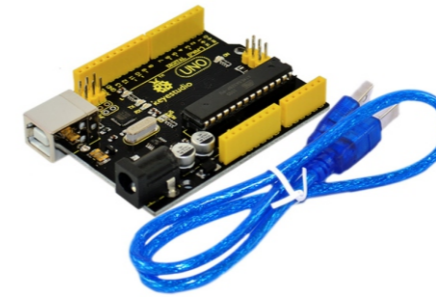




UNO R3

KS0001



Keystudio UNO R3 development board is a microcontroller board based on the ATmega328P (datasheet), fully compatible with ARDUINO UNO REV3. 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 R3 differs from all preceding boards in that it does not use the FTDI USB-to-serial driver chip. Instead, it features the Atmega16U2 programmed as a USB-to-serial converter.

The UNO is the best board to get started with electronics and coding. If this is your first experience tinkering with the platform, the UNO is the most robust board you can start playing with.

TECH SPECS:

- *Microcontroller: ATmega328P-PU
- *Operating Voltage: 5V
- *Input Voltage (recommended): 7-12V
- *Digital I/O Pins 14 (of which 6 provide PWM output)
- *PWM Digital I/O Pins 6 (D3, D5, D6, D9, D10, D11)
- *Analog Input Pins: 6 (A0-A5)
- *DC Current per I/O Pin: 20 mA
- DC Current for 3.3V Pin: 50 mA
- *Flash Memory: 32 KB (ATmega328P-PU) of which 0.5 KB used by boot loader
- *SRAM: 2 KB (ATmega328P-PU)
- *EEPROM 1 KB (ATmega328P-PU)
- *Clock Speed 16 MHz
- *LED_BUILTIN D13

2560 R3

KS0002



Keystudio Mega 2560 R3 is a microcontroller board based on the ATMEGA2560-16AU, fully compatible with ARDUINO MEGA 2560 REV3. It contains everything needed to support the microcontroller. With its bootloader, program can be downloaded directly with USB and you don't need to use other external programmer.

Just 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 2560 R3 differs from all preceding boards in that it does not use the FTDI USB-to-serial driver chip. Instead, it features the Atmega16U2 programmed as a USB-to-serial converter.

TECH SPECS:

- *Microcontroller: ATMEGA2560-16AU
- *Operating Voltage: 5V
- *Input Voltage (recommended) DC 7-12V
- *Digital I/O Pins: 54 (D0-D53)
- *PWM Digital I/O Pins: 15 (D2-D13; D44-D46)
- *Analog Input Pins 16 (A0-A15)
- *DC Current per I/O Pin: 20 mA
- DC Current for 3.3V Pin: 50 mA
- *Flash Memory 256 KB of which 8 KB used by bootloader
- *SRAM 8 KB
- *EEPROM 4 KB
- *Clock Speed 16 MHz
- *LED_BUILTIN D13

keyestudio UNO with Pin Header Interface

KS0172



- *Microcontroller core: ATmega328P-PU
- *Working voltage: +5V
- *External input voltage: +7V~+12V (suggest)
- *External input voltage (extremum): +6V ≤ Vin ≤ +20V
- *Digital signal I/O interface: 14 (of which 6 provide PWM output)
- *Analog signal input interface: 6
- *DCI/O interface current: 20mA
- *Flash Memory: 32KB (ATmega328) of which 0.5 KB used by bootloader
- *SRAM static storage capacity: 2KB
- *EEPROM storage capacity: 1KB
- *Clock frequency: 16MHZ

keyestudio UNO with pin header interface is a microcontroller board based on the ATmega328. It has 14 digital input/output pins (of which 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. 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. For convenient wiring, we have designed electronic brick 3pin interface corresponding to all 14 digital pins, 6 analog pins, 1 pin header for serial communication and 1 for IIC communication. It also has a toggle switch. When switched to 5V, level on serial communication port is 5V, voltage of pins is 5V; When switched to 3.3V, level on serial communication port is 3.3V, voltage of pins is 3.3V.

keyestudio Nano Ch340

KS0173



Features

- *12 Digital I/O Pins D2~D13;
- *8 Analog Input Pins A0~A7;
- *Pin 0 (RX) and 1 (TX) used to receive (RX) and transmit (TX) TTL serial data;
- *6 PWM pins, D3, D5, D6, D9, D10, D11;
- *Atmel ATmega328P-AU as microcontroller;
- *Mini-B USB connection for download and power supply;
- *Supports external 5V~12V DC power supply;
- *Support ISP download.

keyestudio nano ch340 controller is a small, complete board based on the ATmega328. It's a open source Simple I/O platform with 12 Digital I/O Pins (of which 6 provide PWM output), 8 Analog Input Pins, pin 0 (RX) and 1 (TX) used to receive (RX) and transmit (TX) TTL serial data, a Mini-B USB connection, an ICSP header and a reset button.

keyestudio Pro Mini

KS0247



Features

- *Fourteen digital input/output ports;
- *Eight analog input ports A0~A7;
- *One pair of TTL level serial port RX/TX;
- *Six PWM ports, D3, D5, D6, D9, D10, D11;
- *Using Atmel atmega328p-AU Uno;
- *Support external 7-9V Dc power supply

The processing center of keyestudio pro mini is Atmega328. It has 14 digital input/output pins (6 of which can be PWM output), 8 analog inputs, a 16MHz resonator, a reset button, mounting holes and pins.

keyestudio Leonardo R3 Development Board

KS0248



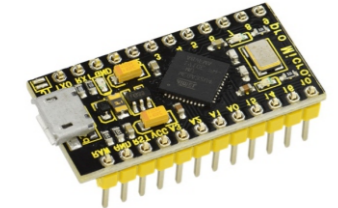
Features

- *Controller: ATmega32u4
- *Working frequency: 16 MHz
- *Working voltage: 5V
- *Input voltage (recommended): 7-12v
- *Digital I/O port: 23
- *The PWM channel: 7
- *Analog input: 12
- *Maximum allowable current of 5V digital/analog port: 40 mA
- *Maximum allowable current of 3.3V digital/analog port: 50 mA
- *Flash Memory: 32 KB (ATmega32u4) of which 4 KB used by bootloader
- *SRAM: 2.5 KB (ATmega32u4)
- *EEPROM: 1 KB (ATmega32u4)

The keyestudio Leonardo R3 development board is our newest easy-to-use open-source controller. It has twenty-three digital I/O ports, seven PWM ports and twelve analog input ports. Compared with other versions of Arduino using separate USB -Serial conversion chips, it only uses a single Atmega32u4 to achieve USB communication and control. The Atmega32u4's native support USB feature also enables Leonardo to simulate a mouse and keyboard.

keyestudio PRO MICRO Development Board

KS0249



Features

- *Microcontroller: ATMEGA32U4
- *RAW: 4V-16V
- *VCC: 3.3V at 500mA
- *Digital I/O Pins: 12 (of which 5 provide PWM output)
- *Analog Input Pins: 4
- *Maximum current for chip: 200mA
- *Maximum current per pin: 40mA
- *Recommended current per pin: 20mA
- *8-bit Atmel AVR
- *Flash Program Memory: 32kB
- *EEPROM: 1kB
- *Internal SRAM 2.5kB
- *ADC: 10-bit
- *PWM: 8bit

Keyestudio PRO MICRO development board is compatible with all Arduino skills, including four analog inputs, five PWM pins, twelve digital inputs /outputs and hardware serial port Rx and Tx. Its operating voltage is 3.3V and working frequency is 8MHz, which can accept external supply voltage up to DC 16V. The anode of power supply board must be connected to the "RAW". We also add a PTC fuse and diode to protect power supply circuit. In choosing test program, Arduino IDE version must be advanced or equal to the 1.0.3 version.

keyestudio W5500 Ethernet Development Board

KS0304



Parameters

- *Main Chip: ATMEGA328
- *USB power supply: 5v
- *External power: 7-12v, (9v recommended)
- *Digital input/output pins: 14 (of which 6 pins support PWM)
- *Analog input pin: 6
- *Built-in flash memory: 32K
- *SRAM: 2k; EEPROM: 1K
- *Clock frequency: 16MH

Keyestudio W5500 is based on the microcontroller of Arduino Ethernet. We have integrated USB download, TF card slot and more functions on it, fully compatible with UNO pins. You can quickly make your controller access to internet to build your network application. Onboard comes with W5500 network module, which can make Arduino as simple Web server or read Arduino digital and analog interface application via network control. It can achieve a simple Web server through using Ethernet libraries in IDE, meanwhile, support MicroSD card (TF card) read and write, really with powerful functions.

Keyestudio UNO Compatible Board Advanced

KS0341



Features

- *Microcontroller: ATmega328P-PU
- *Operating Voltage: 5V
- *Input Voltage (recommended): DC7-12V
- *Digital I/O Pins: 14 (D0-D13) (of which 6 provide PWM output)
- *PWM Digital I/O Pins: 6 (D3, D5, D6, D9, D10, D11)
- *Analog Input Pins: 6 (A0-A5)
- *DC Current per I/O Pin: 20 mA
- *DC Current for 3.3V Pin: 50 mA
- *Flash Memory: 32 KB (ATmega328P-PU) of which 0.5 KB used by bootloader
- *SRAM: 2 KB (ATmega328P-PU)
- *EEPROM: 1 KB (ATmega328P-PU)
- *Clock Speed: 16 MHz
- *LED_BUILTIN: D13

The keyestudio UNO compatible board Advanced is a microcontroller board based on the ATmega328P (datasheet), fully compatible with keyestudio UNO R3 board and ARDUINO UNO REV3. It contains everything needed to support the microcontroller; simply connect it to a computer with a USB cable or power it via an external DC power jack (DC 7-12V) or via female headers Vin/ GND(DC 7-12V) to get started.

Keyestudio MEGA 2560 Compatible Board Advanced

KS0342



Features

- *Microcontroller: ATMEGA2560-16AU
- *Operating Voltage: 5V
- *Input Voltage (recommended): DC 7-12V
- *Digital I/O Pins: 54 (D0-D53)
- *PWM Digital I/O Pins: 15 (D2-D13; D44-D46)
- *Analog Input Pins: 16 (A0-A15)
- *DC Current per I/O Pin: 20 mA
- *DC Current for 3.3V Pin: 50 mA
- *Flash Memory: 256 KB of which 8 KB used by bootloader
- *SRAM: 8 KB
- *EEPROM: 4 KB
- *Clock Speed: 16 MHz
- *LED_BUILTIN: 13

Keyestudio Mega 2560 compatible board Advanced is a microcontroller board based on the ATMEGA2560-16AU, fully compatible with Keyestudio Mega 2560 R3 board and ARDUINO MEGA 2560 REV3. Just simply connect it to a computer with a USB cable or power it via an external DC power jack (DC 7-12V) or via female headers Vin/ GND (DC 7-12V) to get started.

Keyestudio KEYBOT Coding Robot Control Board

KS0350



Features

- *Main control chip: ATMEGA328P-AU
- *Motor drive chip: TB6612FNG
- *USB to serial chip: ATMEGA16U2-MU
- *Input voltage: DC 7-12V
- *Motor drive current: 1.2A (ave) / 3.2A (peak)
- *Standby current: 47mA
- *Comes with a passive buzzer: D13 control
- *Motor direction interface: D4 (motor A) and D7 (motor B)
- *Motor speed interface: D5 (motor A) and D6 (motor B)

The Keyestudio KEYBOT Coding Robot Control Board is particularly designed for car robot control. For simple connection, it extends all the digital and analog ports out as telephone sockets. It also comes with a power interface. The telephone socket integrates the digital and analog ports together, so you just need a cable to connect it with sensor modules, pretty simple and convenient.

Keyestudio ESP8266 WI-FI Development Board

KS0354



Features

- *Microcontroller: ESP8266-12F
- *Operating Voltage: 3V3
- *Input Voltage (recommended): DC 7-12V
- *Digital I/O Pins: 8 (GPIO2, GPIO4, GPIO5, GPIO12, GPIO13, GPIO14, GPIO15, GPIO16)
- *Analog Input Pins: 1 (A0)
- *IO output maximum current: 12 mA
- *Main frequency supports 80 MHz and 160 MHz
- *LED_BUILTIN: GPIO 14
- *Comes with an external power jack (DC 7-12V)

This keyestudio ESP8266 WI-FI development board is based on the ESP8266-12FWIFI module developed by Ai-Thinker. It supports RTOS, integrated with Wi-Fi MAC/BB/RF/PA/LNA. Onboard comes with curved antenna. This development board is a standalone network controller, which can add networking function to those existing devices.

Keyestudio ESP8266 WI-FI Board

Features

- *Microcontroller: ESP8266-12F
- *Operating Voltage: DC5V
- *Input Current: 2A
- *Main frequency supports 80 MHz and 160 MHz
- *Analog Input Pins: 1 (A0)
- *Micro USB cable: 1m

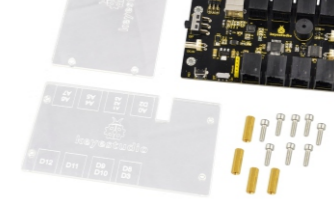
KS0367



This keyestudio ESP8266 WI-FI development board is based on the ESP8266-12FWIFI module developed by Ai-Thinker. This development board is a standalone network controller, which can add networking function to those existing devices. When using, power the board and upload the program via a Micro USB port, and the current supply should be 2A.

keyestudio Leonardo R3 Development Board

KS0384



Features

- *Main control chip: ATMEGA328P-AU
- *Motor drive chip: TB6612FNG
- *USB to serial chip: ATMEGA16U2-MU
- *Input voltage: DC 7-12V
- *Motor drive current: 1.2A (ave) / 3.2A (peak)
- *Standby current: 47mA
- *Comes with a passive buzzer: D13 control
- *Motor direction interface: D4 (motor A) and D7 (motor B)
- *Motor speed interface: D5 (motor A) and D6 (motor B)

The Keyestudio KEYBOT Coding Robot Control Board is particularly designed for car robot control. For simple connection, it extends all the digital and analog ports out as telephone sockets. It also comes with a power interface. The telephone socket integrates the digital and analog ports together, so you just need a cable to connect it with sensor modules, pretty simple and convenient. We also provide you with 2pcs of acrylic panel, 4pcs of M3*15 double-pass copper pillars, 8pcs of M3*10 inner hex screws to fix and protect your control board. Also with a 50cm blue USB cable for you to program the board.

Original BBC Micro:Bit Main Board

MB0098

Description

micro:bit is a microcontroller of ARM structure designed by the British BBC. It is only half size of a credit card, onboard with Bluetooth, accelerometer, electronic compass, three buttons, 5 x 5 LED dot matrix, mainly used for teens programming education.

Features

1. Support PXT graphical programming interface developed by Microsoft
2. Support Windows, macOS, iOS, Android and other operating systems
3. Based on WEB service, no need to download the compiler.
4. PC terminal via USB to write and simulate program
5. Mobile terminal via Bluetooth wireless to write and simulate program
6. Support many kinds of communicative program languages including javasript, python, mbedc.