

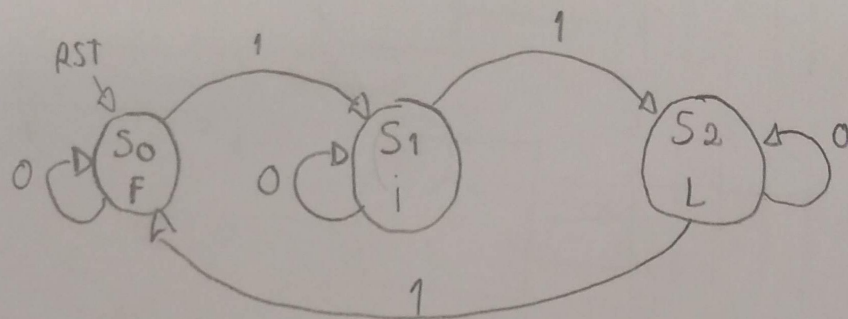
Aula 06 - Atividade 3

Filipe Borba 6º Computação

Sequenciador de letras usando uma FSM.

ASCII → binário

F 01000110
I 01001001
L 01001100



S0 → 00

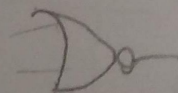
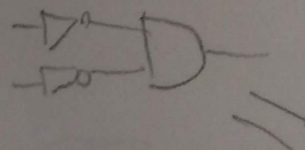
S1 → 01

S2 → 10

Estado Atual		Entrada	Próximo Estado	
bit1 _{EA}	bit0 _{EA}		bit1 _{PE}	bit0 _{PE}
0	0	0	0	0
0	0	1	0	1
0	1	0	0	1
0	1	1	1	0
1	0	0	1	0
1	0	1	0	0

$$\text{bit0}_{PE} = \overline{\text{bit1}_{EA}} * \overline{\text{bit0}_{EA}} * A + \overline{\text{bit1}_{EA}} * \text{bit0}_{EA} * \overline{A}$$

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$$Y_0 = \text{bit0}_{EA}$$

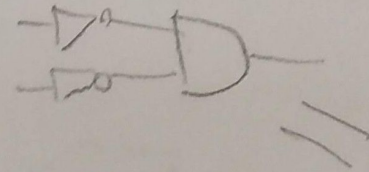
$$Y_4 = 0$$

$$Y_1 = !(\text{bit1}_{EA} + \text{bit0}_{EA})$$

$$Y_5 = 0$$

Estado Atual		Saída
bit1 _{EA}	bit0 _{EA}	
0	0	01000110

1	0	0	1	0
1	0	1	0	0



Estado Atual		Saída							
bit1 _{EA}	bit0 _{EA}								
0	0	0	1	0	0	0	1	1	0
0	1	0	1	0	0	1	0	0	1
1	0	0	1	0	0	1	1	0	0

$$Y_0 = \text{bit0}_{EA}$$

$$Y_1 = \neg(\text{bit1}_{EA} + \text{bit0}_{EA})$$

$$Y_2 = \overline{\text{bit0}_{EA}}$$

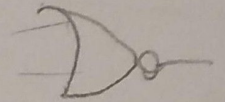
$$Y_3 = \neg(\text{bit1}_{EA} + \text{bit0}_{EA})$$

$$Y_4 = 0$$

$$Y_5 = 0$$

$$Y_6 = 1$$

$$Y_7 = 0$$



Simplificações:

$$\text{bit0}_{PE} = (\text{bit0}_{EA} * \bar{A}) + (\overline{\text{bit1}_{EA}} * \overline{\text{bit0}_{EA}} * A)$$

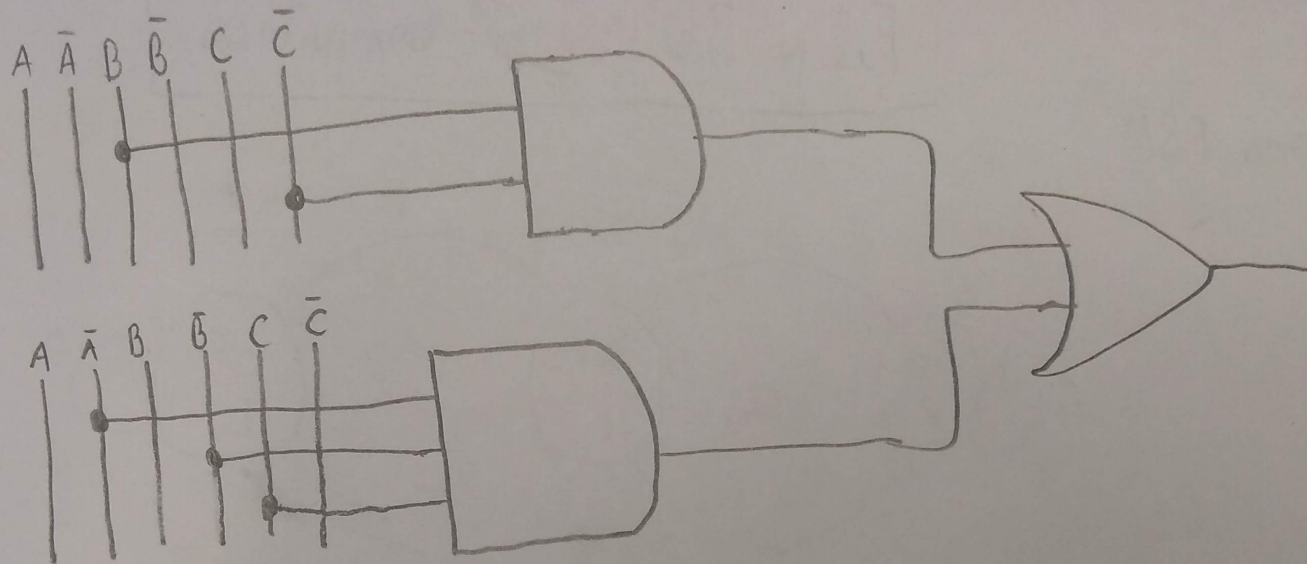
$$\text{bit1}_{PE} = (\text{bit0}_{EA} * A) + (\text{bit1}_{EA} * \bar{A})$$

lit 0 PE

A = lit 1 EA

B = lit 0 EA

C = A (Entrada)



lit 1 PE

