



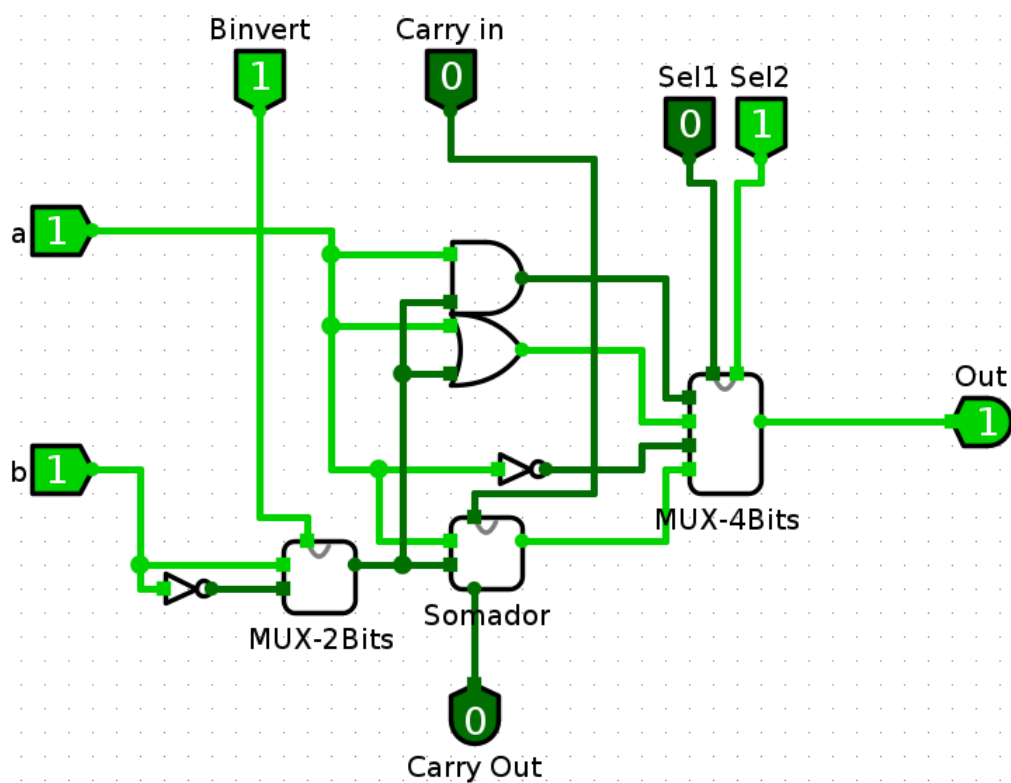
**Pontifícia Universidade Católica de Minas Gerais**  
**Instituto de Ciências Exatas e Informática**  
**Disciplina:** Arquitetura de Computadores II  
**Atividade:** Exercício Prático II

**Prof.:** Romanelli

**Nome:** Davi Cândido de Almeida \_857859

**Parte 1 - (Estudo da ALU usando o Logisim):**

**1. Montagem da ULA - 1Bit**

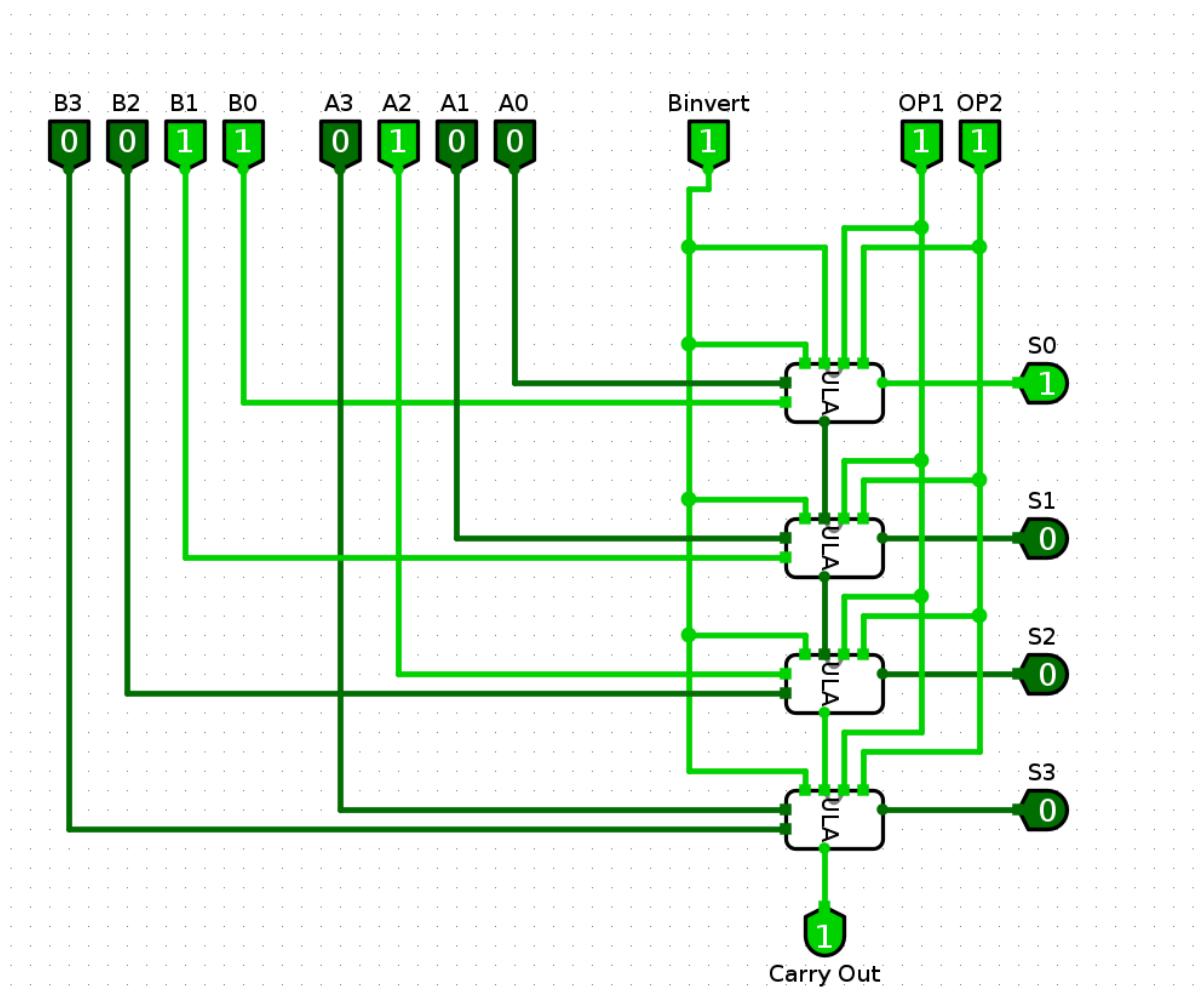


Op. Code (Operation)	Instrução (Result)
0	AND (a,b)
1	OR (a,b)
2	NOT (a)
3	SOMA(a,b)

## 2. Tabela de testes da ULA

A	B	OP	Binvert	Resultado	Carry Out
0	1	00	0	0	0
1	1	01	0	1	0
1	1	11	0	0	1
1	1	11	1	1	0

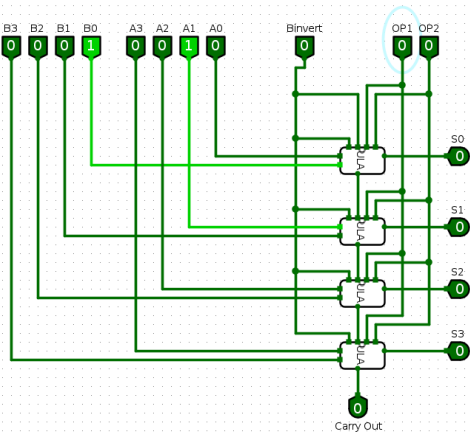
## 3. Montagem da ULA - 4Bits



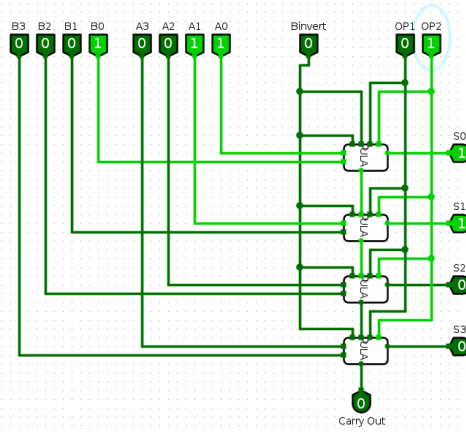
#### 4. Tabela de testes da ULA de 4Bits

Teste	A	B	Instrução realizada	Binário (A,B,OP.code)	Valor em Hexa (0x ...)	Resultado em Binário
1	2	1	and(A,B)	0010 0001 00	(0000 1000 0100) = 0x084	0000
2	2	3	OR(A,B)	0010 0011 01	(0000 1000 1101) = 0x08D	0011
3	2	3	SOMA(A,B)	0010 0011 11	(0000 1000 1111) = 0x08F	0101
4	12	3	NOT(A)	1100 0011 10	(0011 0000 1110) = 0x30E	0011
5	12	13	AND(B,A)	1100 1101 11	(0011 0011 0111) = 0x337	1100

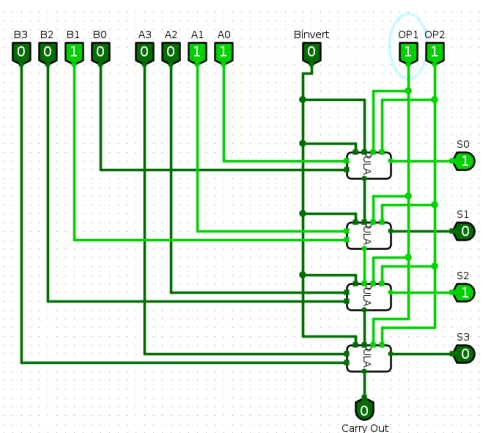
Teste 1: AND(A,B)



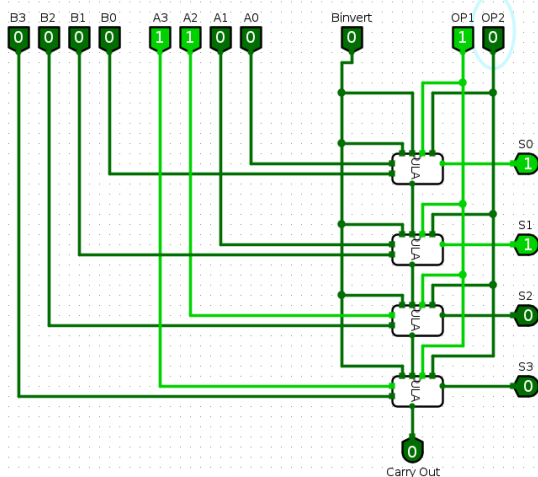
Teste 2: AND(A,B)



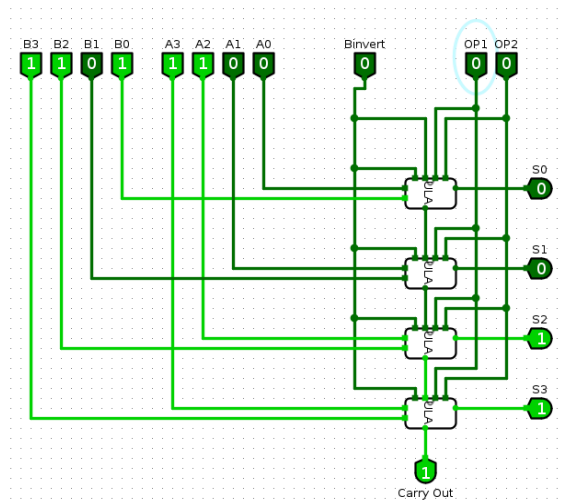
Teste 3: SOMA(A,B)



Teste 4: NOT(A)



Teste 5: AND(B,A)



## **Parte 2 - (Estudo do circuito 74181):**