

```

*****
;
;   LED Sequencer w/1 second time delay interval
;
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;
;   9/19/97 @ 2000 hrs.
;
*****
;
;   This will demonstrate the simplicity and beauty
;of machine language programming in Parallax Assembly Language.
;This program will count in binary 0-255 and display the value
;in binary code on 8 separate LED's hooked up to Port B (rb.0-rb.7)
;Timing is based on a 4 MHZ ceramic resonator or crystal and will require
;330 ohm current limiting resistors in series with the LED's.

        org      7          ;start file definition at register 7

Hi       ds      1          ; MSB of time.
Lo       ds      1          ; LSB of time.
Mult     ds      1          ; # of time delay cycles
;=====
; Device data and reset vector

        device  pic16c54,xt_osc,wdt_off,protect_off
        reset   start
        org     0
;=====
start
        mov     !rb,#0      ; make Port B ALL OUTPUTS
        inc     rb          ; increment port b register
        call    Duration    ; call 1 second subroutine
        jmp     start       ; Do it again.
;-----
Duration                                ; 1 second time delay

        mov     Hi,#65      ;load Hi with #65
        mov     Lo,#238     ;load Lo with #235
        mov     Mult,#6     ;load Mult with #6
;-----

:loop   djnz    Lo,:loop     ;decrease value,jump to :loop if not 0
        djnz    Hi,:loop     ;decrease value,jump to :loop if not 0
        djnz    Mult,:loop   ;decrease value,jump to :loop if not 0

        ret                ;return from subroutine
*****
;
;
;   END OF PROGRAM!

```