

```

'-----Title-----
' File.....fiber_optic1.pbp
' Started....7/31/12
' Microcontroller used:  Microchip Technology 16F88
'                          microchip.com
' PicBasic Pro Code:  micro-Engineering Labs, Inc.
'                          melabs.com

'-----Program Description-----
' Fiber-optic cable used to flash LED two times
' per second.

' See Lesson on Fiber-optic Communication at:
' http://cornerstonerobotics.
org/curriculum/lessons_year3/eriii22_control_navigation5.pdf

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

'      16F88 Pin          Wiring
'      -----          -----
'      RB0                10,000 Ohm resistor to GND and
'                          connect to data pin of the
'                          75451 dual driver
'      Vdd                +5 V
'      Vss                Ground
'      MCLR               4.7K Resistor to +5 V

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

i   VAR BYTE

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

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

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

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

start:                ' Start label
  FOR i = 1 TO 5      ' Loop 5 times
    HIGH 0            ' Makes pin PORTB.0,(RB0), output at HIGH (+5 volts)
    PAUSE 250         ' Pause 500 milliseconds with LED on
    LOW 0             ' Makes pin PORTB.0,(RB0), output at LOW (0 volts)
    PAUSE 250        ' Pause 500 milliseconds with LED off
  NEXT i
  FOR i = 1 TO 50    ' Loop 25 times
    HIGH 0            ' Makes pin PORTB.0,(RB0), output at HIGH (+5 volts)
    PAUSE 25          ' Pause 25 milliseconds with LED on
    LOW 0             ' Makes pin PORTB.0,(RB0), output at LOW (0 volts)
    PAUSE 25         ' Pause 25 milliseconds with LED off

```

```
NEXT i  
GOTO start      ' Jump to start label  
END
```