Final Project Proposal Example

Design Topic

✓   Design and implement an elevator controller

Input/Output Table

Input	Function	Output	Function
Button S1	1F up	14-segment digit 0	Floor Number
Button S2	2F up	14-segment digit 1	Up and DN
Button S3	2F down	14-segment digit 2	UP and DN
Button S4	3F up	LED light D1	1F
Button S5	3F down	LED light D2	2F
Button S6	4F up	LED light D3	3F
Button S7	4F down	LED light D4	4F
Button S8	5F down	LED light D5	5F
Keypad 1	1F in Elevator		
Keypad 2	2F in Elevator	Speaker	Flour Announcement
Keypad 3	3F in Elevator		
Keypad 4	4F in Elevator		
Keypad 5	5F in Elevator		
DIP switch 1	Alarm		
DIP switch 2	ON/OFF		

Functions of the proposed elevator

1 The elevator has the basic functions: (I/O description)

   1.1   A counter that control the position of the elevator

   1.2   Button S1~S8 is the buttons that calls the elevators in different floors as specified in the Input/Output table.

   1.3   Keypad 1-5 represents the buttons inside the elevator.

   1.4   ... ...

2 The detailed function of the elevator.

   2.1   When many floors calls the elevator, the elevator will go the nearest floor.

   2.2   The speaker plays "Do" when the elevator reach 1st floor, and "Re" when reaching 2F, etc. ...

   2.3   (Optional) Block diagram/Finite State Machine