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

' File......16F877A_bounce1.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 on then off from left to right
' then 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 = %00000000    ' Sets all PORTB pins to LOW (turns off
                         ' 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
```

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