

Digital Engineering - Assignment 2

Team Members

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Truth Tables

Addition (Control = 0)

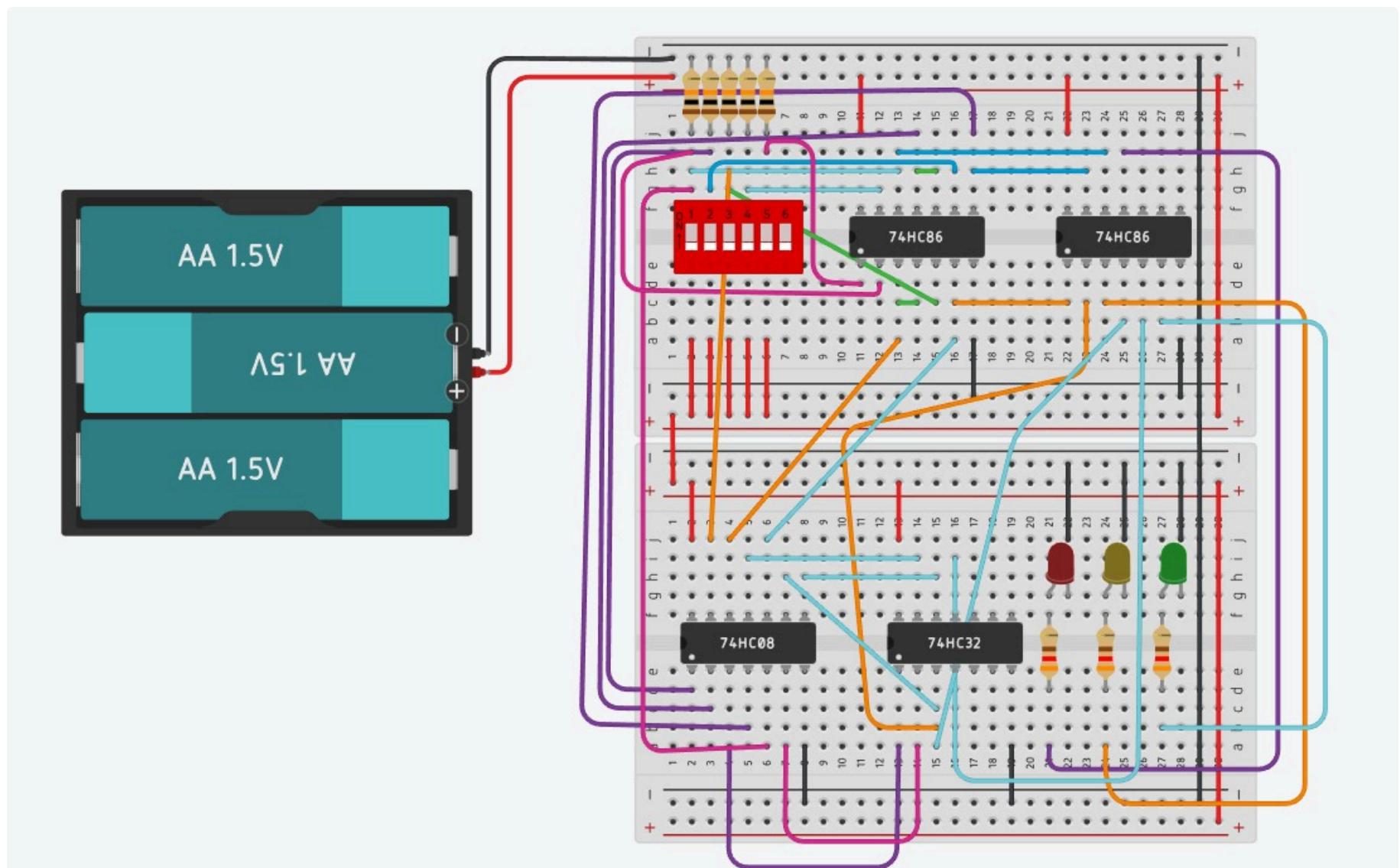
control	a0	a1	b0	b1	sum1	sum2	carry
0	0	0	0	0	0	0	0
0	0	0	0	1	0	1	0
0	0	0	1	0	1	0	0
0	0	0	1	1	1	1	0
0	0	1	0	0	0	1	0
0	0	1	0	1	0	0	1
0	0	1	1	0	1	1	0
0	0	1	1	1	1	0	1
0	1	0	0	0	1	0	0
0	1	0	0	1	1	1	0
0	1	0	1	0	0	1	0
0	1	0	1	1	0	0	1
0	1	1	0	0	1	1	0
0	1	1	1	0	0	0	1
0	1	1	1	1	0	1	1

Subtraction (control = 1)

control	a0	a1	b0	b1	sum1	sum2	borrow
1	0	0	0	0	0	0	1
1	0	0	0	1	0	1	0
1	0	0	1	0	1	1	0
1	0	0	1	1	1	0	0

control	a0	a1	b0	b1	sum1	sum2	borrow
1	0	1	0	0	0	1	1
1	0	1	0	1	0	0	1
1	0	1	1	0	1	0	1
1	0	1	1	1	1	1	0
1	1	0	0	0	1	0	1
1	1	0	0	1	1	1	0
1	1	0	1	0	0	0	1
1	1	0	1	1	0	1	0
1	1	1	0	0	1	1	1
1	1	1	1	0	0	1	1
1	1	1	1	1	0	0	1
1	1	1	1	1	1	0	1

TinkerCAD



Circuit Images

