KITS

A NOTE ABOUT KITS....
Kits cannot be returned or exchanged once assembly has begun.
All parts supplied EXCEPT batteries.

EDUCATIONAL MOTOR KIT
Easy to assemble working DC motor kit illustrates the basics of electric motors and electromagnetism. Rugged plastic and colorful metal parts. Operates on 5-12 Vdc. 5.5” x 3.5” x 4.0” assembled.
CAT# KT-49 $9.90 each

PLUG-IN SOLAR RECHARGEABLE PENGUIN KIT
Owkit# MSK691. The kit consists of a powerful solar cell, rechargeable battery (included), igloo, and penguin. It is easy to assemble: no screws, nuts, or fuss. Just simply plug-in the penguin into the igloo, solar energy converts into electric power for storage and application. Once released from the igloo, the penguin will venture and waddle for you for approximately 3 minutes. For ages 8+. Approximately 4” x 4” x 3”. Thirty-nine pieces in kit.
CAT# MSK-691 $21.95 each

SOLAR WILD BOAR KIT
Owkit# MSK682. OWI’s Solar Wild Boar is a solar kit that smiles as it klippy-klocks around any mess. Building the 3.56” x 1.85” x 2.24” size figure is ideal for a do-it-yourself science fair, after-school, or summer workshop project with the bonus gift of learning mechanical transmission and electrical motor theory. With 47 assembly parts, it’s great for the beginner enthusiast ages 8+.
CAT# MSK-682 $15.95 each

EM4 ROBOT KIT
Owkit# OWI-891 Fun & easy-to-assemble Educational motorized robot kit with four modes: 6-leg walking cricket, motorized transmission trailer, grand rolling Beast and gear driven walking Grandpa-Bot! This 32 piece, 3 speed kit provides entertainment, imagination and education. Multi Ratio Gear Box. Requires one AA battery. No soldering required. Easy assembly and only requires a diagonal cutter and screwdriver. No soldering required. Assembled dimensions: 10.50” x 7.25” x 3.50”. For ages 8+.
CAT# OWI-891 $20.95 each

100 IN 1 STEM LAB KIT
100 STEM experiments in one box. For ages eight and up, kids will learn about basic circuit connections as they construct four initial units (Maze Challenge, Flying Disc, Turbo Air, and Alarm System). Maze challenge allows children to build a carnival classic hand eye coordination game where a metal loop is maneuvered around a metal wire without making contact; difficulty of the wire can be adjusted. Flying Disc allows children to launch a disc spinning into the air. By using the auxiliary pieces designed for Turbo Air children will use the air flow to create a bubble machine (bubble solution not included), vacuum cleaner, or a floating foam ball! Alarm system lets children build a functioning spinning LED light with a loud beeping audio display.
CAT# OWI-38917 $39.95 each

6-IN-1 EDUCATIONAL SOLAR KIT
An excellent building kit for beginners, teaching children the benefits of solar energy while they create a toy that is fun to play with and requires no batteries. Children use the snap-together plastic parts to build six different motorized working models including an airboat, windmill, puppy, car, and two different planes. No tools required for assembly. Diagonal cutter may be needed to separate plastic parts. Kit includes plastic parts, 75mA solar cell, 1.2V electric motor, wires, springs and instruction book. For children 10+. May require adult assistance.
CAT# KFK-2 $6.50 each

L.E.D. FLASHER KIT
This kit includes parts and instructions to make a simple 2-Led flasher circuit. A quick and easy project for anyone with basic soldering skills. Requires 9V battery (not included).
CAT# LEDKIT $2.50 each
100 for $2.25 each

LED CHASER KIT
Build this variable speed LED chaser. 10 leds flash sequentially at whatever speed you set them for. Easy to build kit includes pc board, parts and instructions. Ideal for special lighting effects, costumes, etc. Operates on 3 to 9 volts. PC board is 5” x 2.25”.
CAT# AEC $6.95 each • 10 for $65.00
40 EDUCATIONAL ELECTRONIC PROJECTS, BOOK & PARTS KIT
An immersive, hands-on curriculum of fun and illustrative electronics projects that teaches the fundamentals of electronics. Designed to be STEM (Science, Technology, Engineering, Math) Education Compliant for use in school curriculum. Projects are designed to be breadboarded, taken apart and reused.
Complete Lab includes The Basics v2.0 manual (112 pages), and all the parts necessary for the 40 projects in this book, the basics parts kit, solderless circuit board and 9-Volt battery.
CAT# KT-40 $28.95 each
If you only wish to purchase the book, use
CAT# BK-52 $16.95 each

2-DIGIT COUNTER WITH POWER SUPPLY
Large, two digit counter assembly. Advances one digit at a time, from 0 to 99 each time button is pushed. Each digit is 2.75” high and consists of 21 red 5mm LEDs. 5” x 4.18” black display board connected to 4.25” x 2” controller board. Five 4” pigtail wires. Included is a 9 Vdc power supply and a momentary, normally-open pushbutton switch.
CAT# CTR-92 $6.00 each
10 for $5.65 each

ELECTRONIC PARTS KIT
A large assortment of electronic parts in a clear plastic box with lid. Includes: solderless breadboard with 400 contacts, electrolytic capacitors, red, green, blue and yellow LEDs, precision adjustable pot, resistors, resistance card, disc capacitors, jumper wires, tactile pushbuttons with red, yellow, blue and white caps, buzzers and a 40-pin header (see online for full list and quantity of parts).
CAT# EPKIT-1 $15.95 each

SOLAR POWERED RACING CAR
Owkit# OWI-MSK681
Great little solar powered racing car kit for kids ages 8+.
Easy and fast to assemble, no batteries required.
Assembled size: 2.62” x 2.17” x 2.40” high. 20 pieces.
CAT # MSK-681 $11.95 each

ARDUINO COMPATIBLE PRODUCTS
Arduino is an open-source physical computing platform based on a simple I/O board and a development environment that implements the Processing/ Wiring language. Arduino can be used to develop stand-alone interactive objects or can be connected to software on your computer (e.g. Flash, Processing, MaxMSP). The open-source IDE can be downloaded for free (currently for Mac OS X, Windows, and Linux). We carry Arduino microprocessors and related products. See our online store for full descriptions.

UNO R3 Everything needed to support the onboard ATmega328 microcontroller; connect to a computer with a USB cable or power it with a AC-to-DC adapter or battery. It has 14 digital input/output pins (6 can be used as PWM outputs), 6 analog inputs, a 16 MHz ceramic resonator, a USB connection, a power jack, an ICSP header, and a reset button. This version of the board has a socketed / replaceable ATmega328 chip (see CAT# ARD-24). Recommended operating voltage, 7-12 Vdc.
CAT# ARD-21 $14.00 each
Snap-together cases for the UNO R3 above
Clear CAT# CSE-3C $4.95 each
Black CAT# CSE-3B $4.95 each

ATMEGA328 W/ ARDUINO OPTIBOOT (UNO), DIP Pre-loaded with the Arduino Optiboot (Uno 16MHz) Bootloader, to use Arduino code in a custom embedded project without using an actual Arduino board.
CAT# ARD-24 $5.50 each
10 for $4.95 each

MICRO SD CARD READER / WRITER MODULE
Read and write Micro SD cards with your Arduino or favorite microcontroller. Great for adding storage space to any Arduino project. Features on board level shifting IC to go from 5v to 3.3v and uses standard SPI interface.
CAT # SDR-7 $2.85 each

PRO MINI 328 For users that understand the limitations of system voltage (3.3 or 5v), lack of connectors, and USB off board. Not populated with connectors so you can solder any connector or wire with any orientation you need. We recommend first time users start with the Uno R3 (CAT# ARD-21).
3.3V / 8MHZ Pro Mini 328 CAT# ARD-14 $4.90 each • 10 for $4.75 each
5V / 16MHZ Pro Mini 328 CAT # ARD-18 $4.90 each • 10 for $4.75 each

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SENSOR KIT FOR ARDUINO
A very handy kit containing 37 different devices with the standard 3-pin interface for Arduino. We sell many of these modules and sensors separately, but this kit would be a bargain for a classroom or experimental setting. In addition to a useful assortment of sensors, the kit includes a joystick, relay module, sound and light emitting modules and a pushbutton. Packaged in individual compartments in a sturdy clear plastic case with an easy-to-use display map on the cover showing the location of each item.

CAT # SKA-36 $36.00 each

CLOCK MODULE
The DS1302 trickle-charge time-keeping chip contains a Real-Time Clock/calendar. It communicates with a microprocessor via a simple serial interface. On-board CR2032 backup battery. Operates on 2.5-5.5VDC @ 300mA. 44mm x 23mm x 11mm.

CAT # ME-48 $3.00 each

LOGIC LEVEL CONVERTER, BI-DIRECTIONAL
Bi-directional logic level converter safely steps down 5V signals to 3.3V and steps up 3.3V to 5V at the same time. This level converter also works with 2.8V and 1.8V devices. 0.63 x 0.52" (16.05 x 13.33mm).

CAT# LLC-46 $2.95 each

ARDUINO STACKABLE HEADER KIT
Works with Arduino Main Board, Pro & Mega. They clear the USB-B connector and enable stacking of multiple shields. This kit includes four headers (2 8-pin and 2 6-pin).

CAT# HDR-07 $1.50 each

WiFi MODULE - ESP8266
Self contained WiFi module capable of either hosting an application or offloading all Wi-Fi networking functions from another application processor. Pre-programmed with an AT command set firmware. Operating voltage 3.3V.

CAT# ESP-8266 $5.00 each

16 X 2 LCD W/ KEYPAD
For Arduino compatible boards for user input & menu selection in custom applications. Features a 1602 white character LCD with blue LED backlight and 4-bit Arduino LCD library. Character size: 2.95 x 4.35mm. Keypad consists of 6 keys: select, left, up, down, right & reset. Potentiometer for dimmable backlighting. LED indicator. Operates on 5Vdc. 80mm x 58mm x 13mm.

CAT# ST-1113 $5.95 each

UNO R3 STARTER KIT
A very useful, not to mention economical, kit including an Arduino Uno R3 equivalent microcontroller and a large selection of devices you will want for a number of projects using the Arduino microcontroller. Includes an expansion board, extra breadboards, motors, motor drivers, a relay board, a remote control keypad, joystick, LCD, LED displays, LEDs, jumpers, headers, sensors, switches, pots, battery holder and more. All of this packaged in a well organized, divided plastic case. You can’t go wrong with this. These items purchased separately would be considerably more.

CAT # SKA-47 $45.00 each

RFID READ AND WRITE KIT
Allows you to both read and write MiFare-type cards. Includes one credit-card style tag and one key-fob style tag.

CAT # ME-138 $5.75 each

JOYSTICK SHIELD
Turn your Arduino into a gamepad. Features the Nokia 5110 LCD / nRF24L01 interface. 7 pushbuttons (four big, two small, joystick select button) and a two-axis thumb joystick. Operates on 3.3-5Vdc.

CAT# ST-1124 $4.00 each

SOLAR CELLS

3V 40MA
Output: approximately 3 Volts @ 40 mA. 60mm square x 2.5mm thick epoxy-encapsulated silicon photovoltaic cell. Solid, almost-unbreakable module with solderable foil strips on backside. Ideal for solar-powered battery chargers and other projects.

CAT # SPL-30 $1.15 each
10 for $1.00 each

0.5V 800MA
Ideal for hobby and educational projects. 82 x 46 x 2mm high. 7" pigtail leads.

CAT # SOL-2N $1.10 each
10 for $1.00 each

New Item