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*****
* Name   : TrayLED.PBP                                     *
* Author : [select VIEW...EDITOR OPTIONS]                 *
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* Date   : 3/3/2014                                       *
* Version : 1.0                                           *
* Notes  :                                               *
*       :                                               *
*****

```

' PIC16F88 code template for MECH307 Labs

' The following configuration bits and register settings
 ' enable the internal oscillator, set it to 8MHz,
 ' disables master clear, and turn off A/D conversion

' Configuration Bit Settings:

' Oscillator	INTRC (INT102) (RA6 for I/O)
' Watchdog Timer	Enabled
' Power-up Timer	Enabled
' MCLR Pin Function	Input Pin (RA5 for I/O)
' Brown-out Reset	Enabled
' Low Voltage Programming	Disabled
' Flash Program Memory Write	Enabled
' CCP Multiplexed With	RB0
' Code	Not Protected
' Data EEPROM	Not Protected
' Fail-safe Clock Monitor	Enabled
' Internal External Switch Over	Enabled

' Define configuration settings (different from defaults)

```

#CONFIG
__CONFIG __CONFIG1, _INTRC_IO & _PWRTE_ON & _MCLR_OFF & _LVP_OFF
#ENDCONFIG

```

' Set the internal oscillator frequency to 8 MHz

```

DEFINE OSC 8
OSCCON.4 = 1
OSCCON.5 = 1
OSCCON.6 = 1

```

' Turn off the analog to digital converters. Refer to Thread Design Example A.4

' in the textbook for an example of how to configure and use A/D conversion
 ansel = 0

' Configure Port A and B as outputs

```

TrisA = %00100000
TrisB = %01000000

```

gosub InitializeLEDs

' Put your code here:

myloop:

```
If (PortB.6==0) then
  gosub LED_loop
endif
Goto myloop 'go back to label "loop" repeatedly
```

LED_loop:

```
High PORTA.2 'turn on PORTA.2
high PORTB.0 'turn on LED connected to PORTB.0
pause 100 'delay for 100 milliseconds

low PORTA.2 'turn off PORTA.2
Low PORTB.0 'turn off LED connected to PORTB.0

High PORTA.3
high PORTB.1
pause 100

low PORTA.3
Low PORTB.1

High PORTA.4
high PORTB.2
pause 100

low PORTA.4
Low PORTB.2

High PORTA.1
high PORTB.3
pause 100

low PORTA.1
Low PORTB.3

High PORTA.0
high PORTB.4
pause 100

low PORTA.0
Low PORTB.4

High PORTA.6
high PORTB.5
pause 100

low PORTA.6
Low PORTB.5
```

Return

InitializeLEDs:

```
low PORTA.2 'turn off PORTA.2
Low PORTB.0 'turn off LED connected to PORTB.0
low PORTA.3
Low PORTB.1
low PORTA.4
Low PORTB.2
low PORTA.1
Low PORTB.3
low PORTA.0
Low PORTB.4
low PORTA.6
Low PORTB.5
```

Return

end