```
 org 0000h
 EOC        EQU P0.4      ; End Of Conversion pin
START_ALE  EQU P0.7
 mov p1,#0ffh
 repeat:mov dptr,#command
 nextcmd:clr a
 movc a,@a+dptr
 cjne a,#'$',next1
 sjmp data1
 next1:acall cmdwrite
 acall delay
 inc dptr
 sjmp nextcmd
 data1:mov dptr,#datalcd
 nextdata:clr a
 movc a,@a+dptr
 cjne a,#'$',next2
 ;adcroutine
 complete: mov a,#0C4h
acall cmdwrite
acall delay

 MOV P0, #0F0H

    ; Start ADC conversion
    CLR START_ALE
    ACALL delay
    SETB START_ALE
    ACALL delay
    CLR START_ALE

    ; Wait for End Of Conversion
WAIT_EOC:
    MOV A, P0
    ANL A, #0x10
    JZ WAIT_EOC

WAIT_EOC_LOW:
    MOV A, P0
    ANL A, #0x10
    JZ WAIT_EOC_LOW
mov a,p1
mov r1,a
anl a,#0Fh
acall convert
mov a,r1
anl a,#0f0h
swap a
acall convert
sjmp complete
```

```
 sjmp $
next2:acall datawrite
acall delay
inc dptr
sjmp nextdata

cmdwrite:mov b,a
anl a,#0f0h
swap a
mov p2,a
clr p2.7
clr p2.5
setb p2.6
nop
nop
nop
nop
clr p2.6
mov a,b
anl a,#0fh

mov p2,a
clr p2.7
clr p2.5
setb p2.6

nop
nop
nop
nop
clr p2.6
ret
datawrite:mov b,a
anl a,#0f0h
swap a
mov p2,a
setb p2.7
clr p2.5
setb p2.6
nop
nop
nop
nop
clr p2.6
mov a,b
anl a,#0fh
mov p2,a
setb p2.7
clr p2.5
```

```
 setb p2.6
 nop
 nop
 nop
 nop
 clr p2.6
 ret
 delay:mov r0,#0f0h
 loop2:mov r1,#0f0h
 loop1:djnz r1,loop1
 djnz r0,loop2
 ret
 convert: cjne a,#0ah,next
next: jc skip
add a,#07h
skip: add a,#30h
acall datawrite
acall delay
ret
 org 200h
 command:db 02h,28h,0eh,01h,06h,80h,'$'
 datalcd:db 'a','d','c','o','p',':','$'
 end
```