

```
'-----Title-----
' File.....16F877A_blink1.pbp
' Started....11/3/03
' Microcontroller used:  Microchip Technology 16F877A
'                          microchip.com
' PBPro Code, micro-Engineering Labs, Inc.
'                          melabs.com

'-----Program Description-----
' LED flashes on/off one time per second.

'-----Related Lesson-----
' blink1.pbp (the 16F88 program) is used in the lesson
' INTRODUCTION TO PROGRAMMING 1 at:
' http://www.cornerstonerobotics.
org/curriculum/lessons_year2/eri111_pic_introduction_programming1.pdf

'-----Comments-----
' Use a solderless breadboards to fabricate
' the circuit blink1. For a tutorial about
' solderless breadboards, consult the book Robot
' Building For Beginners by David Cook. Also see:
' http://cornerstonerobotics.org/curriculum/lessons_year1/ER%20Week3,
%20Solderless%20Breadboard.pdf
'
' In-Circuit Serial Programming(ICSP):  See:
' http://cornerstonerobotics.
org/curriculum/lessons_year2/eri115_in_circuit_serial_programming.pdf

' The source for PicBasic Pro commands is
' from the PicBasic Pro Compiler Manual by
' microEngineering Labs, Inc.
' The PicBasic Pro Compiler Manual is on line at:
' http://www.microengineeringlabs.com/resources/index.htm#Manuals

'-----PIC Connections-----

'      16F877A Pin          Wiring
'      -----
'      RB0                 150 Ohm resistor to LED to GND
'      Vdd                  +5 V
'      Vss                  Ground
'      MCLR                 4.7K Resistor to +5 V

'-----New PicBasic Pro Commands-----
' PAUSE period
' This will pause the program for a period of 1
' to 65,535 milliseconds or .001 to 65.535 sec.
' Around page 112 in the PicBasic Pro Compiler Manual
'
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' GOTO label
' Program execution jumps to location of label.
' Around page 73 in the PicBasic Pro Compiler Manual
'
' END
' Stops the program execution.
' Around page 68 in the PicBasic Pro Compiler Manual

'-----Revision History-----
' 1/1/09 Convert from PIC16F88 to PIC16F877A

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

        TRISB = %11111110      ' Sets up RB0 pin of PORTB as an output
                                ' and pins RB7-RB1 of PORTB as inputs

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

start:          ' Label for beginning loop

        PORTB.0 = 1          ' Makes pin PORTB.0,(RB0), output at HIGH (+5 volts)

        PAUSE 500           ' Pause 500 milliseconds (0.5 seconds) with LED on

        PORTB.0 = 0          ' Makes pin PORTB.0,(RB0), output at LOW (0 volts)

        PAUSE 500           ' Pause 500 milliseconds (0.5 seconds) with LED off

        GOTO start          ' Jump to loop label
                                ' Makes the program run forever.

        END                 ' This line is in case the
                                ' the program gets lost.
```