

Pune Institute of Computer Technology, Pune

Department of Electronics and Telecommunication Engineering

Topic: LCD Interfacing

Subject: Microcontroller

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Session contents

- Basics of LCD
- Structures of LCD
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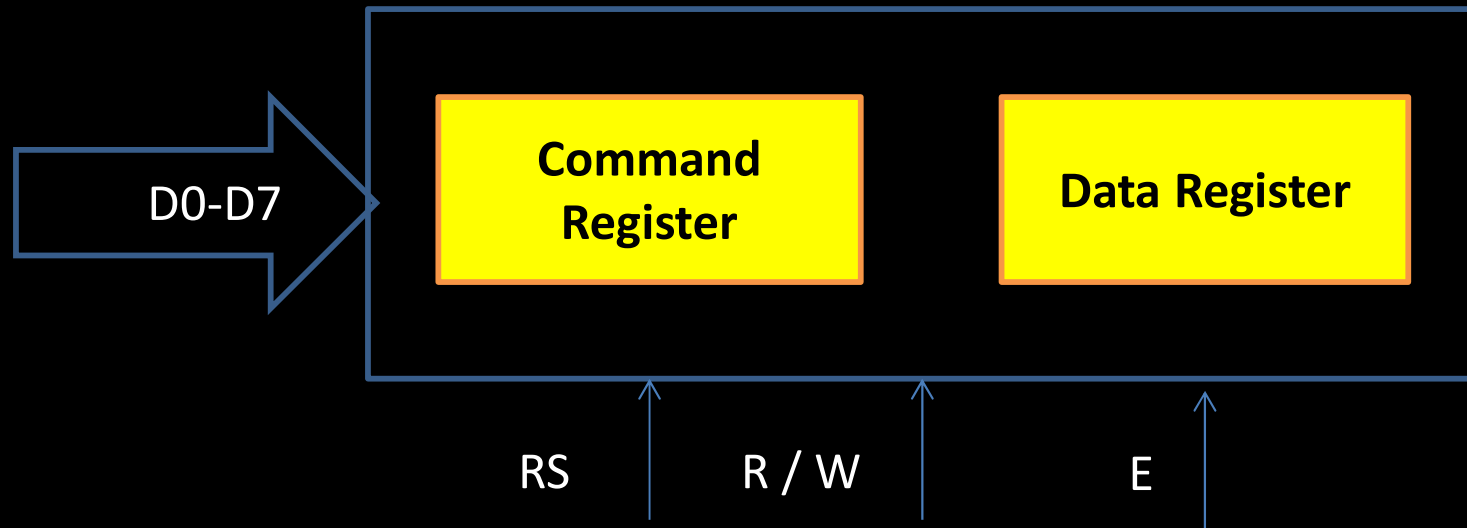
Basics of LCD



Line 1	80H	81H	82H	83H						
Line 2	C0H	C1H	C2H	C3H						



Structures of LCD



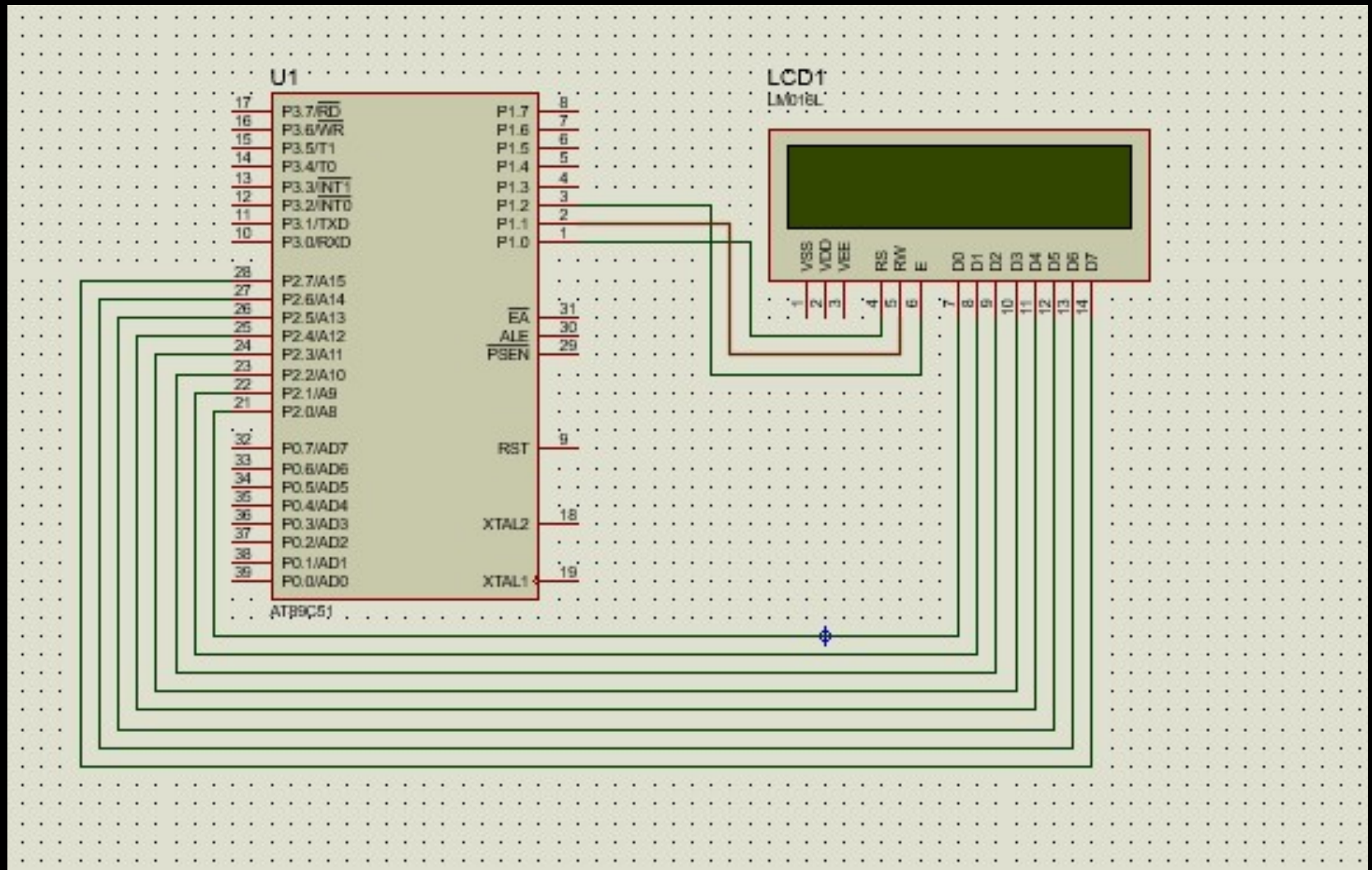


Commands for LCD

Command to LCD	Code (Hex)
To Select LCD of 16 ×2 lines and 5x7 matrix	38
Display on cursor blinking	0E
Clear the display	01
The address of first character of line 1	80
The address of first character of line 2	C0



LCD Interfacing with 8051



Algorithm to Interface LCD with 8051

- Initialize **P2** and **P1** where **D0 –D7** and control lines(R, RW, E) are interfaced respectively
- Initialize LCD by sending appropriate commands (38h,0Eh,01h,80h)
- While sending commands; the control signals should be Rs=0,RW=0,E= H-L
- Load the data to be displayed on the data bus D0 to D7 and give appropriate control signals (Rs=1,RW=0,E= H-L)
- Give suitable delay wherever necessary
- Loop in order to send character or string



References

Muhammad Mazidi- The 8051 Microcontroller and Embedded Systems, Pearson Education 2nd Edition.

Questions if any!
Thanks

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