

# Lab Resources, Inc.

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## PRINCIPLES OF TECHNOLOGY

### Lab Inventory Form

For a quote, please complete and fax to (281) 516-2202

#### BREADBOARDING EQUIPMENT

Model # 12000-1F

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PART NO.	DESCRIPTION	Quantity Needed	Quantity To Order
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EACH SET TO INCLUDE THE FOLLOWING:

15200	Circuit Panel	1	
23500	Circuit Panel Easel	1	
14500 B	Support Stand Set	1	

# ELECTRICAL MOUNTED COMPONENTS

Model # 12000-2FF

PART NO.	DESCRIPTION	Quantity Needed	Quantity To Order
EACH SET TO INCLUDE THE FOLLOWING:			
20258 D	SPST Knife Switch	1	
22254 D	DPDT Knife Switch	1	
20257 D	Lamp No. 53 w/Mounted Base	2	
12094 D	Transformer	1	
22287 M	Resistor, 1 Ohm 10 W	1	
15676 M	Resistor, 10 Ohm 10 W	1	
21339 M	Resistor, 100 Ohm 10 W	1	
541-05101 M	Resistor, 100 Ohm 1 W	1	
541-05391 M	Resistor, 390 Ohm 1 W	1	
541-05471 M	Resistor, 470 Ohm 1 W	1	
541-05562 M	Resistor, 5.6k Ohm 1 W	1	
541-05822 M	Resistor, 8.2k Ohm 1 W	1	
541-05103 M	Resistor, 10k Ohm 1 W	1	
12009 EC	Storage Board	1	

# ELECTRICAL ACCESSORIES

Model # 12000-3F

PART NO.	DESCRIPTION	Quantity Needed	Quantity To Order
EACH SET TO INCLUDE THE FOLLOWING:			
12039-6	Battery, 6 Volt, w/Spade Connector	3	
12039-9 A	Battery, 9 Volt w/Holder	1	
15005 A	Hook-Up Wire, Stripper, Spring Tips	1	
15412 MD	12 VDC Solenoid	1	
15710 CC	Universal Lead Set	1	
120 SF3F	Electrical Storage Foam	1	

# MECHANICAL MOUNTED COMPONENTS

Model # 12000-4FF

PART NO.	DESCRIPTION	Quantity Needed	Quantity To Order
EACH SET TO INCLUDE THE FOLLOWING:			
12017 MB	Accumulator w/Quick Disconnect	1	
12115 M	0 to 15 PSI Pressure Gauge	1	
12026 M	30 to 30 PSI Compound Pressure Gauge	1	
12027 M	Winch	1	
12029 MG	12 VDC Motor/Generator	2	
12031 MB	Four Port Orifice Assembly w/Quick Disconnects	1	
12032 MC	Air Motor w/Quick Disconnects	1	
12033 MB	Flywheel	1	
12034 C	Mechanical Storage Board	1	

# FLUID ACCESSORIES 1

Model # 12000-5F1

PART NO.	DESCRIPTION	Quantity Needed	Quantity To Order
EACH SET TO INCLUDE THE FOLLOWING:			
12067 H	Hydrometer, High Density	1	
12067 L	Hydrometer, Low Density	1	
12067 B	Hydrometer, Pocket	1	
12074 A	Hydraulic Flow & Shock Assembly	1	
12078 B	Pipe Tee w/Taps & Quick-Disconnect	2	
12079 C	Tubing Adapter Kit	1	
12128 A	Water Pump, Self Priming	1	
12163 C	Tubing Accessory Kit	1	
12167	Hydrometer Jar	2	
12177 A	Control Valve, Mounted	2	
120 SF5F1	Fluid Accessories 1 Storage Foam	1	

## FLUID ACCESSORIES 2

Model # 12000-5F2

PART NO.	DESCRIPTION	Quantity Needed	Quantity To Order
EACH SET TO INCLUDE THE FOLLOWING:			
12016 A	Spring Test Assembly	1	
12030 LC	Air Cylinder, Large w/Quick Disconnect	1	
12060	Weight Stage	1	
12062 A	Cylinder Mounting Bracket	1	
12069 B	Vacuum/Pressure Pump w/Gauge	1	
12070 MB	Flowmeter	1	
12075 D	24" Air Collection Column w/Clamp & Quick Disconnect	1	
12090 A	Stirring Attachment	1	
12090 B	Splash Guard	1	
12160 G	Pressure Regulator w/Gauge	1	
120 SF5F2	Fluid Accessories 2 Storage Foam	1	

# THERMAL ACCESSORIES

Model # 12000-6F

PART NO.	DESCRIPTION	Quantity Needed	Quantity To Order
EACH SET TO INCLUDE THE FOLLOWING:			
12015 C	Thermal Pipe	1	
12023 B	Hot Plate	1	
12063 A	Beaker Set Includes The Following:	1	
11301-04	(1) Beaker, 600ml Hr Glass		
12065 A	(1) Beaker, 1000ml PPL		
12064 A	(1) Beaker, 600ml PPL		
12071	Thermometer, Blank	1	
12072	Thermometer, Scaled	2	
12514	Thermal Container	1	
12077 B	Heat Transfer Accessories	1	
12091	Specific Heat Samples	1	
120 SF6F	Thermal Storage Foam	1	

# HARDWARE & MEASURING PACKAGE

Model # 12000-7F

PART NO.	DESCRIPTION	Quantity Needed	Quantity To Order
EACH SET TO INCLUDE THE FOLLOWING:			
12045	Extension Spring	1	
12048 B	Small Weight Set	1	
12049 A	Small Weight Hanger	2	
12051 HD	28 lb Spring Scale	1	
12052-2.5	2.5 Newton Spring Scale	1	
12052-5	5 Newton Spring Scale	1	
12053	Tongs	1	
12057 A	Single Pulley w/Bracket	1	
12058 A	Double Pulley w/Bracket	1	
12059 B	Spool Pulley	1	
12083	Shaft Coupler Package	1	
12086	Timing Pulley	1	
12093 M	Caliper, Vernier	1	
12096	Protractor	1	
12097	30 cm Ruler	1	
12098 A	Digital Stopwatch	1	
12101	Black & White Marker	1	
12105	S-Hook, Metal Ring & Allen Wrench Set	1	
12350	C-Clamp, 3"	1	
15702	Thermocouples w/30" Leads	2	
22956	Timing Belt	1	
120 SF7F	Hardware & Measurement Storage Foam	1	





# HOSES, TUBING & CONTAINERS

Model # 12000-8F

PART NO.	DESCRIPTION	Quantity Needed	Quantity To Order
EACH SET TO INCLUDE THE FOLLOWING:			
12028 GH	Water Pump Hose Set	1	
12040-5	Large Containers	2	
12066 TB	U-Tube Trap	1	
12095 CB	Tubing Set	1	
12170 P	1 Gallon Container	1	
12179	Resistance Tube Set	1	

# SPECIAL ASSEMBLIES 1

Model # 12000-9FF1

PART NO.	DESCRIPTION	Quantity Needed	Quantity To Order
12530	Friction Plate Set To Include:	1	
12530-10	Large Steel Plate		
12530-20	Small Steel Plate		
12530-30	Small Nylon Plate		
12530-40	Small Delrin Plate		
12014 B	Air Flow System to Include:	1	
12014-14	(1) Restrictor Kit,		
12014-24	(1) Filter Kit,		
12014-26	(1) Air Flow Objects		
12014B-40	(1) Blower Assembly*		
12014B-50	(1) Acrylic Tube 3.5" x 20"		
120 SF9FF1	Special Assemblies I Storage Foam	1	

**\*Shipped In Separate Carton**

## SPECIAL ASSEMBLIES 2

Model # 12000-9F2

PART NO.	DESCRIPTION	Quantity Needed	Quantity To Order
EACH SET TO INCLUDE THE FOLLOWING:			
10103	Cylinder Coupler	1	
12011 C	Conveyor Belt Assembly	1	
12018 A	Spur Gear Train w/Bracket	1	
12019 B	Belt Drive Components	1	
12022	Worm Gear	1	
12044 A	Screw Mechanism	1	
12068 B	Air Cylinder, Small w/Gauge	1	
120 SF9F2	Special Assembly 2 Storage Foam	1	

# SPECIAL ASSEMBLIES 3

Model # 12000-9F3

PART NO.	DESCRIPTION	Quantity Needed	Quantity To Order
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EACH SET TO INCLUDE THE FOLLOWING:

12012 C	Water Channel Assembly	1	
12020 B	Bottle Jack w/Gauge	1	
12021 A	Pressure Stage	1	
12066	U-Tube Manometer	1	
12099 A	Meter Stick	1	

# LABORATORY ITEMS

Model # 12000-10F

PART NO.	DESCRIPTION	Quantity Needed	Quantity To Order
EACH SET TO INCLUDE THE FOLLOWING:			
12750	Triple Beam Balance	1	
12046	Come-Along Winch	1	
12048 HD	Large Weight Set	1	
12049 HD	Large Weight Hanger	1	
12085 A	Nylon Cord	1	
12198	Kilowatt Hour Demonstrator	1	
12266 B	Multi-Speed Chart Recorder w/Extra Paper & Pen	1	

# DEMONSTRATION ITEMS

Model # 12000-11F

PART NO.	DESCRIPTION	Quantity Needed	Quantity To Order
EACH SET TO INCLUDE THE FOLLOWING:			
12000 D1	Suction Cups, (2)	1	
12000 D2	Socket Fixture w/Socket	1	
12000 D3	Torque Wrench	1	
12000 D4 B	Aspirator Bottle w/Quick Disconnect	1	
12000 D5	Flow Indicator	1	
12000 D6	Thermal Bars w/Nails, (3)	1	
12000 D8	Paraffin	1	
12000 D9	Insulator Squares	1	
12000 D10	Toy Car	1	
12000 D11 A	Cardboard Disk Kit	1	
12000 D13	Weighted Block	1	
12000 D14 F	Flow Shroud w/Quick Disconnect	1	
12000 D15 M	Slant Tube Manometer w/Mount	1	
12000 D16	Auto Air Filter	1	
12000 D17	Resistance Board	1	
12000 D18	Chimney Assembly	1	
12000 D19	Styrofoam Board w/Tube	1	
12000 D20	Capacitor - Resistor	1	
12000 D21	Pipe Assembly	1	
12000 D22	Multiple Step Pulley Assembly	1	

# INSTRUMENTATION & MANUALS

PART NO.	DESCRIPTION	Quantity Needed	Quantity To Order
<b><u>LEVEL 1 EQUIPMENT</u></b>			
20600 F	High Current Power Supply	1	
50200 A	Digital Multimeter	1	
50500 B	MOSFET Multimeter	1	
40600	Function Generator	1	
30920 E	20 MHz Dual Trace Oscilloscope	1	
12150	Digital Stroboscope	1	
<b><u>ADDITIONAL OPTIONS</u></b>			
30925 E	Locking Cover, Oscilloscope		
12200 GB	Acrylic Guard, Clear		
61550	Dual Input Digital Thermometer w/K-Type Thermocouples		
<b><u>MANUALS</u></b>			
12001 T	Principles of Technology I Lab Manual		
12001 J	Principles of Technology I Student Journal		
12003	Instructor's Guide		
12005 A	Instructor's Resource Guide		



## CORD MANUALS

### Student Text (Price Per Unit)

Unit 1: 1-55502-372-X  
Unit 2: 1-55502-373-8  
Unit 3: 1-55502-374-6  
Unit 4: 1-55502-375-4  
Unit 5: 1-55502-376-2  
Unit 6: 1-55502-377-0  
Unit 7: 1-55502-378-9

Year 1 Student Texts (Units 1 - 7) 1-55502-913-2

Student Resource Book 1-55502-386-X

(A Compilation of Tables, Formulas, Charts and Reference Matter. Also Includes Eighteen Math Labs for Additional Practice).

### Teacher's Guide (Price Per Unit)

Unit 1: 1-55502-416-5  
Unit 2: 1-55502-417-3  
Unit 3: 1-55502-418-1  
Unit 4: 1-55502-419-X  
Unit 5: 1-55502-420-3  
Unit 6: 1-55502-421-1  
Unit 7: 1-55502-422-X

Year 1 Teacher's Guides (Units 1 - 7) 1-55502-915-9

Teacher's Guides on CD-ROM (Units 1 - 14) 1-57837-388-3

### Principles of Technology Videos

Year 1 (Units 1 - 7) 249VV1