



Description:

The ADIY UNO R3 CP2102 ATmega328P Development Board is the low-cost version of the popular UNO R3 Arduino. Instead of ATmega16U2 processor, it is assembled with CP2102 IC. ADIY UNO is a microcontroller board based on the ATmega328P. 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 an AC-to-DC adapter or battery to get started.

Features:

- Board Name: ADIY UNO R3 CP2102
- Microcontroller: ATmega328P
- USB-Serial IC: CP2102
- USB connector: USB-B

- **Pins:**
 - Built-in LED Pin: 13
 - Digital I/O Pins: 14
 - Analog input pins: 6
 - PWM pins: 6
- **Pins:**
 - Built-in LED Pin: 13
 - Digital I/O Pins: 14
 - Analog input pins: 6
 - PWM pins: 6
- **Communication:**
 - UART: Yes
 - I2C: yes
 - SPI: Yes
- **Power:**
 - I/O Voltage: 5V
 - Input voltage (nominal): 7-12V
 - DC Current per I/O Pin: 20 mA
 - Power Supply Connector: Barrel Plug
- **Clock speed:**
 - Main Processor: ATmega328P 16 MHz
- **Memory:**
 - ATmega328P: 2KB SRAM, 32KB FLASH, 1KB EEPROM
- **Dimensions:**
 - Width: 53.34 mm
 - Length: 68.58 mm



Pin Configuration:

- **ATmega328 Microcontroller**- It is a single chip Microcontroller of the ATmel family. The processor code inside it is of 8-bit. It combines **Memory (SRAM, EEPROM, and Flash), Analog to Digital Converter, SPI serial ports, I/O lines, registers, timer, external and internal interrupts, and oscillator.**
- **ICSP pin** - The In-Circuit Serial Programming pin allows the user to program using the firmware of the Arduino board.
- **Power LED Indicator**- The ON status of LED shows the power is activated. When the power is OFF, the LED will not light up.
- **Digital I/O pins**- The digital pins have the value HIGH or LOW. The pins numbered from D0 to D13 are digital pins.
- **TX and RX LED's**- The successful flow of data is represented by the lighting of these LED's.
- **AREF**- the Analog Reference (AREF) pin is used to feed a reference voltage to the Arduino UNO board from the external power supply.
- **Reset button**- It is used to add a Reset button to the connection.
- **USB**- It allows the board to connect to the computer. It is essential for the programming of the Arduino UNO board.
- **Crystal Oscillator**- The Crystal oscillator has a frequency of 16MHz, which makes the Arduino UNO a powerful board.
- **Voltage Regulator**- The voltage regulator converts the input voltage to 5V.
- **GND**- Ground pins. The ground pin acts as a pin with zero voltage.
- **Vin**- It is the input voltage.
- **Analog Pins**- The pins numbered from A0 to A5 are analog pins. The function of Analog pins is to read the analog sensor used in the connection. It can also act as GPIO (General Purpose Input Output) pins.

Note:

Need to install CP2102 driver in user's system to find com port.

User can download driver for CP2102 USB to serial interface from google.

Link for reference:

<https://www.driverguide.com/driver/detail.php?driverid=2000438>

