Figure 8.8 shows a positive logic system. If the switch is pressed, current flows and the LED is on. If the switch is not pressed, current cannot flow and the LED is off.

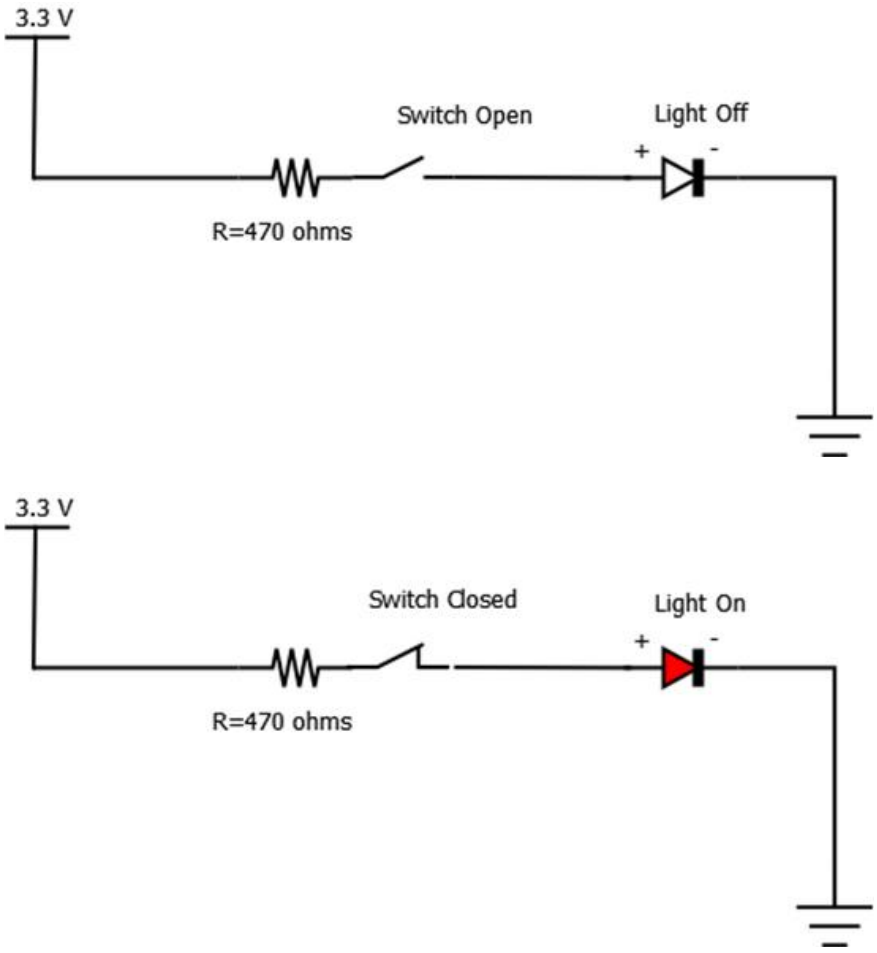

Figure 8.8. The analog circuit will turn on the LED if the switch is pressed.

Figure 8.9 shows a negative logic system. If the switch is not pressed, current flows through the LED and the LED is on. If the switch is pressed, all the current flows through the switch, bypassing the LED, and the LED is off.

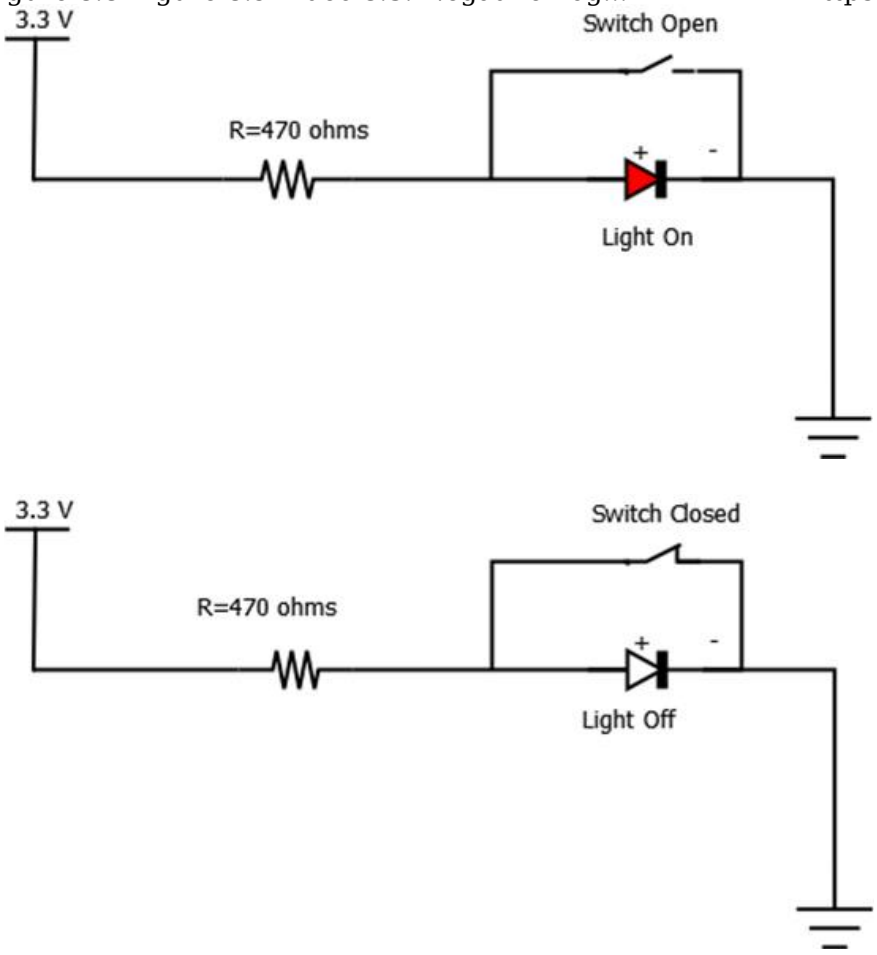

Figure 8.9. The analog circuit will turn on the LED if the switch is not pressed.

Help

VIDEO 8.3. NEGATIVE LOGIC ANALOG CIRCUIT BUILD

PROFESSOR YERRABALLI: We will now build a circuit,

the analog circuit that we designed.

The components we will use are a battery to power the circuit, a 470 ohm

resistor, a switch, an LED, a protoboard, and a few cables.

So let's begin.

We will first put the resistor from the

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positive supply of the battery.

Will tie in the LED.

Will connect the LED and the resistor.

We have a switch.

The other end of the switch, the common terminal of the switch, and the LED

goes to ground, which is our negative here.

And now we will tie in the power.

And as the design says, when the switch is open, off, the LED is on.

And so that's the configuration we look at here.

When the switch is pressed, the LED is off.

So the switch is pressed, is when we have a switch is pressed,

and the LED is off because the current is entirely in this direction.

There's zero amps in this direction.

Help