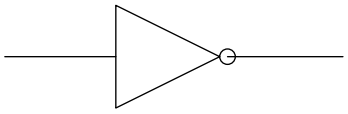
ECEN 248 Lab 1: Digital Logic Gates

1. Know how to use the breadboard: Figure 4 in the lab manual 1.
    a. Place ICs across the partition divisions.
    b. Always place ICs with the notch on the top.
    c. Always connect VCC and GND pins for ICs.
2. Digital logic signal “1” corresponds to voltage 3.9 ~ 4.2 V.

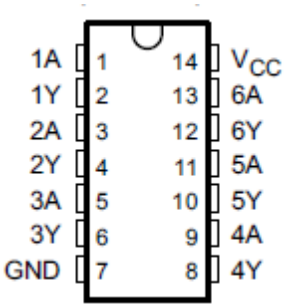
   Digital logic signal “0” corresponds to voltage 90 mV.
3. Reference:

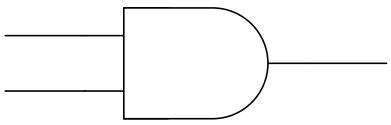


NOT

A	Y
0	1
1	0

74ALS04

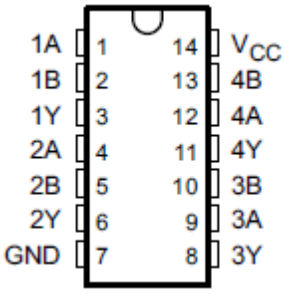


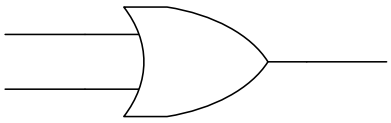


AND

A	B	Y
0	0	0
0	1	0
1	0	0
1	1	1

74ALS08

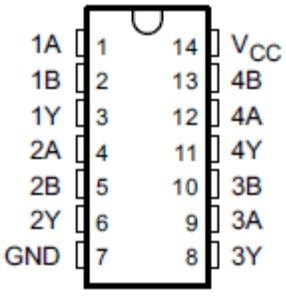


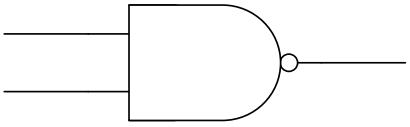


OR

A	B	Y
0	0	0
0	1	1
1	0	1
1	1	1

74ALS32

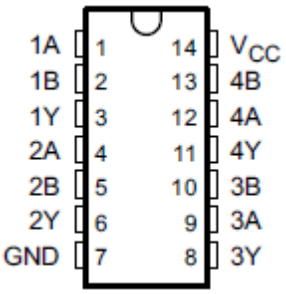


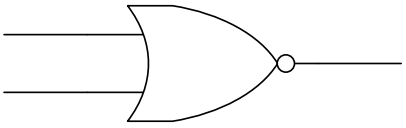


NAND

A	B	Y
0	0	1
0	1	1
1	0	1
1	1	0

74ALS00A

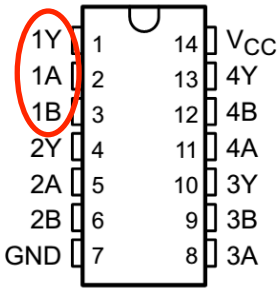


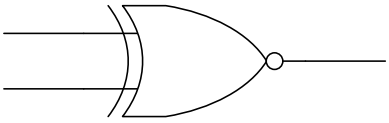


NOR

A	B	Y
0	0	1
0	1	0
1	0	0
1	1	0

74AHCT02





XOR

A	B	Y
0	0	0
0	1	1
1	0	1
1	1	0

74ALS86