```c
/*
* Title: subsystemSetup.c
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* Date: Feb. 3rd, 2020
* Lab: ENEL 387-091
*/

#include "stm32f10x.h"
#include "subSystemSetup.h"

void initAPB2_GPIO(void)
{
        RCC->APB2ENR |= RCC_APB2ENR_IOPAEN;
        RCC->APB2ENR |= RCC_APB2ENR_IOPBEN;
        RCC->APB2ENR |= RCC_APB2ENR_IOPCEN;
}

void initAPB2_AFIO(void)
{
        RCC->APB2ENR |= RCC_APB2ENR_AFIOEN;
}

void initAPB2_TIM1(void)
{
        RCC->APB2ENR |= RCC_APB2ENR_TIM1EN;
}

void init_APB2ADC(void)
{
        RCC->APB2ENR |= RCC_APB2ENR_ADC1EN;
}

void initAPB1_USART(void)
{
        RCC->APB1ENR |= RCC_APB1ENR_USART3EN;
}

//Not finished, should be able to pass port and pin
//and init for that combination
void initEXTI0(void)
{
        RCC->APB2ENR |= RCC_APB2ENR_AFIOEN;
        AFIO->EXTICR[1] &= ~AFIO_EXTICR1_EXTI0;
        EXTI->IMR |= EXTI_IMR_MR0;
        EXTI->FTSR |= EXTI_FTSR_TR0;
        NVIC->ISER[0] |= NVIC_ISER_SETENA_6;
}

void initSysTick(uint32_t countVal)
{
```

```
        SysTick->CTRL = 0x00;
        SysTick->VAL = 0x00;
        SysTick->LOAD = countVal;
        SysTick->CTRL = 0x07;
}
```