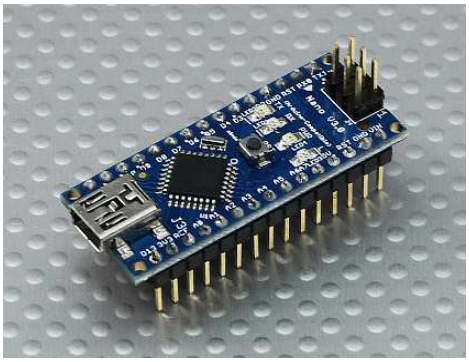
NANO V3.0 Compatible Board



Product features:

The NANO is a complete breadboard friendly board based on the ATmega328 RISC-based microcontroller. Ultrasonic ranging module HC - SR04 provides 2cm - 400cm non-contact measurement function, the ranging accuracy can reach to 3mm. The modules includes ultrasonic transmitters, receiver and control circuit.

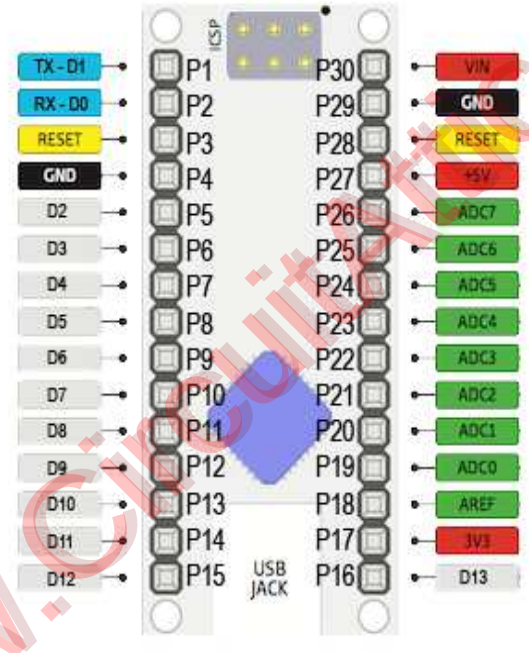
Specifications:

Microcontroller	Atmel ATmega328
Operating Voltage (logic level)	5 V
Input Voltage (recommended)	7-12 V
Input Voltage (limits)	6-20 V
Digital I/O Pins	14 (which 6 provide PWM output)
Analog Input Pins	8
DC Current per I/O Pin	40 mA
Flash Memory	32KB (2 KB used by bootloader)
SRAM	2 KB
EEPROM	1 KB
Clock Speed	16 MHz
Size	.73”x1.7”

Power:

The device can be powered via the Mini-B USB connection, 6-20V unregulated external power supply, or 5V regulated external power supply. The power source is automatically selected to the highest voltage source. The FTDI FT232RL chip on the Nano is only powered if the board is being powered over USB. If running on non-USB power, the 3.3V is not available.

Pinout Diagram:



Pin Descriptions:

Pin #	Name	Type	Description
1	D1 (TX)	I/O	Digital I/O 1 or TX (serial transmit
2	D0 (RX)	I/O	Digital I/O 0 or RX (serial receive)
3	RESET	Input	Reset active low
4	GND	Power	Supply Ground
5	D2	I/O-Interrupt	Digital I/O 2 or external interrupt trigger
6	D3	I/O – Interrupt	Digital I/O 3 or external interrupt trigger or 8 bit PWM
7	D4	I/O	Digital I/O 4
8	D5	I/O	Digital I/O 5 or 8 bit PWM
9	D6	I/O	Digital I/O 6 or 8 bit PWM
10	D7	I/O	Digital I/O 7
11	D8	I/O	Digital I/O 8
12	D9	I/O	Digital I/O 9 or 8 bit PWM
13	D10	I/O	Digital I/O 10 or 8 bit PWM or SPI:SS
14	D11	I/O	Digital I/O 11 or 8 bit PWM or SPI:MOSI
15	D12	I/O	Digital I/O or SPI:MISO
16	D13	I/O - LED	Digital I/O or SPI:SCK – Also connected to onboard LED
17	3v3	Power	Only when power is supplied via USB interface, the FT232RL interface chip will supply 3.3vdc on this pin.
18	AREF	Input	Analog reference voltage for ADC pins
19	ADC0	Input	Analog input 0
20	ADC1	Input	Analog input 1
21	ADC2	Input	Analog input 2
22	ADC3	Input	Analog input 3
23	ADC4	Input-I2C	Analog input 4 or I2C:SDA
24	ADC5	Input-I2C	Analog input 5 or I2C:SCL
25	ADC6	Input	Analog input 6
26	ADC7	Input	Analog input 7
27	5VDC	Power input OR output	+5vdc output if powered from USB or pin 30 +5vdc input from external regulated power supply
28	RESET	Input	Reset active low
29	GND	Power	Supply Ground
30	VIN	Power	Supply Voltage Input (6vdc to 20vdc)

Note: Each of the 14 digital pins operate at 5 volts and can provide or sink 40mA. An internal pull-up resistor, disabled by default, of 20 to 50K ohms can be enabled via software.