1. Description

1.1. Project

Project Name	Wheel Pod STM32F401RCT6
Generated with:	STM32CubeMX 4.5.0
Date	04/10/2015

1.2. MCU

MCU Serie	STM32F4
MCU Line	STM32F401
MCU name	STM32F401RCTx
MCU Package	LQFP64
MCU Pin number	64

2. Pinout Configuration
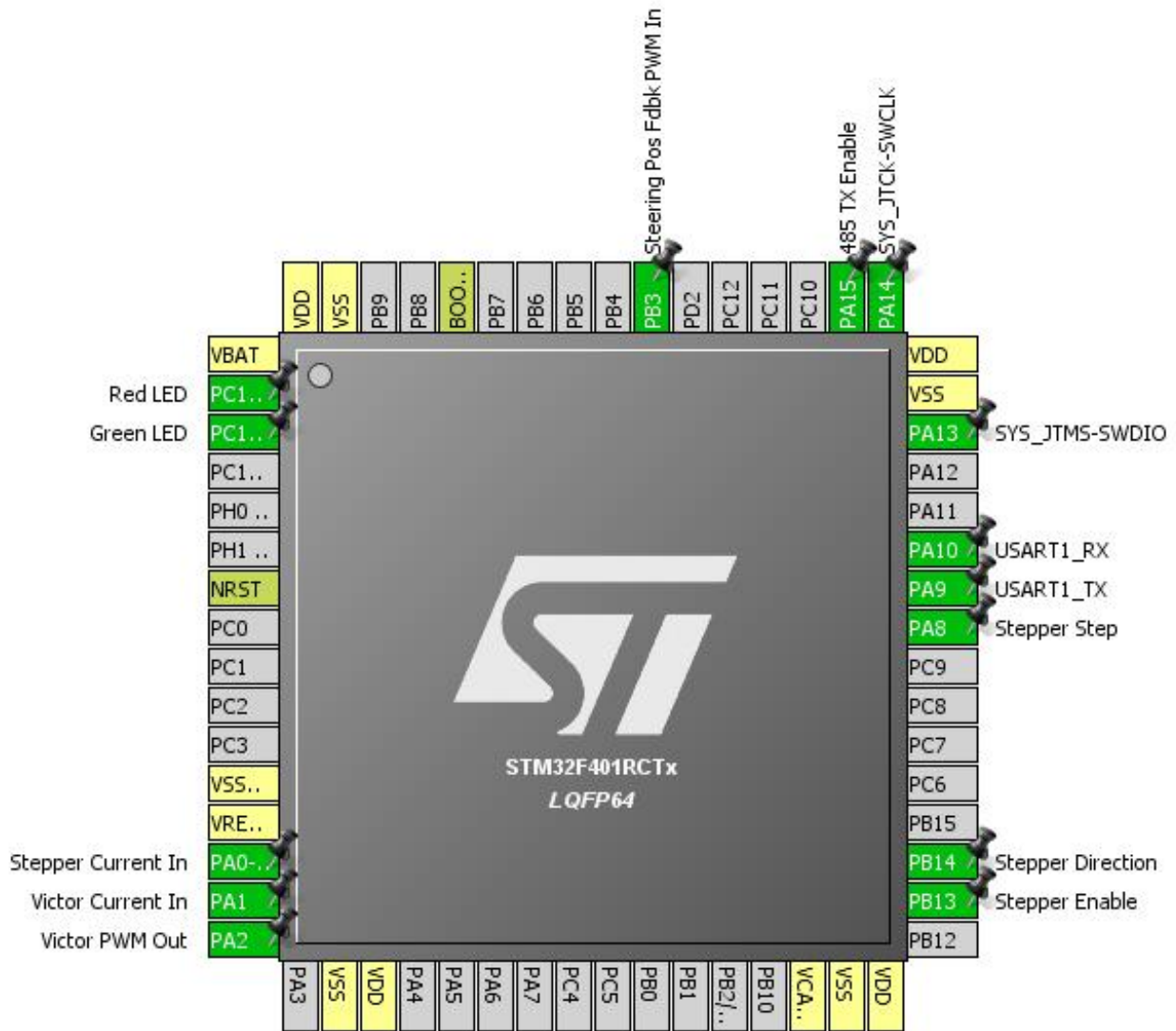
3. IPs and Middlewares Configuration

IP	Mode	Fonction	Pin
ADC1	IN0	ADC1_IN0	PA0-WKUP
	IN1	ADC1_IN1	PA1
SYS	Debug: Serial Wire Debug (SWD)	SYS_JTCK-SWCLK	PA14
		SYS_JTMS-SWDIO	PA13
TIM1	Channel1: PWM Generation CH1	TIM1_CH1	PA8
TIM2	Channel2: Input Capture direct mode	TIM2_CH2	PB3
TIM5	Channel3: PWM Generation CH3	TIM5_CH3	PA2
USART1	Mode: Asynchronous	USART1_RX	PA10
		USART1_TX	PA9

4. Pins Configuration

Pin	Pos	Function(s)	Label
PC13-ANTI_TAMP *	2	GPIO_Output	Red LED
PC14-OSC32_IN *	3	GPIO_Output	Green LED
PA0-WKUP	14	ADC1_IN0	Stepper Current In
PA1	15	ADC1_IN1	Victor Current In
PA2	16	TIM5_CH3	Victor PWM Out
PB13 *	34	GPIO_Output	Stepper Enable
PB14 *	35	GPIO_Output	Stepper Direction
PA8	41	TIM1_CH1	Stepper Step
PA9	42	USART1_TX	
PA10	43	USART1_RX	
PA13	46	SYS_JTMS-SWDIO	
PA14	49	SYS_JTCK-SWCLK	
PA15 *	50	GPIO_Output	485 TX Enable
PB3	55	TIM2_CH2	Steering Pos Fdbk PWM In

 * The pin is affected with an I/O function

5. Power Plugin report

5.1. Microcontroller Selection

Serie	STM32F4
Line	STM32F401
MCU	STM32F401RCTx
Datasheet	024738_Rev4

5.2. Parameter Selection

Temperature	25
Vdd	null