Gates logic

From Wiremod Wiki

Logic gates are the standard digital logic gates you can find on a circuit board. They all do simple binary tasks, and therefore only have one output.

Contents

OR

Inputs: N A B C D E F G H
Outputs: N Out

Description: Returns 1 if any input is 1. Returns 0 if no inputs are 1.

Truth Table		
Input 1	Input 2	Output
0	0	0
1	0	1
1	1	1

AND

Inputs: N A B C D E F G H
Outputs: N Out

Description: Returns 1 only if all inputs are 1, otherwise returns 0.

Truth Table		
Input 1	Input 2	Output
0	0	0
1	0	0
1	1	1

NOT

Inputs: N A
Outputs: N Out

Description: Returns 1 if input is 0. Returns 0 if input is 1.

Truth Table	
Input	Output
0	1
1	0

NAND

Inputs: N A B C D E F G H
Outputs: N Out

Description: Equivalent to adding a NOT to an AND. Returns 0 if all inputs are 1. Returns 1 if any inputs are 0.

Truth Table		
Input 1	Input 2	Output
0	0	1
1	0	1
1	1	0

NOR

Inputs: N A B C D E F G H
Outputs: N Out

Description: Equivalent to adding a NOT to an OR. Returns 0 if any inputs are 1. Returns 1 if all inputs are 0.

Truth Table		
Input 1	Input 2	Output
0	0	1
1	0	0
1	1	0

XOR

Inputs:	A B C D E F G H
Outputs:	Out
Description:	Exclusive OR. Returns 1 if only one input is 1. Returns 0 if all inputs are 0 or more than one input is 1.

Truth Table

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

XNOR

Inputs:	A B C D E F G H
Outputs:	Out
Description:	Equivalent to adding a NOT to an XOR. Returns 0 if only one input is 1. Returns 1 if all inputs are 0 or more than one input is 1.

Truth Table

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