

## "Black" STM32F4VET6 Board Pinouts

Ver 3.0 – 14 May 2017 - RP

### Outside - Row "U" - LEFT J2 Connector (USB side) - Row "V" – Inside

Special + USB	I2C	SPI	Serial	Analog	Timer PWM	Defined Fn / Special	Arduino Pin	Port	5v Tolerant	Header Row	5v Tolerant	Port	Arduino Pin	Defined Fn / Special	Timer PWM	Analog	Serial	SPI	I2C	Special + USB
								5V		1		5v								
								5V		2		5v								
								3.3v		3		3.3v								
								3.3v		4		3.3v								
								GND		5		GND								
							64	PE2	0	6	0	PE3	65							
							66	PE4	0	7	0	PE5	67		9.1					
							68	PE6	0	8	0	PC13	45							
				A10			32	PC0	0	9	0	PC1	33			A11				
		MISO2		A12			34	PC2	0	10	0	PC3	35			A13		MOSI2		
								VR-		11		VR+								
			TX4	A0	5.1		0	PA0	0	12	0	PA1	1		2.2	A1	RX4			
			TX2	A2	2.3		2	PA2	0	13	0	PA3	3		9.2, 2.4	A3	RX2			
		NSS1		A4, O1			4	PA4	0	14	0	PA5	5		2.1	A5, O2		SCK1		
		MISO1		A6	3.1, 3.1, 1.B	LED1	6	PA6	0	15	0	PA7	7	LED2	8.1N, 3.2	A7		MOSI1		
				A14			36	PC4	0	16	0	PC5	37			A15				
F_CS				A8	3.8, 8.2		16	PB0	0	17	0	PB1	17		3.4, 8.1N	A9				
					1.ET		69	PE7	0	18	0	PE8	70		1.1N					
					1.1		71	PE9	0	19	0	PE10	72		1.2N					
					1.2		73	PE11	0	20	0	PE12	74		1.3N					
					1.3		75	PE13	0	21	0	PE14	76		1.4					
					1.BK		77	PE15	0	22	0	PB10	26		2.3		TX3	SCK2	SCL2	
	SDA2		RX3		2.4		27	PB11	0	23	0	PB12	28		1.BK		CK3	NSS2	SMBA2	
IS_VBUS		SCK2	CTS 3		1.1N		29	PB13	0	24	0	PB14	30	SPI3_CS _FLASH	1.2N, 12.1		RTS3	MISO2		

### Inside - Row "S" – RIGHT J3 Connector SD Card side Row "T" – Outside

Special + USB	I2C	SPI	Serial	Analog	Timer PWM	Special	Arduino Pin	Port	5v Tolerant	Header Row	5v Tolerant	Port	Arduino Pin	Special	Timer PWM	Analog	Serial	SPI	I2C	Special + USB
								3.3v		1		3.3v								
								3.3v		2		3.3v								
								BT 0		3		PB2		BT1						Link to 3.3v/Gnd (default)
								GND		4		GND								
								GND		5		GND								
							63	PE1	0	6	0	PE0	64		4.ET					
	SDA1	NSS2			4.4		25	PB9	0	7	0	PB8	24		4.3, 10.1				SCL1	
	SDA1		RX1		4.2		23	PB7	0	8	0	PB6	22		4.1		TX1		SCL1	
	SDA3, SMBA1	MOSI1, MOSI3					21	PB5	0	9	0	PB3	19	JTDO	2.2			SCK1, SCK3		
			CK2				53	PD7	0	10	0	PD6	52					RX2		
			TX2				51	PD5	0	11	0	PD4	50					RTS2		
			CTS 2				49	PD3	0	12	0	PD2	48	SDCMD	3.ET			RX5		
							47	PD1	0	13	0	PD0	46							
	SD3	MOSI3	CK3, TX5			SDDK	44	PC12	0	14	0	PC11	43	SDD3			RX4, RX3	MISO3		
		SCK3	TX4, TX3			SDD2	42	PC10	0	15	0	PA15	41	JTDI	2.1ET			NSS1, NSS3		
FS DP			RTS 1				12	PA12	0	16	0	PA11	11		1.4		CTS1			FS DM
FS SOF	SCL3		RX1		1.3		10	PA10	0	17	0	PA9	9	???	1.2		TX1		SMBA3	FS VB
			CK1		1.1		8	PA8	0	18	0	PC9	41	SDD1	3.4				SDA3	

CK6	8.3	SDD0	40	PC8	19	PC7	39	3.2	RX6
TX6	8.1, 3.1		38	PC6	20	PD15	61	4.4	
	4.3		60	PD14	21	PD13	59	4.2	
RTS 3	4.1		58	PD12	22	PD11	57		CTS3
CK3			56	PD10	23	PD9	55		RX3
TX3			54	PD8	24	PB15	31	1.3N, 8.3N, 12.2	MOSI2

74 Total GPIOs

- 5v tolerant
- 5v tolerant except in ANALOG mode

LEDs

D2 LED	PA6	12
D3 LED	PA7	11

Mapped to Digital Pins (v2)

D8  
D45

Switches

RST NRST - IC Pin 14

WK_UP	PA0	D42
K0	PE3	D38
K1	PE4	D0