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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	SERIAL PINS
Uno, Nano, Mini		0(RX), 1(TX)			
Mega		0(RX), 1(TX)	19(RX), 18(TX)	17(RX), 16(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)	17(RX), 16(TX)	15(RX), 14(TX)
101	Serial		0(RX), 1(TX)		

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 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()`.



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

- `if(Serial)`
- `available()`
- `availableForWrite()`
- `begin()`
- `end()`
- `find()`
- `findUntil()`
- `flush()`
- `parseFloat()`
- `parseInt()`
- `peek()`
- `print()`
- `println()`
- `read()`
- `readBytes()`
- `readBytesUntil()`
- `readString()`
- `readStringUntil()`
- `setTimeout()`
- `write()`
- `serialEvent()`

See also

- `EXAMPLE` [ReadASCIIString](#)
- `EXAMPLE` [ASCII Table](#)
- `EXAMPLE` [Dimmer](#)
- `EXAMPLE` [Graph](#)
- `EXAMPLE` [Physical Pixel](#)
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