded, E10	5	Slide Switch, DPDT
5	Pushbutton Switch, 110 V, Red	5	Piezo Buzzer
10	Bulb, Threaded Base	10	Transistor
10	LED Holder, 5 mm	10	Potentiometer, Vert. PCB Mount
10	Solar Battery Chrgr, 2 V, 200 mA	5	Breadboard, 400 Contacts
5	Solder w/ Pocket Pak Dispenser	2	Multimeter w/ Buzzer, 50LE
5	Project Motor w/ Leads, 3 - 6 V	1	Desoldering Bulb
5	Project Motor w/ Leads, 1.2-3 V	1	Soldering Iron, 20 W

430512Valued at \$230 **\$225** or **\$195** ea./3+

10

10

100

10

10

2

10

3

5

5

2

Super Bright LED, Red

Resistors, 100 Ohm, 1/4 Watt

Pushbutton Switch, 110V, Red

Project Motor w/ Leads, 3 - 6 V

Project Motor w/ Leads, 1.2-3 V

Multimeter w/ Buzzer, 50LE

Diffused LED. Green

Wire Lead Buzzer

Electronics Tool Set

LED Holder, 5mm Solder w/ Pocket Pak Dispenser

Solo	dering Bin Filler	< -@	Valued at \$155
5	Soldering Iron, 20 W	5	Desoldering Wick, 0.19 in. W
5	Solder w/ Dispenser	5	Desoldering Wick, 0.10 in. W
5	Soldering Iron Holder	5	Desoldering Bulb
5	Sponge for Holder, Extra	430	521 \$135 or \$125 ea./3+

....\$49.95



430513





......Valued at \$331 **\$275** or **\$245** ea./3+

Electronic Kits Bin Filler

5	Blinking LEDs Kit	5	Reaction Tester Kit
5	Decision Maker Kit	5	Police Siren Kit
5	Night Light Kit	4305	16\$105 or \$99.95 ea./3



10

10

50

50

1

20 6

6

6

6

10

Battery Holder w/ Leads, AA, 2

Battery Holder w/ Leads, AA, 4

Pre-Cut Wire, Stranded, Red

Electrical Tape, Black

Knife Switch, SPST

Slide Switch, SPST

Bulb, Threaded Base

Pre-Cut Wire, Stranded, Black

Alligator Clips w/ Leads, 9 in.

Mini Bulb Socket, Clip-On

Bulb Socket, Threaded, E10

Bulk Pack Per Kit Price As Low As PROJECT LEAD THE WAY **KELVIN® Night Light** Photocell turns a super bright LED on as the

room gets dark or off when it gets light. Requires [2] AA batteries.

842141 Kit\$5.95 or \$5.45 ea./10+ or \$4.95 ea./20+

842142 Bulk Pack of 30....\$3.95 Per Kit \$118.50

Bulk Pack Per Kit Price As Low As



KELVIN[®] **Blinking LEDs**

Demonstrates how to blink two LEDs with many basic electronic parts. Requires a 9V battery. ...\$3.95 or \$2.95 ea./10+

842162 Bulk Pack of 30.. \$1.95 Per Kit \$58.50 842163 Assembled Demo\$49.95



KELVIN® Sound Effects v2

842164 Assembled Demo

New design features a programmed Arduino chip. Make four different sound effects; from a Laser Gun to Police Siren. Requires a 9V battery. 842505 Kit\$13.95 or \$11.95 ea./10+



Mimics a police car siren with tone adjustment. Can also be used as burglar alarm. Requires 9V battery.

841567 Kit\$7.95 or \$6.95 ea./10+ 842245 Bulk Pack of 20\$6 Per Kit \$120 842189 Assembled Demo\$59.95

Bulk Pack **KELVIN® Reaction Tester**

Anticipate when the LED lights and release the switch. Stays lit up when right. Requires a 9V battery.

841134	Kit\$3.95 or \$3.65 ea./10+
842191	Bulk Pack of 30\$3.30 Per Kit \$99
842192	Assembled Demo\$49.95



Boards & Parts in Mini Lab 1 include:

Push Switch • [3] LED Boards

KELVIN® SOFAST® ELECTRONICS MINI LAB 1 Gr. 3-6

- Electronic Parts Variable Resistor
- **Battery Pack** Momentary Switch • [10] Alligator Clip Leads

Activities in Mini Lab 1 include:

- **Power Supplies** Fuses
- Resistors Switches Series / Parallel Connections
- 842568 Mini Lah 1
- **LEDs**
- Digital Logic

.....\$69.95 or \$59.95 ea./5+

KELVIN® SOFAST® ELECTRONICS MINI LAB 2 Gr. 6-8



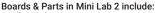










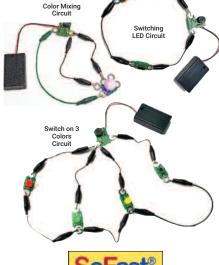


- Tilt Switch Motor
- Photo Cell [2] Lever Switches •
 - [2] Experiment Boards
- Propeller
- **Battery Pack**
- [10] Alligator Clip Leads Case
- **Electronic Parts**

Activities in Mini Lab 2 include:

- Photocells
- Motors
- Building a Simple Car that moves with propeller power

Transistors





Circuits in Seconds with Activity Sheets





KELVIN® SOFAST® ELECTRONICS MINI LAB 1+2+3 Gr. 7-12 Transistor Driver

555 Timer







Electronic Parts

Battery Pack

[20] Alligator

Clip Leads









Activities cover, in addition to Mini Labs 1 & 2:

- Multimeters
- **Phototransistors**
- Tilt Switches
- Relays
- 555 Timer Capacitors

\$195 or \$175 ea./5+







those provided with Mini Labs 1 & 2: Kre8® Car Kit Relay

- DIY Mini
- Breadboard for 5 Connections 555 Timer
- Speaker
- **RGB LED**
- Transistor Driver 842581 Mini Lab 1+2+3

KELVIN® ELECTRONICS LABKIT TRAINER: DIGITAL

This trainer features clearly labeled sections of common electronic parts already added to a circuit board. Students use jumper wires and breadboard connection points in each section.

In addition to descriptions of all basic parts, experiments in the manual cover:

- Lighting LEDs
- Using different types of switches
- Display numbers on 7 segment displays
- Using a simple digital probe
- Generating sounds
- Generating colors with an RGB LED
- Demonstrating the operation of AND, OR and NOT gates
- Build 4-bit and 8-bit binary counters and display the data
- **Build decade counters**
- Use and demonstrate debouncing
- Serial to parallel data transfer
- Parallel to serial data transfer
- Generating PWM signals

Digital LabKit includes:

- [2] Displays, 7-segment w/ BCD driver (CD4511)
- [8] LEDs w/ Drivers (ULN2803) [2] Binary Counters, 4-Bit (7493)
- Shift Register, Parallel In/Serial Out (74165)
- Shift Register, Parallel Out/Serial In (74164)
- [6] Digital Inputs/Outputs, Debounced
- 555 Timer w/ Freq. & PWM Adjust.
- RGB LED (Common Cathode)
- Digital Probe w/ Light & Sound Outputs
- [4] AND Gates (7408)
- [4] OR Gates (7432) [6] Inverters (7404)
- 10K Potentiometer
- [4] Push Button Switches
- [8] SPDT Switches w/ Protecting Resistors
- 400 Contact Breadboard

Assembled trainer with storage case and 5V adapter. Ideal for HS and trade schools. Powered by the provided 5V DC wall adapter or for standalone operation, use [4] AAA batteries (not included). Each section has its own power connection and does not drain the batteries when not in use. 110 V AC. USA plug.

842602 Assembled - Call for Additional Pricing\$295 or \$275 ea./3+ or \$245 ea./10+ Analog Trainer, 842462, also available at www.kelvin.com



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KELVIN® Variable Power Supply w/ Polarity Box

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Use polarity box to conveniently switch power polarity. Can be used with other power supplies that have a round jack. Standard banana plugs for output with regular lab cables. 8.8 x 3.2 x 6.5 in. 110 V AC. USA plug.

842639 \$145