ECONOMY MODULES
COOL-WHITE
Very bright, but less bright than our other modules. 3.5" wires between modules.
20 modules per string. 0.72W per module
CAT# LS-200CW $1.40 per module
20 modules for $1.10 per module
100 modules for 85¢ per module

RED/GREEN/BLUE 12 VDC STRIPS
Each LED is capable of red, green or blue, or any combination of colors. When all three colors are activated LED appears white. Should be used with controller, like our CAT# CT-21, which can be used to flash the LEDs in several programmed sequences at controllable speeds, also allowing dimming.
CAT# LS-22 75¢ per 3-led segment
For one roll of 100 segments (300 LEDs), use CAT# LS-22RGB $35.00 per roll

RF REMOTE CONTROL FOR RGB LED STRIPS
Allows flashing, sequencing and dimming of tri-color LED strip, CAT# LS-22. Will operate up to 5 strips, 1500 LEDs. Operates on 12-24Vdc. Input via screw terminals or 2.5mm coax power plug. Power supply not included.
CAT# CT-21 $35.00 $25.00 each

12-24 VDC 8A DIMMER
Designed for 12-24 VDC LED strip lights like our CAT#s LS-12-CW, NW, WW. Clearly-marked screw-clamp input/output terminals. Rotary adjustment. 3.5" x 2.35" x 2.25" high (including knob). Mounting holes on 1.6" x 3.1" centers.
CAT# DMR-8 $19.95 each

POCKET-SIZED LED TESTER
Handy device for testing LEDs (2-150mA). Simply plug your LED into the correct holes and push the button to test its brightness, illuminant color, etc. The top row is for 2 pin LEDs with currents ranging from 2mA - 30mA. The bottom row is for 4 pin LEDs (superflux LEDs) with currents ranging from 20mA - 150mA. Powered by a 9V battery (included).
Approximate size: 3.15" x 2.16" x 0.87"
CAT# LT-100 $8.95 each

ALPHANUMERIC DISPLAYS
4 DIGIT RED CLOCK DISPLAY, 0.4" DIGITS
MSGC4911C 4 character 7-segment LED display module. Red Characters. Semi-colon between middle digits. Decimal points after all digits. Gray face. Common Anode. Rate: 2V 20mA. 0.508" H x 1.582" W x 0.276" D. 16-pin DIP. 0.10" pin spacing on 0.40" rows. Fits our part# ICS-22W.
CAT# FDA-5 $1.00 each

3-DIGIT 7-SEGMENT LED DISPLAY, .28" GREEN
LTCC2621G. 7-segment, 3 character LED display module. Lights green. Common anode. 2.1V 20mA. 0.891" L x 0.394" W x 0.24" h (22.64mm L x 10mm W x 6.1mm H). 0.28" (7.00mm) digits. 16-pin DIP configuration.
CAT# TDA-26 85¢ each
10 for 80¢ each • 100 for 70¢ each

4-DIGIT 7-SEGMENT SERIAL DISPLAY
Sparkfun# COM-11441 Combines a 4-digit 7-segment display and an ATmega328 microcontroller allowing you to control every segment individually using only a few serial lines. Serial TTL communication, SPI serial communication or I2C serial. Can be programmed for stand-alone operation since the ATmega328 comes pre-loaded with the Arduino bootloader. On-board FT232 header for easier programming. 4mm x 23mm.
CAT# SDA-20 $13.95 each

LED FESTOON LAMPS
6 LED festoon lamps operates on 12 AC/DC 45ma. 120° radiance angle. 10.7mm dia. x 44mm L.
Cool-white - 45 lumen. 6000 CCT(K).
CAT# HFL-12CW $4.50 each
10 for $4.35 each
Warm-white - 40 lumen. 3000 CCT(K).
CAT# HFL-12WW $4.50 each
10 for $4.35 each
Festoon socket for 44mm lamps. Fits CAT#s HFL-12CW and HFL-12WW. Can be used with other 37-44mm festoon based lamps and LEDs.
CAT# FLS-3 75¢ each • 10 for 70¢ each
## BATTERY HOLDERS

### AAA BATTERY HOLDERS

<table>
<thead>
<tr>
<th># OF CELLS</th>
<th>CAT#</th>
<th>TERMINATION</th>
<th>STYLE</th>
<th>EACH</th>
<th>10</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>BH-41</td>
<td>6&quot; wire</td>
<td>Single</td>
<td>85¢</td>
<td>75¢</td>
<td>60¢</td>
</tr>
<tr>
<td>2</td>
<td>BH-42</td>
<td>6&quot; wire</td>
<td>Single</td>
<td>75¢</td>
<td>65¢</td>
<td>50¢</td>
</tr>
<tr>
<td>3</td>
<td>BH-431</td>
<td>5.5&quot; wire</td>
<td>Single</td>
<td>90¢</td>
<td>80¢</td>
<td>70¢</td>
</tr>
<tr>
<td>4</td>
<td>BH-44</td>
<td>6&quot; wire</td>
<td>Single</td>
<td>$1.10</td>
<td>95¢</td>
<td>80¢</td>
</tr>
<tr>
<td>4</td>
<td>BH-442</td>
<td>6&quot; wire</td>
<td>Double</td>
<td>95¢</td>
<td>80¢</td>
<td>70¢</td>
</tr>
</tbody>
</table>

### AA BATTERY HOLDERS

<table>
<thead>
<tr>
<th></th>
<th>CAT#</th>
<th>TERMINATION</th>
<th>STYLE</th>
<th>EACH</th>
<th>10</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>BH-31</td>
<td>Solder tabs</td>
<td>Single</td>
<td>75¢</td>
<td>65¢</td>
<td>50¢</td>
</tr>
<tr>
<td>1</td>
<td>BH-311</td>
<td>6&quot; wire</td>
<td>Single</td>
<td>75¢</td>
<td>65¢</td>
<td>50¢</td>
</tr>
<tr>
<td>2</td>
<td>BH-32</td>
<td>6&quot; wire</td>
<td>Single</td>
<td>85¢</td>
<td>75¢</td>
<td>60¢</td>
</tr>
<tr>
<td>2</td>
<td>BH-321</td>
<td>9V battery snaps</td>
<td>Double</td>
<td>85¢</td>
<td>75¢</td>
<td>60¢</td>
</tr>
<tr>
<td>2</td>
<td>BH-322</td>
<td>2 cells / pc leads</td>
<td>Single</td>
<td>85¢</td>
<td>75¢</td>
<td>60¢</td>
</tr>
<tr>
<td>2</td>
<td>BH-421</td>
<td>Solder lugs</td>
<td>Single</td>
<td>95¢</td>
<td>85¢</td>
<td>71¢</td>
</tr>
<tr>
<td>4</td>
<td>BH-342</td>
<td>6&quot; wire</td>
<td>Double</td>
<td>$1.10</td>
<td>95¢</td>
<td>80¢</td>
</tr>
<tr>
<td>4</td>
<td>BH-341</td>
<td>6&quot; wire</td>
<td>Single</td>
<td>$1.10</td>
<td>95¢</td>
<td>80¢</td>
</tr>
<tr>
<td>4</td>
<td>BH-343</td>
<td>9V battery snaps</td>
<td>Double</td>
<td>$1.20</td>
<td>$1.00</td>
<td>85¢</td>
</tr>
<tr>
<td>4</td>
<td>BH-346</td>
<td>9V battery snaps</td>
<td>Double</td>
<td>$1.20</td>
<td>$1.00</td>
<td>85¢</td>
</tr>
<tr>
<td>6</td>
<td>BH-361</td>
<td>9V battery snaps</td>
<td>Double</td>
<td>$1.75</td>
<td>$1.55</td>
<td>$1.10</td>
</tr>
<tr>
<td>8</td>
<td>BH-38</td>
<td>9V battery snaps</td>
<td>Double</td>
<td>$2.25</td>
<td>$2.10</td>
<td>$1.85</td>
</tr>
<tr>
<td>8</td>
<td>BH-448</td>
<td>9V battery snaps</td>
<td>Single</td>
<td>$2.30</td>
<td>$2.15</td>
<td>$1.90</td>
</tr>
</tbody>
</table>

### C BATTERY HOLDERS

<table>
<thead>
<tr>
<th></th>
<th>CAT#</th>
<th>TERMINATION</th>
<th>STYLE</th>
<th>EACH</th>
<th>10</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>BH-241</td>
<td>8&quot; wire</td>
<td>Single</td>
<td>$1.90</td>
<td>$1.75</td>
<td>$1.20</td>
</tr>
</tbody>
</table>

### D BATTERY HOLDERS

<table>
<thead>
<tr>
<th></th>
<th>CAT#</th>
<th>TERMINATION</th>
<th>STYLE</th>
<th>EACH</th>
<th>10</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>BH-142</td>
<td>8&quot; wire leads</td>
<td>Single</td>
<td>$1.95</td>
<td>$1.75</td>
<td>$1.35</td>
</tr>
<tr>
<td>2</td>
<td>BH-143</td>
<td>9V battery snaps</td>
<td>Single</td>
<td>$1.85</td>
<td>$1.70</td>
<td>$1.25</td>
</tr>
<tr>
<td>4</td>
<td>BH-141</td>
<td>6&quot; wire leads</td>
<td>Single</td>
<td>$2.00</td>
<td>$1.80</td>
<td>$1.40</td>
</tr>
<tr>
<td>4</td>
<td>BH-144</td>
<td>6&quot; wire leads</td>
<td>Single</td>
<td>$2.00</td>
<td>$1.80</td>
<td>$1.40</td>
</tr>
</tbody>
</table>

### CR123A BATTERY HOLDER

<table>
<thead>
<tr>
<th></th>
<th>CAT#</th>
<th>TERMINATION</th>
<th>STYLE</th>
<th>EACH</th>
<th>10</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>BH-123</td>
<td>PC leads</td>
<td>Single</td>
<td>80¢</td>
<td>70¢</td>
<td>60¢</td>
</tr>
</tbody>
</table>

### 18650 BATTERY HOLDER

<table>
<thead>
<tr>
<th></th>
<th>CAT#</th>
<th>TERMINATION</th>
<th>STYLE</th>
<th>EACH</th>
<th>10</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>BH-18650</td>
<td>6&quot; wire leads</td>
<td>Single</td>
<td>$1.95</td>
<td>$1.80</td>
<td>$1.50</td>
</tr>
</tbody>
</table>

### 9 VOLT BATTERY DRAWER

Easy to remove and reload standard 9V battery. Mounts in 34.5 x 24.5mm rectangular cut out. Behind-panel depth, 60mm. Flange mount. Holes on 43mm centers. Solder lug terminals.

**CAT# BH-59** $3.60 each
100 for $3.15 each

### 9 VOLT BATTERY CLIPS

Holds one 9V battery. Nickel plated steel.

Holds battery flat.
1.04" L x 0.63" W x 0.76" H.

**CAT# BH-9H** 40¢ each
100 for 35¢ each

Holds battery edgewise.
0.68" L x 0.63" W x 1.14" H.

**CAT# BH-9V** 35¢ each • 100 for 25¢ each

### 9 VOLT BATTERY CLIPS

### BATTERY TESTER

SE BT20. Test AAA, AA, C, D, 9V and button cell batteries. Features easy-to-read, color-coded reading meter. Separate scale for button cells. 4-3/8” x 2-3/8”.

**CAT# BC-22** $5.95 each

### BATTERY LEVEL METER

Monitor battery usage in lead-acid and lithium-ion batteries. LCD displays percentage of voltage remaining in numerical and graphic format. Designed for use with 12, 24, 36 or 48V lead-acid batteries or 3 to 15 cell (8-63V) lithium-ion batteries. Battery symbol flashes when level reaches 5%. Black digits with blue backlight. Display size: 1.7” x 0.4”. Includes instructions.

**CAT# BT-3** $7.75 each
3260 contacts.
4 terminal strips,
7 bus strips, 4 binding
posts mounted on an
aluminum back plate
7 7/8" x 8 3/4" x
3/8" high.
CAT# PB-3260
$32.00 each

ARDUINO UNO PROJECT HOLDER
W/ BREADBOARD
Keeps your Arduino Uno
next to your bread-
board so jumper
wires stay in place when
making changes. Includes 400 point
breadboard with bus strips. Four threaded
standoffs and screws securely mount Uno to
plate. 160 x 106mm overall.
CAT# PBH-1 $9.50 each

BREADBOARD POWER SUPPLY
YwRobot, Reduced Price
MB-V2 is a
multi-purpose module that
plugs into our solderless
breadboards and provides
5V and/or 3V to the rails as
well as other useful functions. Works with our
breadboard, CAT# PB-400 (sold separately).
32 x 54 x 25mm (1.26" x 2.08" x 0.86”).
CAT# MB-PS $6.75 $4.75 each

BATTERY BOXES FOR
BREADBOARDING
Completely enclosed with
slide-off cover. Integrated
On-Off switch. 6” leads with
machined male pins for use
with solderless breadboards.
Holds three AAA batteries for
4.5Vdc power. 2.49” x 1.45” x 0.62”.
CAT# BH-33A $3.65 each
Holds three AA batteries for 4.5Vdc power.
2.69” x 1.90” x 0.72”.
CAT# BH-AA3 $4.50 each

MINI-HOOK JUMPERS & PROBES
Mini-hooks are great for connection to parts
in high-density areas. They give a firm,
insulated connection
SET OF TWO 1 1/2” MINI
HOOK JUMPERS
Two 18” long mini-hook
patch cords. One black,
one red, with 1.5” long
mini-hooks on each end.
CAT# MTC-2 $3.25 each
CAT# MTC-5 set of 5 for $7.95

NEW ITEM
TEST LEAD: BNC TO
ALLIGATOR CLIPS
7” Mueller test cable.
BNC male plug to red
and black alligator clips.
CAT# TL-105 $6.95 each
**MINI-GRABBER TEST CLIPS, BLACK/RED**
1.65” mini-clips. Mini-hooks provide a firm, insulated connection to small terminals and wires in high-density areas.
CAT# MTC-7 $1.80 per pair

**CLIP JUMPERS**

**MINI JUMPERS**
10 TEST LEADS
1” CLIPS
2 each of 5 colors.
CAT# MTL-10 $2.95 per set

**REGULAR JUMPERS**
5 TEST LEADS
2” CLIPS
CAT# HDTL-5 $2.75 each

**TEST LEADS WITH SPRING-TYPE TEST CLIPS**
10 jumpers,
5 colors, 32” long.
1.75” clips with stronger jaws.
CAT# HDTL-10 $5.40 each

**ALLIGATOR CLIPS**

**2” ALLIGATOR CLIP**
Solid, spring-action clip with screw. 5mm cable access hole can connect to banana plug test lead.
CAT# ALG-M 5 for $1.00
100 for 17¢ each • 1000 for 15¢ each

**INSULATED ALLIGATOR CLIPS**
Small, medium and large alligator clips with rubber boot. Sold in pairs, one red and one black.
1.07” alligator clips CAT# ALG-10
65¢ per pair • 100 for 50¢ each per pair
1.4” alligator clips CAT# ALG-15
75¢ per pair • 100 for 60¢ each per pair
1.75” alligator clips CAT# ALG-20
85¢ per pair • 100 for 70¢ each per pair

**INSULATION-PIERCING TEST CLIPS**
JS Popper, Inc. #JP-8681.
Famous "Bed-of-Nails" test clip designed for use with smaller gauge wires. Angled nose. 2.6” long. Includes rubber boots. These are new clips, removed from unused test leads. Includes two clips with one red and one black boot.
CAT# ALG-34 $6.50 pair

**FLASHLIGHTS**

**170 LUMEN WORK LIGHT -- BRIGHT**
Nebo 6327 LarryC. EXTREMELY BRIGHT! Equipped with new C-O-B LED technology, it outputs 170 lumens of intense light. The 180° rotating magnetic clip allows for hands-free lighting. The reinforced plastic body design is water and impact-resistant. Top-positioned, ON/OFF button. Powered by 3 AAA batteries (included). 6.375” long. Includes retail box. Comes in red, blue, black or yellow (no choice of color).
CAT# FL-170 $8.99 each

**MICRO FLASHLIGHT, 2.75” LONG**
NEBO Micro REDLINE® OC™ High-quality. Small enough to fit in the palm of your hand, but bright enough for any situation. High-power 360 LUX LED. Anodized aircraft-grade aluminum; impact-resistant. 6x adjustable zoom. Steel bell/pocket clip. Magnetic base. Powered by 1 CR123A battery (included).
CAT# FL-627 $14.95 each

**PORTABLE LED LANTERN LIGHT**
Battery operated, light-weight portable LED lantern light. Ultra-bright led light is useful for camping, hiking and emergency situations. Features: 360-degree illumination, adjustable light setting. Easily collapses to 5” high, expands to approximately 7.40” high. 3.4” dia. magnetic base conveniently attaches to metal fixtures. Requires 3 AA batteries (not included).
CAT# FL-665 $39.95 each

**NEBO TANGO WORK LIGHT**
Features two high-power light sources, a 250 lumen spot light and 750 lumen C-O-B work light. Fully rechargeable and also serves as a power bank for your USB powered devices. A seven position 180° rotating arm functions as a hanging hook, carry handle, or a kickstand. And best of all, use Turbo Mode to combine the spot light and work light for 1,000 lumens of intense illumination. Non-slip rubber coating. Water and impact-resistant. Powered by rechargeable battery (included). 5.875” high x 5.875” wide x 1.75” deep.
CAT# FL-665 $39.95 each

**19 LED HEADLAMP W/ ADJUSTABLE STRAP**
High intensity, long-lasting LED light with adjustable headstrap for “hands-free” illumination. 3 light levels and flash mode. Adjustable beam angle. Requires 3 AAA batteries (not included).
CAT# HL-2 $9.95 each

ORDER TOLL FREE 1-800-826-5432 81
## TEST EQUIPMENT AND ACCESSORIES

### 3 1/2 DIGIT LCD MULTIMETER
**Velleman # DVM890**
An incredible array of features at a great price.

- 20A DC current, 1000 DC Volts.
- 20A AC current, 700 AC volts.
- Resistance to 20 M. Capacitance from 2000pF to 20uF.
- Frequency measurement to 20kHz.
- Temperature measurement: -58°F to 1832°F with K-type thermocouple.
- Low battery indication, overload protection and auto power off function.
- Protective rubber shell, test leads and thermocouple included.

**CAT# DVM-890** $45.00 each

### ECONOMY DIGITAL MULTIMETER
**Velleman # LCR-200**

Portable inductance, capacitance and resistance meter.

- Large four-digit LCD display.
- Auto zero adjustment.
- Over-range indicator.

Inductance ranges: 2mH, 20mH, 200mH, 2H, 20H.
Capacitance ranges: 2nF, 20nF, 200nF, 2uF, 20uF, 200uF, 1000 uF.
Resistance ranges: 200Ω, 2kΩ, 20kΩ, 200kΩ, 2MΩ.

**CAT# LCR-200** $58.00 each

### LCD MULTIMETER W/ BACKLIGHT
**Velleman # DVM850BL**
For features, accuracy and ruggedness, this is a great, inexpensive multimeter.

- DC current (10 A), DC and AC voltage (600 V), resistance (2 M ohm), diode, transistor tester, audible continuity and hold button.
- Protective rubber shell and test leads included.

**CAT# DVM-850BL** $17.95 each

### DIGITAL MULTIMETER
**Dawson # DDM423**

Specifications:
- AC/DC Voltage: 600V
- AC/DC Current: 10A
- Resistance: 2MΩ · Data hold
- Temperature (K-type): -4°F to 1832°F (-20°C to 1000°C)
- Diode test · Continuity with buzzer
- Includes: Test leads, 9V battery

**CAT# DDM-423** $31.99 each

### CAPACITANCE / INDUCTANCE / RESISTANCE METER
**GME # LCR200**

- Portable inductance, capacitance and resistance meter.
- Large four-digit LCD display, Auto zero adjustment.
- Over-range indicator.

**CAT# DVM-810** $7.95 each

### DIGITAL MULTIMETER W/ LOGIC TEST
**Dawson # DDM190D**

Portable pen-type digital multimeter featuring 5V logic level test, DC/AC voltage and current measurement, auto/manual range, maximum and hold reading, auto power off, and LCD built in for easy reading. Slim, lightweight design w/ retractable probe is mobile and ideal for both professionals and hobbyists.

**Measures:**
- AC/DC Voltage, AC/DC Current, Resistance

**Specifications:**
- Auto and Manual Range.
- Max. Voltage: 600V DC or AC
- Display: 0.79 In. (20mm) LCD
- Maximum Number: 1999
- Negative polarity indicator
- Overload Indication: Display ‘OL’
- Sampling Time: Approx. 0.4 second/time
- Low Battery Indication
- Auto Power Off: 15 min.
- Power Supply: 1.5V x 2 AAA battery
- 8.2 x 1.5 x 1.14” (208 x 38 x 29mm)

**Includes:** Test Leads, Alligator Clip & cable, Two 1.5V AAA Battery, Case and User’s Manual

**CAT# DDM-190D** $38.99 each

### SCOPe PROBE SET
**60 mHZ Probe with BNC connector**
- Comes with ground lead, retractable hook tip, pin tip with IC lead cover and standard cover.

**CAT# PR-60** $19.50 each

### CONTINUITY TESTER
**GB Instruments™ GCT-304A**
- Probe lights when continuity exists.
- Flexible 34" cable with alligator clip. Requires 2 AA batteries (not included).

**CAT# CT-19** $2.95 each

---

**ORDER TOLL FREE 1-800-826-5432**