

A decorative graphic on the left side of the slide, consisting of a network of light blue lines and small circles, resembling a circuit board or a stylized tree structure, set against a blue gradient background.

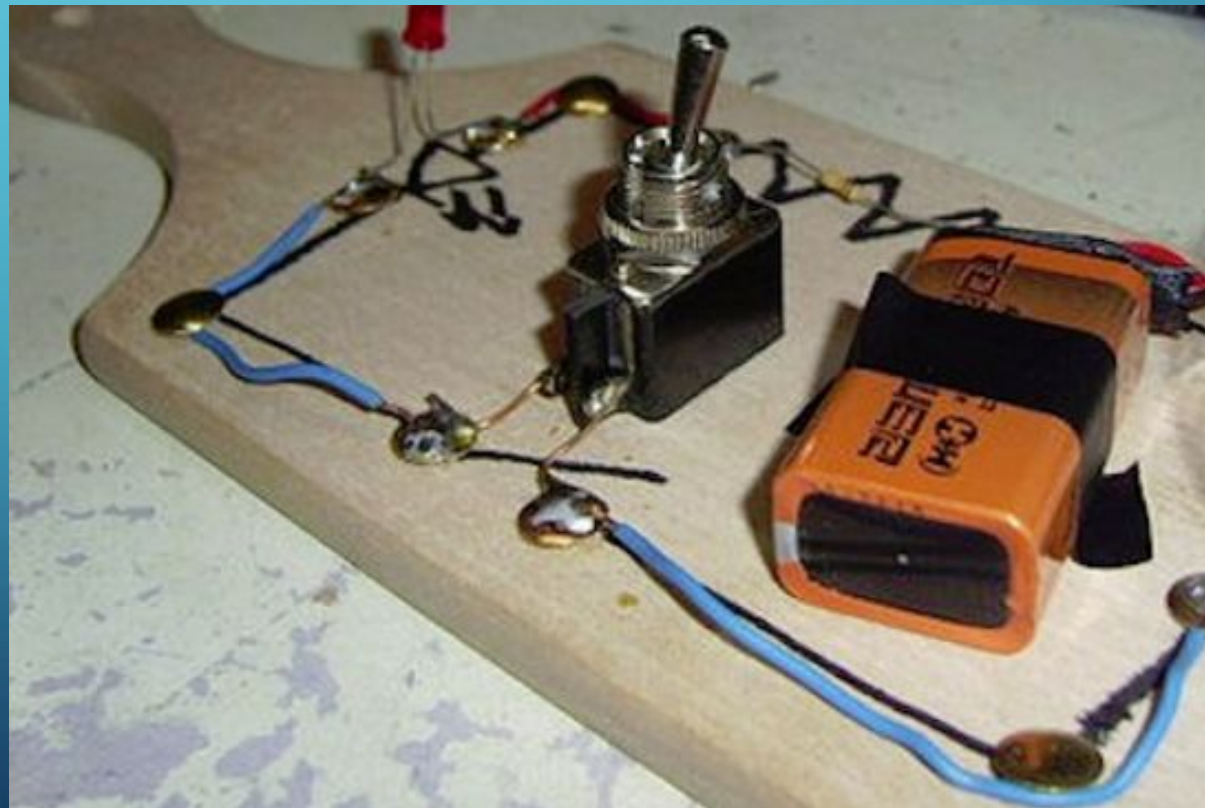
INTRO TO THE BREADBOARD

WHY IS IT CALLED A BREADBOARD?



HISTORY

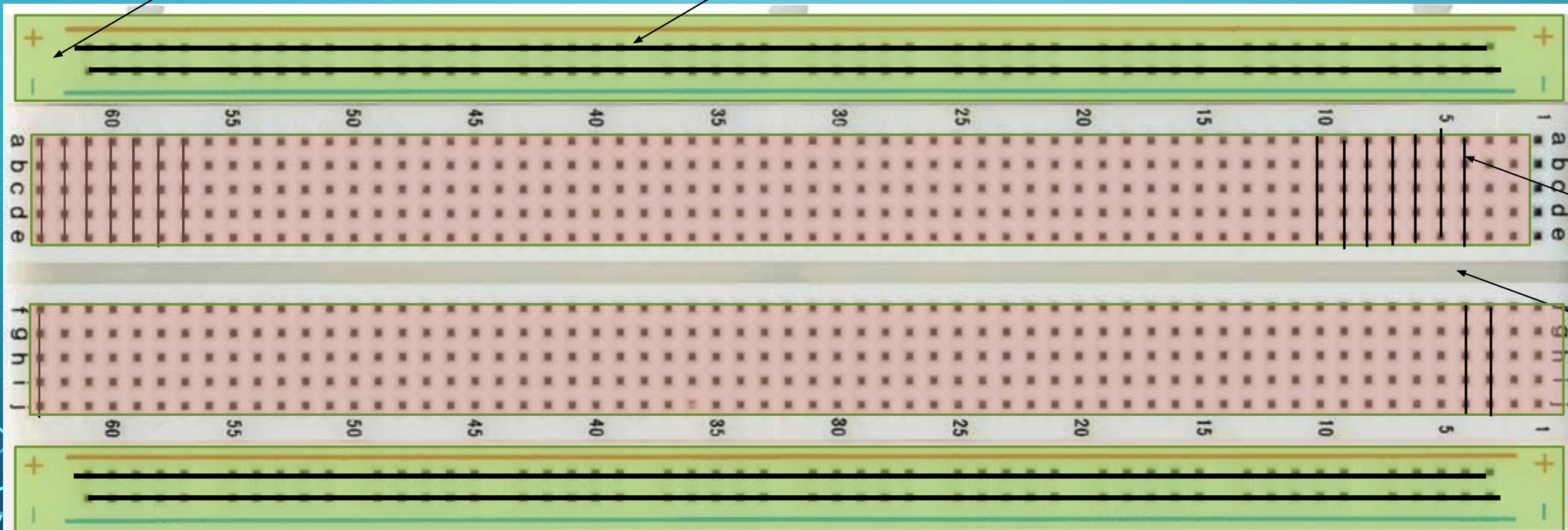
- In the past, people would use an actual board for cutting bread to build electronic circuits – components were large and clunky
- Used nails and thumbtacks to attach wires to build a simple platform for creating circuits



Breadboard Layout

Power Rails

Connected Horizontally



Connected vertically

Divider

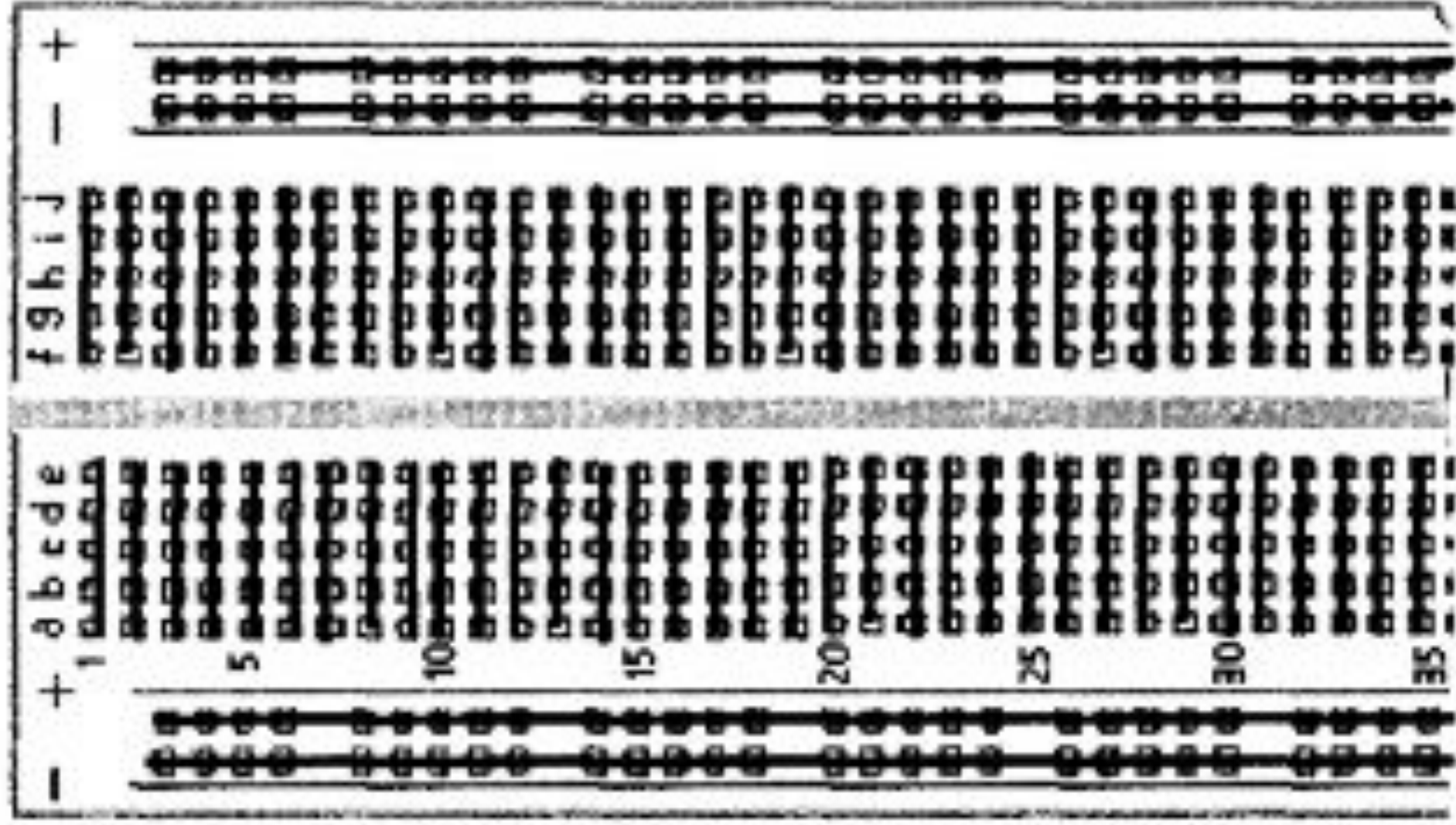
The divider separates the board in half. The halves are not connected to each other.

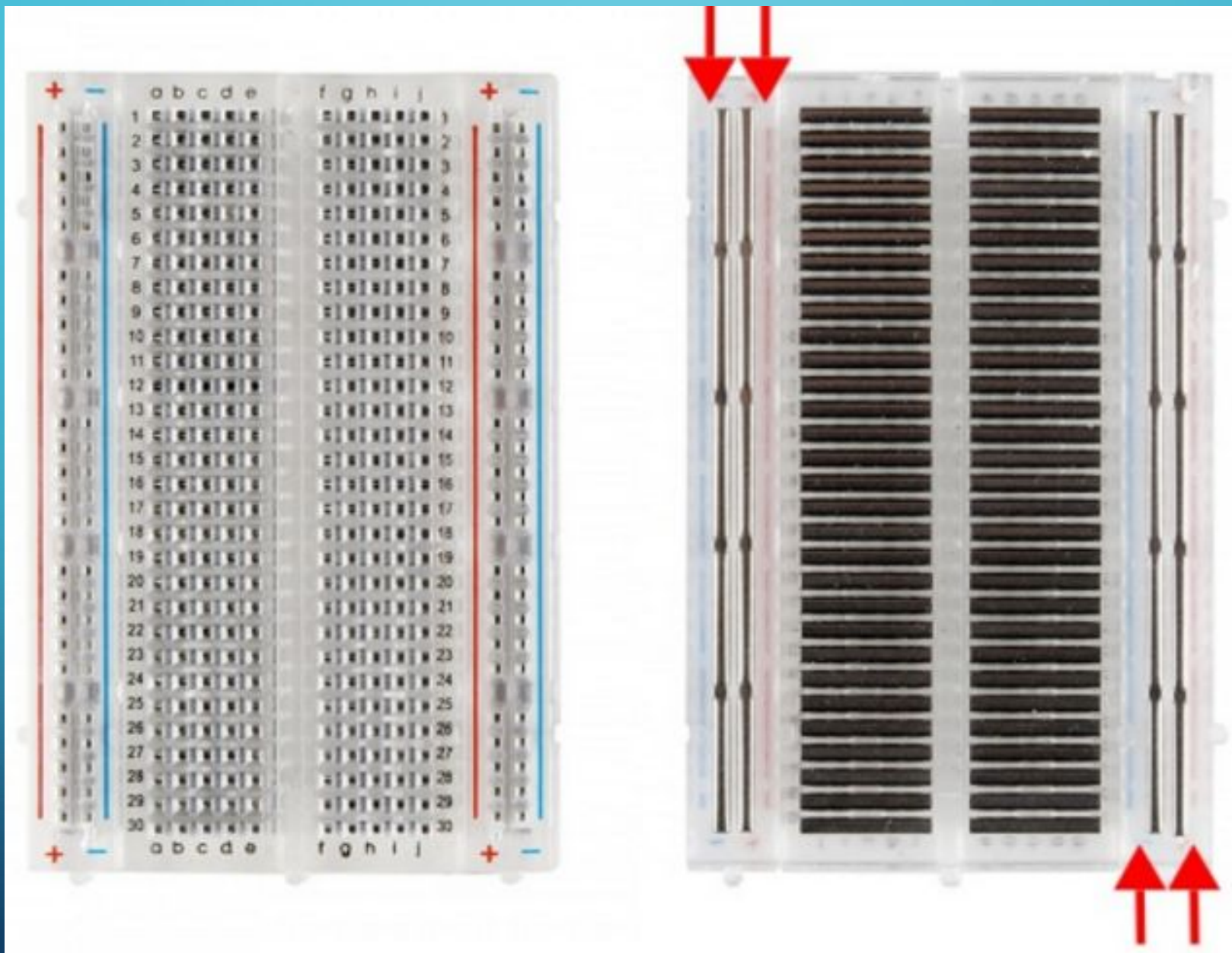
A decorative graphic consisting of stylized blue circuit lines and nodes on a dark blue background. The lines are of varying thickness and connect to small circles, resembling a network or data flow diagram. The design is modern and tech-oriented, positioned vertically along the right edge of the page.

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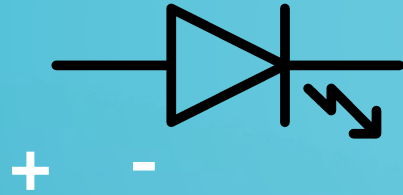
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SCHEMATIC SYMBOLS

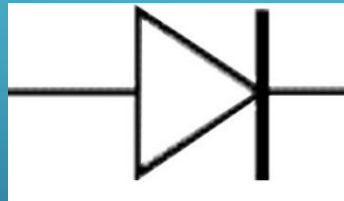
LED SYMBOL



Resistor

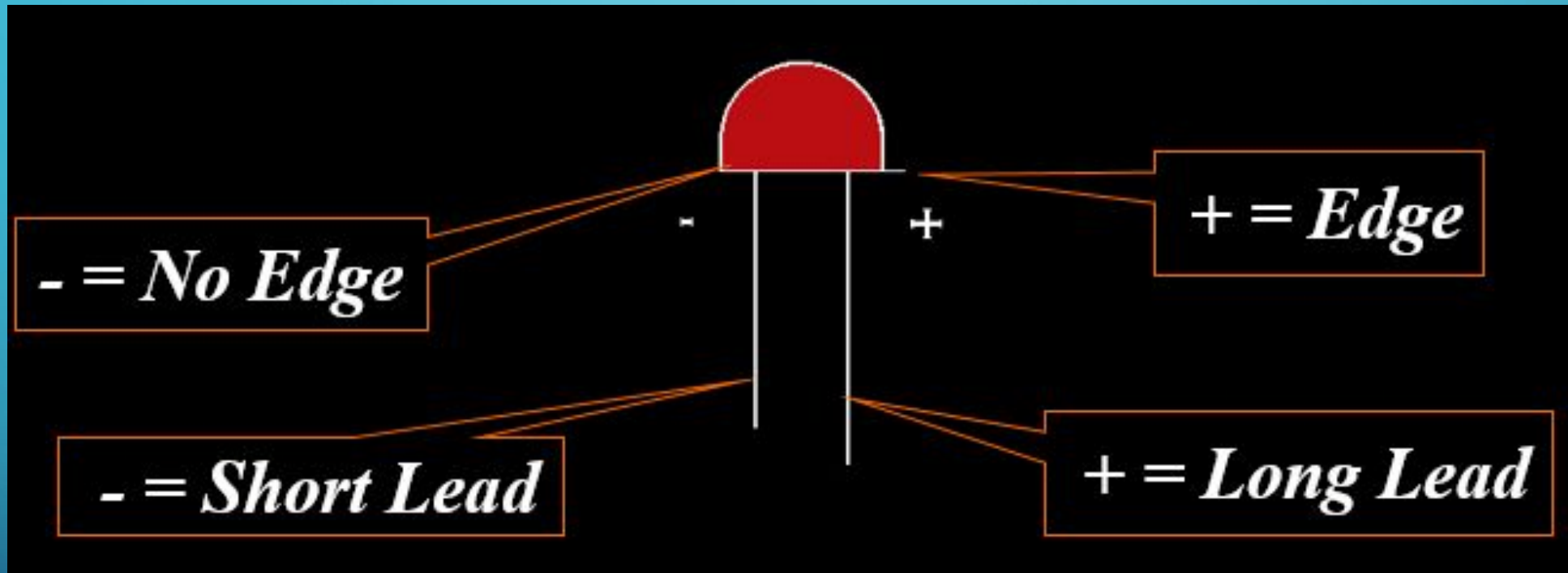


Power Diode



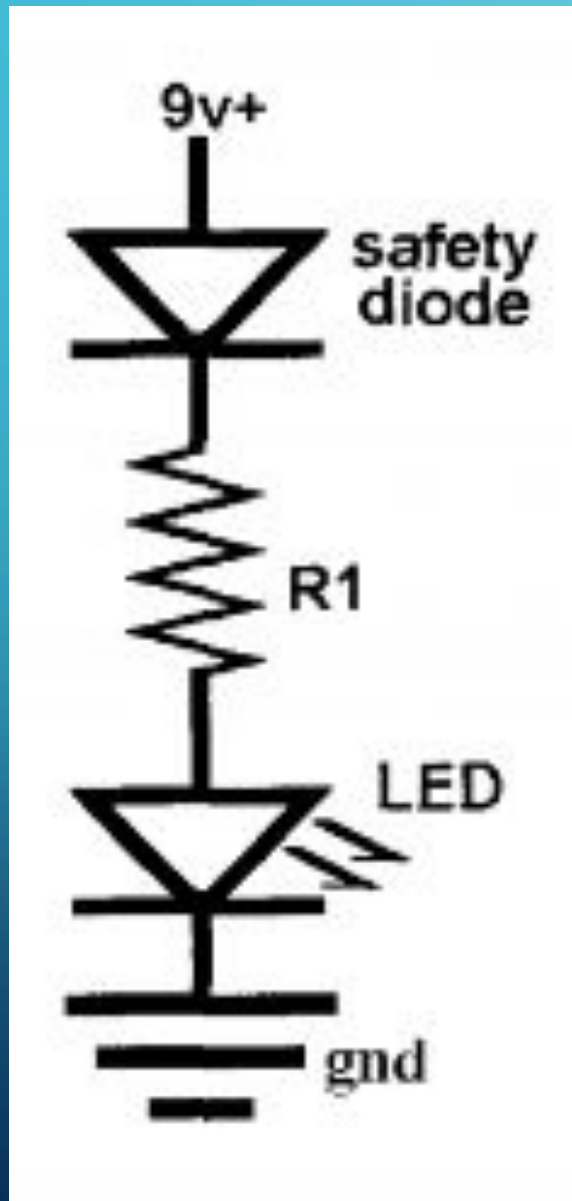
(Protects against reverse current. Example: Plugging in a battery backwards)

LED POLARITY



Direction LED is inserted in matters

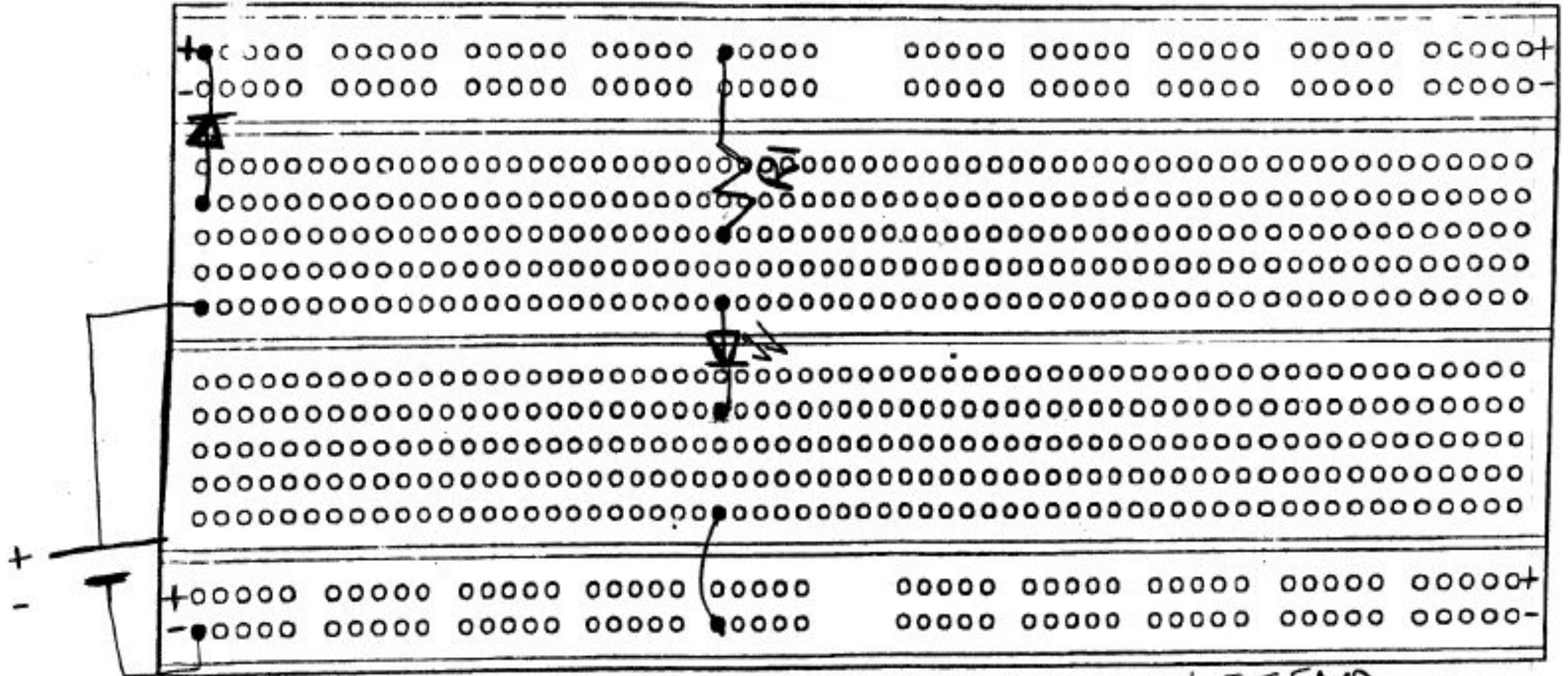
USING THE BREADBOARD SHEET PROVIDED, DRAW THE FIRST CIRCUIT



Use an unused side of one of your breadboard diagram sheets. You can turn to the next slide and copy it exactly as it appears.

When drawing on the breadboard paper, make sure to use the schematic symbols and show the position on the breadboard you would like to place the components (LED, Diode, and the resistor)

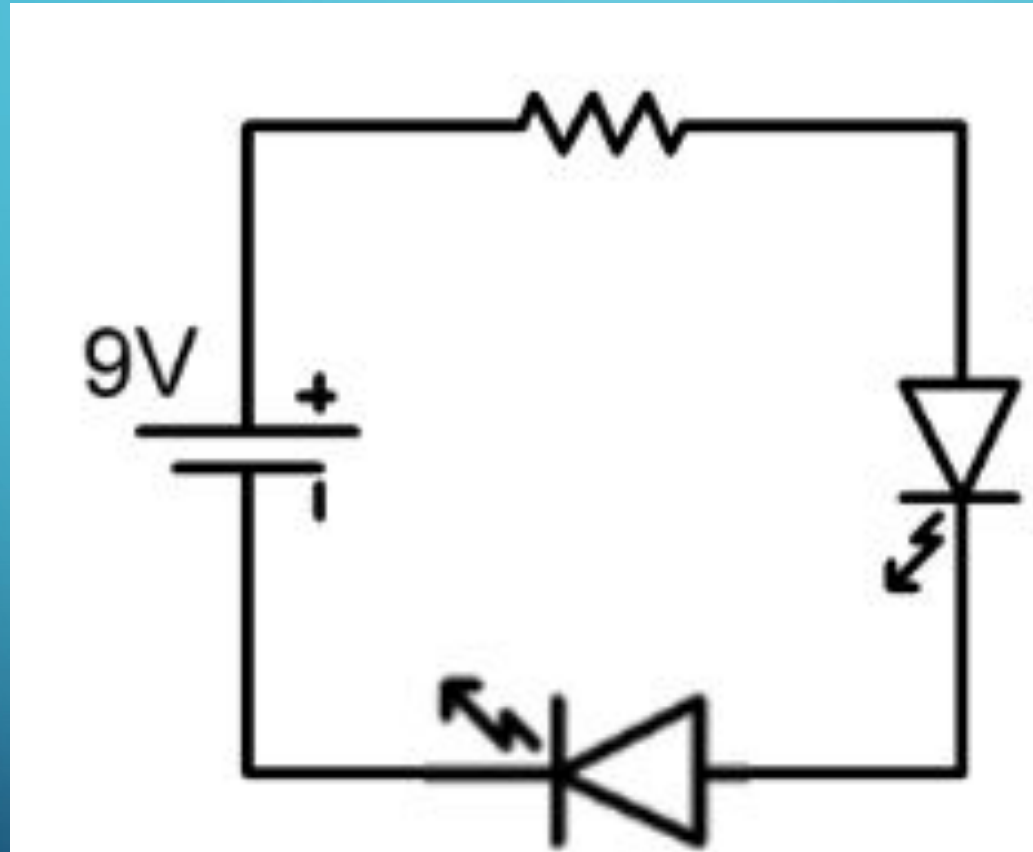
CIRCUIT # 1



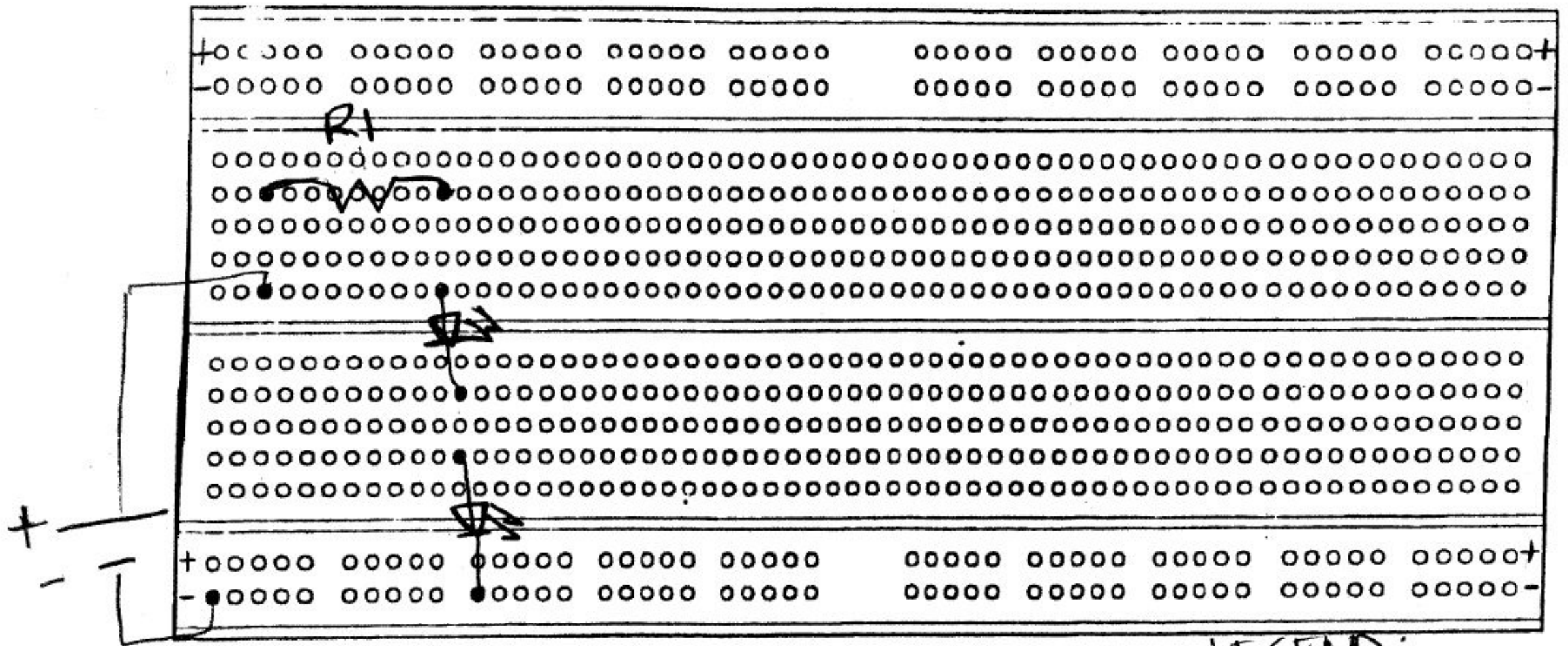
LEGEND
 $R_1 = 470\Omega$

CIRCUIT # 2

Try this one on Resistor = 250 Ohms



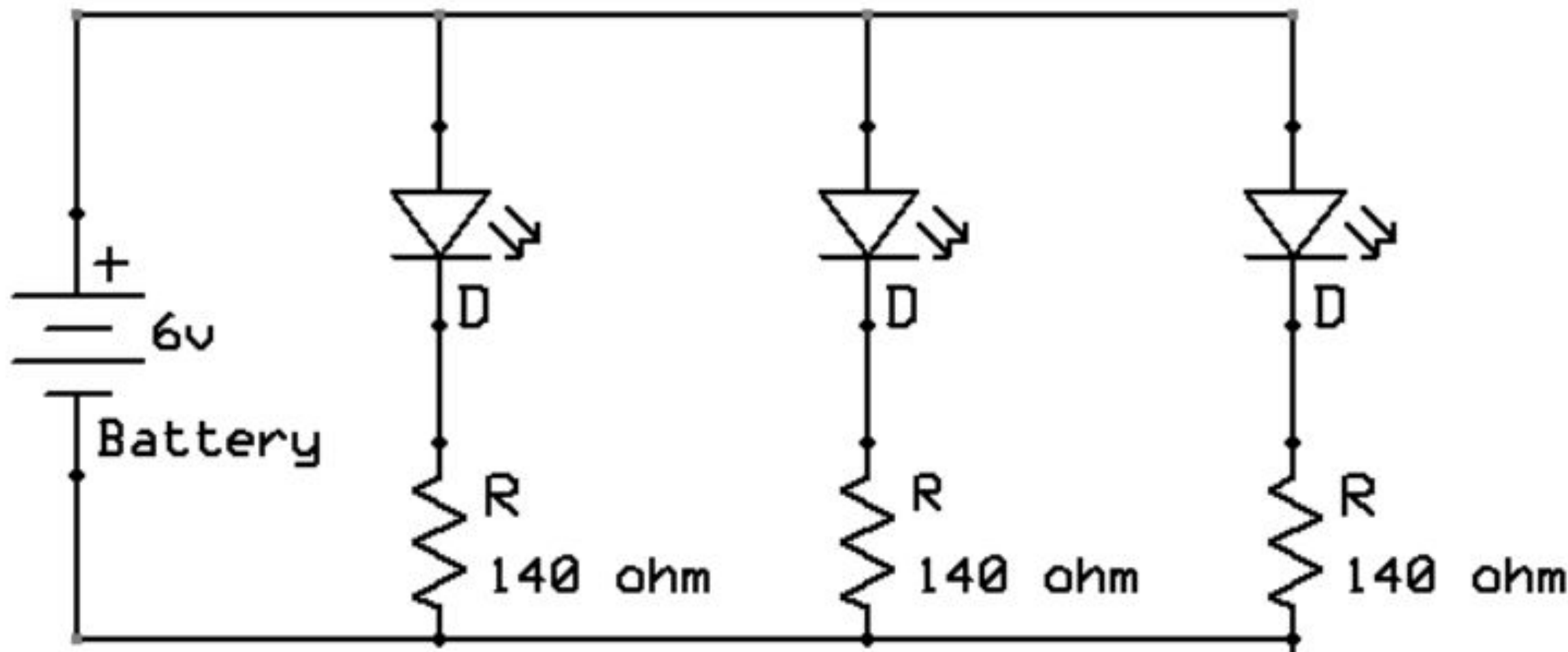
CIRCUIT # 2



LEGEND:

$$R_1 = 250 \Omega$$

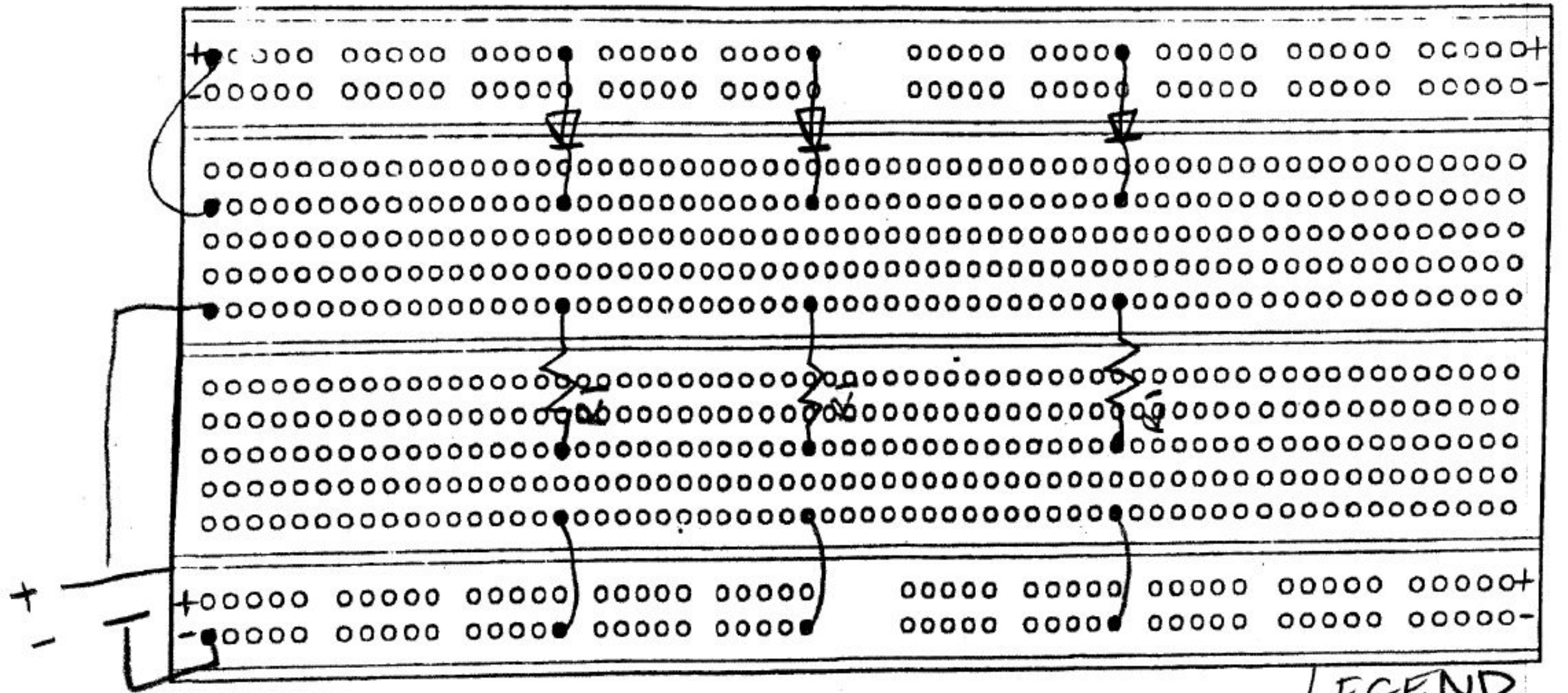
CIRCUIT # 3



The background is a blue gradient. In the corners, there are decorative white lines resembling circuit traces or neural network connections, with small circles at the endpoints.

Can you spot the two errors on the
next slide?

CIRCUIT # 3



LEGEND
 $R1 = 140 \Omega$