

UART

Availability

Device

Description

The **UART** class represents UART asynchronous serial ports, of which imps currently provide between two and five, depending on type. The imp002 module has an additional 'half' UART that is receive-only; there is no available transmit pin.

Objects representing a given imp's specific UART buses are automatically instantiated at start-up and are accessed through the following object properties of the **hardware** (</docs/api/hardware/>) object:

imp	UART 1	UART 2	UART 3	UART 4	UART 5
imp001	hardware.uart12	hardware.uart1289	hardware.uart57		
imp002	hardware.uart12	hardware.uart1289	hardware.uart57	hardware.uart6E	hardware.uartB
imp003	hardware.uartDM	hardware.uartFG	hardware.uartQRPW	hardware.uartUVGD	hardware.uartWJ
imp004m	hardware.uartBCAW	hardware.uartFGJH	hardware.uartHJ	hardware.uartQ	
imp005	hardware.uart0	hardware.uart1	hardware.uart2		

All of the imp005's UART buses are all accessed via dedicated pins rather than GPIO, hence the slightly different nomenclature.

- For more information on every imp modules' pin-outs, see the imp pin mux (</docs/hardware/imp/pinmux/>).
- For more information on the UART bus and its use in imp-based projects, see the Developer Guide 'UART Explained' (</docs/resources/uart/>).

The **UART** object has the following member methods:

- `uart.configure()` (</docs/api/hardware/uart/configure/>) — Configures the UART serial bus.
- `uart.disable()` (</docs/api/hardware/uart/disable/>) — Disables the UART interface.
- `uart.flags()` (</docs/api/hardware/uart/flags/>) — Returns event flags set by the previous UART transaction.
- `uart.flush()` (</docs/api/hardware/uart/flush/>) — Pauses program execution until the UART's output FIFO has drained.
- `uart.read()` (</docs/api/hardware/uart/read/>) — Reads a byte from the serial port.
- `uart.readblob()` (</docs/api/hardware/uart/readblob/>) — Reads a specified number of bytes from the serial port.
- `uart.readstring()` (</docs/api/hardware/uart/readstring/>) — Reads a string of characters from the serial port.
- `uart.setrxfifoSize()` (</docs/api/hardware/uart/setrxfifoSize/>) — Specifies the size of the UART receive FIFO.
- `uart.settxactive()` (</docs/api/hardware/uart/settxactive/>) — Configures a pin as a UART-transmit-active indicator.
- `uart.settxfifoSize()` (</docs/api/hardware/uart/settxfifoSize/>) — Sets the size of the UART transmit FIFO.
- `uart.write()` (</docs/api/hardware/uart/write/>) — Sends one or more bytes to the serial port.

See Also

- `fixedfrequencydac` (</docs/api/hardware/fixedfrequencydac/>) — An object that represents an imp's 12-bit fixed-frequency DAC
- `hardware` (</docs/api/hardware/>) — A device-only object that represents the device's IO peripherals.
- `I2C` (</docs/api/hardware/i2c/>) — A class which represents imp I²C two-wire serial ports
- `Pin` (</docs/api/hardware/pin/>) — A class which represents one of the imp's GPIO pins
- `sampler` (</docs/api/hardware/sampler/>) — An object which represents an imp's 12-bit ADC
- `SPI` (</docs/api/hardware/spi/>) — A class which represents one of an imp's SPI synchronous serial ports

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