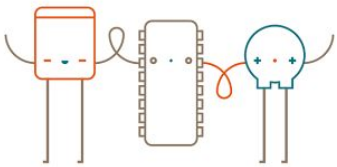


Genuino RESELLERS

PRODUCTS BRIEF

GENUINO.CC

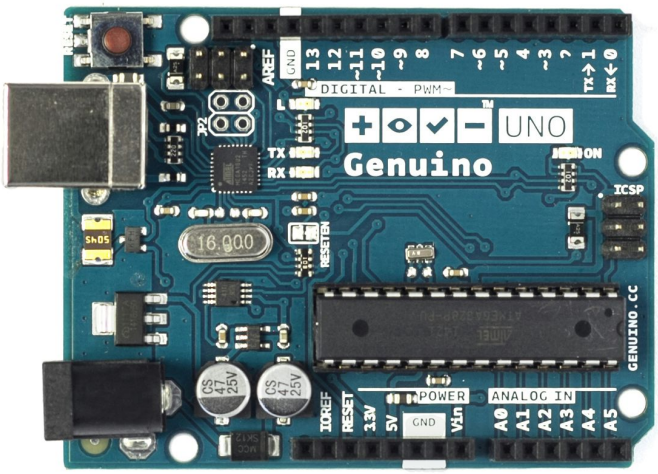
OPEN-SOURCE ELECTRONICS
PROTOTYPING PLATFORM

Genuino introduces electronics and programming through fun, hands-on projects. As a Genuino user, you become part of a worldwide community that shares ideas, tips, and tricks online at genuino.cc and all over the web.

When you buy a Genuino, you're benefiting from the experience of a team that's been supporting the world's biggest open-source hardware community for over ten years.

GENUINO UNO (GBX00066)

Your entry to the unique Genuino experience: from the basics of electronics to rapid prototyping, thousands of opportunities all in one board.



Overview

Genuino Uno is the ideal board for getting started with electronics, through fun and engaging hands-on projects. This board is your entry to the unique Genuino experience: great for learning the basics of how sensors and actuators work, and an essential tool for your rapid prototyping needs. Genuino Uno Rev3 is the most used and documented board in the Genuino family. Thanks to the lively and helpful community surrounding the Genuino Uno, no one will find themselves without support.

Technology

Genuino Uno Rev3 is a microcontroller board based on the ATmega328P, an 8-bit microcontroller with 32KB of Flash memory and 2KB of RAM. It contains everything needed to support the microcontroller; simply connect it to a computer with a USB cable or power it with a AC-to-DC adapter or battery to get started.
The Uno board is the first in a series of USB boards and it is the reference model for the Genuino platform; for an extensive list of current, past or outdated boards see the Comparison Page.

Specifications

Microcontroller	ATmega328P
Operating Voltage	5V
USB	Standard Type B
Digital I/O Pins	14
PWM Digital I/O Pins	6
Analog Input Pins	6
Flash Memory	32 KB
SRAM	2 KB
EEPROM	1 KB
Clock Speed	16 MHz
Length	68.6 mm
Width	53.4 mm
Weight	25 g

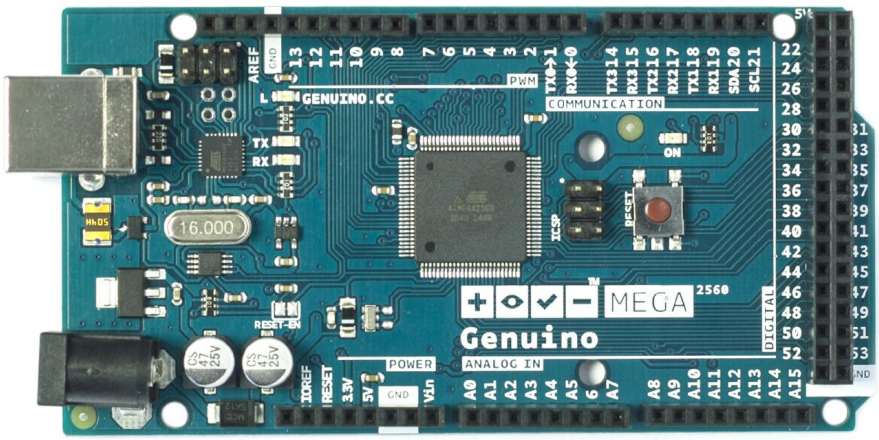
Documentation

The Uno is open-source hardware! These are the relevant files:
Schematics - Reference Design - Board size

If you want more information about programming the Genuino Uno or how to interface hardware with it, please go to the Product Page.
Genuino Uno Rev3 is programmed, as all the other Genuino boards with the Software (IDE) that you can download for free. To find inspiration forwhat you can do with the Genuino Uno, please visit the Genuino.cc Tutorials Page or take part in the community the lively discussions on the Forum.

GENUINO MEGA 2560 (GBX00067)

Think big, think Genuino Mega! Designed for your most ambitious projects which require additional pins and extra memory.



Overview

Don't limit your projects, think big, think MEGA! Genuino Mega 2560 has been designed with bigger and more ambitious projects in mind. The large number of analog and digital pins, together with a larger memory makes it ideal for devices like 3D printers and other demanding applications. Backward compatibility with existing shields and sketches is provided, but other shields target the Mega specifically, exploiting the full potential of this board.

Technology

The Mega 2560 is a board based on the 8-bit AVR microcontroller ATmega2560 by Atmel. It has 54 digital input/output pins (of which 15 can be used as PWM outputs), 16 analog inputs, 4 UARTs (hardware serial ports). It contains everything needed to support the microcontroller; simply connect it to a computer with a USB cable. The Mega 2560 board is compatible with most shields designed for the Uno. To compare this board to the current, past or outdated boards see the Comparison Page.

Specifications

Microcontroller	ATmega2560
Operating Voltage	5V
USB	1 - Type B
Digital I/O Pins	54
PWM Pins	15
Analog Input Pins	16
DC Current per I/O Pin	20 mA
DC Current for 3.3V Pin	50 mA
Flash Memory	256 KB
SRAM	8 KB
EEPROM	4 KB
Clock Speed	16 MHz
Length	101.52 mm
Width	53.3 mm
Weight	37 g

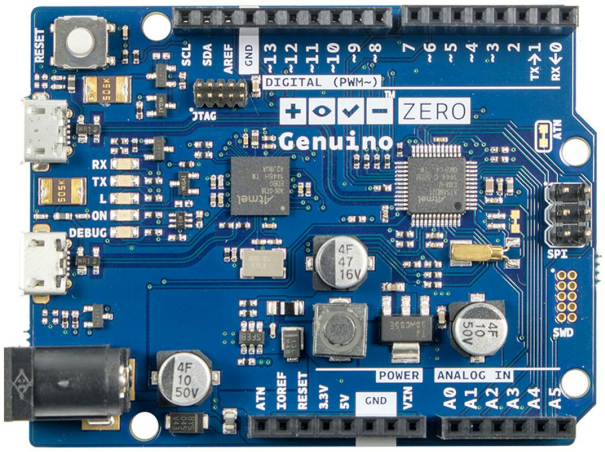
Documentation

Genuino Mega 2560 is open-source hardware! These are the relevant files:
Schematics - Reference Design - Board size

If you want more information about programming the Genuino Mega 2560 or how to interface hardware with it, please go to the Product Page.
Genuino Mega 2560 is programmed, as all the other Genuino boards with the Software (IDE) that you can download for free. To find inspiration for what you can do with the Genuino Mega 2560, please visit the Genuino.cc Tutorials Page and take part in the community the lively discussions on the Forum.

GENUINO ZERO (GBX00003)

Express your creative potential, from music to robotics, with the most versatile Genuino board based on a 32-bit ARM processor: Genuino Zero!



Overview

Genuino Zero sets a new standard in processing power for Genuino boards, with a 32-bit ARM processor running at three times the speed of the Uno. The Genuino Zero offers everything you need to release your creative potential: advanced audio and analog processing capabilities, low power consumption, and a real-time clock, all at a convenient price.
Internet of Things, robotics applications, art installations, and other sophisticated projects will also benefit from the Zero's capabilities.

Technology

The Genuino Zero is powered by Atmel's SAMD21 MCU, which features a 32-bit ARM Cortex® M0+ core, clocked at 48MHz. This board has six analog inputs that can be configured for 10 or 12 bit sampling and also offers a Digital to Analog Converter (DAC) with 10 bit resolution for true analog signal output. Using Genuino Zero with Atmel Studio, you can use Atmel's Embedded Debugger (EDBG), which provides a full debug interface without the need for additional hardware, making it significantly easier to debug software. EDBG also supports a virtual COM port that can be used for device and bootloader programming. To compare this board to the current, past or outdated boards see the Comparison Page.

Specifications

Microcontroller	ATSAMD21G18, 32-Bit ARM Cortex M0+
Operating Voltage	3.3V
Digital I/O Pins	20
PWM Pins	12
USB	2 x B-Micro (Native and Programming)
Analog Input Pins	6 x 12-bit ADC channels
Analog Output Pins	1 x 10-bit DAC
External Interrupts	All pins except pin 4
DC Current per I/O Pin	7 mA
Flash Memory	256 KB
SRAM	32 KB
EEPROM	None. See documentation
Clock Speed	48 MHz
Features	Real-time clock, Native USB communication
Length	68.6 mm
Width	53.4 mm
Weight	23 gr

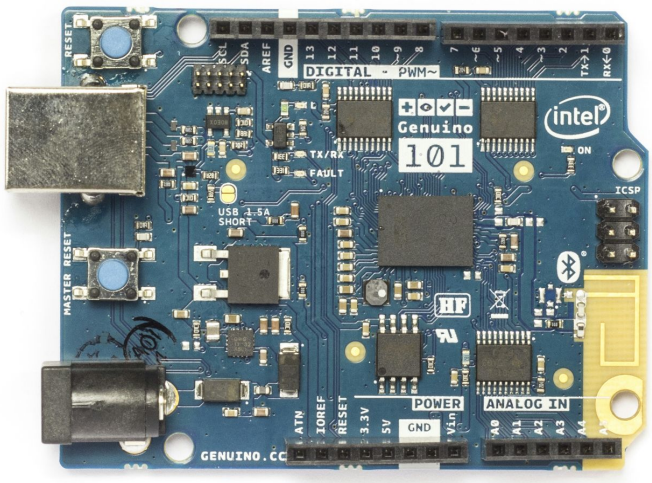
Documentation

Genuino Zero is open-source hardware! These are the relevant files:
Schematics - Reference Design

If you want more information about programming and hardware interfacing about Genuino ZERO or how to interface hardware with it, please go to the Product Page.
Genuino Zero is programmed, as all the other Genuino boards with the Software (IDE) that you can download for free, with the addition of the SAMD core to download with Board Manager.
To find inspiration for what you can do with the Genuino ZERO, please visit the Genuino.cc Tutorials Page and take part in the community the lively discussions on the Forum.

GENUINO 101 (GBX00005)

Explore the endless capabilities of physical computing. Genuino 101: with on-board motion sensors and Bluetooth LE radio.



Overview

Genuino 101 delivers the performance and low-power consumption of the Intel® Curie™ processor with the simplicity of Genuino, all at an entry-level price. It includes onboard Bluetooth LE capabilities, perfect for communicating with smart phones and computers.
The built-in six-axis accelerometer / gyroscope enables a variety of motion sensing applications. If you are familiar with the Uno, the Genuino 101 is a logical next step that adds exciting possibilities. If you're new to Genuino, the 101 is a great board to start with.

Technology

Genuino 101 uses the Curie module that contains two tiny cores, an x86 (Quark) and a 32-bit ARC architecture core, both clocked at 32MHz. The Intel toolchain compiles your Genuino sketches optimally across both cores to accomplish the most demanding tasks. The 101 comes with 14 digital input/output pins (of which 4 can be used as PWM outputs), 6 analog inputs, a USB connector for serial communication and sketch upload, a power jack, an ICSP header with SPI signals and I2C dedicated pins. Specific libraries support the Inertial Monitoring Unit (IMU) and the Bluetooth Low Energy chip, protocol and profiles. The board operating voltage and I/O is 3.3V but all pins are protected against 5V overvoltage. Some aspects about the Curie cores are still under development and this will bring new functionalities in the near future. To compare this board to the current, past or outdated boards see the Comparison Page.

Specifications

Microcontroller	Intel Curie
Operating Voltage	3.3V (5V tolerant I/O)
USB	1 - Type B
Digital I/O Pins	14
PWM Digital I/O Pins	4
Analog Input Pins	6
DC Current per I/O Pin	20 mA
Flash Memory available for sketches	196 kB
SRAM	24 kB
Clock Speed	32MHz
Features	Bluetooth LE, 6-axis accelerometer/gyro, real-time clock
Length	68.6 mm
Width	53.4 mm
Weight	26 gr

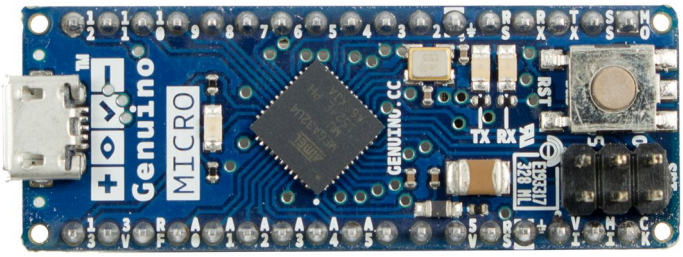
Documentation

Genuino 101 is open-source hardware! These are the relevant files:
Schematics - Reference Design

If you want more information about programming the Genuino 101 or how to interface hardware with it, please go to the Product Page.
Genuino 101 is programmed, as all the other Genuino boards with the Software (IDE) that you can download for free, with the addition of the Intel Curie core to download with Board Manager.
To find inspiration for what you can do with the Genuino 101, please visit the Genuino.cc Getting started Page and take part in the community the lively discussions on the Forum.

GENUINO MICRO (GBX00053)

Limited space, big ideas? The Genuino Micro is a tiny board with all the pins of regular-sized Genuino, right at your fingertips.



Overview

Genuino Micro is the smallest Genuino board to offer the full set of analog and digital pins.
The Micro's processor is as powerful as the Uno's, but the small form factor allows embedding into tight spaces, invaluable for projects where weight and/or size are important factors.
It's ideal for projects that require a high number of connections with a small footprint.
Plus, it fits directly into a breadboard for easy prototyping. The Micro is also capable of emulating a mouse or a keyboard when connected to a computer via USB.

Technology

Genuino Micro, developed in conjunction with Adafruit, is a board based on the ATmega32U4, an 8-bit AVR microcontroller from Atmel . It contains everything needed to support the microcontroller: simply connect it to a computer with a micro USB cable to get started.
The Micro's 0.1" pitch pins are designed for easy mounting on a breadboard.
The Micro's 32U4 processor has built-in USB communication, allowing the Micro to appear to a connected computer as a mouse and keyboard in addition to a virtual (CDC) serial / COM port.
To compare this board to the current, past or outdated boards see the Comparison Page.

Specifications

Microcontroller	ATmega32U4
Operating Voltage	5V
USB	1 - B-Micro
Digital I/O Pins	20
PWM Pins	7
Analog Input Channels	12
DC Current per I/O Pin	20 mA
DC Current for 3.3V Pin	50 mA
Flash Memory	32 KB (ATmega32U4)
SRAM	2.5 KB (ATmega32U4)
EEPROM	1 KB (ATmega32U4)
Clock Speed	16 MHz
Features	Native USB, keyboard and mouse emulation
Length	48 mm
Width	18 mm
Weight	13 g

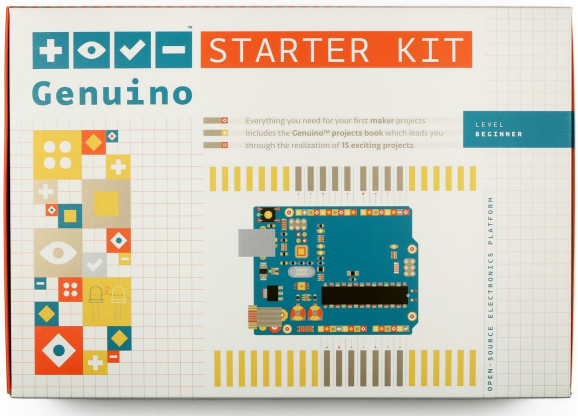
Documentation

Genuino Micro is open-source hardware!
These are the relevant files: Schematics - Reference Design - Board size

If you want more information about programming the Genuino Micro or how to interface hardware with it, please go to the Product Page. Genuino MICRO is programmed, as all the other Genuino boards with the Software (IDE) that you can download for free.
To find inspiration for what you can do with the Genuino Micro, please visit the Genuino.cc Tutorials Page and take part in the community the lively discussions on the Forum.

GENUINO STARTER KIT (GKX00007)

The ultimate solution for getting started with Genuino, and having fun with a series of interactive projects.

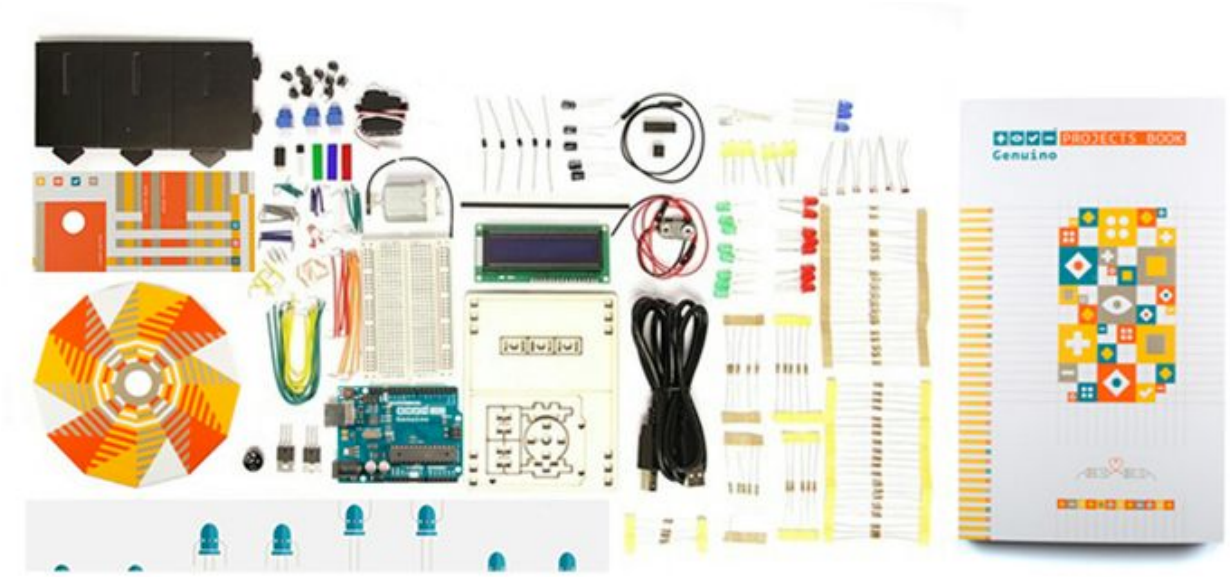


Overview

Genuino Starter Kit is the ultimate educational solution for learning how to use the Genuino platform. It contains a Genuino Uno Rev3 board, a collection of sensors and actuators, and a book that guides the absolute beginners from their very first steps with electronics into the world of interactive and sensing objects. *The Genuino Starter Kit is a great gift for kids ages 9 to 99!*

Genuino Starter Kit contains a full color 170 pages book with the following projects:

01. GET TO KNOW YOUR TOOLS: an introduction to the basics
02. SPACESHIP INTERFACE: design the control panel for your starship
03. LOVE-O-METER: measure how hot-blooded you are
04. COLOR MIXING LAMP: produce any color with a lamp that uses light as an input
05. MOOD CUE: clue people into how you're doing
06. LIGHT THEREMIN: create a musical instrument you play by waving your hands
07. KEYBOARD INSTRUMENT: play music and make some noise with this keyboard
08. DIGITAL HOURGLASS: a light-up hourglass that can stop you from working too much
09. MOTORIZED PINWHEEL: a colored wheel that will make your head spin
10. ZOETROPE: create a mechanical animation you can play forward or reverse
11. CRYSTAL BALL: a mystical tour to answer all your tough questions
12. KNOCK LOCK: tap out the secret code to open the door
13. TOUCHY-FEEL LAMP: a lamp that responds to your touch
14. TWEAK THE GENUINO LOGO: control your personal computer from your Genuino
15. HACKING BUTTONS: create a master control for all your devices!



Genuino Starter Kit includes:

1 Projects Book (170 pages)
1 Genuino Uno Rev3
1 USB cable
1 Breadboard 400 points
70 Solid core jumper wires
1 Easy-to-assemble wooden base
1 9v battery snap
1 Stranded jumper wires (black)
1 Stranded jumper wires (red)
6 Photoresistor [VT90N2 LDR]
3 Potentiometer 10kOhms
10 Pushbuttons
1 Temperature sensor [TMP36]
1 Tilt sensor
1 alphanumeric LCD (16x2 characters)
1 LED (bright white)
1 LED (RGB)
8 LEDs (red)
8 LEDs (green)
8 LEDs (yellow)
3 LEDs (blue)
1 Small DC motor 6/9V
1 Small servo motor
1 Piezo capsule [PKM17EPP-4001-B0]
1 H-bridge motor driver [L293D]
1 Optocouplers [4N35]
2 Mosfet transistors [IRF520]
5 Capacitors 100uF
5 Diodes [1N4007]
3 Transparent gels (red, green, blue)
1 Male pins strip (40x1)
20 Resistors 220 ohm
5 Resistors 560 ohm
5 Resistors 1k ohm
5 Resistors 4.7k ohm
20 Resistors 10k ohm
5 Resistors 1M ohm
5 Resistors 10M ohm

Documentation

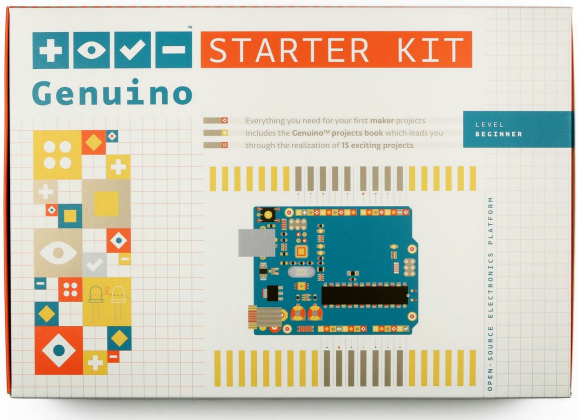
All the projects included in the Genuino Starter Kit can be built without soldering.
The complete selection of sketches that will guide you through the 15 projects included in your kit are available in the Software (IDE). From your IDE, click on: File / Examples / 10.StarterKit_BasicKit.

Have a look at these video tutorials for a project-by-project walk-through.
Please note, projects are powered via USB by the connected computer during programming.
A 9V battery clip is provided so that you can power the projects independently.
A laser-cut wooden base allows you to keep the breadboard and Genuino Uno in place.
An assortment of cardboard printed pieces give projects a clean and finished look, guiding users through the basics of making fully working devices.

For more information check out the Genuino Starter Kit Product Page.

GENUINO STARTER KIT Italiano (GKX01007)

Il kit definitivo per muovere i primi passi con Genuino, divertendosi nella realizzazione di progetti interattivi.



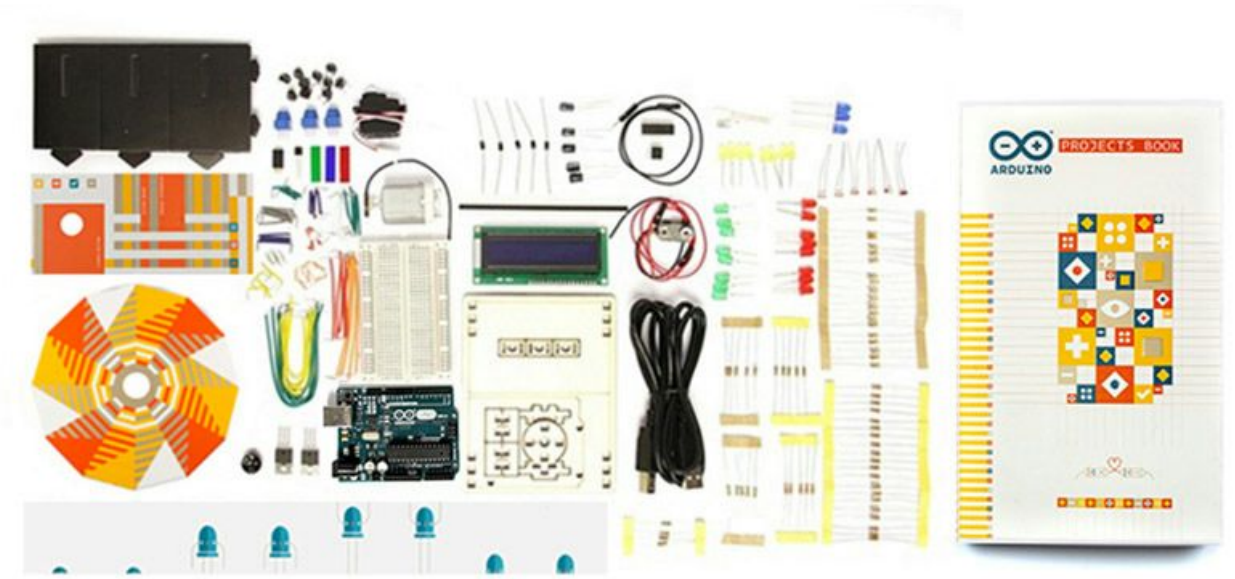
Overview

Genuino Starter Kit in italiano è la soluzione definitiva per imparare ad usare la piattaforma di Genuino. Ogni kit contiene: una scheda Genuino Uno Rev3, un assortimento di sensori e attuatori e un libro che guida il neofita dai primi passi dell'elettronica, alla realizzazione di dispositivi interattivi. *Lo Starter Kit è il regalo ideale per ragazzi da 9 a 99 anni!*

Lo Starter Kit include un libro in italiano con i seguenti progetti:

01. CONOSCI I TUOI STRUMENTI: un'introduzione ai concetti di base del kit
02. INTERFACCIA PER ASTRONAVE: progetta il pannello di controllo di una nave spaziale
03. AMOROMETRO: misura quanto è intenso il tuo calore
04. LAMPADA MISCELA COLORI: crea colori con una lampada controllata dalla luce
05. INDICATORE D'UMORE: dà alle persone un indizio di come stai
06. THEREMIN COMANDATO DALLA LUCE: crea della musica muovendo le mani
07. TASTIERA MUSICALE: produci suoni con la tua tastiera
08. CLESSIDRA DIGITALE: una clessidra luminosa che ti avverte se stai lavorando troppo
09. GIRANDOLA MOTORIZZATA: una ruota colorata che ti farà girare la testa
10. ZOOTROPIO: crea un dispositivo per visualizzare immagini in movimento
11. SFERA DI CRISTALLO: uno strumento spirituale per rispondere a tutte le tue domande
12. KNOCK LOCK: batti il codice segreto per aprire la porta
13. LAMPADA EMOTIVA: una lampada che risponde al tuo tocco
14. MODIFICA IL LOGO: usa Genuino per controllare il tuo computer

15. HACKERARE PULSANTI: crea un pannello di controllo per tutti i tuoi dispositivi!



Genuino Starter Kit include:

1 Il Libro dei Progetti (176 pagine)
1 Scheda Genuino Uno
1 Cavo USB
1 Breadboard
1 Base semplice da montare
1 Connettore per batteria 9v
70 Ponticelli rigidi,
2 Ponticelli flessibili
6 Fotoresistenze
3 Potenziometri da 10k ohm
10 Interruttori
1 Sensore di temperatura
1 Sensore di inclinazione
1 Schermo LCD (16x2 caratteri)
1 LED bianco ad alta intensità
1 LED RGB
8 LEDs rossi
8 LEDs verdi
8 LEDs gialli
8 LEDs blu
1 Piccolo motore DC 6/9v
1 Piccolo servomotore
1 Piezo
1 Ponte H
1 Fotoaccoppiatore
2 Transistor MOSFET
5 Condensatori da 100uF
5 Diodi
3 Gel trasparenti (R, G, B)
1 Striscia di connettori a pettine (40x1)
20 Resistenze da 220 ohm
5 Resistenze da 560 ohm
5 Resistenze da 1k ohm
5 Resistenze da 4.7k ohm
20 Resistenze da 10k ohm
5 Resistenze da 1M ohm
5 Resistenze da 10M ohm

Documentazione

Tutti i progetti inclusi nel Genuino Starter Kit possono essere realizzati senza ricorrere all'uso del saldatore.

La selezione completa di sketch che ti guideranno attraverso i 15 progetti inclusi nello Starter Kit è disponibile nel Software (IDE). Dal tuo IDE, clicca su: File / Esempi / 10.StarterKit_BasicKit.
Nota bene: i progetti sono alimentati attraverso l'USB del computer connesso durante la programmazione. Nel kit è disponibile una clip per batterie a 9V, per permettere l'alimentazione indipendente del progetto.
Una base in legno tagliata al laser permette di montare la scheda e la breadboard stabilmente. Numerosi elementi in cartoncino stampato e fustellato permettono di dare un aspetto finito ai progetti, permettendo di realizzare dispositivi di aspetto gradevole e completamente funzionanti.

Per maggiori informazioni consulta la Product Page dello Starter Kit Genuino.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Arduino:

GKX03007 GKX05007

Genuino:

GBX00066 GBX00053 GBX00067 GBX00003 GKX00007 GBX00005 GKX01007