```
Device = 16C72
Xtal = 10
Config HS OSC, WDT OFF, PWRTE OFF, BODEN OFF, CP ALL
TRISB = \$01 : TRISC = \$00
PORTB = $00 : PORTC = $00
On Interrupt GoTo ZeroCross
Declare Sonyin_Pin = PORTC.4
Declare LCD DTPin PORTB.4
Declare LCD RSPin PORTB.2
Declare LCD_ENPin PORTB.3
Symbol Fan = PORTC.0
Symbol TV = PORTC.1
Symbol L1 = PORTC.2
Symbol L2 = PORTC.3
Symbol GIE = INTCON.7
Symbol PEIE = INTCON.6
Symbol INTE = INTCON.4
Symbol INTF = INTCON.1
Symbol INTEDG = OPTION REG.6
GIE = 1 : PEIE = 1 : INTE = 1
INTF = 0 : INTEDG = 0
Dim flag As Bit : flag = 0
Dim fan f As Bit : fan f = 0
Dim SonyIn_Word As Word
Dim Cmd As SonyIn Word.LowByte
Dim SonySystem As SonyIn Word. HighByte
Dim Cnt As Byte
Dim nCnt As Byte
Dim To cnt As Byte
Dim nTo cnt As Byte
Dim temp As Byte
nCnt = Cnt : nTo_cnt = To_cnt
Cls
Sys OFF:
Fan = 1 : TV = 1 : L1 = 1 : L2 = 1 : fan f = 0
Print At 1,1, "IRremote control"
Print At 2,1, " Sys_Dectivated "
DelayMS 500
 While 1 = 1
     Repeat
       SonyIn_Word = SonyIn
     Until Cm\overline{d} \iff 255
     If Cmd = 21 Then GoTo Sys ON
 Wend
GoTo Sys OFF
Sys ON:
Cls: fan f = 0
Print At 1,1, "Sys_Activating.."
Print At 2,1, "Please Wait... "
DelayMS 500
 While 1 = 1
 GoSub Remote check
   If Cmd = 2\overline{1} Then GoTo Sys OFF
   If Cmd = 56 Then GoSub TV_action
   If Cmd = 116 Then GoSub L1_action If Cmd = 117 Then GoSub L2_action
   If Cmd >= 0 And Cmd <= 8 Then GoSub Fan speed
   If Cmd = 9 Then
     Fan = 0
     fan f = 0
   EndIf
 Wend
GoTo Sys ON
TV action:
TV =~ TV : DelayMS 200
Return
L1 action:
L1 = \sim L1 : DelayMS 200
Return
```

```
L2_action:
L2 = ~L2 : DelayMS 200
Return
Fan_speed:
fan_f = 1 : temp = Cmd + 2
Cnt = temp : To_cnt = 10
DelayMS 100
Return
Remote check:
Repeat
  SonyIn_Word = SonyIn
  If fan f = 1 Then
    GoSub FAN_regulation Print At 1,1, "Fan: ", Dec (Cnt * 10), "% "
    Fan = 0
    Print At 1,1, "Fan Off "
  EndIf
  If TV = 1 Then
    Print At 1,11, "TV Off"
  Else
   Print At 1,11, "TV On "
  If L1 = 1 Then
    Print At 2,1, "L1 Off
  Else
   Print At 2,1, "L1 On
  EndIf
  If L2 = 1 Then
   Print At 2,11, "L2 Off"
  Else
    Print At 2,11, "L2 On "
  EndIf
Until Cmd <> 255
Return
FAN regulation:
  \mathbf{I}\bar{\mathbf{f}} flag = 1 Then
    If nCnt > 0 Then
    Fan = 0 : DelayUS 250
    Fan = 1 : Dec nCnt
    Else
    Fan = 0
    EndIf
    Dec nTo cnt
    If nTo_cnt == 0 Then
    nTo_cnt = To_cnt
    nCnt = Cnt
   EndIf
  flag = 0
  EndIf
Return
Disable
ZeroCross:
If INTF == 1 Then
 flag = 1 : INTF = 0
EndIf
Resume
Enable
```