

## Yellow pin mappings

Nucleo Pin #	STM32 Pin #	Pin Name	Function	Description
CN7-1	51	PC10	SPI3_SCK	SPI SCK
CN7-2	52	PC11	SPI3_MISO	SPI MISO
CN7-3	53	PC12	SPI3_MOSI	SPI MOSI
CN7-4	54	PD2	PD2	SPI CS XM (IMU)
CN7-5	19	VDD		
CN7-6		ESV		
CN7-7	60	BOOT0		
CN7-8		GND		
CN7-9		NC		
CN7-10		NC		
CN7-11		NC		
CN7-12		IOREF		
CN7-13	46	PA13		SWDIO-JTMS
CN7-14	7	RESET		
CN7-15	49	PA14		SWCLK-JTCK
CN7-16		3V3		
CN7-17	50	PA15	PA15	SPI CS G (IMU)
CN7-18		5V		
CN7-19		GND		
CN7-20		GND		
CN7-21	59	PB7	TIM4_CH2	Encoder B Left
CN7-22		GND		
CN7-23	2	PC13	PC13	Button
CN7-24		VIN		
CN7-25	3	PC14	PC14	Switch 0
CN7-26		NC		
CN7-27	4	PC15	PC15	Switch 1
CN7-28	14	PA0	UART4_TX	Lidar TX
CN7-29	5	PH0		
CN7-30	15	PA1	UART4_RX	Lidar RX
CN7-31	6	PH1	PH1	Multiplexer 1
CN7-32	20	PA4		
CN7-33	1	VBAT		
CN7-34	26	PB0		
CN7-35	10	PC2	PC2	Multiplexer 2
CN7-36	9	PC1	PC1	Enable IR Sensors
CN7-37	11	PC3	PC3	Multiplexer 3
CN7-38	8	PC0	PC0	LED 4
CN10-1	40	PC9	PC9	LED 5
CN10-2	39	PC8	PC8	LED 0
CN10-3	61	PB8		
CN10-4	37	PC6	PC6	LED 1
CN10-5	62	PB9		
CN10-6	25	PC5	UART3_RX	WLAN RX
CN10-7	13	AVDD		
CN10-8		U5V		
CN10-9		GND		
CN10-10		NC		
CN10-11	21	PA5	PA5	LED
CN10-12	45	PA12	CAN1_TX	CAN TX
CN10-13	22	PA6	TIM3_CH1	Encoder A Right
CN10-14	44	PA11	CAN1_RX	CAN RX
CN10-15	23	PA7	PA7	LED 3
CN10-16	33	PB12	PB12	LED 2
CN10-17	58	PB6	TIM4_CH1	Encoder A Left
CN10-18		NC		
CN10-19	38	PC7	TIM3_CH2	Encoder B Right
CN10-20		GND		
CN10-21	42	PA9	TIM1_CH2	PWM Motor Right
CN10-22	28	PB2	PB2	Enable Motor Driver
CN10-23	41	PA8	TIM1_CH1	PWM Motor Left
CN10-24	27	PB1	ADC12_IN9	Analog In (IR Sensor)
CN10-25	29	PB10	UART3_TX	WLAN TX
CN10-26	36	PB15	PB15	Motor Driver Warning
CN10-27	56	PB4	PB4	WLAN Modes1
CN10-28	35	PB14	PB14	Motor Driver Fault
CN10-29	57	PB5	PB5	WLAN Modes2
CN10-30	34	PB13		
CN10-31	55	PB3	PB3	WLAN Reset
CN10-32		AGND		
CN10-33	43	PA10	TIM1_CH3	Lidar PWM
CN10-34	24	PC4		
CN10-35	16	PA2	UART2_TX	ST Link Serial Port
CN10-36		NC		
CN10-37	17	PA3	UART2_RX	ST Link Serial Port
CN10-38		NC		