Pre-lab Report 1 Alan Biju Palayil

ECE 218- L01 Lab Date: 02/01/2021

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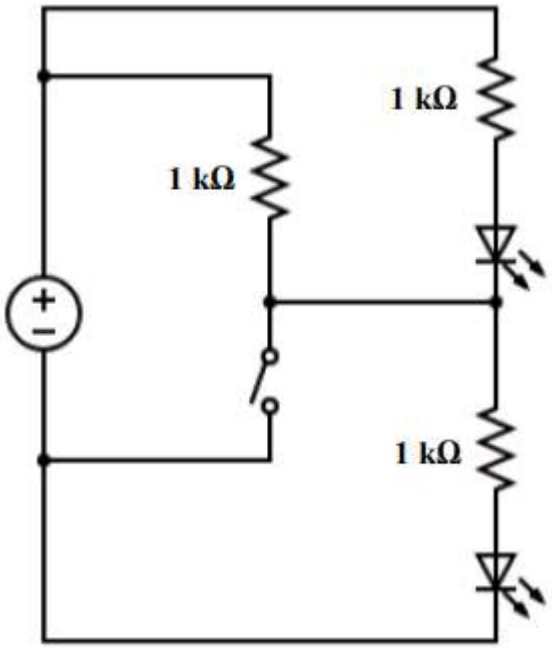
Lab Instructor: Muyu Yang

Preliminary Assignments:

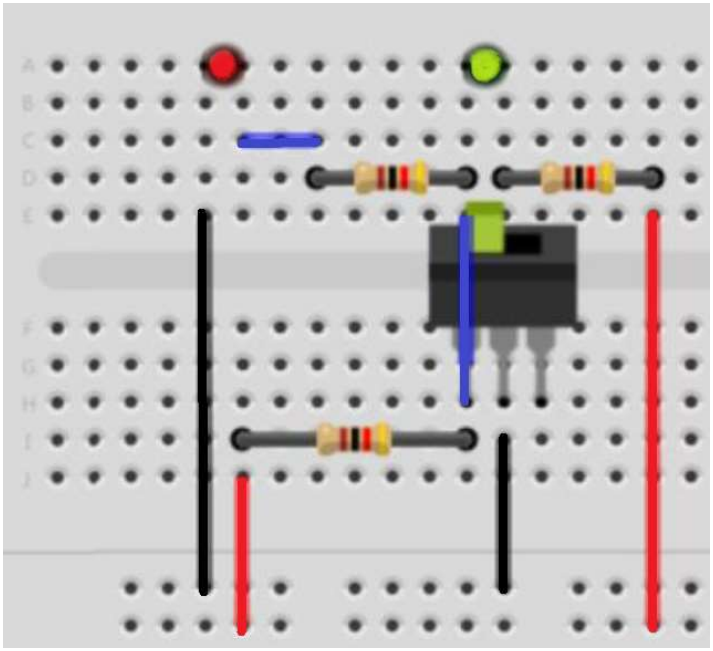
1. For the input circuit, what is the voltage at the node mentioned as "input node" when the switch is open, and the supply voltage is 10V instead of 5V?
- When the switch is open the voltage at node “input node” is 10V.
2. With the same voltage of 10V, for the input circuit, what is the voltage at the node mentioned as "input node" when the switch is closed?
- When the switch is closed the voltage at the node “input node” is 0V.
3. What is the current flowing through the resistor R=1kΩ in the input circuit when the supply voltage is 5V (give the answer for both switch open and switch closed condition)?
- Open switch (I): (5V)/ (1000Ω) = 0.005A
- Closed switch (I): (0V)/ (1000Ω) = 0A

Schematics:



Breadboard Layout:

Since there isn't an element for a resistor array, an elongated resistor is going to be used in its place.



Data Table:

Switch	Input Point Voltage	
	Handheld Multimeter	Desktop Multimeter
Open		
Closed		

Voltages					
Input	LED 1	LED 2	Resistor 1	Resistor 2	Led Lit
VCC					
GND					