

# BINARY LOGIC GATES

Reference Guide for Digital Electronics

## AND ( $A \cdot B$ )

A	B	Out
0	0	0
0	1	0
1	0	0
1	1	1

Output is 1 ONLY if both inputs are 1.

## OR ( $A + B$ )

A	B	Out
0	0	0
0	1	1
1	0	1
1	1	1

Output is 1 if at least one input is 1.

## NOT ( $\hat{A} \neg A$ )

In	Out
0	1
1	0

Inverts the input signal.

## XOR ( $A \hat{\cdot} B$ )

A	B	Out
---	---	-----

0	0	0
0	1	1
1	0	1
1	1	0

Output is 1 if inputs are different.

0 = LOW / FALSE | 1 = HIGH / TRUE