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;Analog_Comparator_Interrupt.asm
        PROCESSOR PIC16F628
        #include <P16F628.INC>
        __CONFIG    _CP_OFF & _MCLRE_ON & INTRC_OSC_NOCLKOUT & _LVP_OFF
        & _WDT_OFF

        ORG     0x00
        goto    main

        ORG     0x04
        goto    Analog_ISR

main:
        call    init
inf_loop:
        nop
        nop
        goto    inf_loop
Analog_ISR:
        bcf     PIR1,CMIF   ; clear analog comparator interrupt flag
        btfss   CMCON,C2OUT
        goto    SET_HIGH
SET_LOW:
        bsf     PORTB,0
        bcf     PORTB,1
        goto    OVER
SET_HIGH:
        bcf     PORTB,0
        bsf     PORTB,1
OVER:
        retfie



init:
        banksel TRISA       ; Select Bank1
        movlw   B'00000110' ; RA1, RA2 are input pins
        movwf   TRISA
        clrw
        movwf   TRISB       ; Port B is output
        banksel PORTB       ; select Bank0
        clrw
        movwf   PORTB
        movlw   .5          ; 5 = B'0000101' ;Analog comparator in mode 5
        (single C2)
        movwf   CMCON
        movf    CMCON,w     ; read CMCON register to clear glitch
        ;interrupt setting for analog comparator
        bsf     INTCON,PEIE ; enable peripheral interrupt services
        banksel PIE1        ; PIE1 register is in bank1
        bsf     PIE1,CMIE   ; enable analog comparator interrupt
        banksel PORTB
        bcf     PIR1,CMIF   ; clear interrupt flag
        bsf     INTCON,GIE  ; enable global interrupt
        return

        END
```