Construction of Binary to Gray Converter using NAND gates only

Print

Battery

+5V

Connected!!

B_3(MSB)

B_2

B_1

B_0(LSB)

G_3(MSB)

G_2

G_1
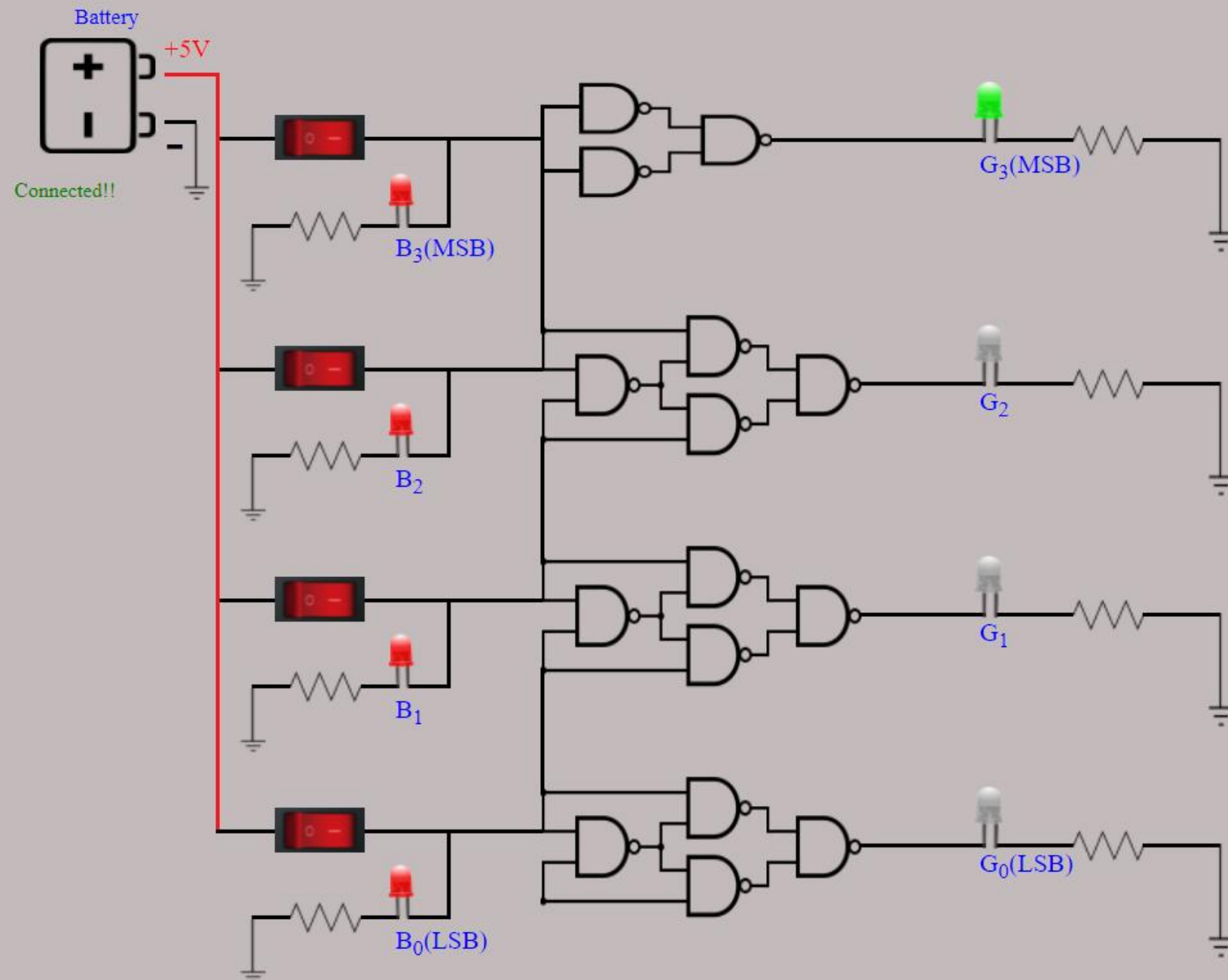
G_0(LSB)

TRUTH TABLE

Add

Serial No.	Binary				Gray			
	B_3 (MSB)	B_2	B_1	B_0 (LSB)	G_3 (MSB)	G_2	G_1	G_0 (LSB)
1	0	0	0	0	0	0	0	0
2	0	0	0	1	0	0	0	1
3	0	0	1	0	0	0	1	1
4	0	0	1	1	0	0	1	0
5	0	1	0	0	0	1	1	0
6	0	1	0	1	0	1	1	1
7	0	1	1	0	0	1	0	1
8	0	1	1	1	0	1	0	0
9	1	0	0	0	1	1	0	0
10	1	0	0	1	1	1	0	1
11	1	0	1	0	1	1	1	1
12	1	0	1	1	1	1	1	0
13	1	1	0	0	1	0	1	0
14	1	1	0	1	1	0	1	1
15	1	1	1	0	1	0	0	1
16	1	1	1	1	1	0	0	0

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Battery

+5V

Connected!!

G_3(MSB)

G_2

G_1

G_0(LSB)

B_3(MSB)

B_2

B_1
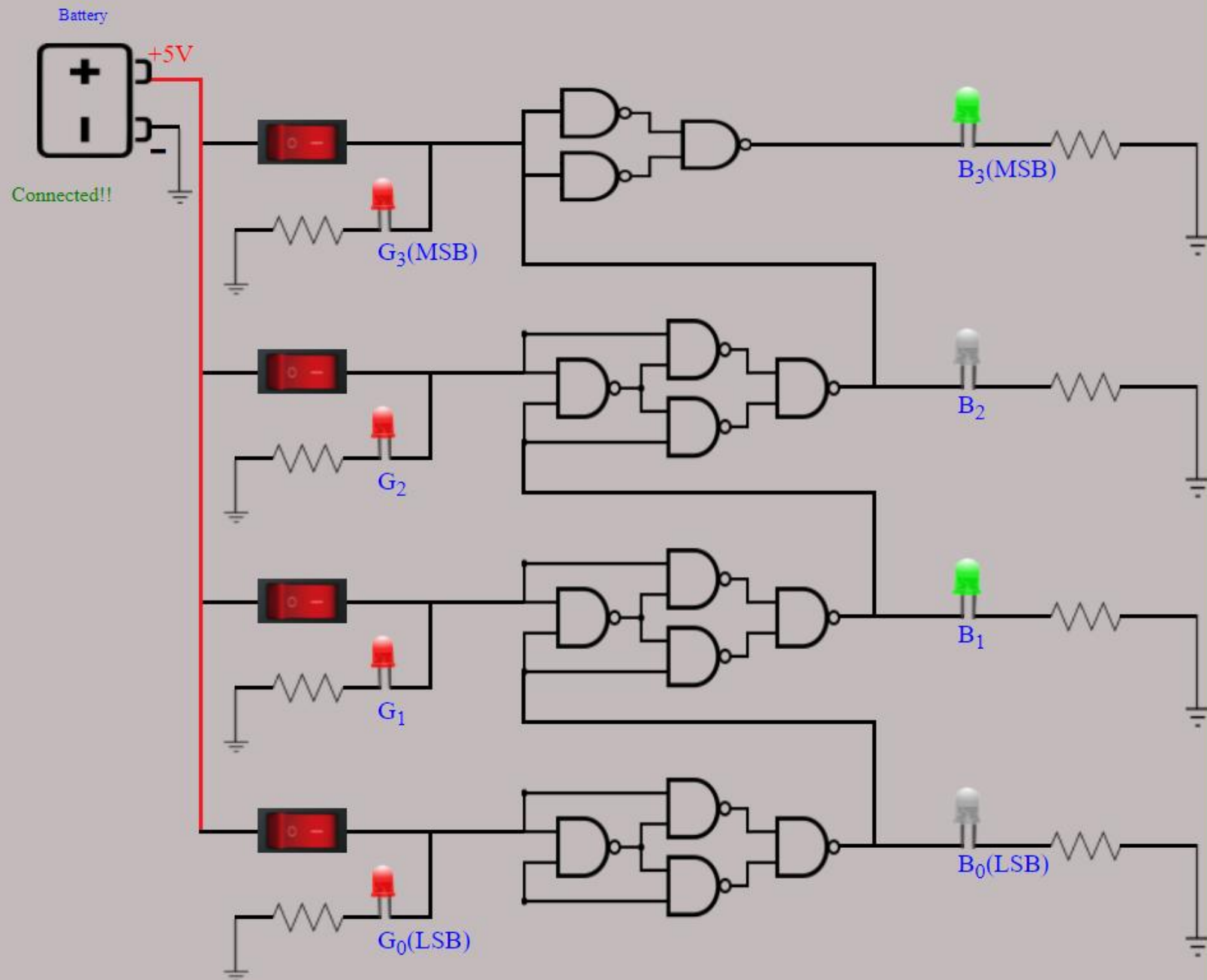
B_0(LSB)

TRUTH TABLE

Add

Serial No.	Gray				Binary			
	G_3 (MSB)	G_2	G_1	G_0 (LSB)	B_3 (MSB)	B_2	B_1	B_0 (LSB)
1	0	0	0	0	0	0	0	0
2	0	0	0	1	0	0	0	1
3	0	0	1	0	0	0	1	1
4	0	0	1	1	0	0	1	0
5	0	1	0	0	0	1	1	1
6	0	1	0	1	0	1	1	0
7	0	1	1	0	0	1	0	0
8	0	1	1	1	0	1	0	1
9	1	0	0	0	1	1	1	1
10	1	0	0	1	1	1	1	0
11	1	0	1	0	1	1	0	0
12	1	0	1	1	1	1	0	1
13	1	1	0	0	1	0	0	0
14	1	1	0	1	1	0	0	1
15	1	1	1	0	1	0	1	1
16	1	1	1	1	1	0	1	0