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

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 ea. • 10 for $4.95 ea.

MICRO SD CARD READER/WRITER MODULE
This Micro SD card module can be used to read and write Micro SD cards with your Arduino or favorite microcontroller. Great for adding storage space to any Arduino project. Especially useful for datalogging, saving preferences, or storing game data. Features on board level shifting IC to go from 5v to 3.3v and uses standard SPI interface. 6-pin header. Overall dimensions 24.19mm x 41.8mm x 3.52mm.
CAT# SDR-7 $2.85 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

SPARKFUN INVENTORS KIT
The SparkFun Inventor's Kit is a great way to get started with programming and hardware interaction with the Arduino programming language. The kit includes everything you need to complete five overarching projects consisting of 16 interconnected circuits that teach everything from blinking an LED to reading sensors. The culminating project is your very own autonomous robot! No previous programming or electronics experience is required to use this kit.
CAT# SFA-40 $99.95 each

RFID READ AND WRITE KIT
Allows you to both read and write MiFare-type cards. Can be used for identification applications, tracking inventory, or contactless security lock. Includes one credit-card style tag and one key-fob style tag.
CAT# ME-138 $6.95 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 $5.35 each

16 X 2 LCD W/ KEYPAD
For Arduino compatible boards for user input and 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 and reset. Potentiometer for dimmable backlighting. LED indicator. Operates on 5Vdc. 80mm x 58mm x 13mm.
CAT# ST-1113 $7.98 each
**JOYSTICK SHIELD**

Turn your Arduino board into a gamepad similar to a Nintendo controller. Can communicate with other wireless interfaces. Features the Nokia 5110 LCD / nRF24L01 interface. Seven push buttons (four big, two small, joystick select button) and a two-axis thumb joystick. Operates on 3.3-5Vdc. Board dimensions 83mm x 54mm.

CAT # ST-1124 $4.95 each

**VOICE RECORD / PLAY MODULE W/ SPEAKER**

Based on the ISD1820 chip, this multiple-message record/playback device offers true single-chip voice recording, non-volatile storage, and playback capability for 8-20 seconds. Features on-board microphone as well as internal audio amplifier which can drive the included 8 Ohm 0.5W speaker directly. Can be manually operated with on-board pushbuttons or by microcontroller. Supply voltage 3.3-5 Vdc. Board dimensions 54mm x 38mm x 15mm high.

CAT # ME-63S $7.00 each

Above module without the speaker,

CAT # ME-63 $6.00 each

**HC-05 BLUETOOTH MODULE**

HC-05 / ZS-040 Bluetooth module. 37 x 16.5 x 4.0mm pc board with 6-pin header. Can be set for master or slave operation. Onboard 3.3V regulator. Operates on 3.3-6V. For use with Arduino.

CAT # HC-05 $8.50 each

**LIGHT SENSORS**

CdS PHOTOCELLS – PHOTO RESISTORS

Light dependent Cadmium sulfide (CdS) resistors. Plastic coated resistors on ceramic, 0.2-0.25" diameter. Light and dark resistances are approximate.

2MO Dark 1K – 60K0 Light

2MΩ Dark 1.25 each
10 for $1.10 each

30K Dark – 1.5K Light

30K Dark 95¢ each
10 for 85¢ each

Arduino-style Module

Approximately 100Ω light, 10KΩ+ dark resistance. 0.60" x 0.75" pc board with 3-pin output, 0.10" spacing.

CAT # SE-12 $2.40 each

**INFRARED SENSORS**

LINE FOLLOWING / REFLECTIVITY SENSOR

Measures the reflectivity of a surface using infrared emitter/detector pair. Built around the LM393 comparator, it requires only 3 connections, V+, 5VDC, and GND. LED indicator. Can make a robot follow a painted line or count rotations of a motor shaft. 1.64" x 0.42" x 0.40". Three pin header. 0.1" centers. Operates on 3.3-5Vdc. 20mA @ 5Vdc.

CAT # ST-1140 $3.95 each

**IR OBSTACLE AVOIDANCE SENSOR**

Uses IR beam to detect proximity of obstacles. Great for sounding an alarm or changing direction of a robot or self-propelled vehicle. Potentiometer to adjust detection distance (2-40cm). Supply voltage 5 Vdc. 45mm x 16 mm x 9mm.

CAT # ST-1081 $2.75 each

**PIR SENSOR**

HC-SR501 Passive InfraRed (PIR) motion sensor can be used alone or with Arduino or other microcontroller. Adjustable sensitivity and timing. 33 x 24mm pc board. 25mm overall depth.

CAT # PIR-7 $4.95 Reduced Price $3.25 each

**INFRARED SENSOR**

RE 200B passive infrared sensor. Two active elements helping compensate for differences in environmental temperature. Used in alarm systems and automatic switches that respond to human body motion. Hermetically sealed TO5 metal case with 3 leads.

CAT # PIR-200B $1.00 ea. • 10 for 90¢ ea.