1. Description

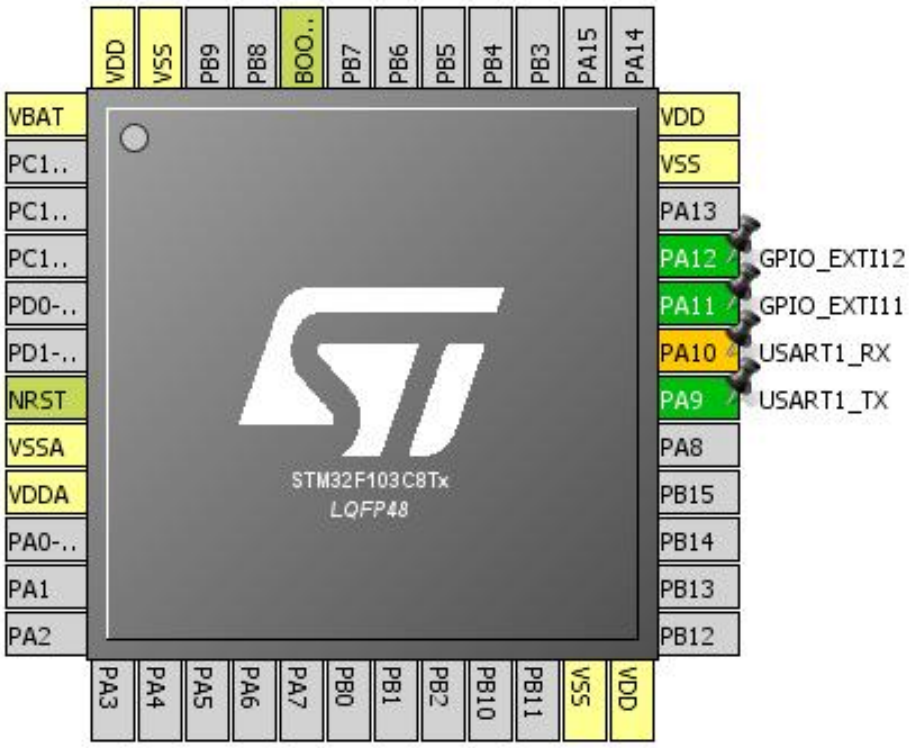
1.1. Project

Project Name	Lab3_Cyclometer
Board Name	Lab3_Cyclometer
Generated with:	STM32CubeMX 4.9.0
Date	05/05/2019

1.2. MCU

MCU Series	STM32F1
MCU Line	STM32F103
MCU name	STM32F103C8Tx
MCU Package	LQFP48
MCU Pin number	48

2. Pinout Configuration



3. Pins Configuration

Pin Number LQFP48	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
1	VBAT	Power		
7	NRST	Reset		
8	VSSA	Power		
9	VDDA	Power		
23	VSS	Power		
24	VDD	Power		
30	PA9	I/O	USART1_TX	
31	PA10 *	I/O	USART1_RX	
32	PA11	I/O	GPIO_EXTI11	
33	PA12	I/O	GPIO_EXTI12	
35	VSS	Power		
36	VDD	Power		
44	BOOT0	Boot		
47	VSS	Power		
48	VDD	Power		

* The pin is affected with a peripheral function but no peripheral mode is activated

4. IPs and Middleware Configuration

4.1. TIM3

mode: Clock Source

Counter Settings:

Prescaler (PSC - 16 bits value)	**7999 ***
Counter Mode	Up
Counter Period (AutoReload Register - 16 bits value)	**999 ***
Internal Clock Division (CKD)	No Division

Trigger Output (TRGO) Parameters:

Master/Slave Mode	Disable (no sync between this TIM (Master) and its Slaves
Trigger Event Selection	Reset (UG bit from TIMx_EGR)

4.2. USART1

Mode: Single Wire (Half-Duplex)

Basic Parameters:

Baud Rate	**9600 ***
Word Length	8 Bits (including Parity)
Parity	None
Stop Bits	1

Advanced Parameters:

Data Direction	Receive and Transmit
Over Sampling	16 Samples

*** User modified value**

5. System Configuration

5.1. GPIO configuration

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
USART1	PA9	USART1_TX	Alternate Function Open Drain	n/a	**High ***	
Single Mapped Signals	PA10	USART1_RX	Input mode	No pull-up and no pull-down	n/a	
GPIO	PA11	GPIO_EXTI11	**External Interrupt Mode with Falling edge trigger detection**	**Pull-up ***	n/a	
	PA12	GPIO_EXTI12	**External Interrupt Mode with Falling edge trigger detection**	**Pull-up ***	n/a	

5.2. DMA configuration

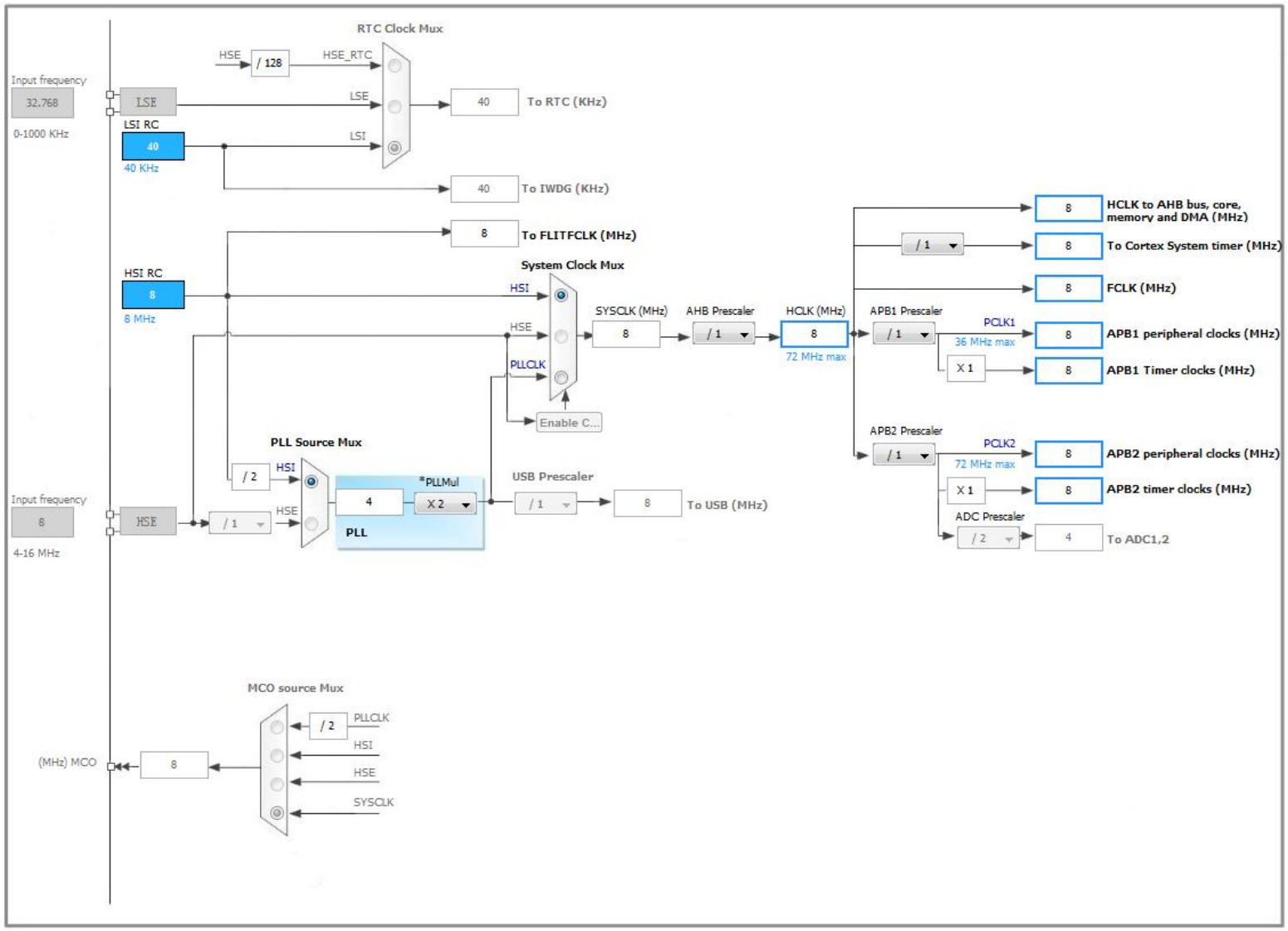
nothing configured in DMA service

5.3. NVIC configuration

Interrupt Table	Enable	Preenmption Priority	SubPriority
Non maskable interrupt	true	0	0
Memory management fault	true	0	0
Prefetch fault, memory access fault	true	0	0
Undefined instruction or illegal state	true	0	0
Debug monitor	true	0	0
System tick timer	true	0	0
PVD interrupt through EXTI line 16	true	0	0
RCC global interrupt	true	0	0
TIM3 global interrupt	true	0	0
USART1 global interrupt	true	0	0
EXTI line[15:10] interrupts	true	0	0

*** User modified value**

6. Clock Tree Configuration



7. Power Plugin report

7.1. Microcontroller Selection

Series	STM32F1
Line	STM32F103
MCU	STM32F103C8Tx
Datasheet	13587_Rev16

7.2. Parameter Selection

Temperature	25
Vdd	3.3

8. Software Project

8.1. Project Settings

Name	Value
Project Name	Lab3_Cyclometer
Project Folder	C:\Users\Jessie\SchoolWork\EmbeddedSystems\Lab3_Cyclometer
Toolchain / IDE	MDK-ARM V5
Firmware Package Name and Version	STM32Cube FW_F1 V1.1.0

8.2. 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	No
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

8.3. Toolchains Settings

Name	Value
Compiler Optimizations	Balanced Size/Speed