Pontifícia Universidade Católica de Minas Gerais

PUC Minas

Relatório II

Arquitetura de Computadores

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Horário	Seg - 07:00-08:30

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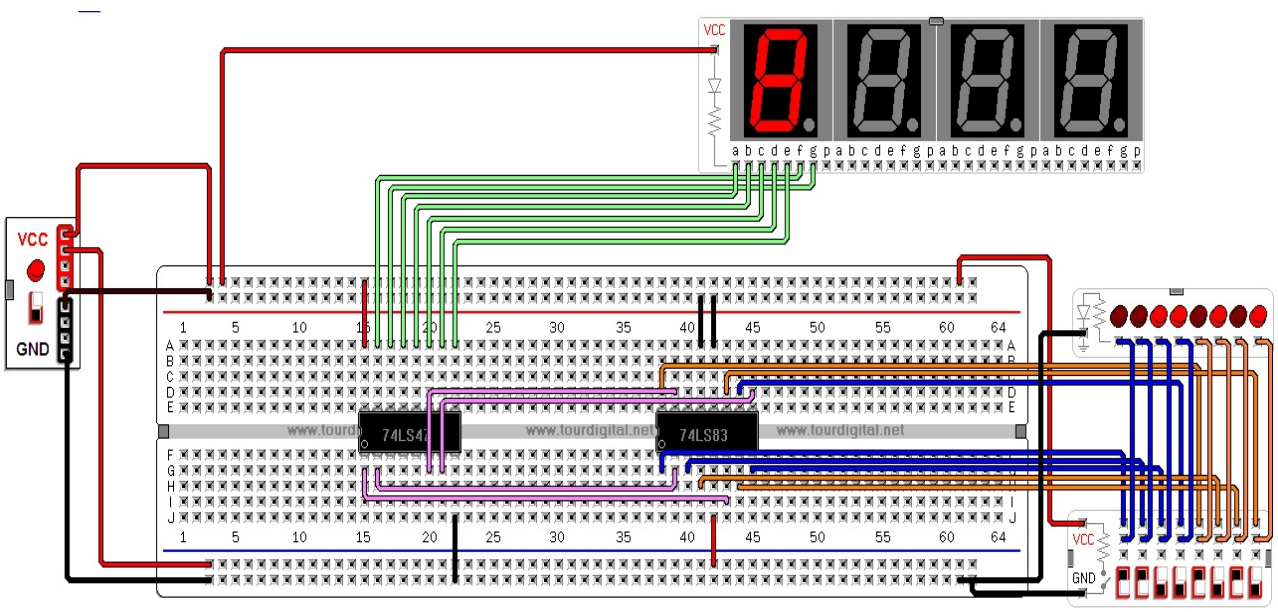
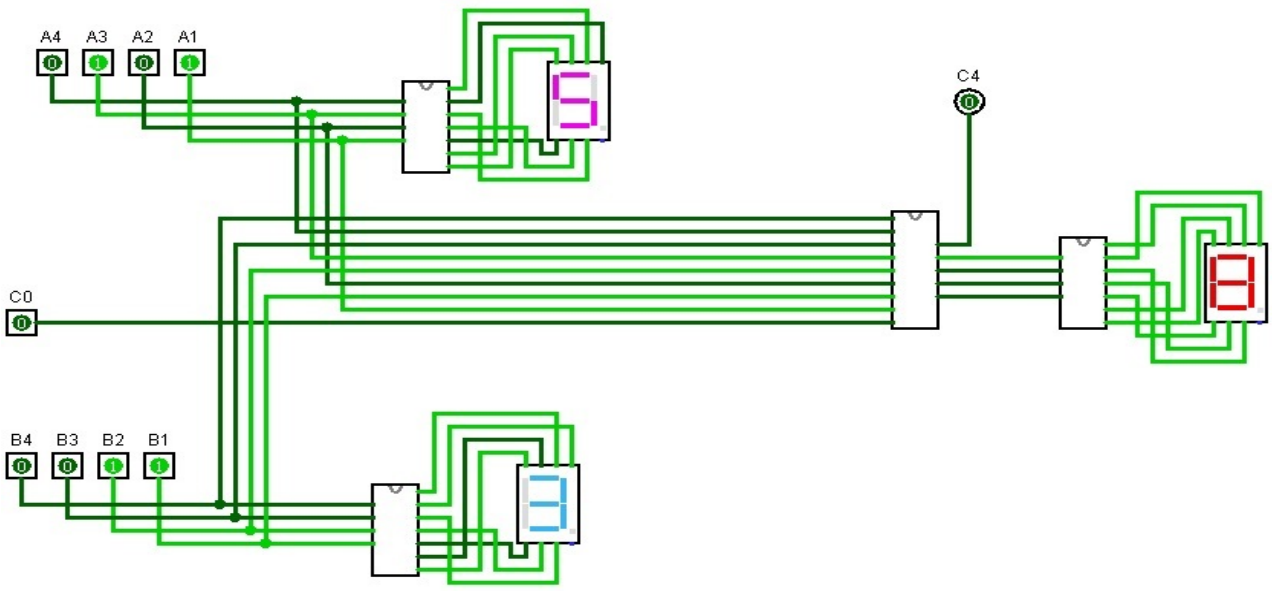
Conteúdo

1 Display 7 Segmentos

Display realizado no Simulador 097. Soma dos números 3 e 5, onde os cabos nos interruptores representam:
Azuis o número 3 (0011) - Laranjas o número 5 (0101).



Display de 7 Segmentos Realizado no Logisim



2 Decodificador

Decodificador realizado no Logisim utilizado no Diplay 7 Segmentos.

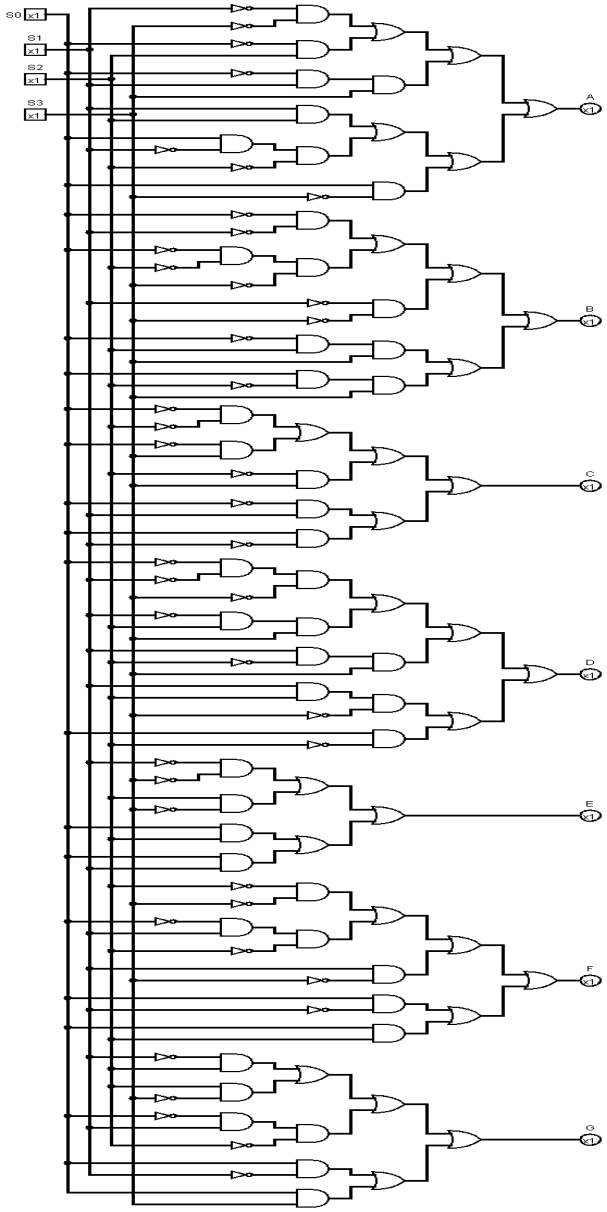


Tabela Verdade Decodificador

S3	S2	S1	S0	A	B	C	D	E	F	G
0	0	0	0	1	1	1	1	1	1	0
0	0	0	1	0	1	1	0	0	0	0
0	0	1	0	1	1	0	1	1	0	1
0	0	1	1	1	1	1	1	0	0	1
0	1	0	0	0	1	1	0	0	1	1
0	1	0	1	1	0	1	1	0	1	1
0	1	1	0	1	0	1	1	1	1	1
0	1	1	1	1	1	1	0	0	0	0
1	0	0	0	1	1	1	1	1	1	1
1	0	0	1	1	1	1	0	0	1	1
1	0	1	0	1	1	1	0	1	1	1
1	0	1	1	0	0	1	1	1	1	1
1	1	0	0	1	0	0	1	1	1	0
1	1	0	1	0	1	1	1	1	0	1
1	1	1	0	1	0	0	1	1	1	1
1	1	1	1	1	0	0	0	1	1	1

Expressões:

A = $\tilde{S}2\ \ S0 + \tilde{S}3\ S1 + \tilde{S}3\ S2\ S0 + S2\ S1 + S3\ \tilde{S}2\ \tilde{S}1 + S3\ \tilde{S}0$

B = $\tilde{S}3\ \tilde{S}2 + \tilde{S}3\ \tilde{S}1\ \tilde{S}0 + \tilde{S}2\ \tilde{S}1 + \tilde{S}2\ \tilde{S}0 + \tilde{S}3\ S1\ S0 + S3\ \tilde{S}1\ S0$

C = $\tilde{S}3\ \tilde{S}1 + \tilde{S}3\ S0 + \tilde{S}1\ S0 + \tilde{S}3\ S2 + S3\ \tilde{S}2$

D = $\tilde{S}3\ \tilde{S}2\ \tilde{S}0 + \tilde{S}2\ S1\ S0 + S2\ \tilde{S}1\ S0 + S2\ S1\ \tilde{S}0 + S3\ \tilde{S}1\ \tilde{S}0$

E = $\tilde{S}2\ \tilde{S}0 + S1\ \tilde{S}0 + S3\ S1 + S3\ S2$

F = $\tilde{S}1\ \tilde{S}0 + \tilde{S}3\ S2\ \tilde{S}1 + S2\ \tilde{S}0 + S3\ \tilde{S}2 + S3\ S1$

G = $\tilde{S}2\ S1 + S1\ \tilde{S}0 + \tilde{S}3\ S2\ \tilde{S}1 + S3\ \tilde{S}2 + S3\ S0$

3 Somador

Somador realizado no Logisim utilizado no Display de 7 Segmentos.