

# STEPM.txt

'PICMB876 microcomputer board STEPping-Motor sample Program.

'Program Name STEPM.BAS  
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'Date 2003.09.22  
'Language microEngineering Labs,Inc. PICBasic Pro Compiler  
'Target Device PIC16F876 on PICMB876(PIC microcomputer board) & Other PIC  
'Pulse Motor Clock: MEL PICBasic Pro Compiler HPWM command Used.

Include "modedefs.bas"

'LCD DEFINE  
 DEFINE LCD\_DREG PORTB  
 DEFINE LCD\_DBIT 0  
 DEFINE LCD\_RSREG PORTB  
 DEFINE LCD\_RSBIT 4  
 DEFINE LCD\_EREG PORTB  
 DEFINE LCD\_EBIT 5  
 DEFINE LCD\_BITS 4  
 DEFINE LCD\_LINES 2

'HPWM DEFINE  
 DEFINE CCP1\_REG PORTC 'HPWM 1 Pin PORT  
 DEFINE CCP1\_BIT 2 'HPWM 1 Pin bit  
 DEFINE CCP2\_REG PORTC 'HPWM 2 Pin PORT  
 DEFINE CCP2\_BIT 1 'HPWM 2 Pin bit  
 DEFINE HPWM1\_TIMER 1 'HPWM 1 timer select

'RS-232C OUT define  
 SO Var PORTA.5  
 OUTPUT PORTA.5 'SO(PORTA.5) RS-232C TX  
 stat Var PORTB.7  
 OUTPUT PORTB.7

'OUTPUT PORTC.3 STPM CW,CCW  
 OUTPUT PORTC.3

'Variable define  
 CNT Var byte  
 CNT = 0  
 CLKDTY Var byte  
 CLKDTY = 0  
 duty Var byte  
 duty = 0  
 CNTCLK Var word  
 CNTCLK = 0

GOTO main

STP: HPWM 1, CLKDTY, CNTCLK 'Output Clock on PORTC.2 at (CNTCLK) Hz  
 RETURN

main: LCDOUT \$FE, 1, "\*\* Start STPM RC2 \*\*"  
 LCDOUT \$FE, \$C0, "STPCLK Background"

# STEPM.txt

pause 1000

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cntnu: CLKDTY = 127          'Clock Duty=127 (=duty 50%)
      PORTC.3 = 0           'Rotate  CW
      CNTCLK = 100          'Ckock 100Hz
      GOSUB STP
      PAUSE 1000
      CNTCLK = 1000        'Ckock 1KHz
      GOSUB STP
      PAUSE 1000
      CNTCLK = 500         'Ckock 500Hz
      GOSUB STP
      PAUSE 1000
      CNTCLK = 5           'Ckock 5Hz
      GOSUB STP
      PAUSE 2000

      PORTC.3 = 1          'Rotate  CCW
      CNTCLK = 100         'Ckock  100Hz
      GOSUB STP
      PAUSE 1000
      CNTCLK = 1000        'Ckock  1KHz
      GOSUB STP
      PAUSE 1000
      CNTCLK = 500         'Ckock  500Hz
      GOSUB STP
      PAUSE 1000
      CNTCLK = 5           'Ckock  5Hz
      GOSUB STP
      PAUSE 2000

      GOTO cntnu

```