Serial

[Communication]

Description

Used for communication between the Arduino board and a computer or other devices. All Arduino boards have at least one serial port (also known as a UART or USART), and some have several.

BOARD	USB CDC NAME	SERIAL PINS	SERIAL1 PINS	SERIAL2 PINS	SERIAL3 PINS
Uno, Nano, Mini		0(RX), 1(TX)			
Mega		0(RX), 1(TX)	19(RX), 18(TX)	16(RX), 17(TX)	15(RX), 14(TX)
Leonardo, Micro, Yún	Serial	0(RX), 1(TX)			
Uno WiFi Rev.2		Connected to USB	0(RX), 1(TX)	Connected to NINA	
MKR boards	Serial		13(RX), 14(TX)		
Zero	SerialUSB (Native USB Port only)	Connected to Programming Port	0(RX), 1(TX)		
Due	SerialUSB (Native USB Port only)	0(RX), 1(TX)	19(RX), 18(TX)	16(RX), 17(TX)	15(RX), 14(TX)

Find anything that can be improved? Suggest corrections and new documentation via GitHub.

Doubts on how to use Github? Learn everything you need to know in this tutorial.

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On Uno, Nano, Mini, and Mega, pins 0 and 1 are used for communication with the computer. Connecting anything to these pins can interfere with that communication, including causing failed uploads to the board.

You can use the Arduino environment's built-in serial monitor to communicate with an Arduino board. Click the serial monitor button in the toolbar and select the same baud rate used in the call to `begin()`.

Serial communication on pins TX/RX uses TTL logic levels (5V or 3.3V depending on the board). Don't connect these pins directly to an RS232 serial port; they operate at +/- 12V and can damage your Arduino board.

To use these extra serial ports to communicate with your personal computer, you will need an additional USB-to-serial adaptor, as they are not connected to the Mega's USB-to-serial adaptor. To use them to communicate with an external TTL serial device, connect the TX pin to your device's RX pin, the RX to your device's TX pin, and the ground of your Mega to your device's ground.

Functions

LANGUAGE Stream

EXAMPLE ReadASCIIString

EXAMPLE ASCII TAble

EXAMPLE Dimmer

EXAMPLE Graph

EXAMPLE Physical Pixel

EXAMPLE Serial Call Response

EXAMPLE Serial Call Response ASCII