```
'---------------Title--------------

' File......16F877A_bounce2.pbp
' Started....6/1/05
' Microcontroller used:  Microchip Technology 16F877A
'                        microchip.com
' PicBasic Pro Code, micro-Engineering Labs, Inc.
'                    melabs.com

'--------Program Desciption--------

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

'-------------Schematic------------

' See schematic at:
' http://www.cornerstonerobotics.org/schematics/pic16f877a_bounce.pdf

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

' 11/6/07:  Change MCU from 16F84A to 16F88
' 1/1/09:   Change MCU from 16F88 to 16F877A

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

    LED VAR BYTE         ' Variable LED setup as a byte

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

    PORTB = %11111111    ' Sets all PORTB pins to HIGH (turns on
                         ' all LEDs)

    TRISB = %00000000    ' Sets up pins RB7-RB0 of PORTB as outputs

'-----Pin List for 40 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       PORTC.0
'         9       PORTC.1
'         10      PORTC.2
'         11      PORTC.3
'         12      PORTC.4
'         13      PORTC.5
'         14      PORTC.6
'         15      PORTC.7
```

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'-------------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.

    LOW LED             ' Turns off one LED at a time

    PAUSE 250           ' Holds LED on for 250 milli-seconds

    HIGH LED            ' Turns LED back on

    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.

    LOW LED             ' Turns off one LED at a time

    PAUSE 250           ' Holds LED on for 250 milli-seconds

    HIGH LED            ' Turns LED back on

    NEXT LED            ' Goes to next LED

' Loop back to the beginning:

    GOTO start          ' Loops back to the start label

    END
```