ARDUINO

D19/SCL | PA3
D18/SDA | PA2
AREF | PD7
GND
D13 | PE2
D12 | PE1
D11 | PE0
~D10 | PB1
~D9 | PB0
D8 | PE3

D7 | PA1
~D6 | PF4
~D5 | PB2
D4 | PC6
~D3 | PF5
D2 | PA0
D1/TX | PC4
D0/RX | PC5

NC
IOREF
PC6 | RESET
+3V3
+5V
GND
GND
VIN

AIN[0] | PD0 | A0 | D14
AIN[1] | PD1 | A1 | D15
AIN[2] | PD2 | A2 | D16
AIN[3] | PD3 | A3 | D17
AIN[4] | PD4 | A4 | D18
AIN[5] | PD5 | A5 | D19

LED_BUILTIN | PD06

ATMEGA32U4

Controlled by NINA | RGB LED

TX LED | PD07
RX LED | PD06

Power

Legend

- Ground
- Power
- LED
- Internal Pin
- SWD Pin
- Digital Pin
- Analog Pin
- Other Pin
- Microcontroller's Port
- Default

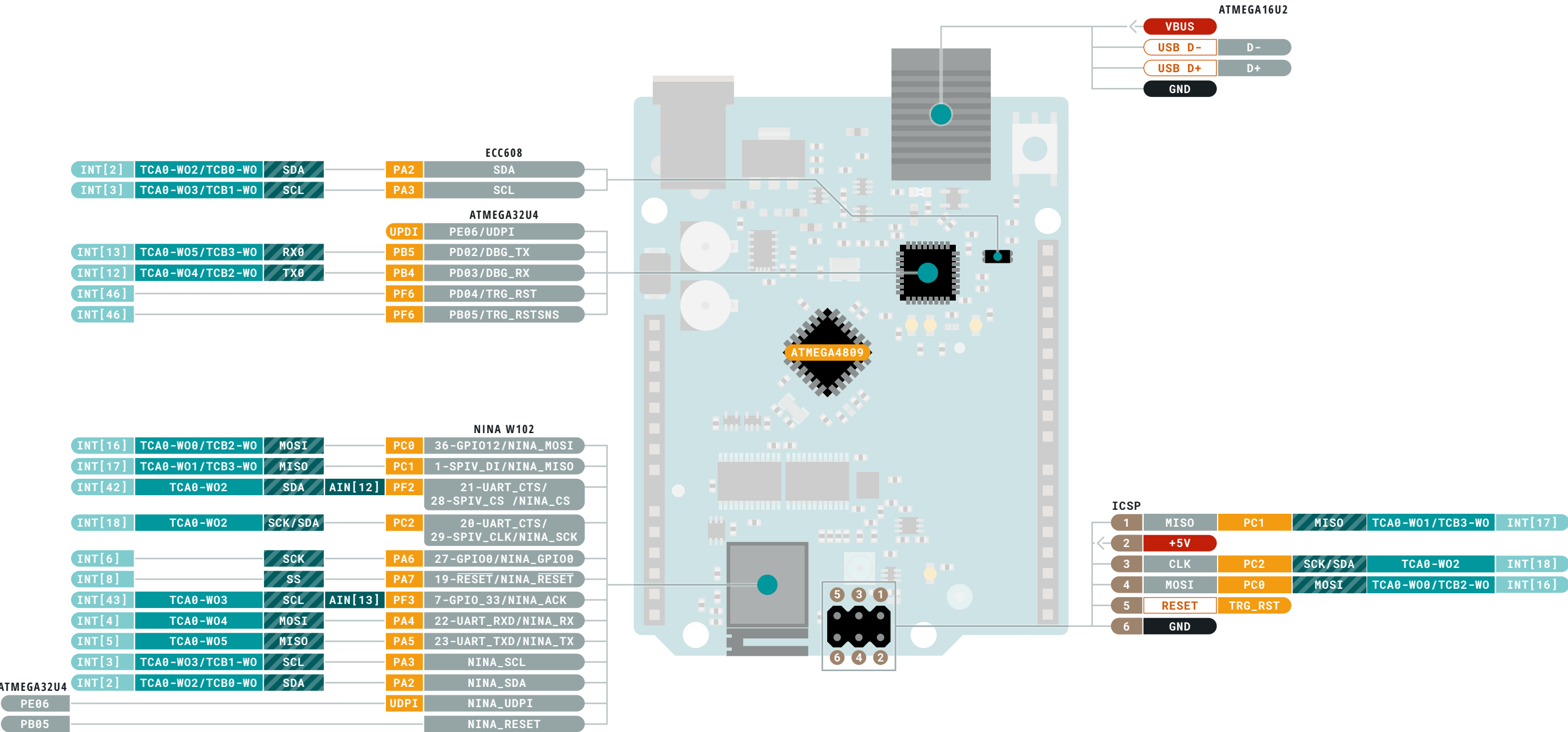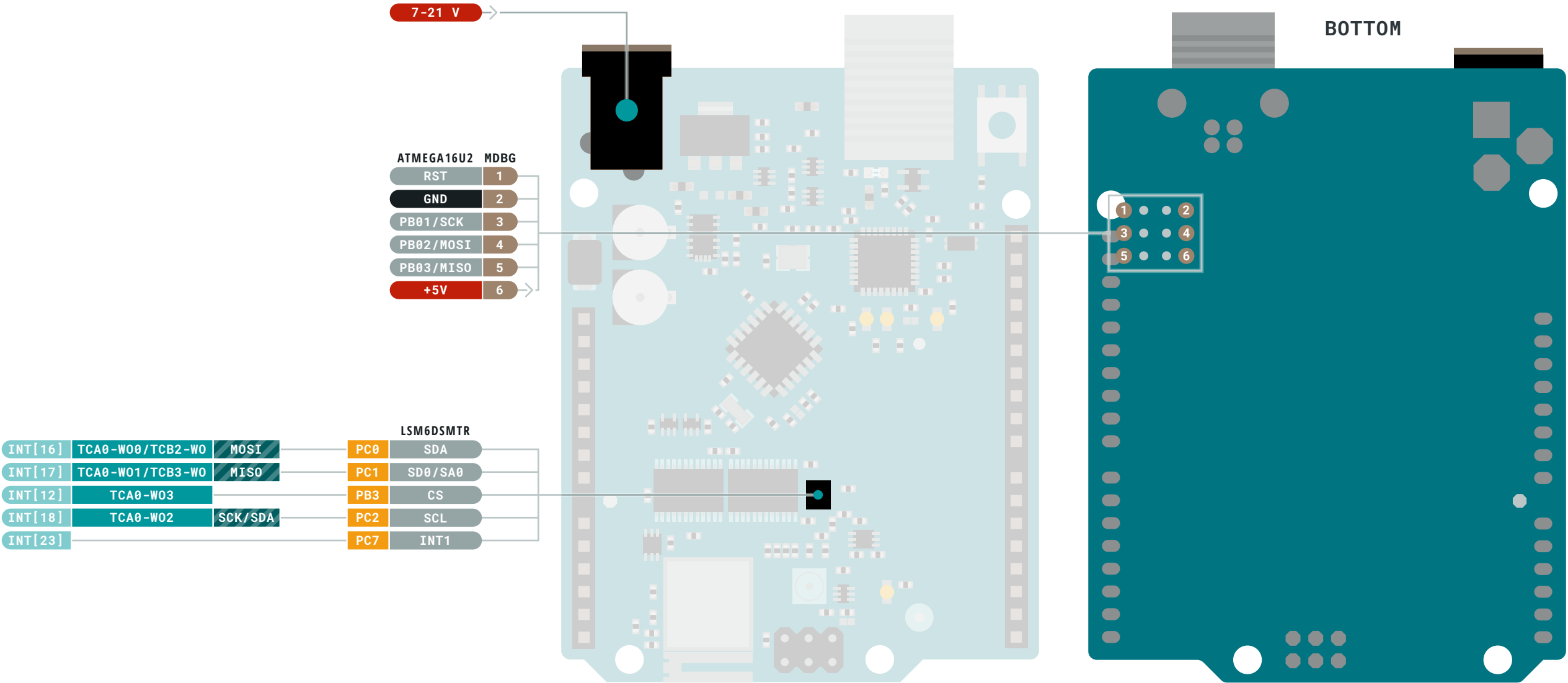⚠ **MAXIMUM** current per pin 40mA, 20mA recommended

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VIN 7-12 V input to the board.

Last update: 23/03/2020

				D19/SCL	PA3	SCL	I2C	TCA0-WO3/TCB1-WO	INT[3]
				D18/SCA	PA2	SDA		TCA0-WO2/TCB0-WO	INT[2]
				AREF	PD7	VREFA/AIN[7]			INT[31]
				GND					
				D13	PE2	AIN[10]	SCK	TCA0-WO2	INT[34]
				D12	PE1	AIN[9]	MISO	TCA0-WO1	INT[33]
				D11	PE0	AIN[8]	MOSI	TCA0-WO0	INT[32]
				~D10	PB1			TCA0-WO1	INT[10]
INT[22]		PC6	RESET	~D9	PB0			TCA0-WO0	INT[9]
			+3V3	D8	PE3	AIN[11]	SS	TCA0-WO3	INT[35]
			+5V						
			GND	D7	PA1			TCA0-WO1	INT[1]
			GND	~D6	PF4	AIN[14]		TCA0-WO4/TCB0-WO	INT[44]
			VIN	~D5	PB2			TCA0-WO2	INT[11]
				D4	PC6				INT[22]
INT[24]	TCA0-WO0	AIN[0]	AIN[0]	PD0	A0	D14	~D3	PF5	AIN[15]	TCA0-WO5/TCB1-WO	INT[45]
INT[25]	TCA0-WO1	AIN[1]	AIN[1]	PD1	A1	D15	D2	PA0		TCA0-WO0	INT[0]
INT[26]	TCA0-WO2	AIN[2]	AIN[2]	PD2	A2	D16	D1/TX	PC4	TX1	UART	TCA0-WO4	INT[20]
INT[27]	TCA0-WO3	AIN[3]	AIN[3]	PD3	A3	D17	D0/RX	PC5	RX1		TCA0-WO5	INT[21]
INT[28]	TCA0-WO4	AIN[4]	AIN[4]	PD4	A4	D18
INT[29]	TCA0-WO5	AIN[5]	AIN[5]	PD5	A5	D19

NC
IOREF

LED_BUILTIN — PD06

ATMEGA32U4

Controlled by NINA — RGB LED

TX LED — PD07

RX LED — PD06

Power

Legend
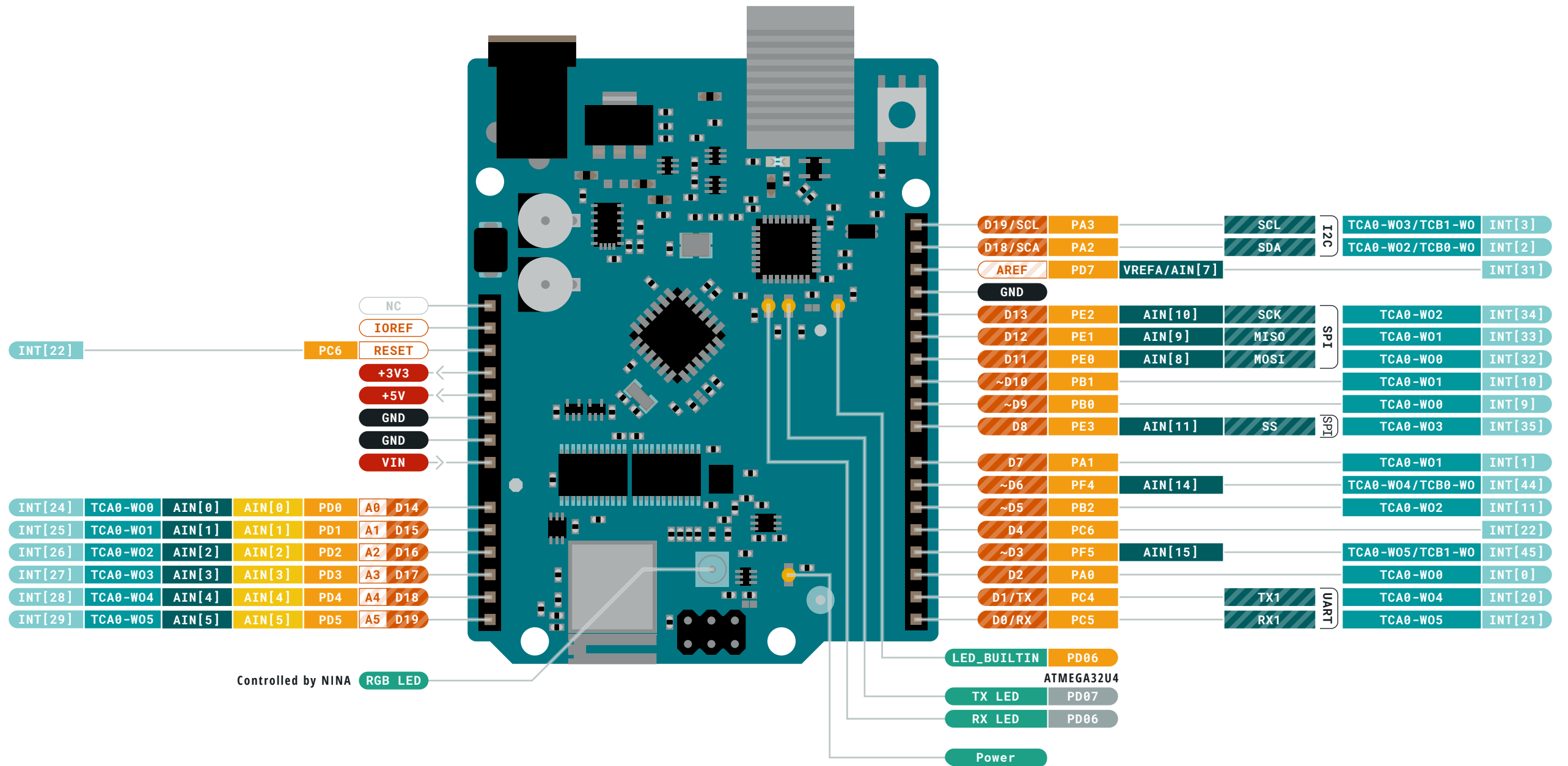
■	Ground	▨	Digital Pin	■	Analog	
■	Power	▢	Analog Pin	▨	Communication	
■	LED	▢	Other Pin	■	Timer	
■	Internal Pin	■	Microcontroller's Port	■	Interrupt	
■	SWD Pin	■	Default	▢	Sercom	

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VIN 7-12 V input to the board.

ARDUINO

ATMEGA16U2

VBUS	
USB D-	D-
USB D+	D+
GND	

ECC608

| INT[2] | TCA0-WO2/TCB0-WO | SDA | PA2 | SDA |
| INT[3] | TCA0-WO3/TCB1-WO | SCL | PA3 | SCL |

ATMEGA32U4

		UPDI	PE06/UDPI
INT[13]	TCA0-WO5/TCB3-WO	RX0	PB5	PD02/DBG_TX
INT[12]	TCA0-WO4/TCB2-WO	TX0	PB4	PD03/DBG_RX
INT[46]			PF6	PD04/TRG_RST
INT[46]			PF6	PB05/TRG_RSTSNS

ATMEGA4809

NINA W102

INT[16]	TCA0-WO0/TCB2-WO	MOSI		PC0	36-GPIO12/NINA_MOSI
INT[17]	TCA0-WO1/TCB3-WO	MISO		PC1	1-SPIV_DI/NINA_MISO
INT[42]	TCA0-WO2	SDA	AIN[12]	PF2	21-UART_CTS/ 28-SPIV_CS /NINA_CS
INT[18]	TCA0-WO2	SCK/SDA		PC2	20-UART_CTS/ 29-SPIV_CLK/NINA_SCK
INT[6]		SCK		PA6	27-GPIO0/NINA_GPIO0
INT[8]		SS		PA7	19-RESET/NINA_RESET
INT[43]	TCA0-WO3	SCL	AIN[13]	PF3	7-GPIO_33/NINA_ACK
INT[4]	TCA0-WO4	MOSI		PA4	22-UART_RXD/NINA_RX
INT[5]	TCA0-WO5	MISO		PA5	23-UART_TXD/NINA_TX
INT[3]	TCA0-WO3/TCB1-WO	SCL		PA3	NINA_SCL
INT[2]	TCA0-WO2/TCB0-WO	SDA		PA2	NINA_SDA

ATMEGA32U4

| PE06 | | | UDPI | NINA_UDPI |
| PB05 | | | | NINA_RESET |

ICSP

1	MISO	PC1	MISO	TCA0-WO1/TCB3-WO	INT[17]
2	+5V				
3	CLK	PC2	SCK/SDA	TCA0-WO2	INT[18]
4	MOSI	PC0	MOSI	TCA0-WO0/TCB2-WO	INT[16]
5	RESET	TRG_RST			
6	GND				

Ground
Power
LED
Internal Pin
SWD Pin

Digital Pin
Analog Pin
Other Pin
Microcontroller's Port
Default

Analog
Communication
Timer
Interrupt
Sercom

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VIN 7-12 V input to the board.

7-21 V

BOTTOM

ATMEGA16U2 MDBG

RST	1
GND	2
PB01/SCK	3
PB02/MOSI	4
PB03/MISO	5
+5V	6

LSM6DSMTR

INT[16]	TCA0-WO0/TCB2-WO	MOSI		PC0	SDA
INT[17]	TCA0-WO1/TCB3-WO	MISO		PC1	SD0/SA0
INT[12]	TCA0-WO3			PB3	CS
INT[18]	TCA0-WO2	SCK/SDA		PC2	SCL
INT[23]				PC7	INT1

Legend

- ■ Ground
- ■ Power
- ■ LED
- ■ Internal Pin
- ■ SWD Pin
- ▨ Digital Pin
- ▨ Analog Pin
- ▢ Other Pin
- ■ Microcontroller's Port
- ■ Default
- ■ Analog
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- ■ Timer
- ■ Interrupt
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