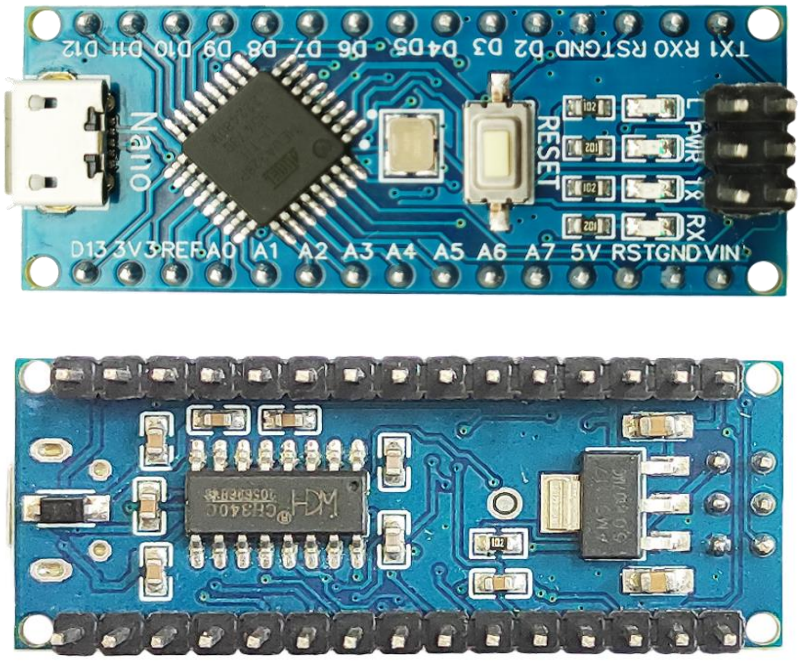
ADIY NANO



Description:

ADIY NANO is based on the famous Arduino platform and does all the functions of UNO, but with a smaller footprint.

ADIY NANO is vital for your small project where you don't need much of a pin outs but the small size is very important to make it look good.

ADIY Nano board is fully as compatible as Arduino Nano. It is based on the ATmega328p-AU from the Atmel, the SMD version of one used in UNO. It does not have any power jack but still 9V DC can be provided to VIN pin. ADIY Nano can be said to be a smaller version of UNO board, as it's using the same MCU with smaller package. It also provides same functions as provided by UNO board. Apart from that, it has 8 analog input pins instead of 6 analog inputs in ADIY Uno. It also has pinout for the programmer to be connected to the board directly, in case USB is not used for programming.

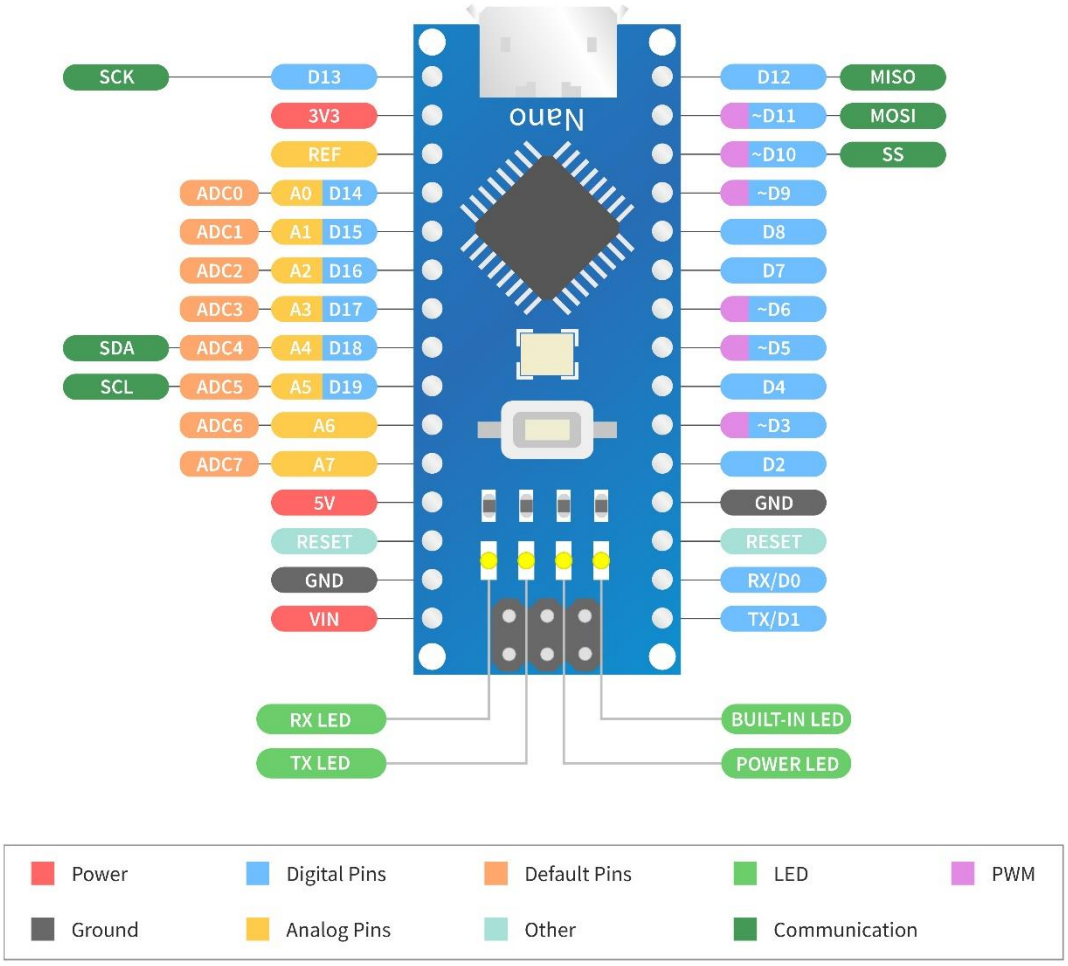
Features:

1. 1 pair of TTL level serial transceiver ports RX / TX.
2. Using Atmel Atmega328P-AU MCU.
3. There is a bootloader installed in it.
4. Support USB download and Power.
5. Support ISP download.
6. Automatic reset during program download.
7. Auto sensing/switching power input.
8. Small mini-B USB for programming and serial monitor.
9. ICSP header for direct program download.

Specifications:

- Micro controller: ATMega328p-AU
- Operating Voltage: 5 V – 12V
- Flash Memory: 32 KB (out of which 2 KB used by bootloader)
- SRAM: 2 KB
- EEPROM: 1 KB
- Clock Speed: 16 MHZ
- Analog Input Pins: 8
- Digital I/O pins: 14
- PWM pins: 6
- Max Current Per I/O pins: 40 mA
- Onboard 5V Regulator

Pin Description:



Power Pin (Vin, 3.3V, 5V, GND): These pins are power pins

a. Vin is the input voltage of the board, and it is used when an external power source is used from 5V to 12V.
b. 5V is the regulated power supply voltage of the nano board and it is used to give the supply to the board as well as components.
c. 3V is the minimum voltage which is generated from the voltage regulator on the board.
d. GND is the ground pin of the board.

RST Pin (Reset): This pin is used to reset the microcontroller

Analog Pins (A0-A7): These pins are used to calculate the analog voltage of the board within the range of 0V to 5V

I/O Pins (Digital Pins from D0 – D13): These pins are used as an input otherwise output pins. 0V & 5V

Serial Pins (Tx, Rx): These pins are used to transmit & receive TTL serial data.

External Interrupts (2, 3): These pins are used to activate an interrupt.

PWM (3, 5, 6, 9 and 11): These pins are used to provide 8-bit of PWM output.

SPI (10, 11, 12 & 13): These pins are used for supporting SPI communication.

Inbuilt LED (13): This pin is used to activate the LED.

IIC (A4, A5): These pins are used for supporting TWI communication.

AREF: This pin is used to give reference voltage to the input voltage.

Applications:

- Samples of electronic systems & products
- Automation
- Several DIY projects
- Control Systems
- Embedded Systems
- Robotics
- Instrumentation