

```

1  #include "mbed.h"
2  #include "pinout.h"
3  #include "to_7seg.h"
4
5  // seven segment display anodes
6  // when in a int8_t, they are 0b-GFEDCBA
7  BusOut      g_seven_seg(SGA_PIN, SGB_PIN, SGC_PIN, SGD_PIN,
8                        SGE_PIN, SGF_PIN, SGG_PIN);
9
10 // display cathodes
11 DigitalOut   g_dsr(DSR_PIN);
12 DigitalOut   g_dsl(DSL_PIN);
13
14 // leds
15 BusOut       g_leds(LDR_PIN, LDM_PIN, LDL_PIN);
16
17
18 //DISPLAY
19 //CAMBIO DE CUENTA cada 1.2s
20 static Ticker tick_1200ms;
21 static bool volatile tick_1200ms_evnt;
22 static void tick_1200ms_isr (void){
23     tick_1200ms_evnt = true;
24 }
25
26
27 //LED
28 //PULSADOR
29 static InterruptIn swr(SWR_PIN);
30 static bool volatile swr_fall_evnt;
31 static void swr_fall_isr(void){
32     swr_fall_evnt = true;
33 }
34
35
36 //REBOTES PULSADOR
37 static Timeout tout_4ms; //frecuencia de multiplexacion de 250Hz 4000us
38 static bool volatile tout_4ms_evnt;
39 static void tout_4ms_isr(void){
40     tout_4ms_evnt = true;
41 }
42
43 static int8_t cnt_sw = 0;
44
45 int main (void) {
46     g_dsl = 1;
47     uint8_t cnt_display = 0;
48     g_seven_seg = to_7seg(cnt_display);
49
50     tick_1200ms.attach_us(tick_1200ms_isr, 1200000);
51
52     swr.mode(PullUp);
53     swr.fall(swr_fall_isr);
54
55     for (;;) {
56
57         if(tick_1200ms_evnt){
58             tick_1200ms_evnt = false;
59             g_dsl = 1;
60             cnt_display = cnt_display == 9 ? 0 : cnt_display+1;
61             g_seven_seg = to_7seg(cnt_display);
62         }
63
64         if(swr_fall_evnt){
65             swr_fall_evnt = false;
66             tout_4ms.attach_us(tout_4ms_isr, 4000);
67         }
68
69         if(tout_4ms_evnt){
70             tout_4ms_evnt = false;
71
72             if (swr == 0){
73                 cnt_sw++;
74
75                 if( cnt_sw%2 == 0){
76                     g_leds = 0;
77
78                 }else{
79                     g_leds = 2;
80                 }
81             }
82         }
83     }
84     __disable_irq();

```

```
85     if(!tick_1200ms_evnt && swr_fall_evnt && tout_4ms_evnt ){
86         __WFI();
87     }
88     __enable_irq();
89
90
91
92     } // for (;;)
93 } // main()
94
```