I – AND

State Table:

Pin 1	Pin 2	Output
0	0	0
0	1	0
1	0	0
1	1	1

II – NOT
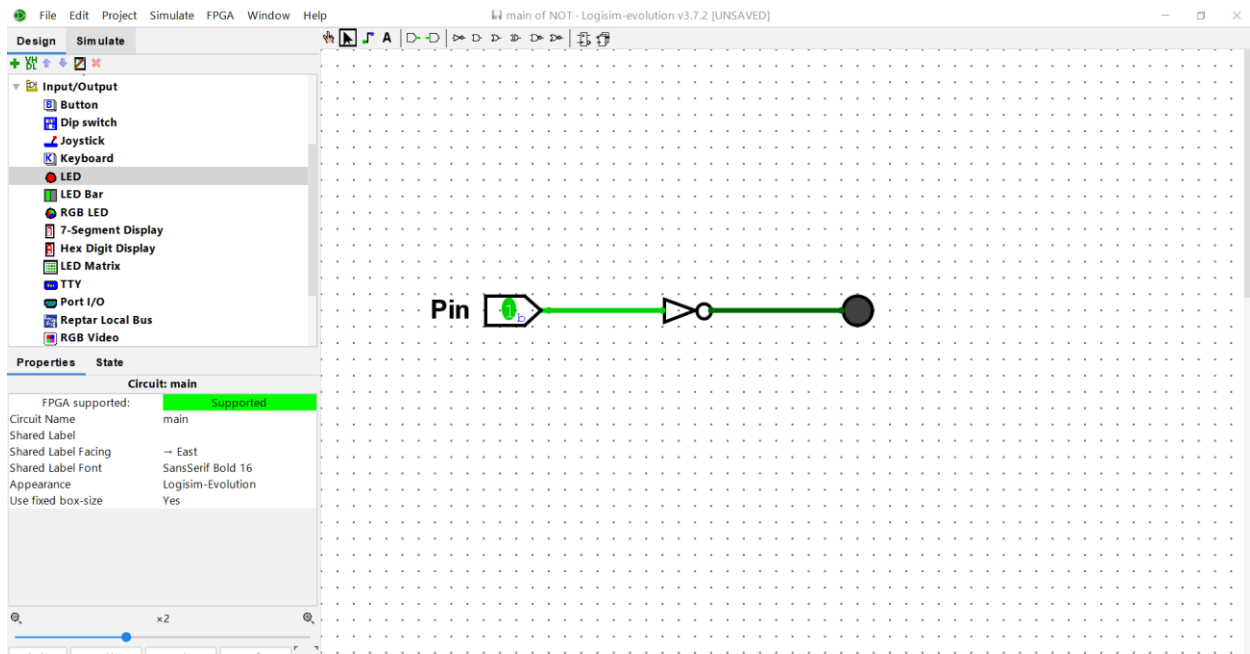
State Table:

Pin	Output
0	1
1	0

III – NAND
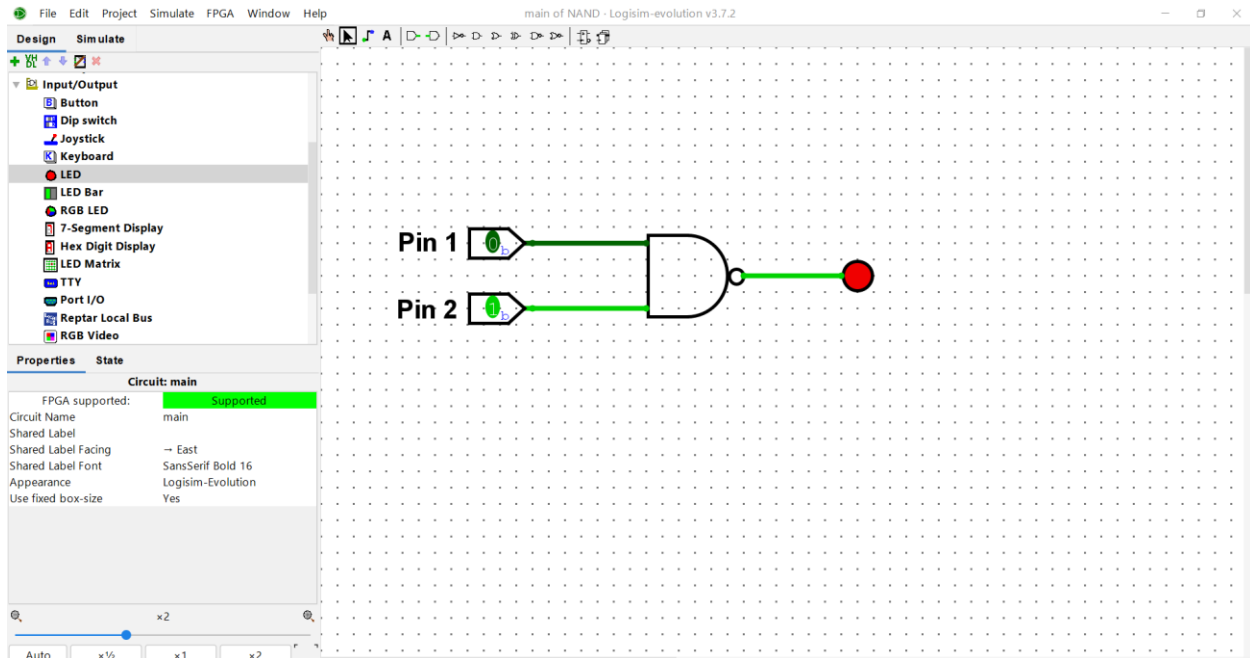
State Table:

Pin 1	Pin 2	Output
0	0	1
0	1	1
1	0	1
1	1	0

IV – HALF ADDER
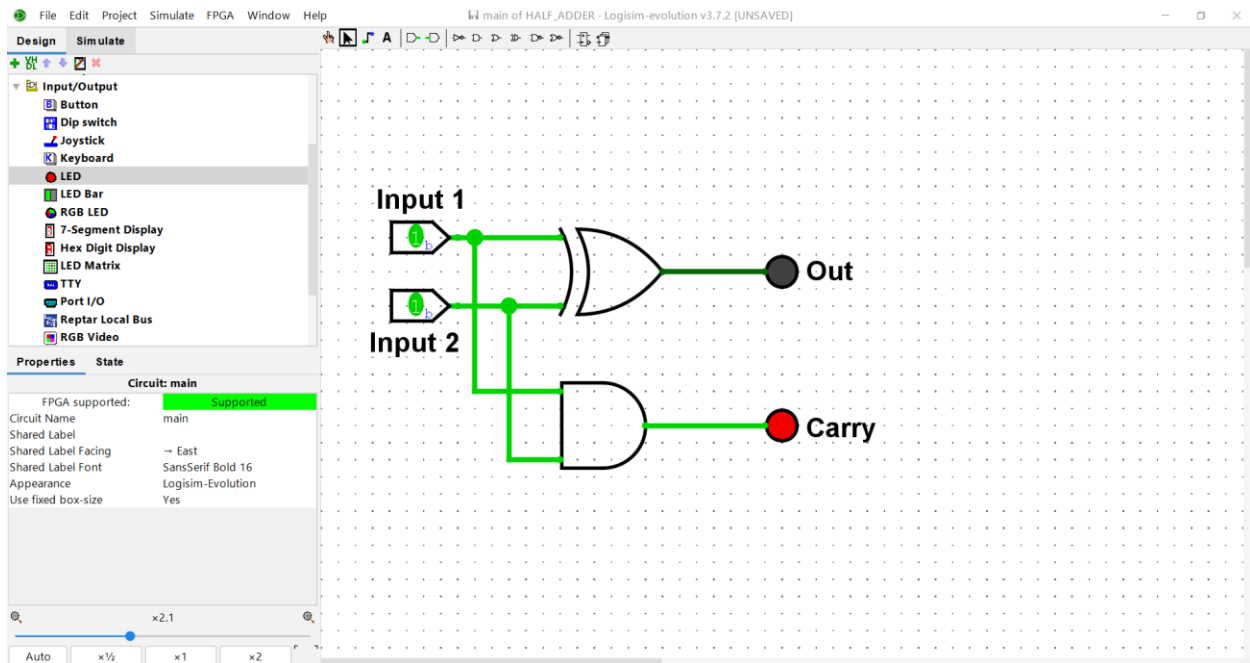
State Table:

Input 1	Input 2	Output	Carry
0	0	0	0
0	1	1	0
1	0	1	0
1	1	0	1

V – FULL ADDER
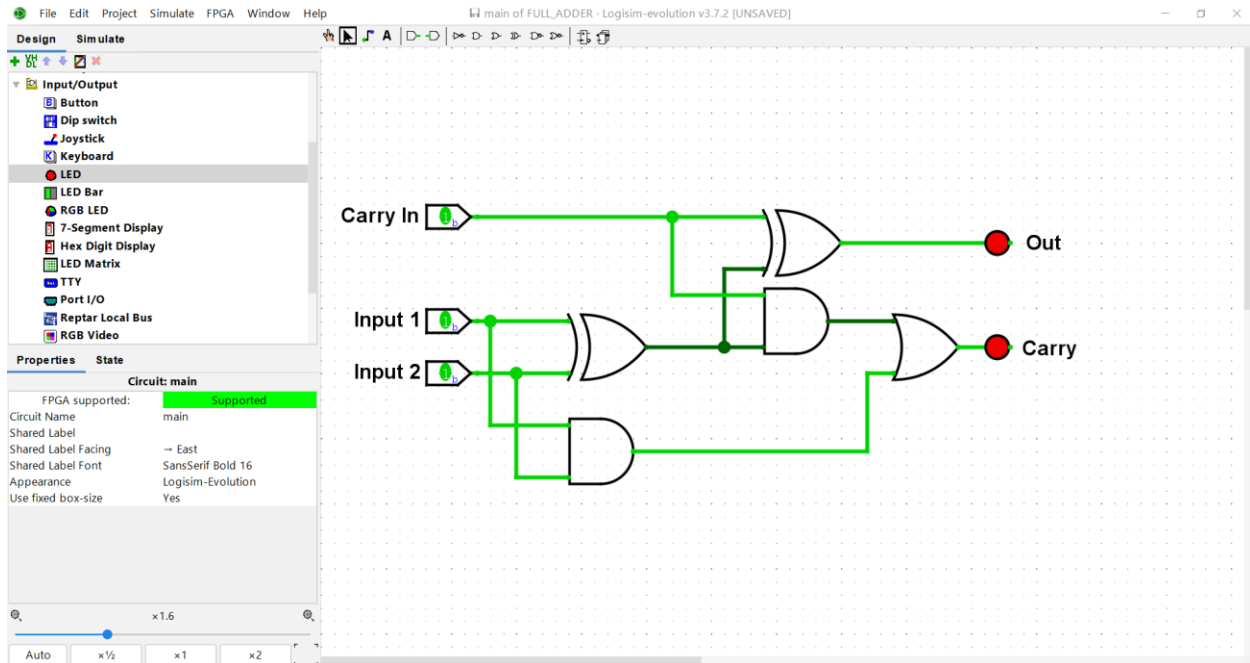
State Table:

Input 1	Input 2	Carry In	Sum Output	Carry Output
0	0	0	0	0
0	0	1	1	0
1	0	0	1	0
1	0	1	0	1
0	1	0	1	0
0	1	1	0	1
1	1	0	0	1
1	1	1	1	1