

```
'-----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
```