

LOGIC GATE

TRUTH TABLE

| AND GATE | | |
|----------|---|-----|
| | | |
| INPUT | | OUT |
| A | B | C |
| 0 | 0 | 0 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 1 |

• OUTPUT IS 1 WHEN ALL INPUT IS 1

| NAND GATE | | |
|-----------|---|-----|
| | | |
| INPUT | | OUT |
| A | B | C |
| 0 | 0 | 1 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 0 |

• OUTPUT IS 0 WHEN ALL INPUT IS 0

| OR GATE | | |
|---------|---|-----|
| | | |
| INPUT | | OUT |
| A | B | C |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 1 |

• OUTPUT IS 1 WHEN EITHER INPUT IS 1

| NOR GATE | | |
|----------|---|-----|
| | | |
| INPUT | | OUT |
| A | B | C |
| 0 | 0 | 1 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 0 |

• OUTPUT IS 1 WHEN NONE INPUT IS 1

| NOT GATE | | |
|----------|-----|--|
| | | |
| INPUT | OUT | |
| A | B | |
| 0 | 1 | |
| 1 | 0 | |

• OUTPUT IS REVERSE OF INPUT

| ON-DELAY | |
|------------------------------|--|
| | |
| XX SECOND AFTER A=1 THAN B=1 | |

| OFF-DELAY | |
|------------------------------|--|
| | |
| XX SECOND AFTER A=0 THAN B=0 | |

| POSITIVE INPUT | |
|--|--|
| | |
| INPUT CONNECTED WITH SIGNAL 12 VOLTS OR 24 VOLTS WHEN ACTIVATING | |

| SINKING INPUT | |
|--|--|
| | |
| INPUT CONNECTED WITH SIGNAL GROUND WHEN ACTIVATING | |

INPUT OR OUTPUT LEVEL

LEVEL 1 = 12 VOLTS OR 24 VOLTS

LEVEL 0 = 0 VOLT (TO GROUND)