LOGIC ANALYZER LABS

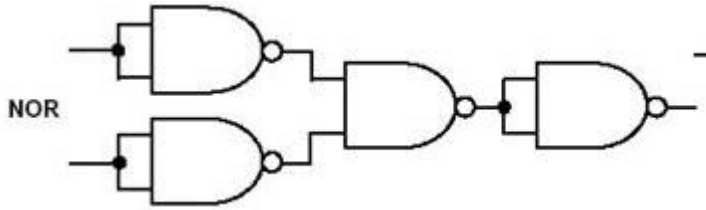
Using a 7400 NAND as a NOR gate

If A & B go LOW, Brown & Red go HIGH. Orange goes LOW and Yellow goes High and turns on the LED. I start with both inputs = HIGH.

Brown Orange Yellow

A Input

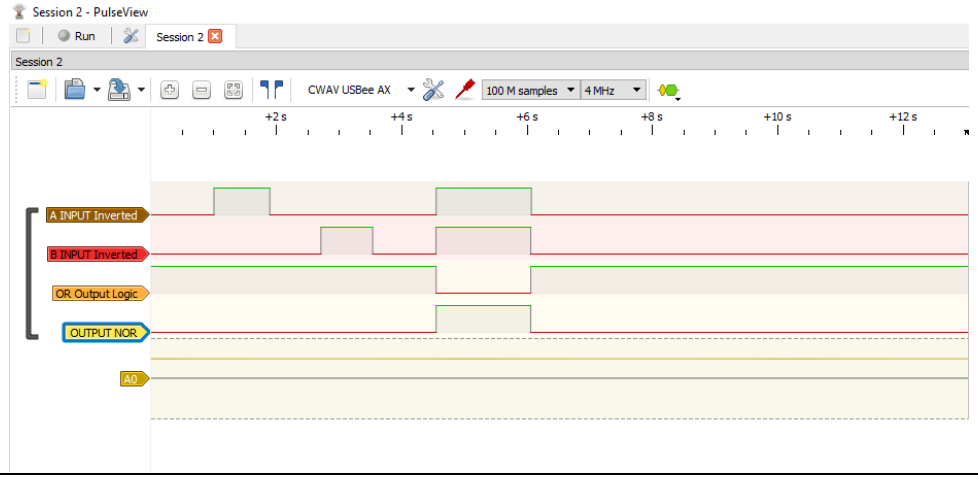
B Input



A	B	Output
0	0	1
0	1	0
1	0	0
1	1	0

Red

A=Low B=Low Both A&B = LOW so Brn & Red go High
Brn = High Red = High Orange = Low
Yellow = High and LED is ON



7400 NAND IC. Red and Blk wires are switched 5VDC inputs (A & B).

The output is HIGH when both inputs go low. Thus the LED goes ON.

Since the 7400 has 4 NAND gates, only 1 IC is needed.