

32122a series sample program

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;LCD CONTROLLER:SED1520*2
;CS2 EQU P1.1
;CS1 EQU P1.2
RES EQU P1.6 ;RST=/RES
AO EQU P1.0 ;RS=A0
R_W EQU P1.4 ;R_W=/WR
EI EQU P1.1 ;R_D=RD/E
E2 EQU P1.2
CL EQU P1.3
    ORG 0000H
    JMP START
    ;ORG 000BH
    ;JMP TIMER_0
;BEGIN: ;MOV SP,#5FH
    ;SETB EA
    ;SETB ET0
    ;SETB ET1
    ;MOV TH0,#01FH
    ;MOV TLO,#0ECH
    ; MOV TH1,#000H
    ; MOV TL1,#000H
    ;MOV TMOD,#10H
    ;SETB CL
    ;CLR TR1
    ;SETB TR0

START:
    CLR RES ;RST
    ;lcall delay
    lcall delay
    SETB RES
    lcall delay
    MOV A,#0E2H ;SOFTWARE RST
    LCALL WCOM1
    LCALL WCOM2
    LCALL DELAY
    MOV A,#10101001B ;SELECT DUTY=1/32
    LCALL WCOM1
    LCALL WCOM2
    MOV A,#10100000B ;SETB ADC,SEG0-SEG61,COM0-COM31
    LCALL WCOM1
    LCALL WCOM2
    MOV A,#10100100B ;SETB STATIC DRIVE OFF(NORMAL DRIVEING)
    LCALL WCOM1
    LCALL WCOM2
    MOV A,#11000000B ;INTIAL DISPLAY LINE
    LCALL WCOM1
    LCALL WCOM2
    MOV A,#10101111B ;DISPLAY ON
    LCALL WCOM1
    LCALL WCOM2

BEGIN:
    MOV R4,#00H
    MOV R3,#10H ;CLEAR
    LCALL TEST

    MOV A,#10101111B ;DISPLAY ON
    LCALL WCOM1
    LCALL WCOM2
    MOV R4,#00000000B
    MOV DPTR,#CHAR1 ;CHAR
    LCALL TEST6
    MOV 40H,#25
    LCALL DELAY2

    MOV R4,#00H
    MOV R3,#10H ;CLEAR
    LCALL TEST
    MOV R4,#000H
    MOV R3,#08H ;CHECKER
    LCALL TEST
    MOV 40H,#25
    LCALL DELAY2

    MOV R4,#00H
    MOV R3,#10H ;CLEAR
    LCALL TEST
    MOV R4,#00000000B

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MOV DPTR,#PIC_CODE ;PHOTO
LCALL TEST6
MOV 40H,#45
LCALL DELAY2

LJMP BEGIN
;TIMER_0: CPL CL
;CLR TR0
;MOV TH0,#01FH
;MOV TLO,#0ECH
;SETB TR0
;RETI

TEST:
DISP2: MOV R2,#0B8H
MOV A,R2 ;set page address
LCALL WCOM1
LCALL WCOM2
MOV A,#00H ;set column address
LCALL WCOM1
MOV A,R4
LCALL WCOM2
DISP1: MOV R1,#16 ;set (8*8)*16characters
MOV DPTR,#CHAR

DISP0: MOV R0,#04H
MOV A,R3
MOVC A,@A+DPTR
LCALL WDATA1
INC DPTR
MOV A,R3
MOVC A,@A+DPTR
LCALL WDATA2
DJNZ R0,DISP0
DJNZ R1,DISP1
INC R2
CJNE R2,#0BCH,DISP2
RET

TEST6:
MOV A,#10111000B
MOV R5,A
LCALL WCOM1
LCALL WCOM2
MOV A,R4
LCALL WCOM1
LCALL WCOM2
MOV R6,#4
MOV R7,#61
TEST6_1: MOV A,#0
MOVC A,@A+DPTR
LCALL WDATA1
;LCALL WDATA2
INC DPTR
DJNZ R7,TEST6_1
MOV R7,#61
TEST6_2: MOV A,#0
MOVC A,@A+DPTR
LCALL WDATA2
;LCALL WDATA2
INC DPTR
DJNZ R7,TEST6_2
INC R5
MOV A,R5
LCALL WCOM1
LCALL WCOM2
MOV A,R4
LCALL WCOM1
LCALL WCOM2
MOV R7,#61
DJNZ R6,TEST6_1
RET

LOOP:
LOOP_1: MOV R7,#59
LCALL WDATA1
LCALL WDATA2
DJNZ R7,LOOP_1

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RET

DELAY:  MOV    40H,#032H    ;10.05ms
DEL1:   MOV    41H,#030H
DEL2:   DJNZ   41H,DEL2    ;192us
        DJNZ   40H,DEL1
        RET

DELAY2: ;SETB EX0
        ;SETB EX1
        LCALL DELAY4
        ;MOV    40H,#15
DEL21:  MOV    41H,#250
DEL22:  MOV    42H,#80
DEL23:  ;MOV C,P2.0
        JB P2.0,KDL
        LCALL DELAY4
CHECK_KEY: NOP
        NOP
        ;MOV C,P2.0
        JNB P2.0,BREAK1
        JMP CHECK_KEY
KDL:    DJNZ   42H,DEL23
        DJNZ   41H,DEL22
        DJNZ   40H,DEL21
BREAK1: ;CLR EX0
        ;CLR EX1
        RET
DELAY4: MOV    43H,#4
DEL41:  MOV    44H,#200
DEL42:  MOV    45H,#250
DEL43:  DJNZ   45H,DEL43
        DJNZ   44H,DEL42
        DJNZ   43H,DEL41
        RET
WCOM1:  MOV    PO,A
        CLR   R_W
        CLR   A0
        ;SETB R_D
        NOP
        SETB  E1
        NOP
        CLR   E1
        NOP
        ;SETB A0
        ;SETB R_W
        RET
WCOM2:  MOV    PO,A
        CLR   R_W
        CLR   A0
        NOP
        NOP
        SETB  E2
        NOP
        CLR   E2
        NOP
        ;SETB A0
        ;SETB R_W
        RET
WDATA1: MOV    PO,A
        CLR   R_W
        SETB  A0
        NOP
        SETB  E1
        NOP
        CLR   E1
        NOP
        RET
WDATA2: MOV    PO,A
        CLR   R_W
        SETB  A0
        NOP
        SETB  E2
        NOP

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CLR E2
NOP
RET

CHAR:
DB 0FFH,000H,0FFH,000H,0FFH,000H,0FFH,000H
DB 0AAH,055H,0AAH,055H,0AAH,055H,0AAH,055H
DB 000H,000H,000H,000H,000H,000H,000H,000H
DB 0FFH,0FFH,0FFH,0FFH,0FFH,0FFH,0FFH,0FFH

CHAR1:
DB 000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H
DB 000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H
DB 000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H
DB 000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H
DB 000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H
DB 000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H
DB 001H,0E1H,0FFH,0FFH,01FH,003H,001H,001H,003H,006H,0FEH,0FCH,0F0H,000H,000H,000H
DB 040H,0C0H,0E7H,0E7H,007H,000H,0C0H,0E0H,0E0H,020H,020H,060H,0C0H,060H,000H,040H
DB 040H,0E0H,0E0H,0E0H,040H,040H,0E0H,0E0H,0C0H,000H,000H,000H,000H,0C2H,0FAH,0FFH
DB 01FH,003H,000H,080H,0C0H,0C0H,060H,020H,020H,0C0H,0E0H,0E0H,020H,040H,040H,0E0H
DB 0E0H,080H,000H,000H,060H,0E0H,0E0H,000H,000H,020H,0A0H,0F0H,0F0H,078H,03CH,020H
DB 000H,000H,080H,080H,040H,020H,020H,0E0H,0E0H,0E0H,000H,000H,000H,080H,0C0H,0C0H
DB 060H,020H,0A0H,0E0H,0C0H,000H,000H,000H,0E2H,0FEH,0FFH,09FH,083H,0C0H,0E0H,0E0H
DB 040H,000H,000H,000H,000H,000H,080H,0C0H,0F8H,0FFH,0FFH,087H,080H,080H,0C0H,0C0H
DB 040H,060H,070H,03EH,01FH,007H,003H,000H,040H,0F0H,0FEH,0FFH,047H,020H,0C0H,070H
DB 041H,087H,08FH,0FFH,07CH,038H,001H,000H,080H,0F0H,0FEH,07FH,087H,080H,0C0H,070H
DB 03FH,01FH,007H,000H,040H,0F8H,0FFH,0FFH,047H,020H,000H,078H,0FEH,0FFH,0C3H,040H
DB 020H,0F8H,0FEH,0FFH,0DFH,041H,020H,000H,000H,0FFH,0FFH,0FFH,040H,030H,00CH,003H
DB 001H,000H,040H,0FCH,0FFH,0BFH,047H,020H,000H,000H,07CH,0FEH,0FFH,0C5H,0C4H,0C6H
DB 043H,063H,021H,000H,000H,03CH,07FH,0FFH,0E1H,0C0H,0C0H,040H,061H,021H,000H,0C0H
DB 0F8H,0FFH,07FH,00FH,003H,0E0H,0FCH,0FFH,0DFH,043H,020H,000H,000H,000H,000H,000H
DB 000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H
DB 000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,010H
DB 010H,01CH,01FH,01FH,011H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H
DB 000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,01CH,01CH
DB 01CH,008H,008H,007H,003H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H
DB 000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H
DB 000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H
DB 000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H
PIC_CODE:

END