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/*
 * Title: clock.c
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 * Date: Jan. 21st, 2020
 * Lab: ENEL 387-091
 */

#include "stm32f10x.h"
#include "clock.h"

void initPLL_24MHz(void)
{
    uint32_t temp = 0x00;

    //PLLMUL X3, PLL clock = PREDIV1, SW = PLL as system clock
    RCC->CFGR |= RCC_CFGR_PLLMULL_0 | RCC_CFGR_PLLSRC | RCC_CFGR_SW_1;

    //Turn on PLL, HSE, HSI
    RCC->CR |= RCC_CR_PLLON | RCC_CR_HSEON | RCC_CR_HSION;

    //Loop until PLLRDY goes high
    while (temp != 0x02000000)
    {
        temp = RCC->CR & 0x02000000;
    }
}

```