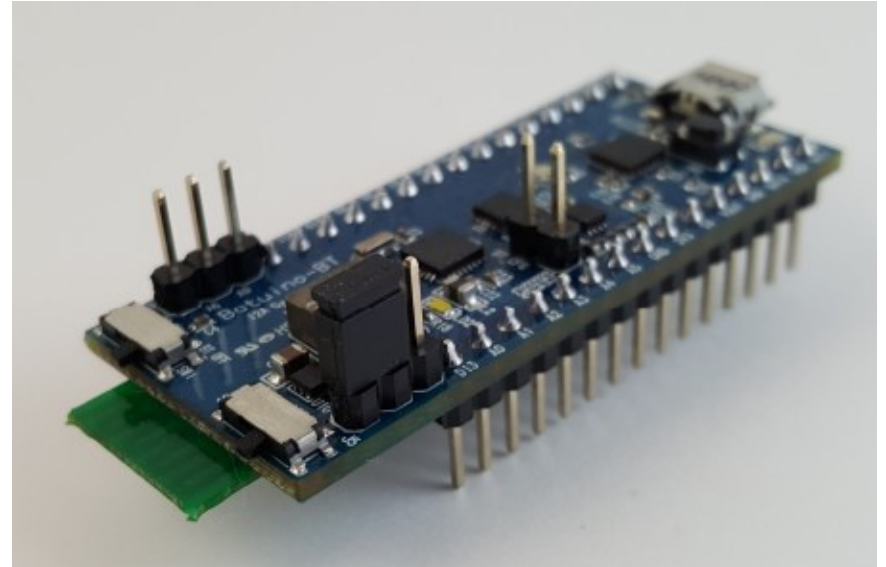
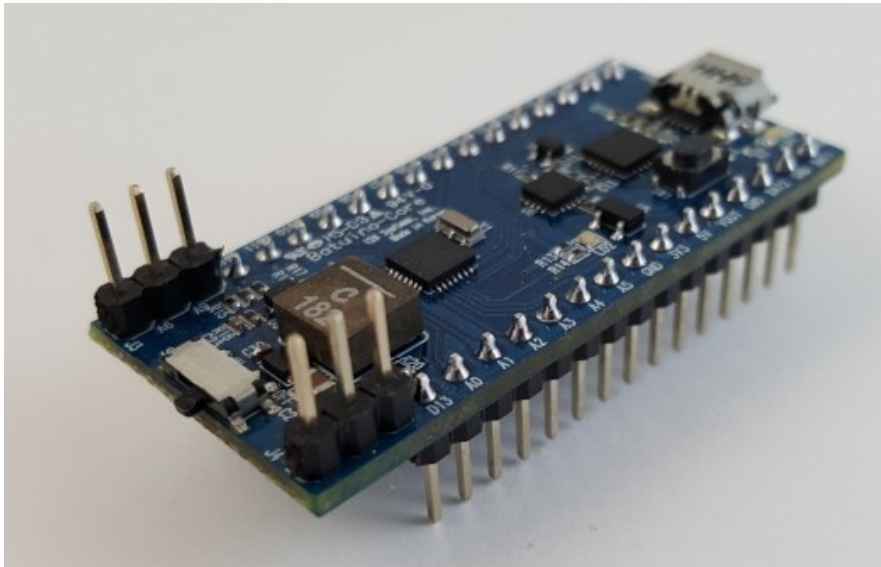


Batuino-Core / Batuino-BT

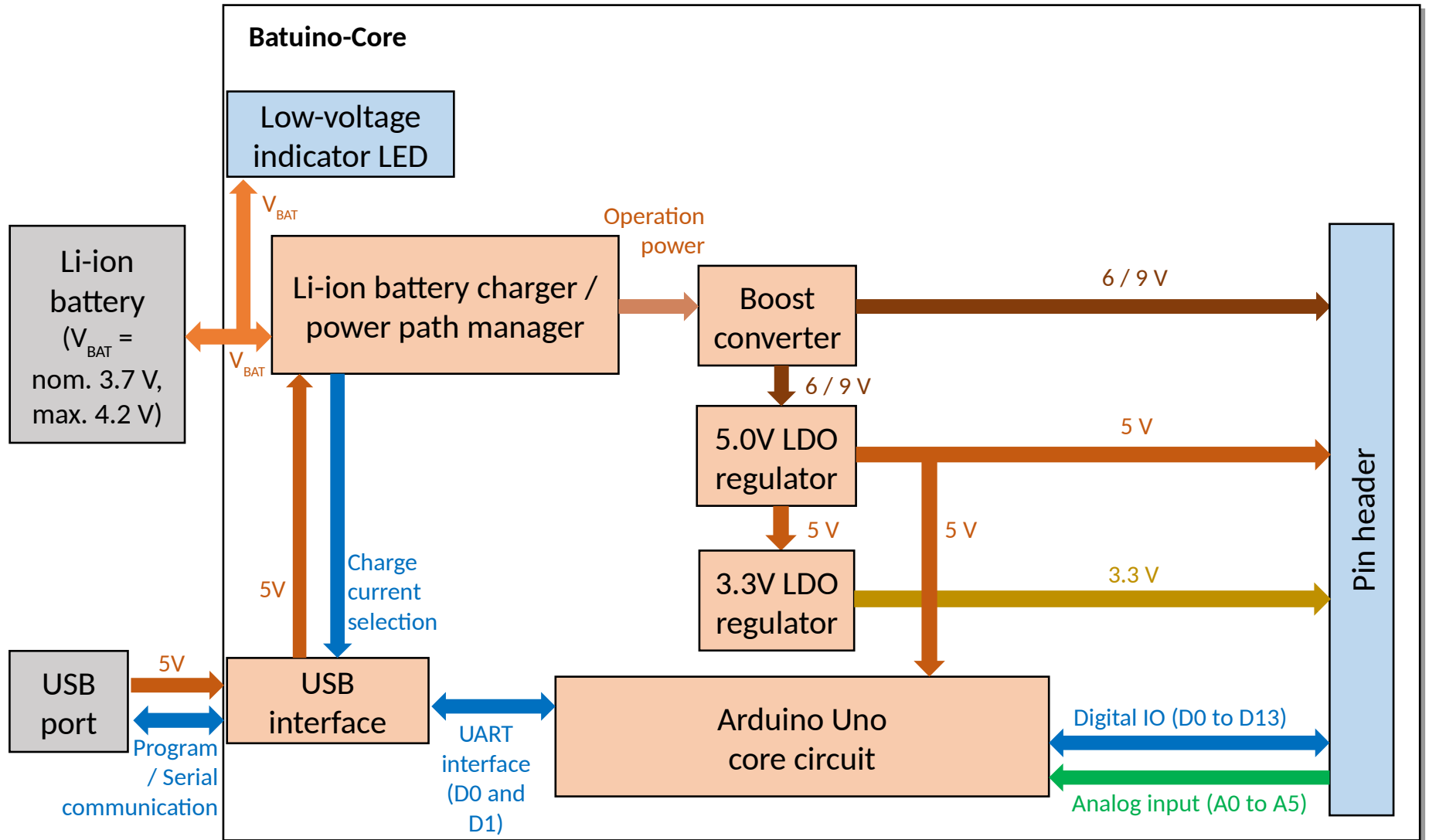


i2A Systems Co., Ltd.

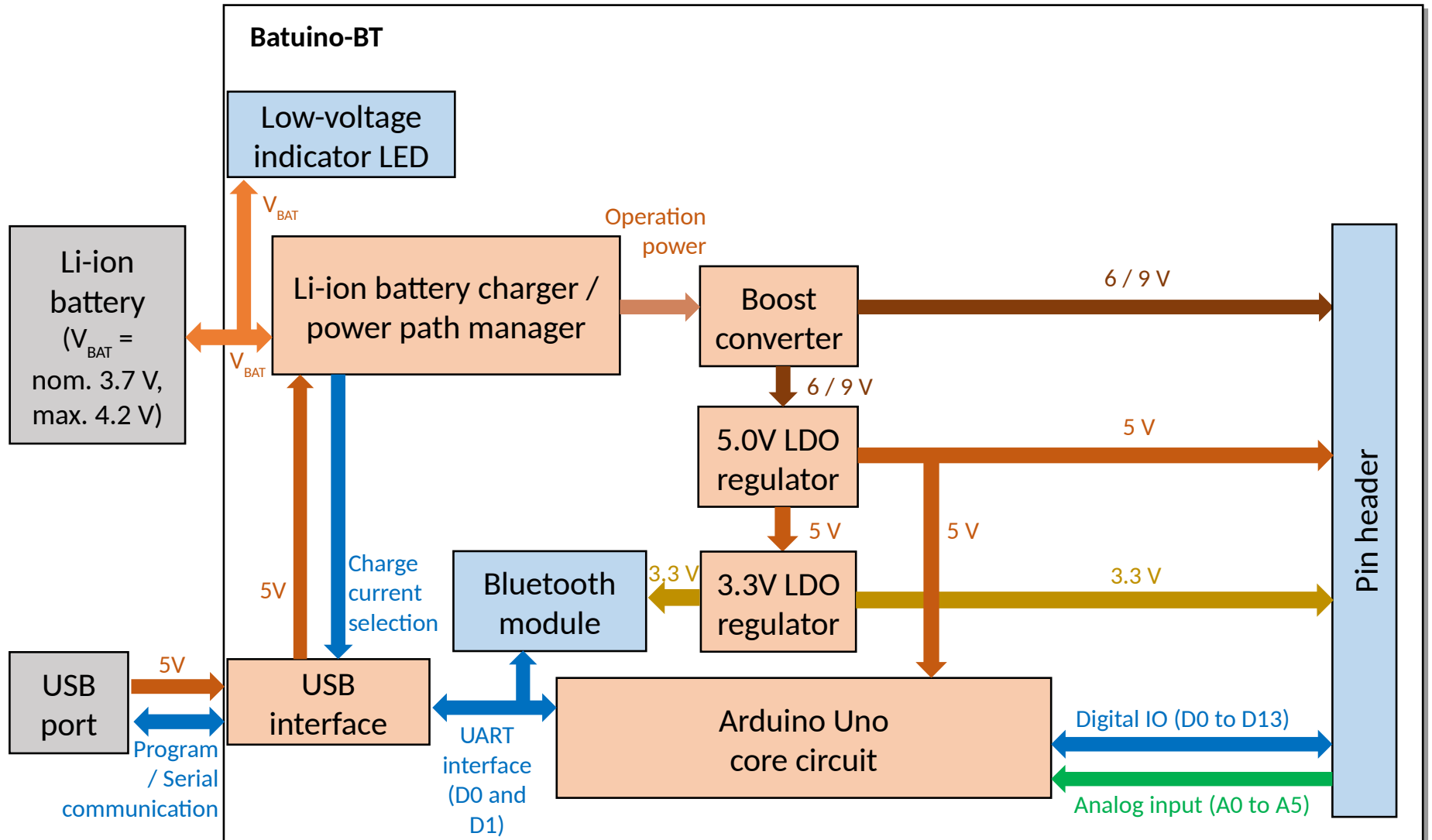
Description

- Arduino Uno compatible board with additional features
- Key features
 - Rechargeable battery management
 - Li-ion (polymer) battery charger with automatic charge current selection
 - Dynamic power path management: Simultaneously and independently powers the system and charges the battery
 - Boost converter (converts battery voltage to consistent 6 or 9 V)
 - Bluetooth module included (only for Batauino-BT)

Block diagram (Batuino-Core)



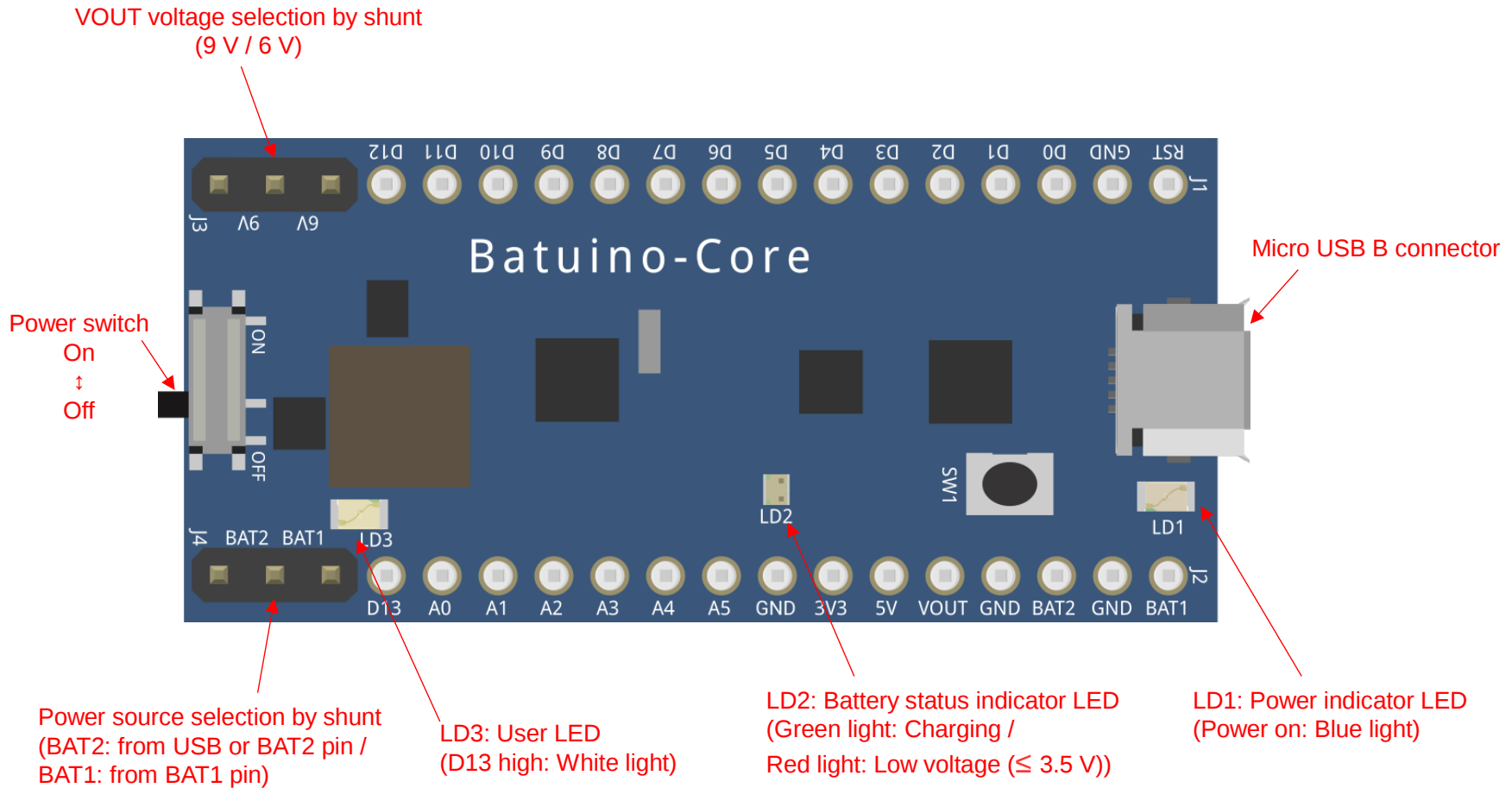
Block diagram (Batuino-BT)



Specifications

Microcontroller		ATmega328P
Flash memory		32 KB (ATmega328P)
MCU clock frequency		16 MHz
MCU operating voltage		5 V
Input power source		USB and/or 3.7 V Li-ion (polymer) rechargeable battery
Charge current	Dedicated USB charger	1.3 A
	Enumerated USB	0.5 A
	Non-enumerated USB	0.1 A
Low-battery indicator LED activation voltage		$V_{\text{BAT}} \leq 3.5 \text{ V}$
Regulated output voltage		9 (or 6), 5, 3.3 V
Max. continuous current output (9 / 6 V)		2.0 A
Max. continuous current output		5 V: 1.2 A / 3.3 V: 300 mA
Analog input channels (max. 5 V, 10-bit ADC)		6
Maximum current per I/O pin		20 mA
Bluetooth module (only for Batauino-BT)		HC-05 (Bluetooth 2.0, up to 10 m range)

Batuino-Core



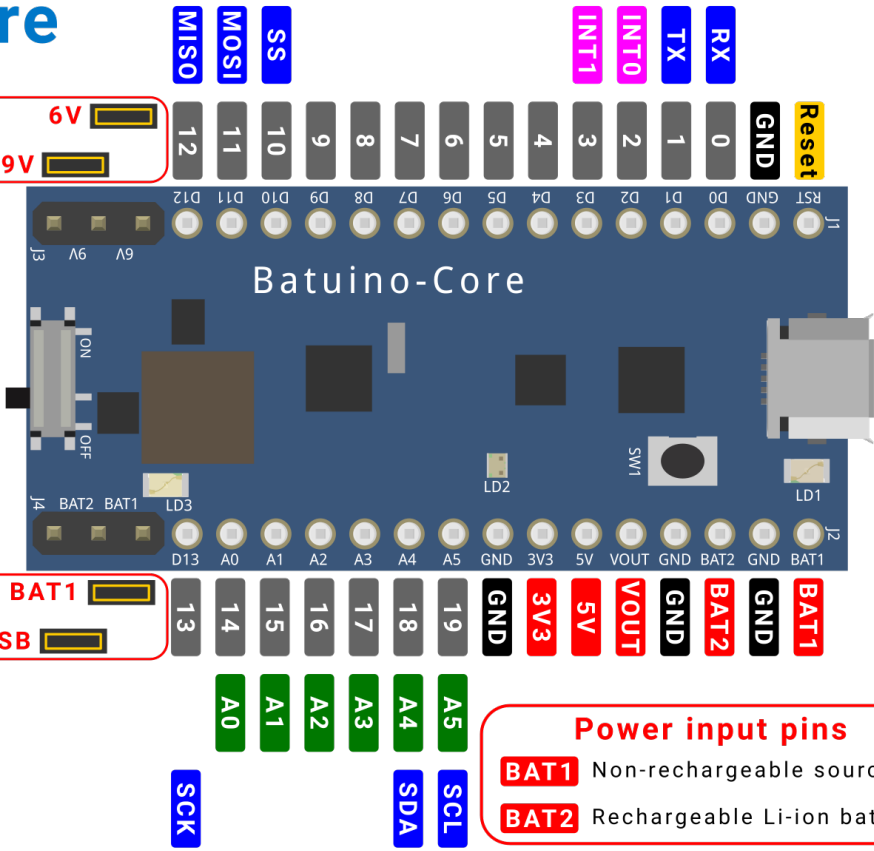
BATUINO Core

- Power
- Control
- Analog
- Serial
- Interrupt
- Ground
- Shunt

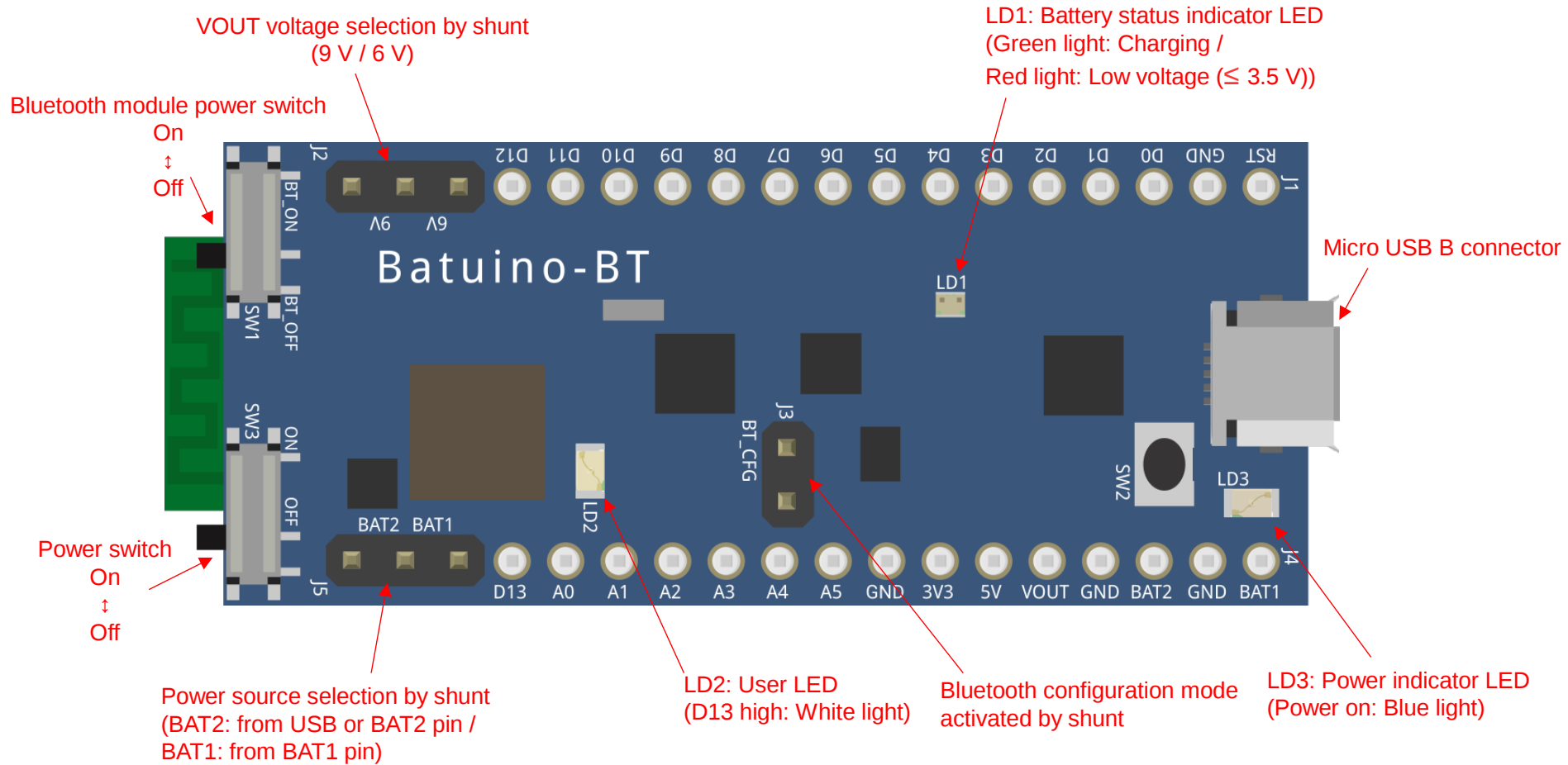
VOUT voltage selection
 6V
 9V

Power source selection
 BAT1
 BAT2 / USB

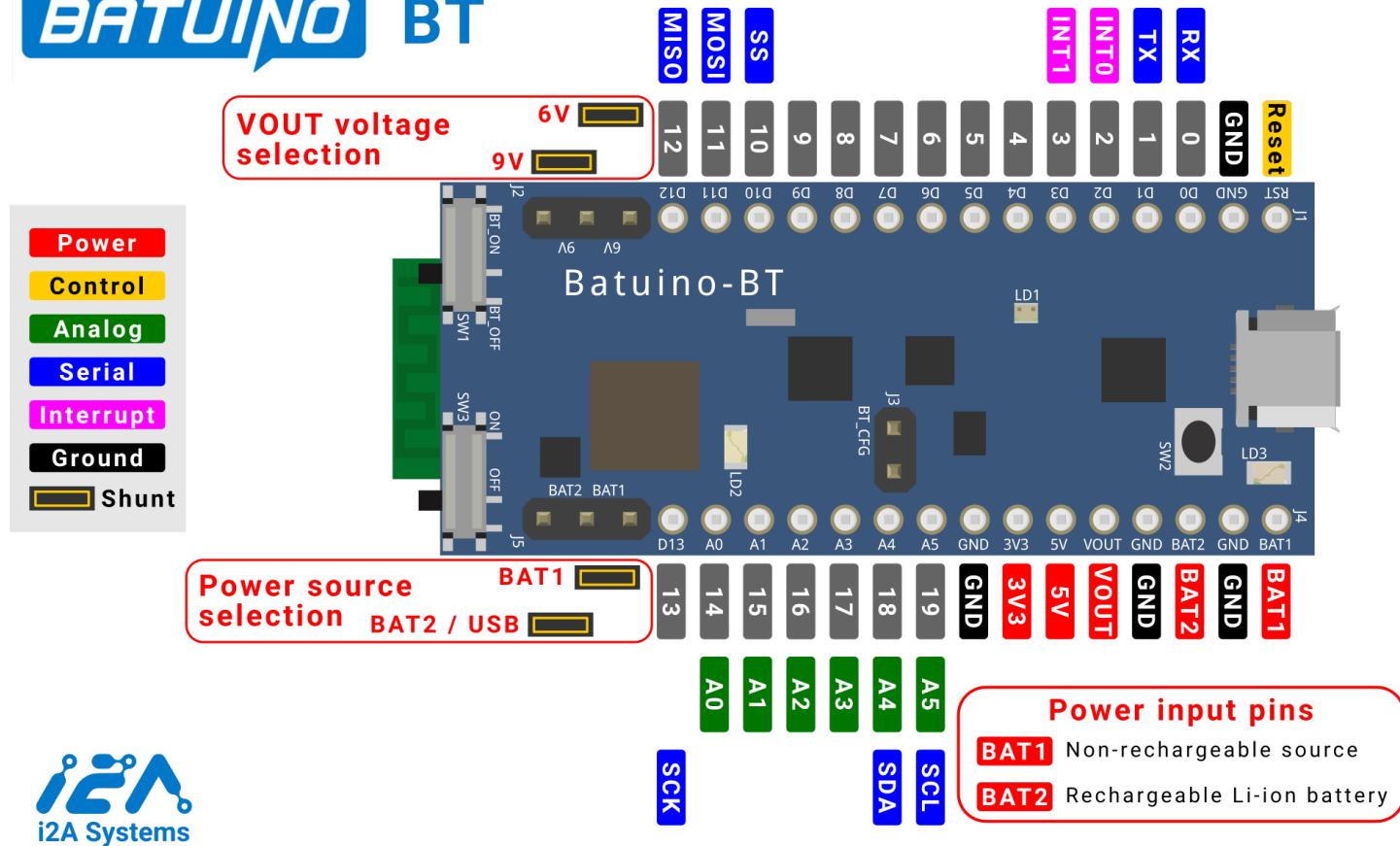
Power input pins
BAT1 Non-rechargeable source
BAT2 Rechargeable Li-ion battery



Batuino-BT



BATUINO BT



Bluetooth module: Pin configuration

HC-05	UART_TX	UART_RX
UART interface (digital pins in Arduino)	D0 (RX)	D1 (TX)

- Please be aware that the Bluetooth module shares UART connection with USB.