

CN7 Odd Pins							CN7 Even Pins						
Harness	Assignment	Com	Tim	ADC	Pin	Name	Name	Pin	ADC	Tim	Com	Assignment	Harness
		TX_3			1	PC10	PC11	2			RX_3		
					3	PC12	PD2	4					
					5	VDD	E5V	6					
					7	BOOT0	GND	8					
					9	-	-	10					
					11	-	IOREF	12					
	SWD				13	PA13	RESET	14					
	SWD				15	PA14	+3.3V	16					
			2.1		17	PA15	+5V	18					
		SDA_1/RX_1	4.2		19	GND	GND	20					
					21	PB7	GND	22					
					23	PC13	VIN	24					
	RTC				25	PC14	-	26					
	RTC				27	PC15	PA0	28	5	2.1/5.1			
					29	PH0	PA1	30	6	2.2/5.2			
					31	PH1	PA4	32	9				
					33	VBAT	PB0	34	15	3.3			
					3	PC2	PC1	36	2		SDA_3		
					4	PC3	PC0	38	1		SCL_3		

Legend
Reserved
Power
Analog
I2C/UART
Timer
GPIO
Unused

CN10 Odd Pins							CN10 Even Pins						
Harness	Assignment	Com	Tim	ADC	Pin	Name	Name	Pin	ADC	Tim	Com	Assignment	Harness
			3.4/8.4		1	PC9	PC8	2		3.3/8.3			
		SCL_1	4.3		3	PB8	PC6	4		3.1/8.1			
		SDA_1	4.4		5	PB9	PC5	6	14		RX_3		
					7	AVDD	U5V	8					
					9	GND	-	10					
			2.1	10	11	PA5	PA12	12				USB	
			3.1	11	13	PA6	PA11	14		1.4		USB	
			3.2	12	15	PA7	PB12	16					
		SCL_1/TX_1	4.1		17	PB6	PB11	18		2.4	SDA_2/RX_3		
			3.2/8.2		19	PC7	GND	20					
		RX_1	1.2		21	PA9	PB2	22					
					23	PA8	PB1	24	16	3.4			
		SCL_2/TX_3	2.3		25	PB10	PB15	26					
					27	PB4	PB14	28			SDA_2		
					29	PB5	PB13	30			SCL_2		
			2.2		31	PB3	AGND	32					
		TX_1	1.3		33	PA10	PC4	34	13		TX_3		
	STLINK_UART	TX_2	2.3/5.3	7	35	PA2	-	36					
	STLINK_UART	RX_2	2.4/5.4	8	37	PA3	-	38					

IR_ODD Harness				
IR Pins	MCU Pin		Nucleo Pin	Color
GND	GND		Blk	
VCC	+3.3V		Red	
ODD	IR_ODD			
1	IR_1 (ADC6)			
3	IR_3 (ADC9)			
5	IR_5 (ADC15)			
7	IR_7 (ADC3)			
9	IR_9 (ADC2)			
11	IR_11 (ADC4)			
13	IR_13 (ADC1)			

IR_EVN Harness				
IR Pins	MCU Pin		Nucleo Pin	Color
EVN	IR_EVN			
2	IR_2 (ADC14)	Blk	Blk	Blue
4	IR_4 (ADC10)	Blk	Blk	Blue
6	IR_6 (ADC11)	Blk	Blk	Blue
8	IR_8 (ADC12)	Blk	Blk	Blue
10	IR_10 (ADC16)	Blk	Blk	Blue
12	IR_12 (ADC13)	Blk	Blk	Blue

Legend
Reserved
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PDB Harness				
PDB Pins	MCU Pin		Nucleo Pin	Color
VSW/GND	BTRY_MON (ADC5)	Blk	Blk	Blue
VSW	VIN	Blk	Blk	Red
GND	GND	Blk	Blk	Blk

IMU Harness				
IMU Pins	MCU Pin		Nucleo Pin	Color
Vin	AVDD		Blk	Red
3vo	NC			
GND	GND		Blk	Blk
SDA	SDA_1	Blk	Blk	Green
SCL	SCL_1	Blk	Blk	Green
RST	NC			

BT Harness				
BT Pins	MCU Pin		Nucleo Pin	Color
EN	NC			
VDD	E5V	Blk	Blk	Red
GND	GND	Blk	Blk	Blk
TX	RX_3	Blk	Blk	Green
RX	TX_3	Blk	Blk	Green
STATE	NC			

MOT_L Harness				
MOT Pins	MCU Pin		Nucleo Pin	Color
PWM	PWM_L (8.2)	Blk	Blk	Red
DIR	DIR_L	Blk	Blk	Grey
nSLP	EN_L	Blk	Blk	Grey

BUMP_L Harness				
BUMP_L Pins	MCU Pin		Nucleo Pin	Color
GND	AGND		Blk	Blk
BMP5	BUMP_1_L	Blk	Blk	Grey
BMP4	BUMP_2_L	Blk	Blk	Grey
BMP3	BUMP_3_L	Blk	Blk	Grey

MOT_R Harness				
MOT Pins	MCU Pin		Nucleo Pin	Color
PWM	PWM_R (8.1)	Blk	Blk	Red
DIR	DIR_R	Blk	Blk	Grey
nSLP	EN_R	Blk	Blk	Grey

BUMP_R Harness				
BUMP_R Pins	MCU Pin		Nucleo Pin	Color
GND	GND		Blk	Blk
BMP0	BUMP_1_R	Blk	Blk	Grey
BMP1	BUMP_2_R	Blk	Blk	Grey
BMP2	BUMP_3_R	Blk	Blk	Grey

ENC_R Harness				
ENC_R Pins	MCU Pin		Nucleo Pin	Color
ERA	ENC_A_R (3.2)	Blk	Blk	Yellow
ERB	ENC_B_R (3.1)	Blk	Blk	Yellow

ENC_L Harness				
ENC_L Pins	MCU Pin		Nucleo Pin	Color
ELA	ENC_A_L (1.2)	Blk	Blk	Yellow
ELB	ENC_B_L (1.1)	Blk	Blk	Yellow