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; PIC18F87J11 Configuration Bit Settings

; Assembly source line config statements

#include "p18f87j11.inc"

; CONFIG1L

  CONFIG  WDTEN = OFF          ; Watchdog Timer Enable bit (WDT disabled (control is placed on SWDTEN bit))

  CONFIG  STVREN = OFF         ; Stack Overflow/Underflow Reset Enable bit (Reset on stack overflow/underflow disabled)

  CONFIG  XINST = OFF          ; Extended Instruction Set Enable bit (Instruction set extension and Indexed Addressing mode disabled (Legacy mode))

; CONFIG1H

  CONFIG  CP0 = OFF            ; Code Protection bit (Program memory is not code-protected)

; CONFIG2L

  CONFIG  FOSC = HS            ; Oscillator Selection bits (HS oscillator)

  CONFIG  FCMEN = ON           ; Fail-Safe Clock Monitor Enable bit (Fail-Safe Clock Monitor enabled)

  CONFIG  IESO = ON            ; Two-Speed Start-up (Internal/External Oscillator Switchover) Control bit (Two-Speed Start-up enabled)

; CONFIG2H

  CONFIG  WDTPS = 32768        ; Watchdog Timer Postscaler Select bits (1:32768)

; CONFIG3L

  CONFIG  EASHFT = ON          ; External Address Bus Shift Enable bit (Address shifting enabled, address on external bus is offset to start at 000000h)

  CONFIG  MODE = MM            ; External Memory Bus Configuration bits (Microcontroller mode - External bus disabled)

  CONFIG  BW = 16              ; Data Bus Width Select bit (16-bit external bus mode)
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  CONFIG  WAIT = OFF          ; External Bus Wait Enable bit (Wait states on the external bus are disabled)


; CONFIG3H

  CONFIG  CCP2MX = DEFAULT     ; ECCP2 MUX bit (ECCP2/P2A is multiplexed with RC1)

  CONFIG  ECCPMX = DEFAULT     ; ECCPx MUX bit (ECCP1 outputs (P1B/P1C) are multiplexed with RE6 and RE5; ECCP3 outputs (P3B/P3C) are multiplexed with RE4 and RE3)

  CONFIG  PMPMX = DEFAULT      ; PMP Pin Multiplex bit (PMP port pins connected to EMB (PORTD and PORTE))

  CONFIG  MSSPMSK = MSK7       ; MSSP Address Masking Mode Select bit (7-Bit Address Masking mode enable)


  ; TCON setup:

  ;                TMR1ON = 0

  ;                TMR1CS = 1

  ;                T1SYNC = 1

  ;                T1OSCEN = 1

  ;                T1CKPS0 = 0

  ;                T1CKPS1 = 0

  ;                T1RUN = 0

  ;                RD16 = 0


  ;TMR1H&TMR1L:              RegValue =

  ;32kHz/4 = 8kHz

  ;1ms= (1/(8khz))*(FFFF)-init

  ;init=65536-8=65528 = FFF7

org 0x0

 goto start



 settimer:

   bcf T1CON,TMR1ON

   ;Write into TMR1H first and then TMR1L
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```
    movlw 0xFF
    movwf TMR1H
    movlw 0xF7
    movwf TMR1L
    ;Turn on timer1
    bsf T1CON, TMR1ON
    return



start:
    bcf TRISE,3
    movlw 0x14
    movwf T1CON
restart:
; Clear TMR1IF and go to set the timer
    bcf T1CON,TMR1IF
    call settimer
;Stay in the loop untill interrupt flag is set
loop:
    btfss PIR1, TMR1IF
    bra loop
    ;Turn off timer1
    bcf T1CON,TMR1ON
    ;Toggle PRTE.3
    btg PORTE,3
    ;Go back to restart
    Bra restart
    end
```