## NUCLEO-G431KB

PA9 1 D1 PA10 2 D0 VIN 1 VIN GND 2 GND NRST 3 NRST NRST 3 NRST GND 4 GND PA12 5 D2 +5V 4 +5V A7 5 PA2 PB0 6 D3 A6 6 PA7 PB7 7 D4 A5 7 PA6/PA15 A4 8 PA5/PB7 A3 9 PA4 PA15 8 D5 PB6 9 **D6** PF0 10 D7 A2 10 PA3 PF1 11 D8 A1 11 PA1 PA8 12 D9 A0 12 PA0 PA11 13 D10 AREF 13 AVDD PB5 14 D11 PB4 15 D12 +3V3 14 +3v3 D13 15 PB3/PB8 CN4 CN3

					Périphériques externes						Usage possible de ces ports pour chaque périphérique interne							
	Pir	Commentai	res Mes ports dans mon projets	Suggestion d'usage pour vos projets	SD shield CD 2*16 matrici Motor					Tolerant								
	200		men project		30	sensors		ما	MOTOL	5V	T1 CH2:		SPI		ADC	CAN	IT ext.	
CN4 (roté droit)	PAS			UART1 TX		D1		IN1		1	T2_CH3; T15_BKIN T17_BKIN;	UART1_TX		I2C2_SCL; I2C3_SMBA				DAC1_EXTI9; DAC3_EXTI9; I2S3_MCK; SAI1_FS_A; UCPD1_DBCC1; GPI0_EXTI9; EVENTOUT
	PA1			UART1 RX		D0		IN2		1	T1_CH3; T2_CH4; T8_BKIN	UART1_RX	SPI2_MISO	I2C2_SMBA				CRS_SYNC; DAC1_EXTI10; DAC3_EXTI10; SAI1_D1; SAI1_SD_A; UCPD1_DBCC2; EVENTOUT
	NRS GNI																	
	PA1			T4CH2				IN3		1	T16_CH1; T1_CH2N; T1_ETR; T4_CH2	UART1_DE; UART1_RTS				FD_CAN1_TX		COMP1_OUT; I2S_CKIN; USB_DP, GPIO_IN/OUT/ANALOG; EVENTOUT; GPIO_EXTI12
	РВС			тзснз		А3		IN4		0	T1_CH2N ; T3_CH3 ; T8_CH2N				ADC1_IN15			OPAMP2 VINP SEC; OPAMP3 VINP; OPAMP3 VINP SEC; OPAMP3 VINP; OPAMP3 VINP SEC; UCPD1 FRSTX1; UCPD1 FRSTX2; GPIO IN/OUT/ANALOG; EVENTOLIT · GPIO EXTIO
	PB7	relié à PA5 ! (sauf en retirant !		I2C1 SDA		SDA D14		OU1		1	T3_CH4; T17_CH1N; T4_CH2; T8_BKIN	UART1_RX		I2C1_SDA				COMP3_OUT; LPTIM1_IN2; SYS_PVD_IN; GPIO_IN/OUT/ANALOG; EVENTOUT; GPIO_EXTI7
		relié à PA6 ! (sauf en retirant !		I2C1 SCL		SCL D15		OUT2		1	T1_BKIN; T2_CH1; T2_ETR; T8_CH1	UART2_RX	SPI1_NSS; SPI3_NSS	I2C1_SCL	ADC1_EXTI15; ADC2_EXTI15			I2S3_WS; SYS_JTDI; EVENTOUT
	O PR	i		T4CH1		PWM CS D10				1	T4_CH1; T16_CH1N; T8_CH1; T8_ETR	UART1_TX						COMP4_OUT; LPTIM1_ETR; SAI1_FS_B; UCPD1_CC1; EVENTOUT
	PFC	non dispo (sauf si SB8 mais SB9 ni SB13)	pas							1	T1_CH3N		SPI2_NSS	I2C2_SDA	ADC1_IN10			I2S2_WS ; RCC_OSC_IN (que si pas SB8 et SB13 mais SB9) ; EVENTOUT
	PF1	non dispo (sauf si SB11 et SB10)	pas							1			SPI2_SCK		ADC2_IN10			COMP3_INM; I2S2_CK; RCC_OSC_OUT (que si pas SB11 mais SB10); EVENTOUT
	PAS	1		TFT DC (=WR)						1	T1_CH1; T4_ETR	UART1_CK		I2C2_SDA ; I2C3_SCL				I2S2_MCK; RCC_MCO; SAI1_CK2; SAI1_SCK_A; EVENTOUT
	PA1	1		TFT CS tactile						1	T1_BKIN2; T1_CH1N; T1_CH4; T4_CH1	UART1_CTS; UART1_NSS	SPI2_MOSI		ADC1_EXTI11; ADC2_EXTI11	FD_CAN1_RX		COMP1_OUT; USB_DM; EVENTOUT
	PB5	<b>.</b>		TFT IRQ tactile						1	T16_BKIN; T17_CH1; T3_CH2; T8_CH3N	UART2_CK	SPI1_MOSI; SPI3_MOSI	I2C1_SMBA; I2C3_SDA				I2S3_SD; LPTIM1_IN1; SAI1_SD_B; EVENTOUT
	PB4			T3CH1		D5				1	T16_CH1; T17_BKIN; T3_CH1; T8_CH2N	UART2_RX	SPI1_MISO; SPI3_MISO					SAI1_MCLK_B; SYS_JTRST; UCPD1_CC2; EVENTOUT
CN3 (coté gauche)	VIN										-							
	GNI																	
	5V																	
	PAZ			UART2 TX (Debug)						o	T15_CH1; T2_CH3	UART2_TX; LPUART1_TX			ADC1_IN3			COMP2 INM; COMP2_OUT; OPAMP1 VOUT; RCC_LSCO; SYS_WKUP4 ; UCPD1_FRSTX1; UCPD1_FRSTX2; EVENTOUT
	PA	T1CH1N		TFT MOSI		MOSI D11				0	T17_CH1; T1_CH1N; T3_CH2; T8_CH1N		SPI1_MOSI		ADC2_IN4			OPAMP1 VIÑP; OPAMP1 VINP SEC; OPAMP2_VINP; OPAMP2_VINP_SEC; UCPD1_FRSTX1; UCPD1_FRSTX2;
		relié à PA15 (sauf en retirant :		TFT MISO		MISO D12				0	T16_CH1; T1_BKIN; T3_CH1; T8_BKIN	LPUART1_CTS	SPI1_MISO		ADC2_IN3			COMP1_OUT; OPAMP2_VOUT; EVENTOUT
		relié à PB7 ! (sauf en retirant :		TFT SCK		SCK D13				0	T2_CH1 ; T2_ETR		SPI1_SCK		ADC2_IN13			COMP2 INM; DAC1_OUT2; OPAMP2_VINM; OPAMP2_VINM0; OPAMP2_VINM_SEC; UCPD1_FRSTX1; UCPD1_FRSTX2; EVENTOUT
		T3CH2		TFT CS						0	T3_CH2	UART2_CK	SPI1_NSS; SPI3_NSS		ADC2_IN17			COMP1_INM; DAC1_OUT1; I2S3_WS; SAI1_FS_B; EVENTOUT
	PAS	non dispo (sauf si SB14		UART2 RX (Debug)						0	T15_CH2; T2_CH4	UART2_RX; LPUART1_RX			ADC1_IN4			COMP2_INP; OPAMP1_VINM; OPAMP1_VINM0; OPAMP1 VINM_SEC; OPAMP1_VINP; OPAMP1_VINP_SEC; SAI1_CK1; SAI1_MCLK_A; EVENTOUT
	PAI			ADC2CH2 ou T2CH2		A1		ОИТЗ		0	T15_CH1N ; T2_CH2	UART2_DE ; UART2_RTS			ADC2_IN2 ; ADC1_IN2			COMP1_INP; OPAMP1_VINP; OPAMP1_VINP_SEC; OPAMP3_VINP; OPAMP3_VINP_SEC; RTC_REFIN; EVENTOUT
	PAC			ADC2CH1 ou T2CH1		A0		OUT4		0	T2_CH1; T2_ETR; T8_BKIN; T8_ETR	UART2_CTS ; UART2_NSS			ADC2_IN1; ADC1_IN1			COMP1_INM; COMP1_OUT; COMP3_INP; RTC_TAMP2; SYS_WKUP1; EVENTOUT
	AVD																	
	3V3										T2_CH2 ;							
	PB3			TFT RST						1	T3_ETR; T4_ETR; T8_CH1N	UART2_TX	SPI1_SCK; SPI3_SCK					CRS_SYNC; I2S3_CK; SAI1_SCK_B; SYS_JTDO-SWO; EVENTOUT
	PB8	(non dispo)		LED Verte Nucleo														