```
#include "mbed.h"
#include "pinout.h"
#include "to_7seg.h"

#if 1
#define VERBOSE
#endif

// seven segment display anodes
// when in a int8_t, they are 0b-GFEDCBA
BusOut      g_seven_seg(SGA_PIN, SGB_PIN, SGC_PIN, SGD_PIN,
                        SGE_PIN, SGF_PIN, SGG_PIN);

// display cathodes
DigitalOut  g_dsr(DSR_PIN);
DigitalOut  g_dsl(DSL_PIN);

// leds
BusOut      g_leds(LDR_PIN, LDM_PIN, LDL_PIN);


//DISPLAY
//CAMBIO DE CUENTA cada 1.2s
static Ticker tick_1200ms;
static bool volatile tick_1200ms_evnt;
static void tick_1200ms_isr (void){
  tick_1200ms_evnt = true;
}

//Tiempo de multiplexacion
static Ticker tick_4ms;
static bool volatile tick_4ms_evnt;
static void tick_4ms_isr (void){
  tick_4ms_evnt = true;
}


//LED
//PULSADOR
static InterruptIn swr(SWR_PIN);
static bool volatile swr_fall_evnt;
static void swr_fall_isr(void){
  swr_fall_evnt = true;
}


//REBOTES PULSADOR
static Timeout tout_4ms;                //frecuencia de multiplexacion de 250Hz 4000us
static bool volatile tout_4ms_evnt;
static void tout_4ms_isr(void){
  tout_4ms_evnt = true;
}

static int8_t cnt_sw = 0;

//tick 10s
static Ticker tick_10s;
static bool volatile tick_10s_evnt;
static void tick_10s_isr (void){
  tick_10s_evnt = true;
}

int main (void) {
   g_dsl = 0;
   g_dsr = 1;
  uint8_t cnt_display  = 0;
  g_seven_seg = to_7seg(cnt_display);

  bool mux = false;

  tick_1200ms.attach_us(tick_1200ms_isr,1200000);
  tick_4ms.attach_us(tick_4ms_isr,4000);
  tick_10s.attach_us(tick_10s_isr,10000000);

  swr.mode(PullUp);
  swr.fall(swr_fall_isr);

  for (;;) {

    if(tick_10s_evnt){
      tick_10s_evnt = false;
      cnt_display = cnt_display + cnt_sw;

      cnt_display = (cnt_display >= 99) ? (cnt_display%100) : cnt_display;
```

```
     #ifdef VERBOSE
     printf("n%d -- n%d",cnt_sw, cnt_display);
     #endif

   }

   if(tick_4ms_evnt){
     tick_4ms_evnt = false;
     mux = !mux;

     if(mux){
       g_dsl = 1;
       g_dsr = 0;
       g_seven_seg = to_7seg(cnt_display/10);

     }else{
        g_dsl = 0;
       g_dsr = 1;
       g_seven_seg = to_7seg(cnt_display%10);
     }

   }

   if(tick_1200ms_evnt){
     tick_1200ms_evnt = false;
     cnt_display = cnt_display == 99 ? 0 : cnt_display+1;
     g_seven_seg = to_7seg(cnt_display);
   }

   if(swr_fall_evnt){
     swr_fall_evnt = false;
     tout_4ms.attach_us(tout_4ms_isr, 4000);
   }

   if(tout_4ms_evnt){
     tout_4ms_evnt = false;

     if (swr == 0){
        cnt_sw++;

        if( cnt_sw%2 == 0){
          g_leds = 0;

        }else{
            g_leds = 2;
        }
     }
   }

   __disable_irq();
   if(!tick_1200ms_evnt && swr_fall_evnt && tout_4ms_evnt ){
     __WFI();
   }
   __enable_irq();



 } // for (;;)
} // main()
```