

## ***1. Description***

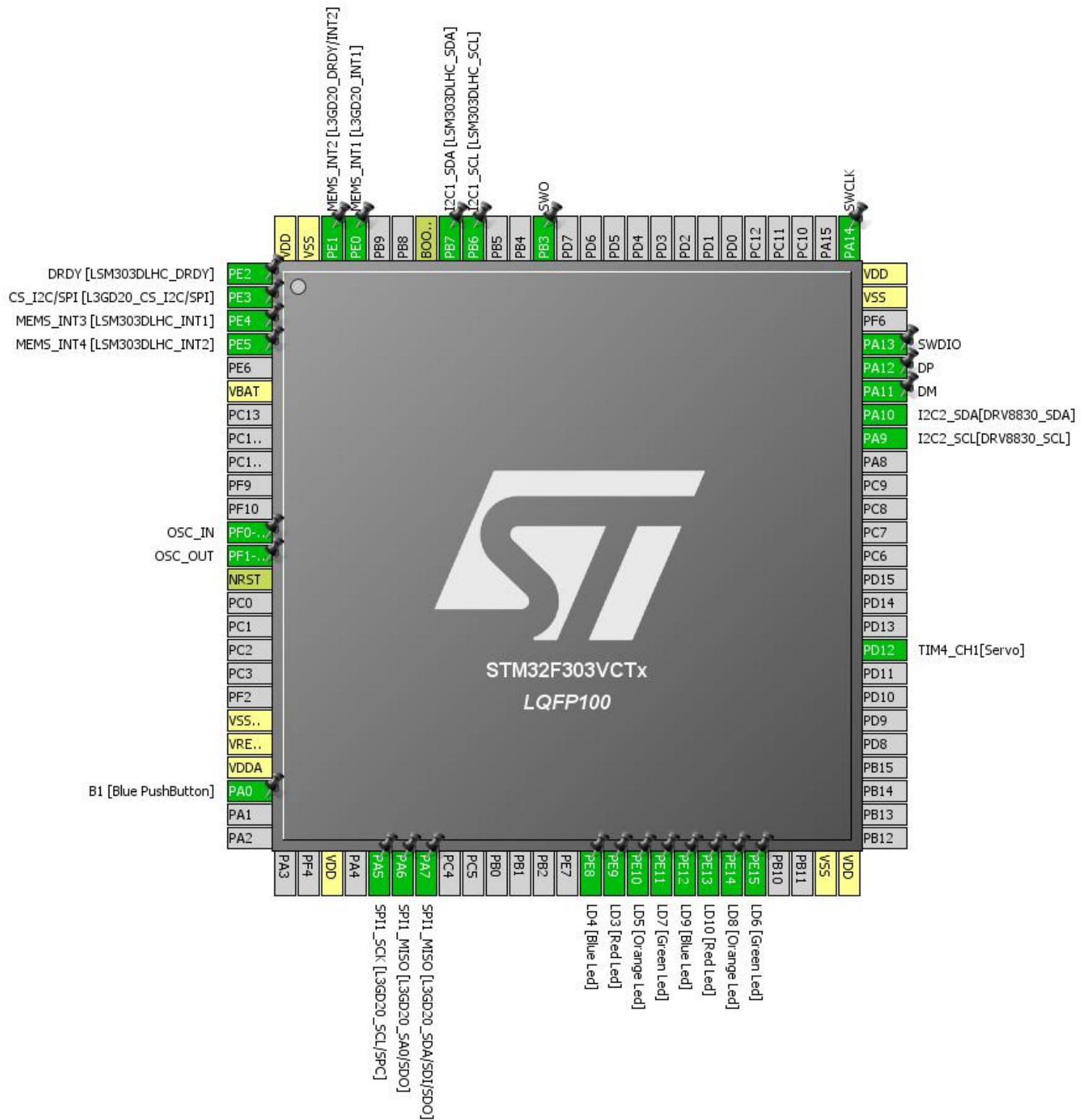
### 1.1. Project

Project Name	LegoArm
Generated with:	STM32CubeMX 4.3.0
Date	07/20/2014

### 1.2. MCU

MCU Serie	STM32F3
MCU Line	STM32F303
MCU name	STM32F303VCTx
MCU Package	LQFP100
MCU Pin number	100

## 2. Pinout Configuration



### 3. IPs and Middlewares Configuration

IP	Mode	Fonction	Pin
I2C1	I2C: I2C	I2C1_SCL	PB6
		I2C1_SDA	PB7
I2C2	I2C: I2C	I2C2_SCL	PA9
		I2C2_SDA	PA10
RCC	High Speed Clock (HSE): Crystal/Ceramic Resonator	RCC_OSC_IN	PF0-OSC_IN
		RCC_OSC_OUT	PF1-OSC_OUT
SPI1	Mode: Full-Duplex Master	SPI1_MISO	PA6
		SPI1_MOSI	PA7
		SPI1_SCK	PA5
SYS	Debug: Trace Asynchronous Sw	SYS_JTCK-SWCLK	PA14
		SYS_JTMS-SWDIO	PA13
		SYS_JTDO-TRACESWO	PB3
TIM3	Clock Source : Internal Clock	N/A	N/A
	Channel1: Output Compare No Output	N/A	N/A
TIM4	Clock Source : Internal Clock	N/A	N/A
	Channel1: PWM Generation CH1	TIM4_CH1	PD12
USB	Device (FS)	USB_DM	PA11
		USB_DP	PA12

MiddleWare	Mode
FREERTOS	Enabled
USB_DEVICE	Class For FS IP: Communication Device Class (Virtual Port Com)

## 4. Pins Configuration

Pin	Pos	Function(s)	Label
PE2	1	GPIO_EXTI2	DRDY [LSM303DLHC_DRDY]
PE3 *	2	GPIO_Output	CS_I2C/SPI [L3GD20_CS_I2C/SPI]
PE4	3	GPIO_EXTI4	MEMS_INT3 [LSM303DLHC_INT1]
PE5	4	GPIO_EXTI5	MEMS_INT4 [LSM303DLHC_INT2]
PF0-OSC_IN	12	RCC_OSC_IN	OSC_IN
PF1-OSC_OUT	13	RCC_OSC_OUT	OSC_OUT
PA0 *	23	GPIO_Input	B1 [Blue PushButton]
PA5	30	SPI1_SCK	SPI1_SCK [L3GD20_SCL/SPC]
PA6	31	SPI1_MISO	SPI1_MISO [L3GD20_SA0/SDO]
PA7	32	SPI1_MOSI	SPI1_MISO [L3GD20_SDA/SDI/SDO]
PE8 *	39	GPIO_Output	LD4 [Blue Led]
PE9 *	40	GPIO_Output	LD3 [Red Led]
PE10 *	41	GPIO_Output	LD5 [Orange Led]
PE11 *	42	GPIO_Output	LD7 [Green Led]
PE12 *	43	GPIO_Output	LD9 [Blue Led]
PE13 *	44	GPIO_Output	LD10 [Red Led]
PE14 *	45	GPIO_Output	LD8 [Orange Led]
PE15 *	46	GPIO_Output	LD6 [Green Led]
PD12	59	TIM4_CH1	TIM4_CH1[Servo]
PA9	68	I2C2_SCL	I2C2_SCL[DRV8830_SCL]
PA10	69	I2C2_SDA	I2C2_SDA[DRV8830_SDA]
PA11	70	USB_DM	DM
PA12	71	USB_DP	DP
PA13	72	SYS_JTMS-SWDIO	SWDIO
PA14	76	SYS_JTCK-SWCLK	SWCLK
PB3	89	SYS_JTDO-TRACESWO	SWO
PB6	92	I2C1_SCL	I2C1_SCL [LSM303DLHC_SCL]
PB7	93	I2C1_SDA	I2C1_SDA [LSM303DLHC_SDA]
PE0	97	GPIO_EXTI0	MEMS_INT1 [L3GD20_INT1]
PE1	98	GPIO_EXTI1	MEMS_INT2 [L3GD20_DRDY/INT2]

\* The pin is affected with an I/O function

## 5. Power Plugin report

### 5.1. Microcontroller Selection

Serie	STM32F3
Line	STM32F303
MCU	STM32F303VCTx
Datasheet	023353_Rev8

### 5.2. Parameter Selection

Temperature	25
Vdd	3.6

### 5.3. Battery Selection

Battery	Not set
Capacity	0.0 mAh
Self discharge	0.0 %/month
Nominal voltage	0.0 V
Max Cont Current	0.0 mA
Max Pulse Current	0.0 mA
Cells in series	1
Cells in parallel	1

## 6. Software Project

### 6.1. Project Settings

Name	Value
Project Name	LegoArm
Project Folder	C:\Users\gama\Documents\STM32CubeMX\LegoArm
Toolchain / IDE	MDK-ARM 4.73
Firmware Package Name and Version	STM32Cube FW_F3 V1.0.0

### 6.2. Code Generation Settings

Name	Value
STM32Cube Firmware Library Package	Copy all used libraries into the project folder
Generate peripheral initialization as a pair of '.c/.h' files	Yes
Backup previously generated files when re-generating	No
Delete previously generated files when not re-generated	Yes
Set all free pins as analog (to optimize the power consumption)	No

### 6.3. Toolchains Settings

Name	Value
Compiler Optimizations	Balanced Size/Speed