## LESSON 25 Measuring Current w/470 ohms

Watch the video for Lesson 25-28



Using the meter setup procedure as explained in Lesson 23, build this circuit with a 470 ohm resistor and measure the current.

Use the picture on the right to help you build the circuit. Use the meter probe tips instead of alligator clips to complete the circuit.

As you touch the tips to the circuit, observe the meter display to see how much current is flowing.

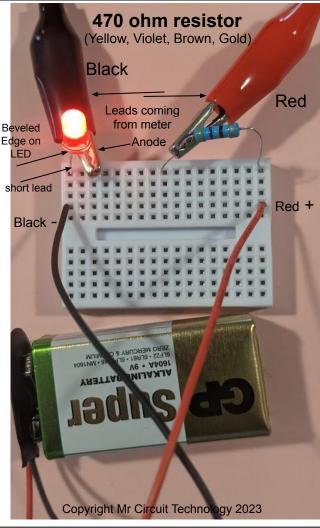
Our meter shows 15.04 mAmps. How much current is flowing in "your" circuit?

mAmps





Practice Quiz 25



Multimeter set up as an Ammeter to measure current (on 20 mA scale)



We are showing 15.04 mA of current flowing

## **Answer these questions** (1) True or False? In this experiment, the black probe tip of the meter is touching the negative (or Cathode) of the LED. (2) The red probe tip of the

- multimeter is touching one side of the
- (3) Is one side of the 470 ohm resistor connected to the red wire from the battery snap?
- (4) Does all the current flowing in this circuit pass through the multimeter?

## **Activity Page**

- (5) Is the multimeter in parallel or in series with the circuit?
- (6) Does the LED light up pretty brightly?
- (7) If we remove the meter from the circuit, will the LED continue to be lit?
- (8) What dial position is the meter adjusted to for this experiment?

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## Comparing the current in a circuit with 470 $\Omega$

25b

(9) How many <b>milliAmps</b> is it
showing on the multimeter display
on page 25a?

(10) How many milliAmps was showing on your multimeter display when you built this new circuit?

