Exercício Pratico 02

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1 Parte 1

1.1 Ula de 1 bit

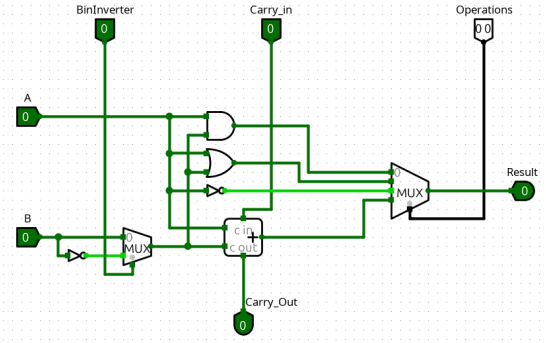


Figure 1: Ula de 1 bit

1.2 Ula de 4 bits

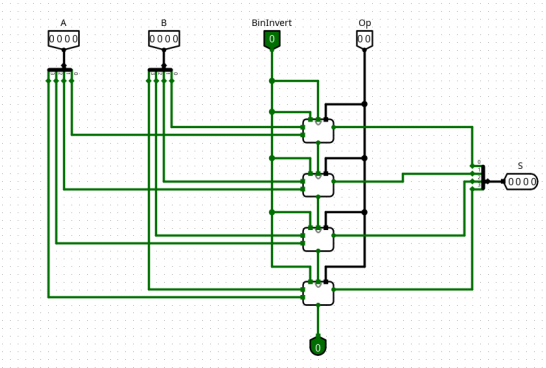


Figure 2: Ula de 4 bits

1.2.1 AND(A,B)

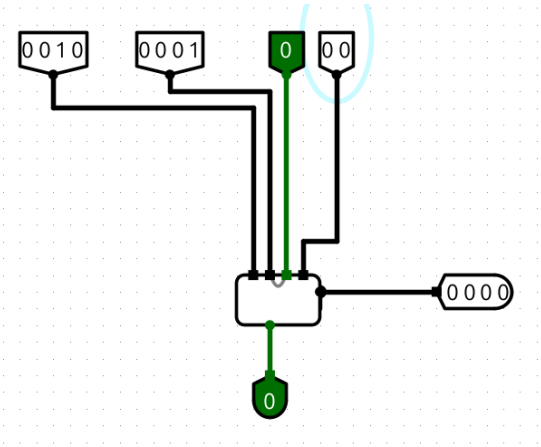


Figure 3: AND(A,B)

1.2.2 OR(A,B)

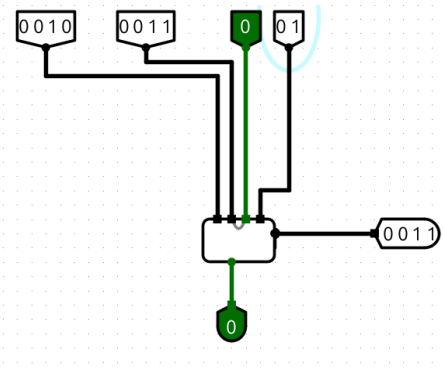


Figure 4: OR(A,B)

1.2.3 SOMA(A,B)

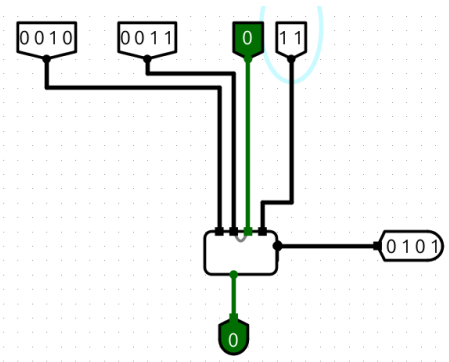


Figure 5: SOMA(A,B)

1.2.4 NOT(A)

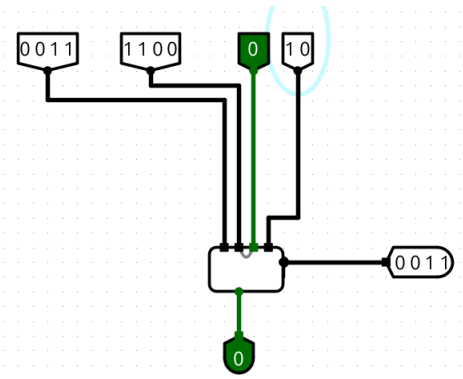


Figure 6: NOT(A)

1.2.5 AND(B,A)

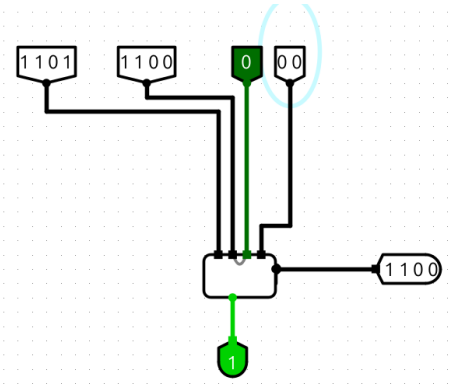
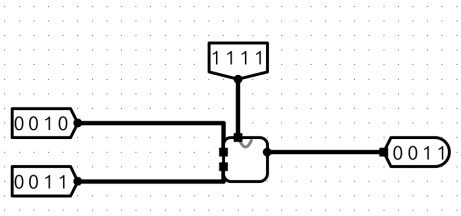


Figure 7: AND(B,A)

Instrução realizada	Binário	Valor em hexa	Resultado em binário
AND(A,B)	0010 0001 00	0x084	0000
OR(A,B)	0010 0001 01	0x085	0011
SOMA(A,B)	0010 0001 11	0x087	0011
NOT(A)	0010 0001 10	0x086	1101
AND(B,A)	0001 0010 00	0x048	0000



2 Parte 2

2.1 Tabela de teste

Instruções	Binário	Resultado
450	0100 0101 0000	1010
CB1	1100 1011 0001	0000
A32	1010 0011 0010	0100
C43	1100 0100 0011	0000
124	0001 0010 0100	1111
785	0111 1000 0101	1000
9B6	1001 1011 0110	0010
CD7	1100 1101 0111	0001
FE8	1111 1110 1000	1111
649	0110 0100 1001	1111
D9A	1101 1001 1010	1101
FCB	1111 1100 1011	1100
63C	0110 0011 1100	1111
98D	1001 1000 1101	1110
76E	0111 0110 1110	0111
23F	0010 0011 1111	0011

Caso fosse verificar se o circuito esta correto através de tabela verdade seria necessário 2^{12} linhas.