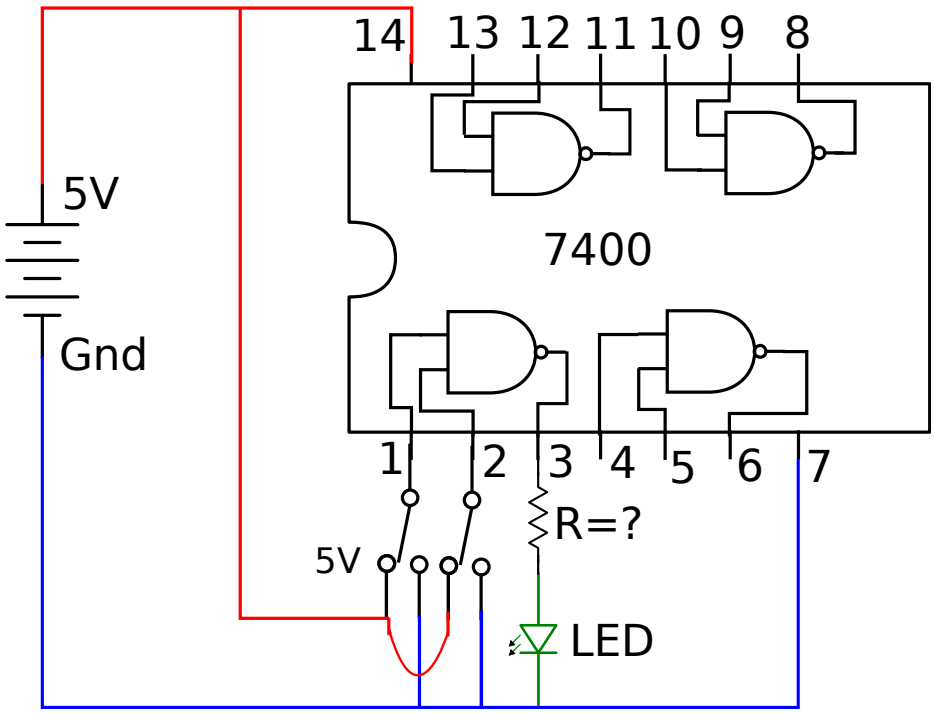
Lab1: Introduction to logic gates



Circuit diagram

Tasks

1)Implement a 2 input NAND gate logic using 74 series Ics in breadboard given

2) From the datasheet find the maximum output current driving capability of NAND gate. Can you comment on the significance of this parameter?

3) Find the minimum resistance required to be in series to drive a LED from the output of NAND gate

4) Experimentally validate the truth table

5) Write a HDL for Realisation of NAND gate

6) Simulate the NAND gate in VIVADO simulator

7) View the RTL Schematic

8) Implement the design in Zybo board and verify the truth table.

9) Provide a report with sufficient waveforms