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

' File......switch1.pbp
' Started....6/1/05
' Microcontroller used:  Microchip Technology 16F88
'                          microchip.com
' PicBasic Pro Code: micro-Engineering Labs, Inc.
'                     melabs.com

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

'   Turn on/off LEDs with button switch.

'----------Related Lesson----------

' switch1.pbp is used in the lesson PIC PROGRAMMING 3 SERVOS at:
' http://cornerstonerobotics.
org/curriculum/lessons_year2/erii13_pic_programming3_servos.pdf

' switch1.pbp is also used in the
' lesson ACTIVE HIGH ACTIVE LOW at:
' http://www.cornerstonerobotics.
org/curriculum/lessons_year2/erii19_active_high_active_low.pdf

'----New PicBasic Pro Commands-----

' The PicBasic Pro Compiler Manual is on line at:
' http://www.microengineeringlabs.com/resources/index.htm#Manuals

' IF...THEN
' IF comparison THEN label
' When the comparison in an IF..THEN command is true,
' the program will jump to the label after THEN.
' When the comparison is false, the program will
' continue to the statement after the IF..THEN command.
' Look around page 91 in the PicBasic Pro Compiler Manual

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

' 3/1/06:    Clean-up comments & change labels
' 11/17/07:  Change PIC MCU from 16F84A to 16F88
' 11/17/07:  Add 16F88 oscillator initialization

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

    switch1    VAR PORTB.0      'Labels PORTB.0 as switch1

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

    TRISB = %00000001    ' Sets up pin B0 of PORTB as an input
                         ' and pins B1-B7 as outputs

    PORTB = %00000010    ' Sets pin RB1 to HIGH (+5 volts),
                         ' all other PORTB pins to LOW (0 volts)
```

```
    OSCCON = $60           ' Sets the internal oscillator in the
                           ' 16F88 to 4 MHz


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

start:

    IF switch1 = 1 THEN led2    ' If the switch on PORTB.0 is pushed,
                                ' PORTB.0 becomes HIGH (+5 volts) and
                                ' the comparison is true, so the program
                                ' jumps to the label led2.

    HIGH 1                      ' When the comparison is false, the program
                                ' proceeds to the statement after the
                                ' IF..THEN command, in our case, HIGH 1.
                                ' This makes pin RB1 output HIGH(+5 volts)

    LOW 2                       ' Makes pin RB2 output LOW(0 volts)

    PAUSE 1                     ' Pause 1 ms

    GOTO start                   ' Jump to start label
led2:

    LOW 1                       ' Makes pin RB1 output LOW(0 volts)

    HIGH 2                      ' Makes pin RB2 output HIGH(+5 volts)

    PAUSE 1                     ' Pause 1 ms

    GOTO start                  ' Jump to start label

    END
```