Lab Work Week 1

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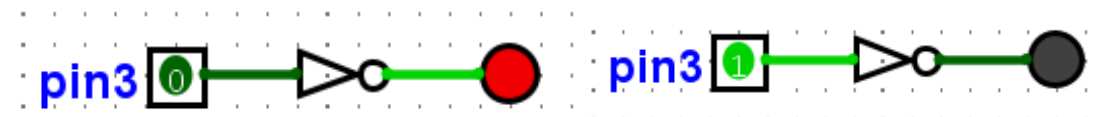
1. AND gate:

pin 1	pin 2	output
0	0	0
0	1	0
1	0	0
1	1	1
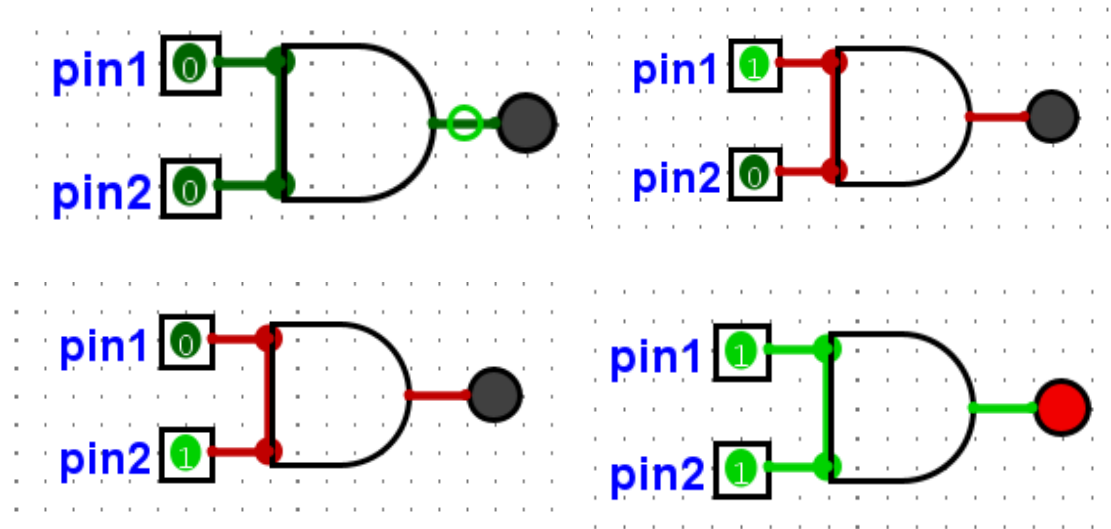
2. NOT gate:

pin3	output
0	1
1	0

3. NAND gate:

pin4	pin5	output
0	0	1
1	0	1
0	1	1
1	1	0
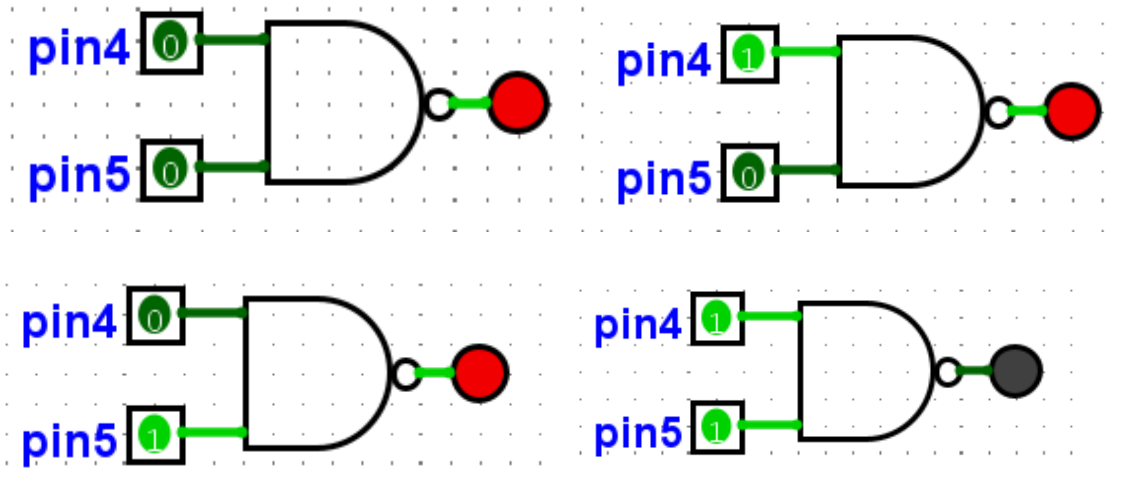
4. Half adder:

pin1	pin2	carry	sum
0	0	0	0
1	0	0	1
0	1	0	1
1	1	1	0
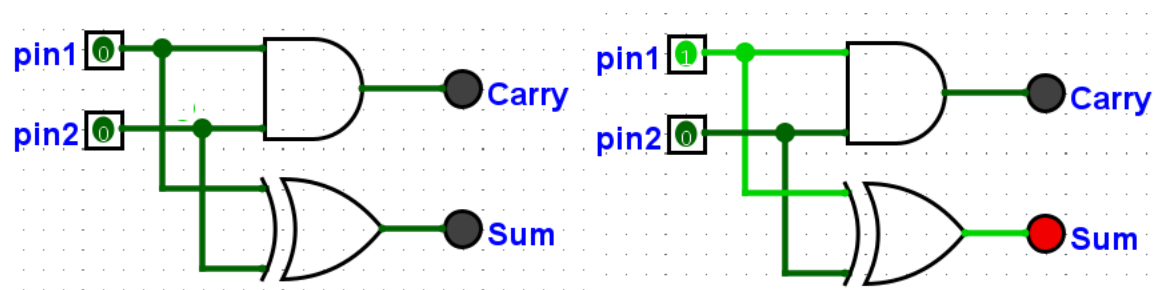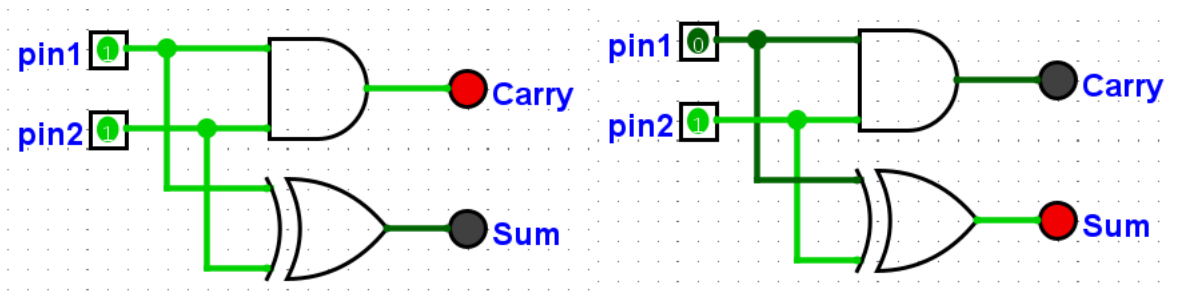
5. Full adder:

input1	input2	carry in	sum	carry out
0	0	0	0	0
0	0	1	1	0
0	1	0	1	0
0	1	1	0	1
1	0	0	1	0
1	0	1	0	1
1	1	0	0	1
1	1	1	1	1

Circuit 1:

input1 [0]

input2 [0]

carry_in [1]

Sum (red)

Carry_out (gray)

Circuit 2:

input1 [0]

input2 [1]

carry_in [0]

Sum (red)

Carry_out (gray)

Circuit 1:

input1 = 0
input2 = 1
carry_in = 1

Sum
Carry_out

Circuit 2:

input1 = 1
input2 = 0
carry_in = 0

Sum
Carry_out

input1

input2

carry_in

Sum

Carry_out