

hExt port

See also: [hFramework GPIO documentation](#)

RoboCORE is equipped with two hExt ports.

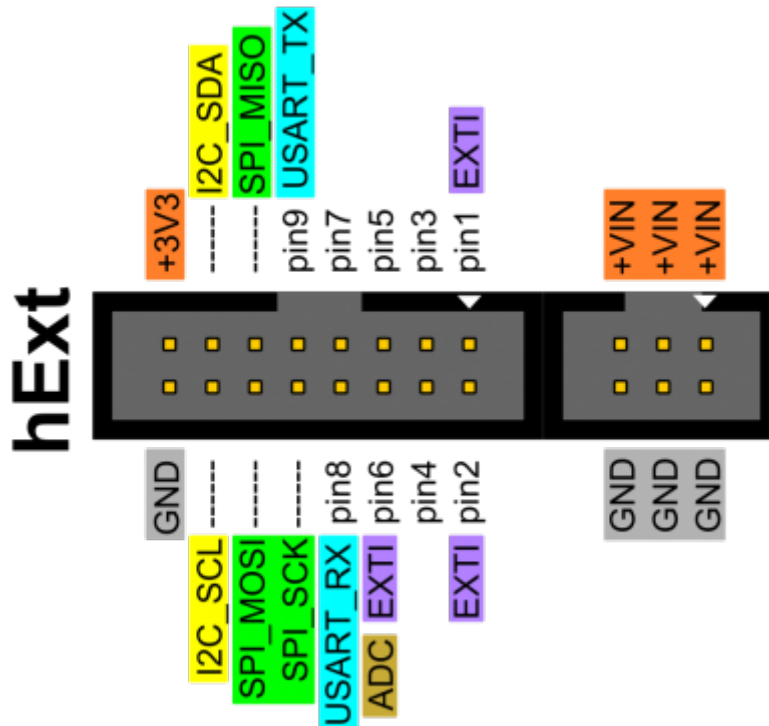
hExt is a universal expansion port which contains some GPIO pins and some communication interfaces. The purpose of this port is to provide the possibility to communicate with plenty of electronic modules, (e.g. with the [servo driver](#) which is available for RoboCORE).

Each hExt port contains:

- 9 x GPIO. Three of these can be configured as external interrupts, one pin has an ADC converter as an alternative function and another 2 GPIOs can be used for UART.
- UART interface (separate for each hExt, can be used as two additional GPIOs).
- SPI interface (shared between two hExt ports in RoboCORE).
- I2C interface (also shared between two hExt ports).
- +3.3V supply voltage. Be aware that the 3.3 V line is shared among all devices supplied with 3.3 V and that the current consumption should not exceed 100mA per hExt port.

All interfaces are compatible with 3.3V CMOS logic. The A/D converter range is 0 - 3.3 V.

hExt pinout



hExt pin	Software name	Default function	Alternative function
1	pin1	GPIO	External Interrupt input
2	pin2	GPIO	External Interrupt input
3	pin3	GPIO	
4	pin4	GPIO	

hExt pin	Software name	Default function	Alternative function
5	pin5	GPIO	
6	pin6	GPIO	External Interrupt input A/D converter
7	pin7	GPIO	
8	pin8	GPIO	UART_RX
9	pin9	GPIO	UART_TX
10	-	SPI_SCK	
11	-	SPI_MISO	
12	-	SPI_MOSI	
13	-	I2C_SDA	
14	-	I2C_SCL	
15	-	+3.3V output	
16	-	GND (ground)	