

'AND' GATE:

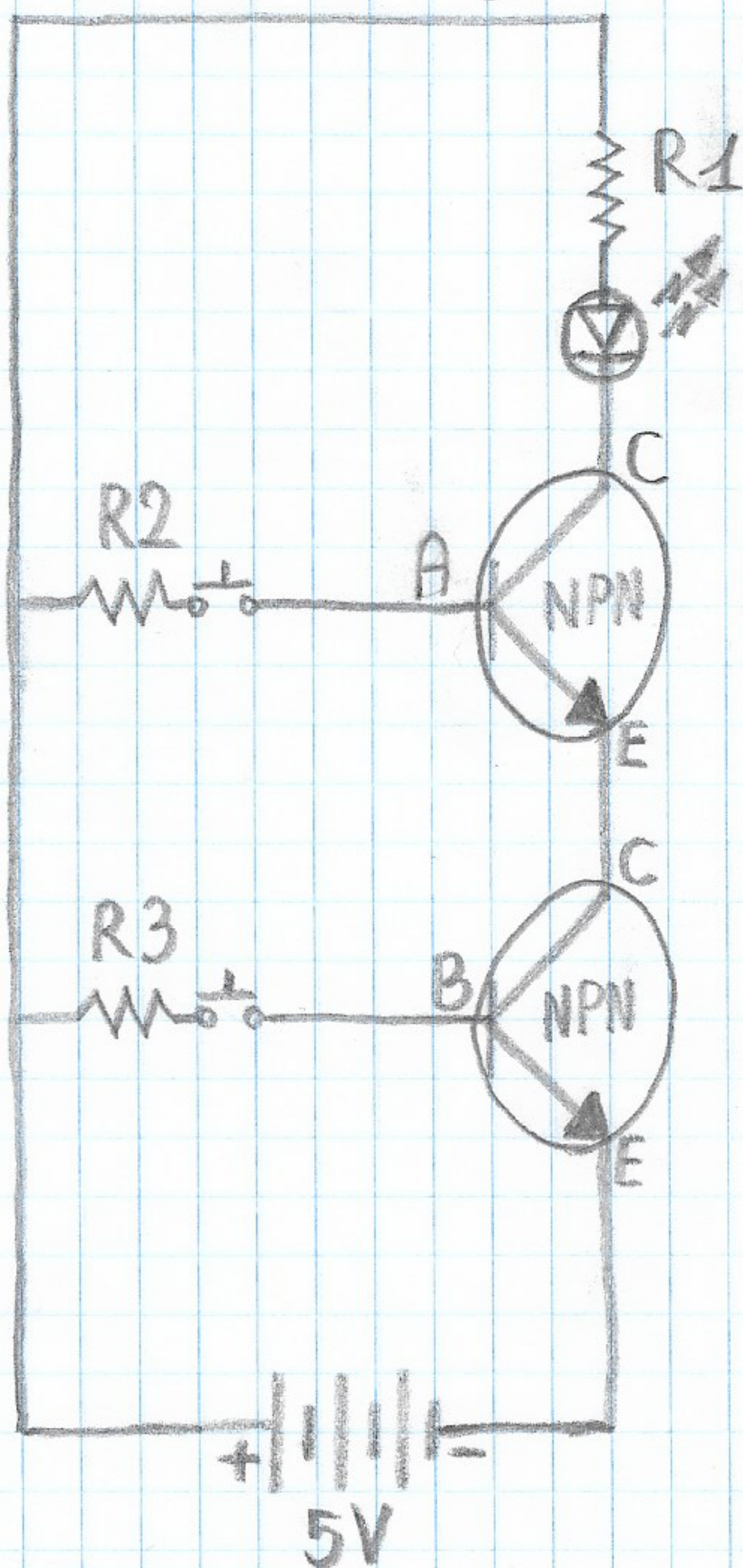
Logic gates:



R1: 100Ω used.

R2: 1KΩ used.

R3: 1KΩ used.



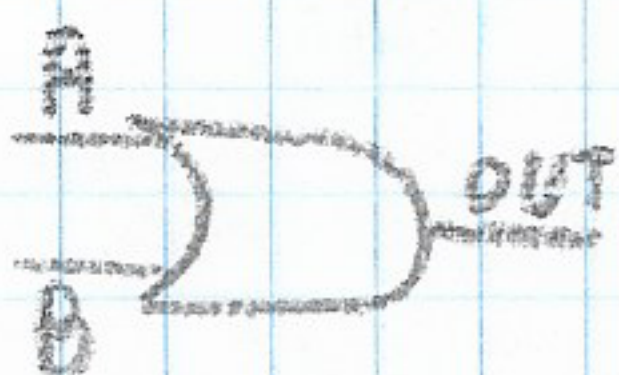
$\text{+} \text{ } \times \text{ } \text{+}$

push both buttons to create a closed circuit and turn on the LED.

truth table:

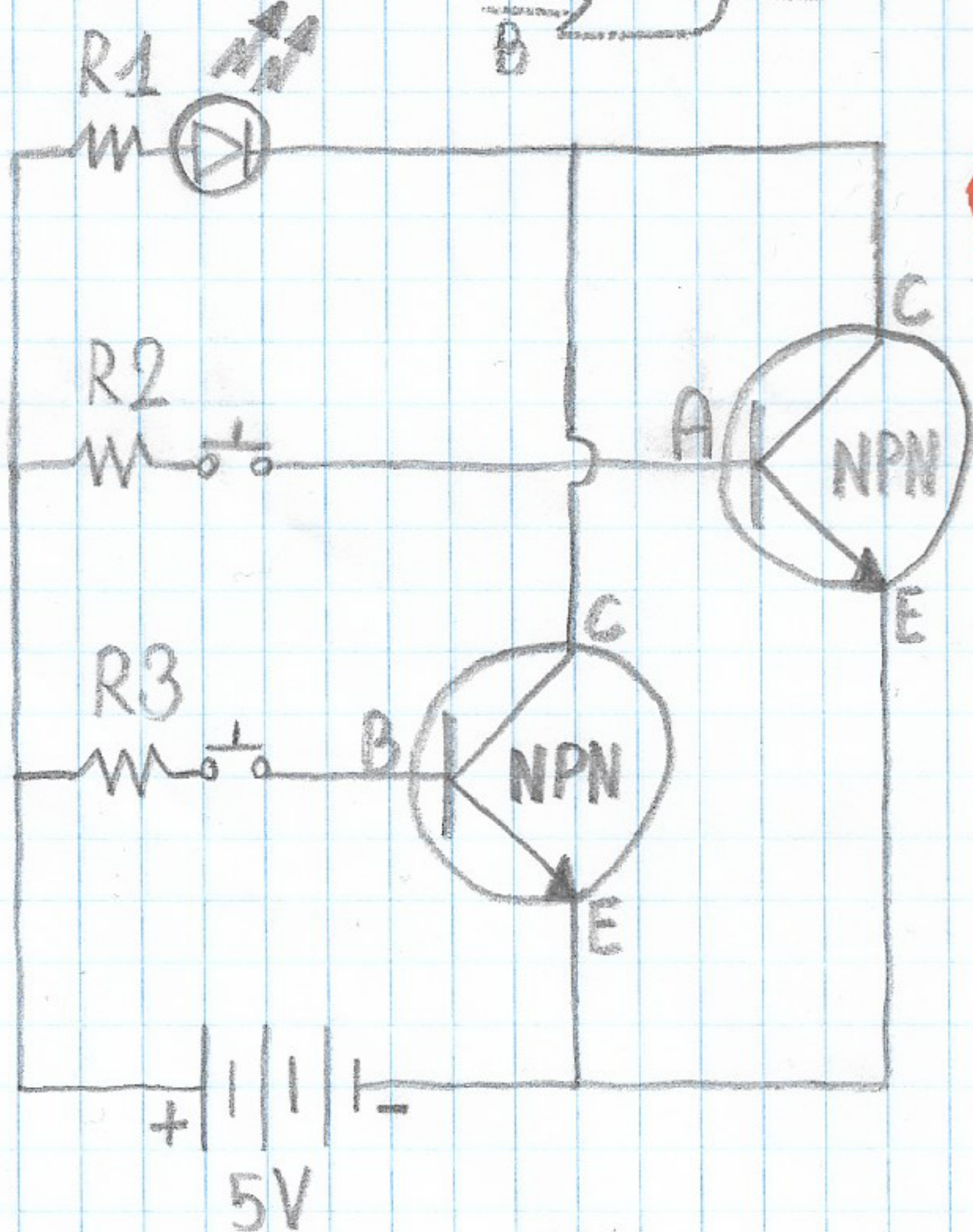
A	B	OUT
0	0	0
0	1	0
1	0	0
1	1	1

'OR' GATE:



R1: 100Ω used. R3: 1KΩ used.

R2: 1KΩ used.



$\text{+} \text{ } \& \text{ } \text{+}$

push neither button to create a closed circuit and turn on the LED.

truth table:

A	B	OUT
0	0	0
0	1	1
1	0	1
1	1	1