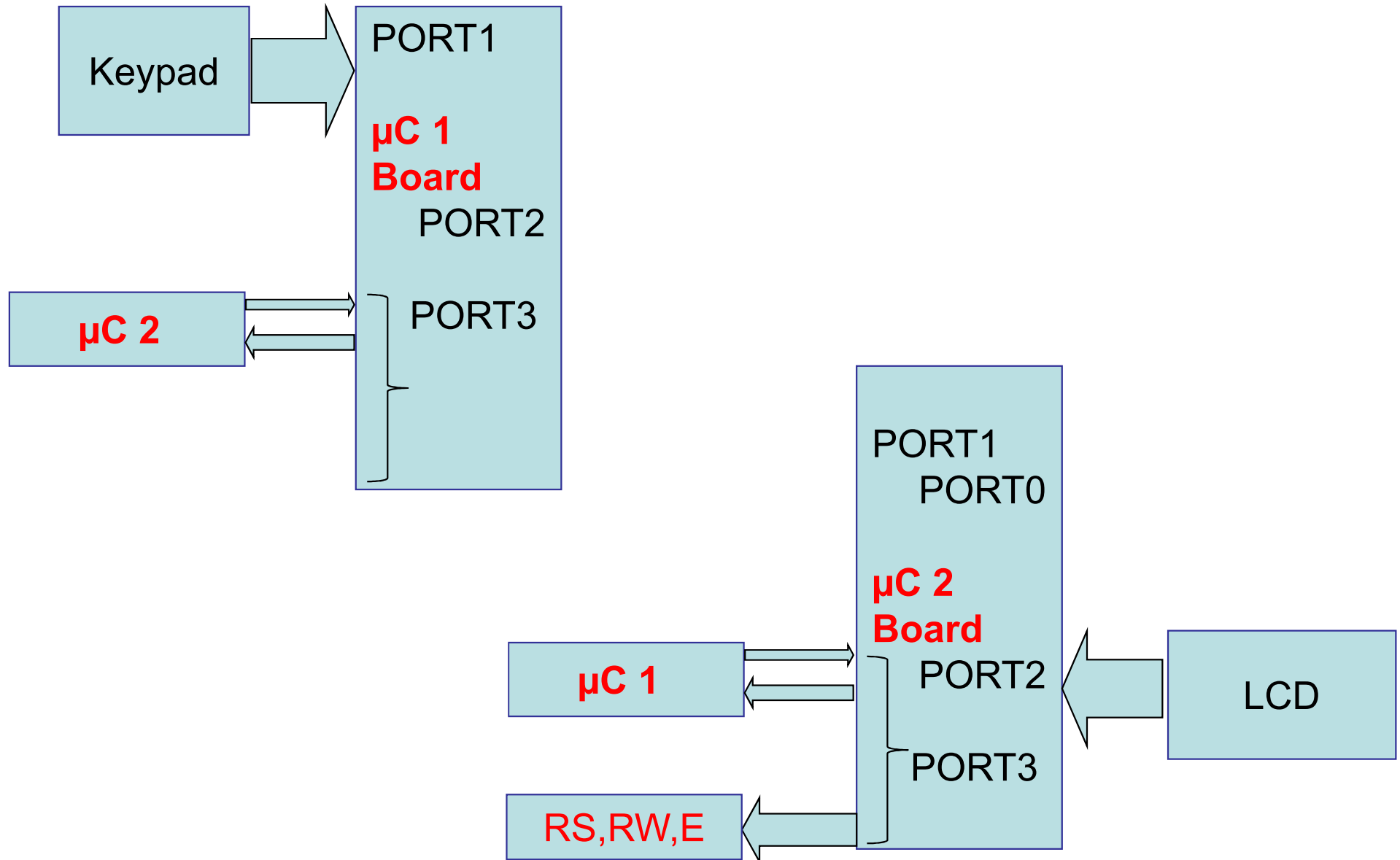


The 8051 Projects

Project # 2/2018
(DE 38 MTS)

Project 2 (Group)



Project # 2/2018 (software portion)

S.No	Key Pad	
1.	0	• Strings Mode
2.	1	• Digital Lock Mode

Explanation of Mode 1

- Upon reset “Enter Mode (1 or 2)” should be displayed on LCD
- Mode selection should be from uc1.
- In mode 1, uc1 should ask from user to input a number (1 to 4).
- On LCD of uc2 “Enter Number” must be displayed.
- When user input a number uc1 will transmit this number to uc2 and display it for 1 sec on LCD.

Explanation of Mode 1 Cont...

- After 1 sec uc1 will then transmit a string according to this number to uc2 via serial communication.
 1. Hello, My name is
 2. I am doing Serial Project
 3. This is Project 2 of Microcontroller
 4. Dept of Mechatronics Engineering.
- uc2 will receive the string and display it on LCD for 2 sec.
- It should repeat this task continuously.
- If '#' key is pressed on uc1, both controllers should return to mode selection.

Mode 2 Explanation

- Mode selection should be done in uc1. The controllers are being used as digital lock in this mode.
- uc2 LCD should display “Enter code”.
- The user has to enter a four digit code through keypad of uc1.
- The digits have to be serially transmitted to uc2.
- uc2 will then compare the code entered with the correct code. The default code is “1234”, if the code is correct then uc2 LCD should display, “Door open” else it should display, “incorrect code”.

Mode 1 Explanation Cont...

- If “*0*” is pressed, the uc1 should ask for new code (first current correct code must be entered and then new code). After this new code must be used.
- Upon reset the correct code must be the default code.
- If “*” is pressed on uc1 keypad, uc2 should display “Door Closed”.
- The tasks should be repeated continuously.
- If “#” is pressed on uc1 keypad then uc1 should return to mode selection.

Requirements – Project 2

- Code should be properly formatted (use tabs etc).
- Give comments in the code.
- Proper connectors should be made to select different modes.
- Change over to any mode should take effect immediately.
- You must have hardcopy of project report at the time of project submission

Submission – Project 2

- This is a group (group of 2) project.
- NERC group must have their own LCD board and hex keypad (PCB or Veroboard)
- Breadboard is not allowed
- Report
 - Introduction
 - Layout of the board
 - Hard copy of the code
 - Explanation of the code
 - Flow charts

Due Date – Project 2

- Send your soft copy not later than 2359 hrs on 6th Jan
- Syn A: Hardware submission will be on 7th and 8th Jan
- Syn B: Hardware submission will be on 9th and 10th Jan