

main.c

```

/*
 * Johnny Jung - Lab 1
 *
 */

#include "support_common.h" /* include peripheral declarations and more */
#if (CONSOLE_IO_SUPPORT || ENABLE_UART_SUPPORT)
/* Standard IO is only possible if Console or UART support is enabled. */
#include <stdio.h>
#include "usc_support.h"
#endif

int main(void)
{
    int counter = 0;

    asm{
        // Setup for Switch / LED
        move.l #0x0f,d0
        move.b d0,0x40100074 // 00001111 into PDDPAR (Switch)
        ↳ move.b d0,0x74(A1)
        move.b d0,0x4010002C // 00001111 into DDRDD (Switch)
        ↳ move.b d0,0x2C(A1)
        move.b d0,0x40100027 // 00001111 into DDRTC (LED)
        ↳ move.b d0,0x27(A1)
        move.l #0,d0
        move.b d0,0x4010006F // 00000000 into PTCPAR (LED)
        ↳ move.b d0,0x6F(A1)
        // Actual I/O
        move.b 0x40100044,d1 // move switch input to D1
        ↳ move.b 0x44(A1),d1
        eori.l #0xf0,d1 // flip 4MSB bits -> can also do not.l d1
        lsr.l #4,d1 // get rid of 4LSB bits
        move.b d1,0x4010000F // D1 into PORTTC
        ↳ move.b d1,0x0F(A1)
        // Decrementing
    L1: subq.l #1,d1
        andi.l #0x0f,d1
        move.b d1,0x4010000F
        ↳ move.b d1,0x0F(A1)
        bra L1
    }

    for(;;) { counter++; }
}

```