

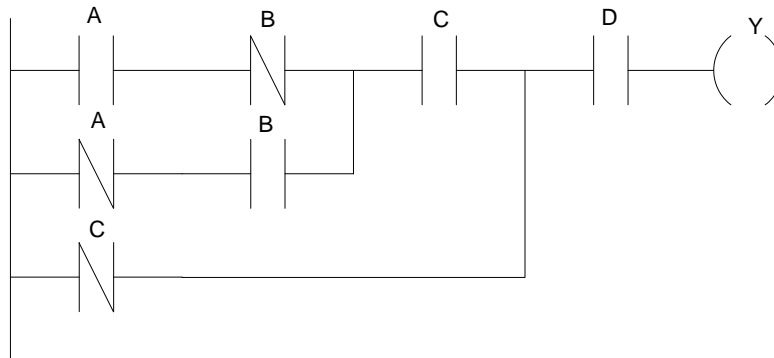
Homework #1 ECE 461

Ladder Logic. Due Monday, August 28th

1) Write a Ladder Logic program to implement the following logic function: $Y = f(A,B,C,D)$

		CD			
		00	01	11	10
AB	00	0	0	1	0
	01	0	1	1	1
	11	0	1	1	0
	10	0	0	0	0

2) Determine the logic function which corresponds to the following ladder logic program:



3) Write a ladder logic program to meet the following requirements:

I/O:

- Input: Button 1,2,3,4
- Output: 1 (red) and 3 (green)

How they relate:

- When you press button #1 (the top button), it checks buttons 2, 3, and 4.
- If button 2 & 3 were pressed and 4 is not pressed, the green goes on (password correct)
- Otherwise, the red light goes on (password incorrect)