

LAB 3: LIGHT, LIMIT + MOTION

DAYS 6-7

NAME: _____

PARTNER: _____

PERIOD / DATE: _____

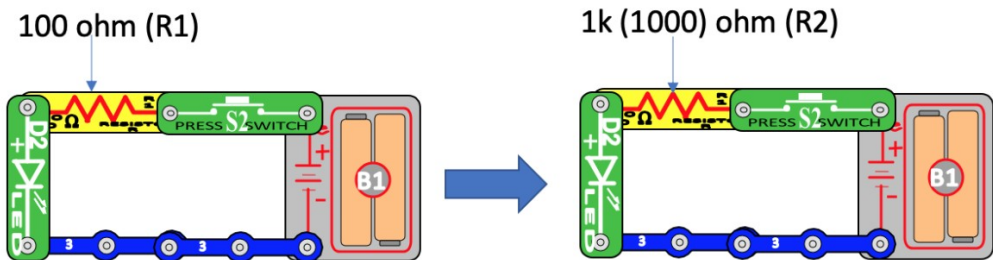
OBJECTIVE

Use direction and resistance to control circuit behavior.

DEMONSTRATION OF LEARNING

Trace a user input through the path to a light or motion output.

DAY 6 • LED DIRECTION + RESISTANCE



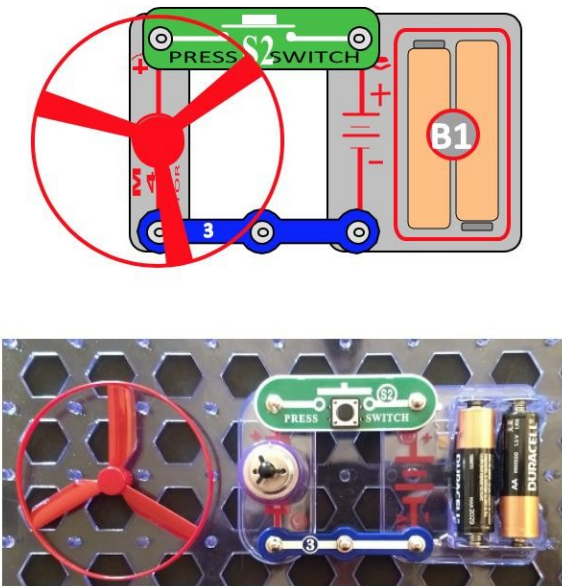
Same LED circuit, different resistor values. VILS/ASU Snap Circuits diagram.

TEST	LED RESULT	BRIGHTNESS	WHAT CHANGED?
100 ohm (R1)	On / Off	Bright / Dim	
1k ohm (R2)	On / Off	Bright / Dim	
LED reversed	On / Off	Bright / Dim	

The LED did / did not light because _____. The _____ resistor made it _____ because _____.

- ☐ LED direction checked
- ☐ A resistor used with the LED
- ☐ Power off before rebuilding

DAY 7 • MOTOR DIRECTION + STATUS



Press-switch motor build. Keep fingers, hair, faces, and loose objects clear of the fan.

MOTOR CONNECTION	DIRECTION / RESULT	EVIDENCE
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First direction

Connections reversed

Status-and-motion system

Build or diagram the teacher-selected circuit. Show how one switch controls motion and how a light communicates system status.

USER INPUT	PATH	CONTROL / PROCESS	OUTPUT
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When the user _____, the circuit _____, so the motor / LED _____.