```
;
        list p=16F84, f=inhx8m  ;Enter device name
                                ;printed on the probe
                                ;connected to your pod.
        include <P16F84.INC>

        ;RS232 transmit function
        ; assume 10mHz clock
        ; instruction cycle of .4uS

count    EQU     H'000C'
txreg    EQU     H'000D'
delay    EQU     H'000E'
MCount   EQU     H'000F'


clockrate EQU   10000000
baudrate  EQU   9600
fclk      EQU   clockrate/4
baudconst EQU   .85 ;((fclk/baudrate)- 2)/3
baudhalf  EQU   baudconst >> 2

#define _tx     PORTA, 0
#define _rx     PORTA, 1
        org     0               ;start address 0

        clrf    PORTA
        bsf     STATUS, RP0
        movlw   B'01010'
        movwf   TRISA
        bcf     STATUS, RP0
        bsf     _tx

        nop
        nop
        nop

loop2
;        movlw   D'10'
;        movwf   MCount
;movlw    'U'
;call    Xmtr
;Loop
;        movf    MCount,w
;        call    Table
;        call    Xmtr
;        decfsz  MCount,f
;        goto    Loop

call    Rcvr
addlw   1
call    Xmtr

goto loop2

Table
        addwf   PCL
        retlw   ' '
        retlw   't'
        retlw   'm'
        retlw   'X'
        retlw   ' '
        retlw   '2'
        retlw   '3'
```

```
        retlw   '2'
        retlw   'S'
        retlw   'R'
        retlw   '*'


Xmtr
        movwf   txreg
        movlw   8
        movwf   count
        bcf     _tx             ; Start bit
X_next  call    WaitOneBit      ; Wait one bit width
        rrf     txreg, F        ; Output the next data bit
        btfsc   STATUS, C
         bsf     _tx
        btfss   STATUS, C
         bcf     _tx
        decfsz  count, f
         goto    X_next         ; Repeat
        call    WaitOneBit      ; Wait one bit width
        bsf     _tx             ; Stop bit
        call    WaitOneBit
        return

Rcvr
        btfsc   _rx             ; Wait for the start bit
         goto   Rcvr
        call    WaitHalfBit    ; Wait through half of the first bit
        movlw   8
        movwf   count
        clrf    txreg
R_next  call    WaitOneBit     ; Wait through the previous bit
        bcf     STATUS, C
        btfsc   _rx
         bsf    STATUS, C
        rrf     txreg, F
        decfsz  count, F
         goto   R_next
        call    WaitOneBit      ; Wait through the stop bit
        movf    txreg, W
        return

WaitOneBit
        movlw   baudconst      ; Wait one bit width
        movwf   delay
txbaudwait
        decfsz  delay, f
         goto    txbaudwait
        return

WaitHalfBit
        movlw   baudhalf
        movwf   delay
txbaudwaithalf
        decfsz  delay, f
         goto    txbaudwaithalf
        return


        end
```