Logic gate labs

Instructions on wiring logic gates

Overview

Login Instructions

- Go to https://www.tinkercad.com/login
- Use the account you used just before the March Break when you registered and created your profile.
- Make sure that circuits is selected

3D Designs

Circuits

Codeblocks   NEW
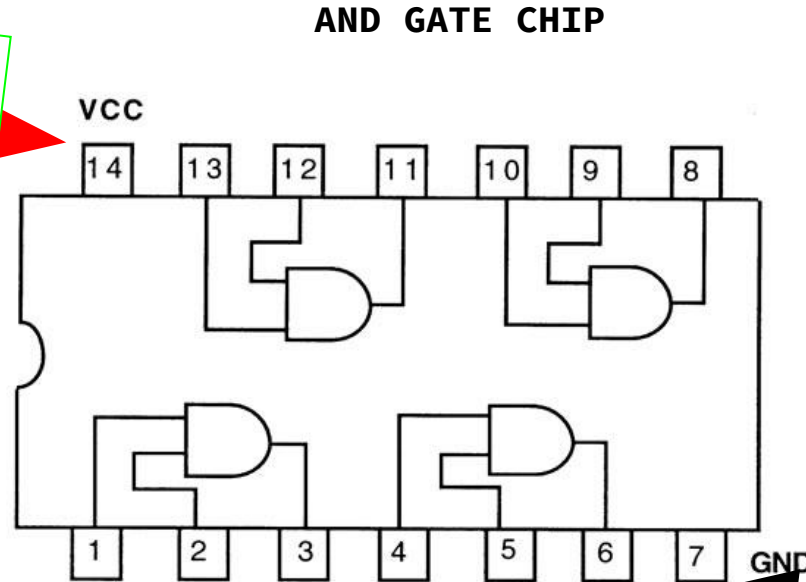
Lessons
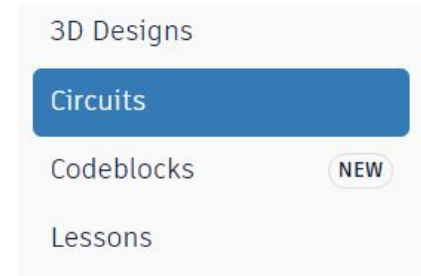
- To begin the lab assignments click on

Create new Circuit

POWER

- All chips need power
- Pin 14 is VCC you need to connect 5v to this pin

Connect to +6v

AND GATE CHIP

VCC

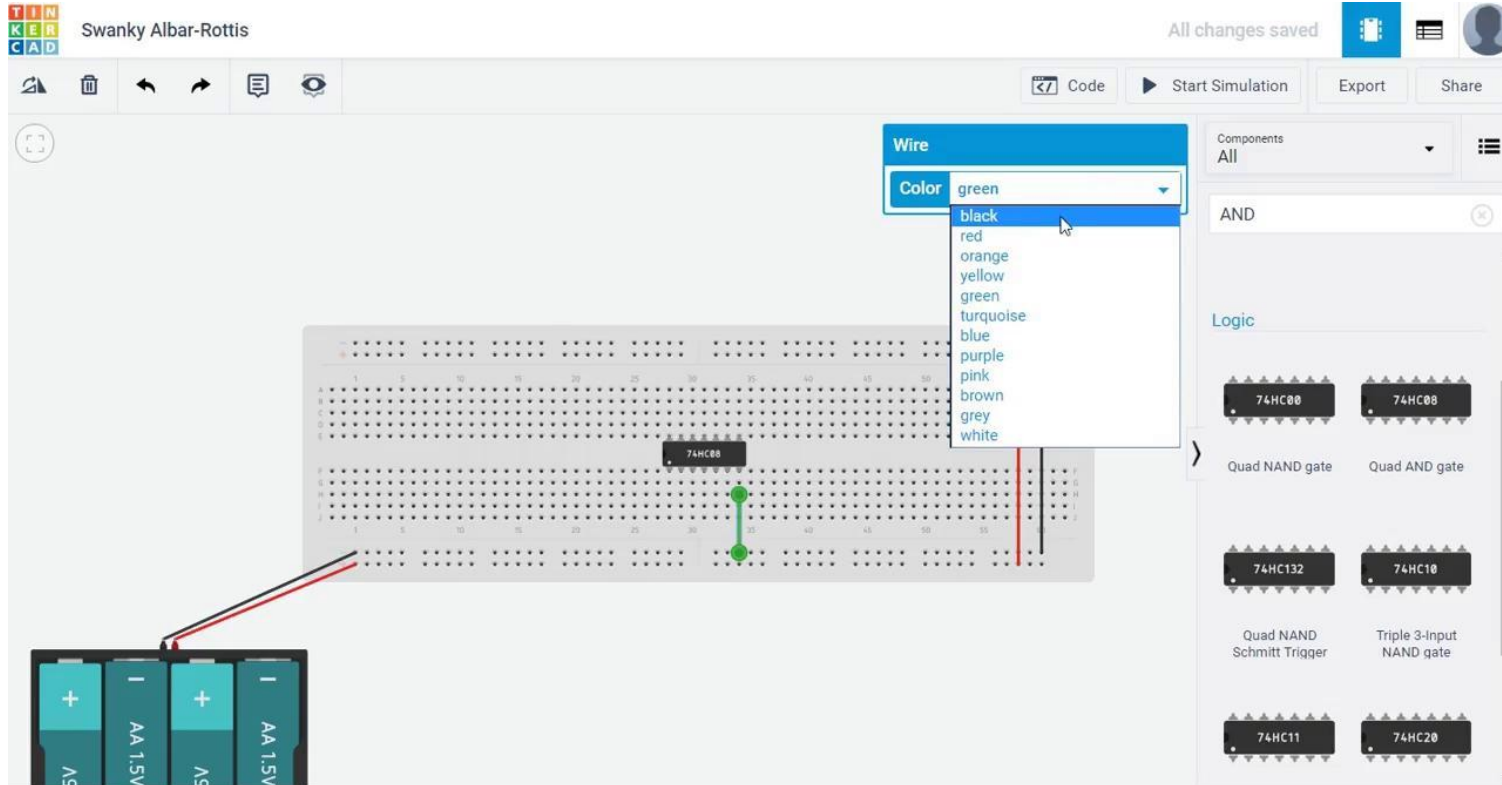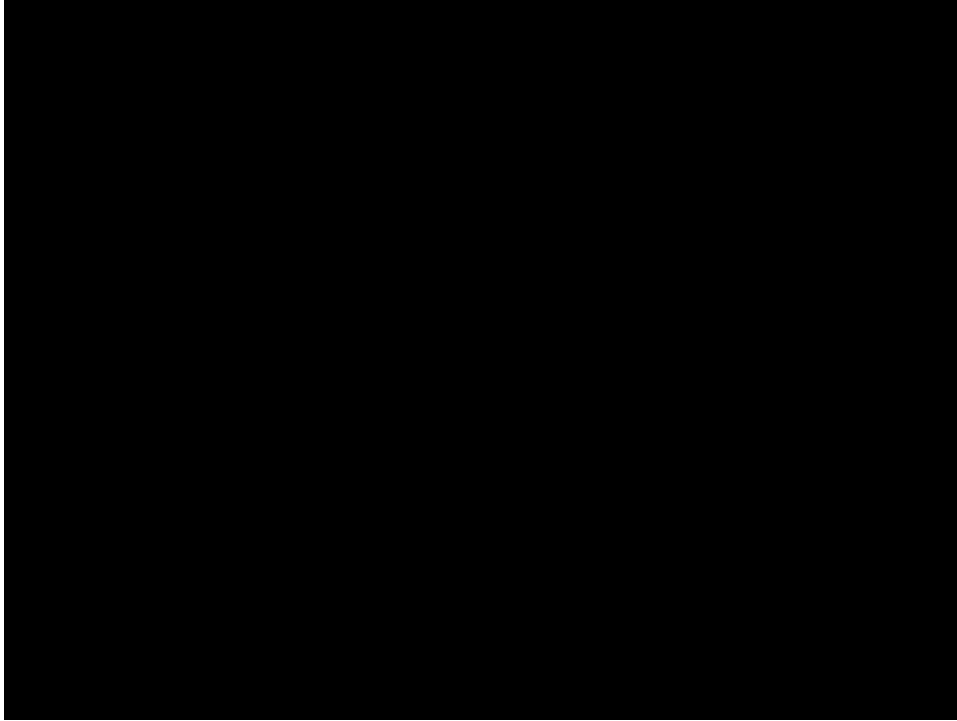14 13 12 11 10 9 8

1 2 3 4 5 6 7 GND

74LS08

Connect to 0v (Gnd)

- Pin 7 is Gnd, you need to connect the 0v to this pin
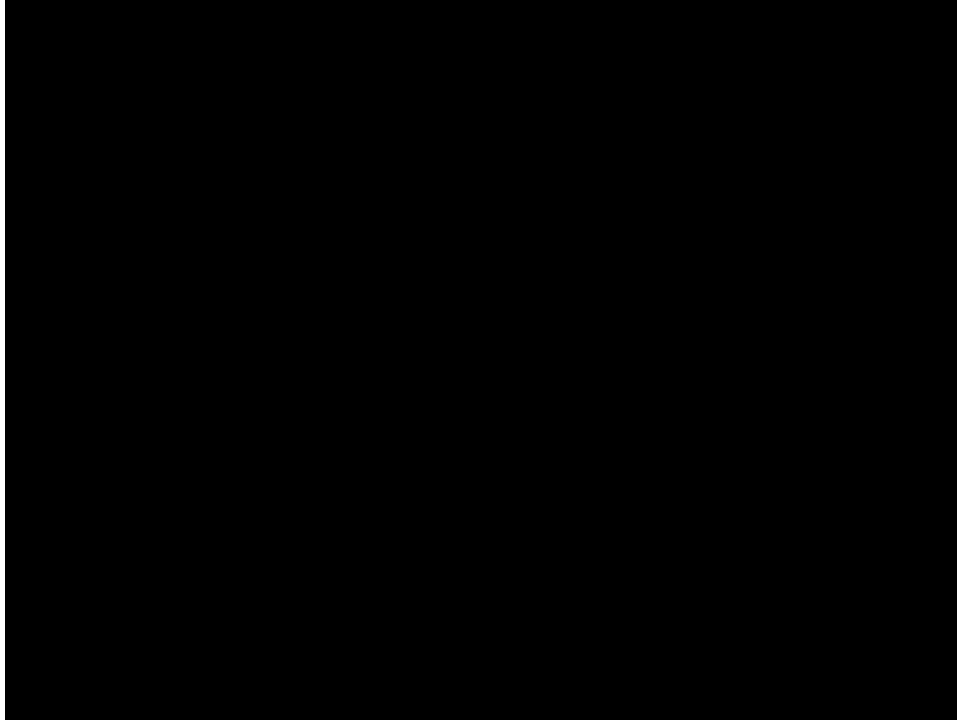
Initial setup
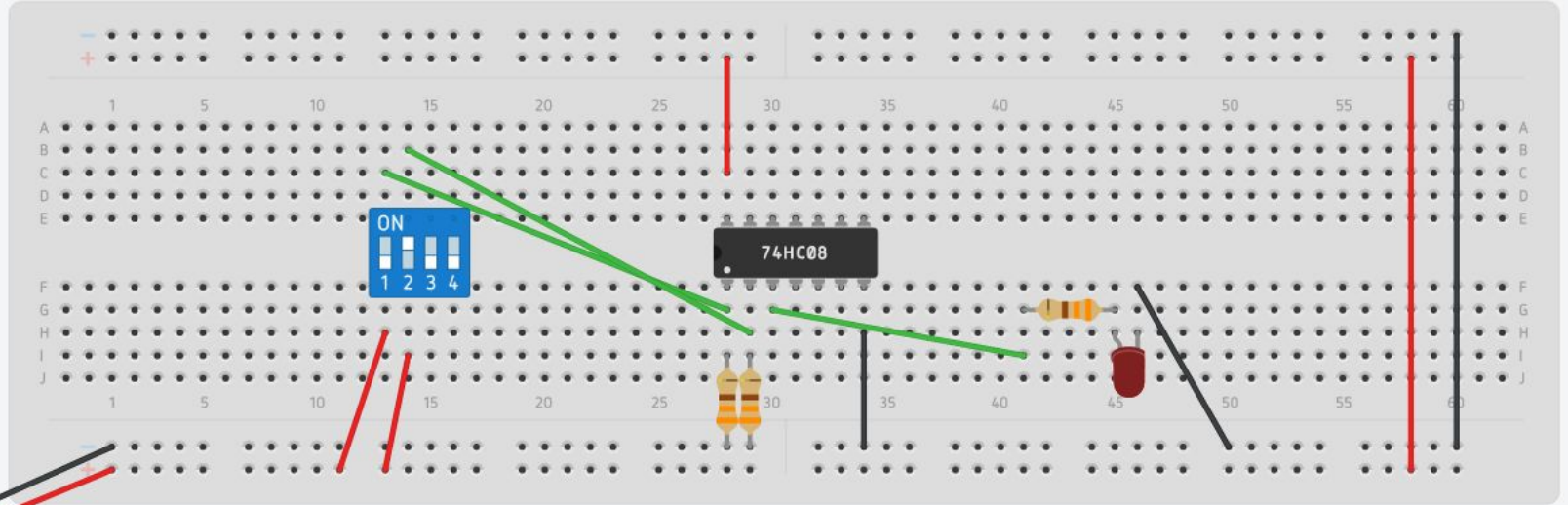
Wiring the AND Gate

For more information on DIP switches, go here:

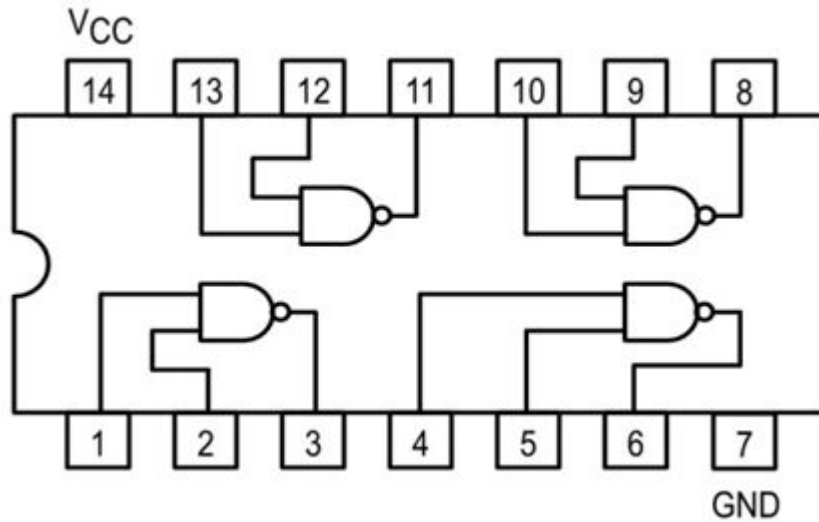# Wiring the led and testing the circuit
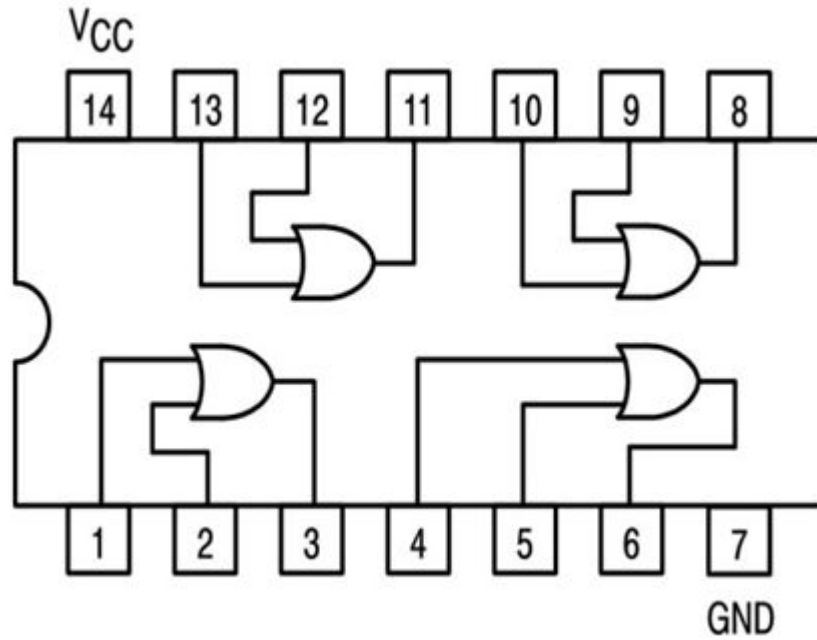
Final circuit

Other gates

NAND gate (S00)
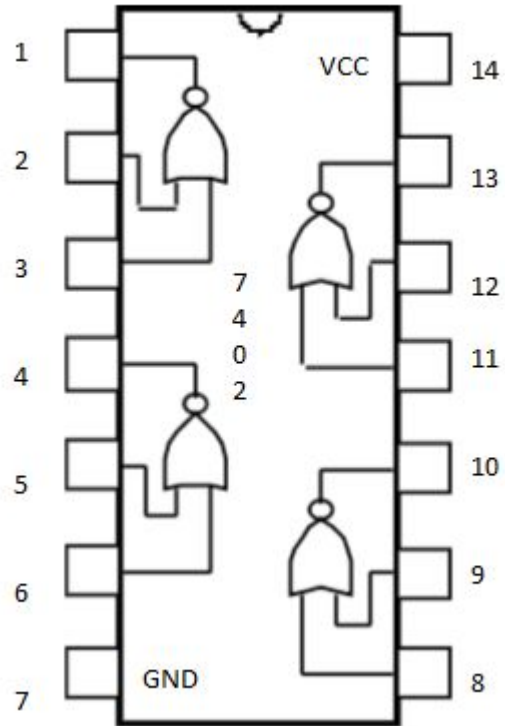
OR Gate (S32)
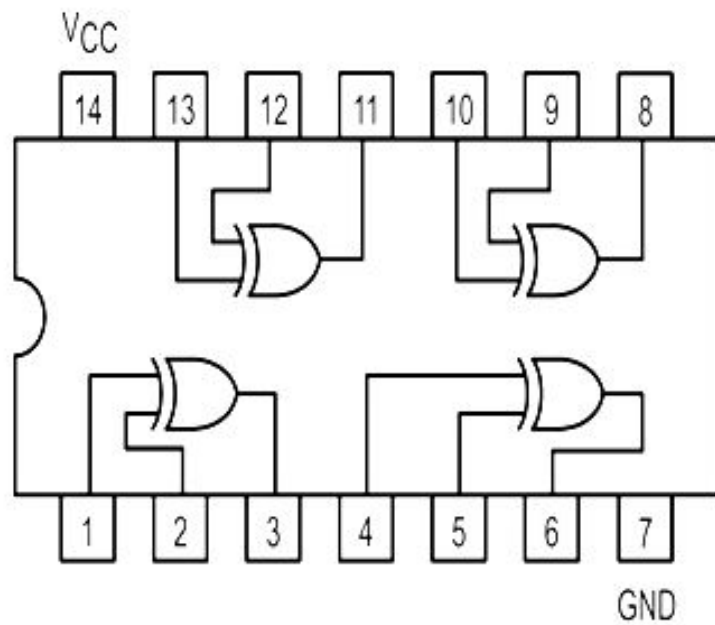
NOR Gate (S02)

XOR gate (S86)

NAND Gate

OR Gate

NOR Gate

XOR Gate

This Week…

- Work on new lab
- Other logic gate labs will be posted this week but for now, I will only post 1
- Finish up labs from last week if you are not already finished.
- We will be doing a summative based on this week's work so make sure you keep up and ask questions if you having difficulty.