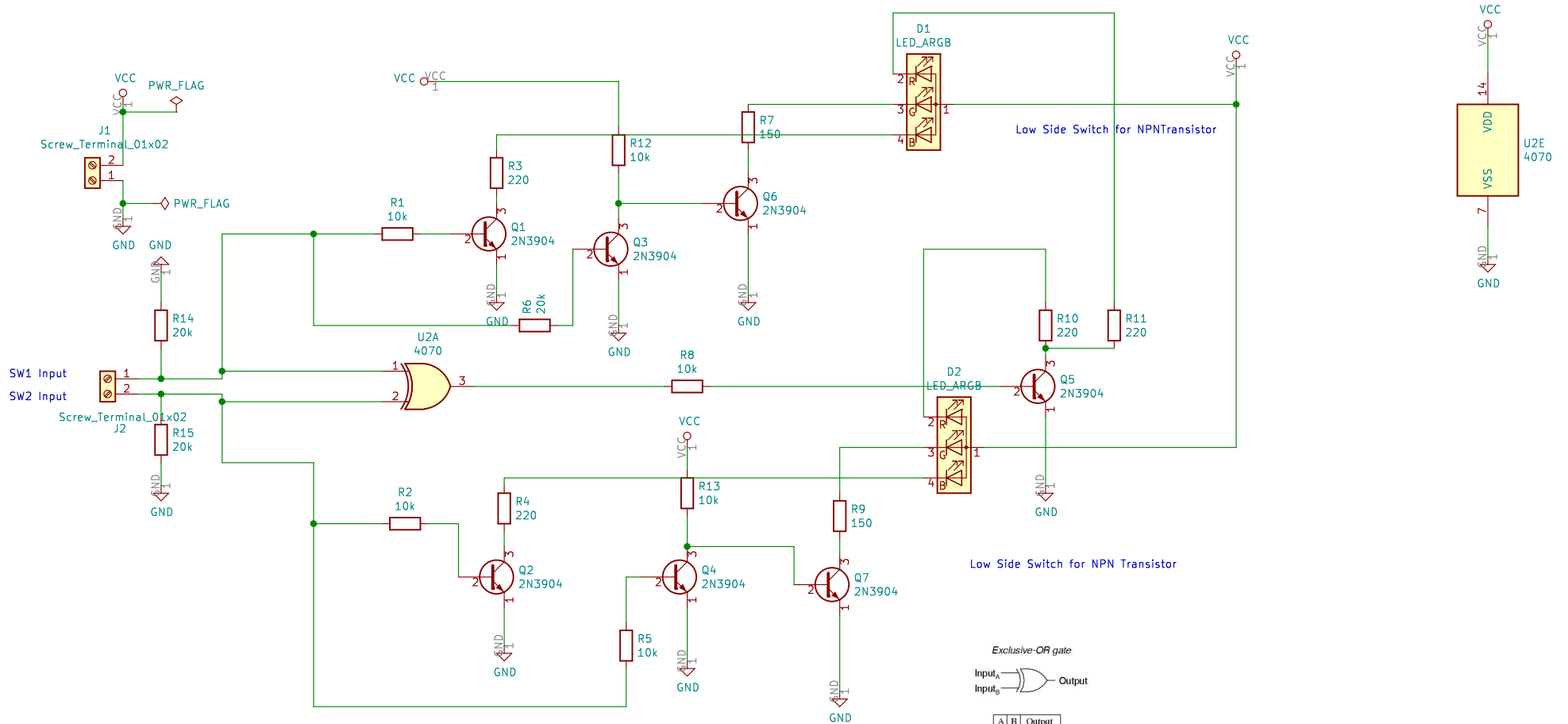


The Blue in the RGB module is actually the Yellow Light

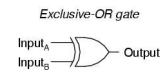


How it Works:

Examining the top circuit for the LED output D1:
The Yellow LED (pin 4 of D1) turns on when the input to SW1 has a positive voltage and transistor Q1 is turned.

The Green LED (pin 3 of D1) turns on when there is 0V on Q3 which in turns causes transistor Q6 to turn on. Q6 is on when Q1 is off and vice versa.

4070 U2A XOR is used to control the output of the red signal light. The truth table of the XOR IC matches the requirement of a positive signal when the inputs are not in sync. The IC will output 0V when Both SW1 and SW2 are in the SAME Position (either open or closed). When switches are NOT in the same position (Open or Closed) the output is Vcc and this will turn on transistor Q5 which will then turn on both of the RED leds.



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

Sheet: /

File: Bruce SignalsV3.sch

Title: Signal Inputs and Outputs Siding Control V3.0

Size: A4 Date: 2020-04-06

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