

'-----Title-----

' File.....bouncel.pbp  
' Started....6/1/05  
' Microcontroller used: Microchip Technology 16F88  
' microchip.com  
' PicBasic Pro Code, micro-Engineering Labs, Inc.  
' melabs.com

'-----Program Description-----

' Eight LED's scroll on then off from left to right  
' then from right to left.

'-----Revision History-----

' 11/6/07: Change MCU from 16F84A to 16F88

'-----Variables-----

LED VAR BYTE ' Variable LED setup as a byte

'-----Initialization-----

PORTB = %00000000 ' Sets all PORTB pins to LOW (turns off  
' all LEDs)  
  
TRISB = %00000000 ' Sets up pins RB7-RB0 of PORTB as outputs  
  
OSCCON = \$60 ' Sets the internal oscillator in the  
' 16F88 to 4 MHz

'-----Pin List for 18 Pin Microcontrollers-----

Pin	PORT/Pin
0	PORTB.0
1	PORTB.1
2	PORTB.2
3	PORTB.3
4	PORTB.4
5	PORTB.5
6	PORTB.6
7	PORTB.7
8	PORTA.0
9	PORTA.1
10	PORTA.2
11	PORTA.3
12	PORTA.4
13	PORTA.5
14	PORTA.6
15	PORTA.7

'-----Main Code-----

```
start:                ' start label

' Loops LEDs to right:

    FOR LED = 0 TO 7  ' Loops through all 8 LEDs.
                      ' Since STEP is not given, the
                      ' increment is automatically +1.

    HIGH LED          ' Turns on LED one at a time

    PAUSE 250         ' Holds LED on for 250 milli-seconds

    LOW LED           ' Turns off LED

    NEXT LED          ' Goes to next LED

' Loops LEDs to left:

    FOR LED = 6 TO 1 STEP -1 ' Loop through 6 middle LEDs.
                              ' STEP is a negative number so
                              ' the variable LED will decrease by 1
                              ' each time through the FOR..NEXT loop.

    HIGH LED          ' Turns on LED one at a time

    PAUSE 250         ' Holds LED on for 250 milli-seconds

    LOW LED           ' Turns off LED

    NEXT LED          ' Goes to next LED

' Loop back to the beginning:

    GOTO start        ' Loops back to the start label

END
```