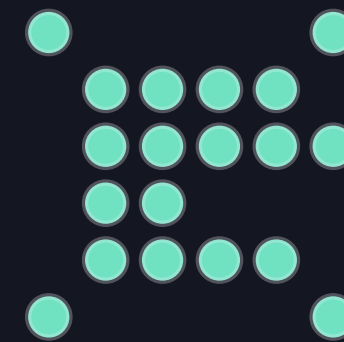
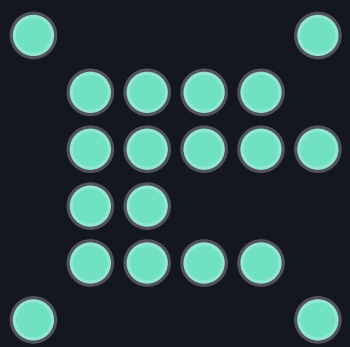




Electronic circuit



CHALLENGE: LEARN THE BASICS



You will learn What is current, voltage and what is a circuit

You will make Your first measurements using a multimeter

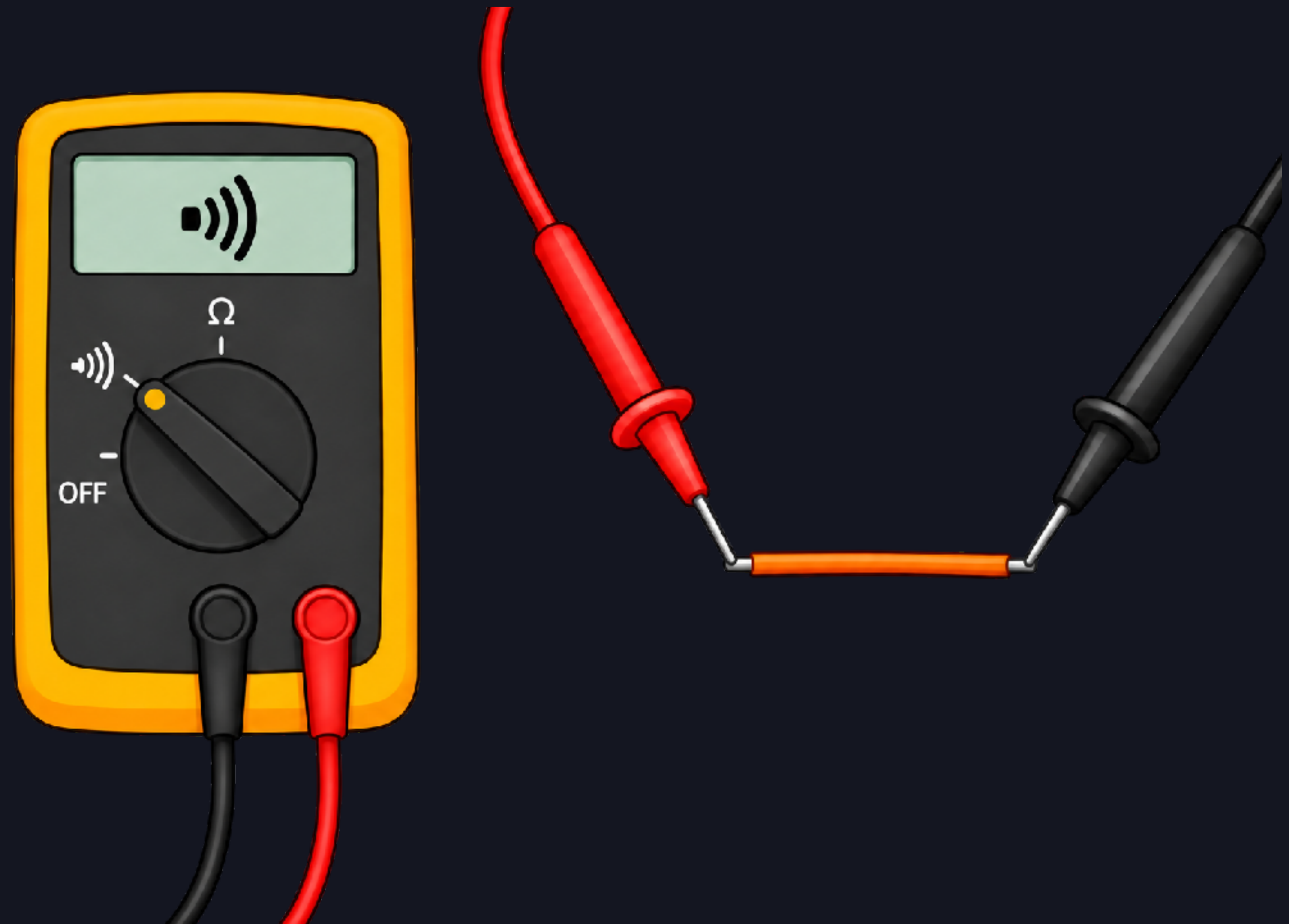
You will need Multimeter · Wires · Batteries

01 / EXPERIMENT

Experiment

Measuring continuity with a multimeter

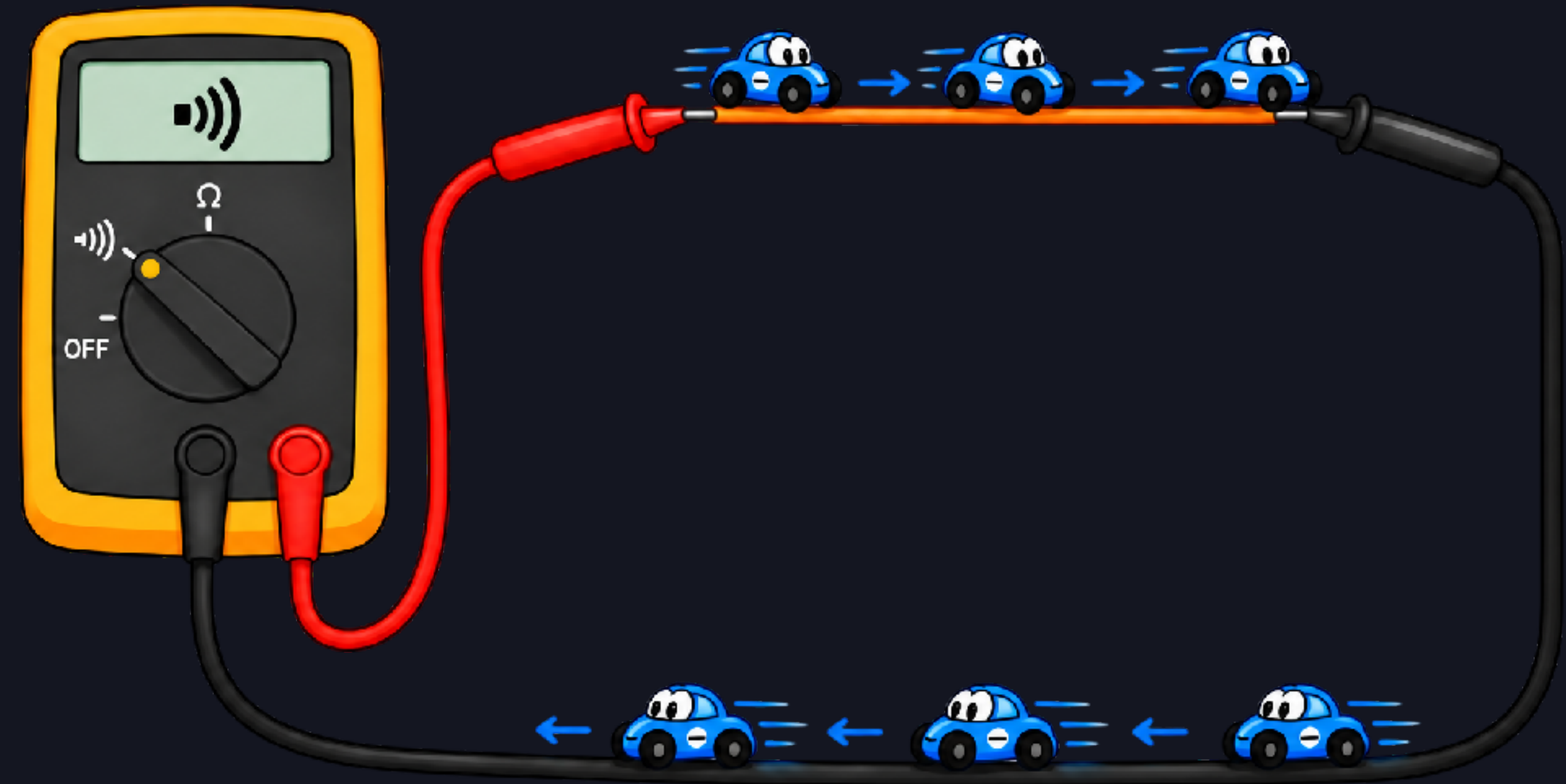
Think about why the multimeter beeps when everything is connected together.



Experiment

Measuring continuity with a multimeter

Imagine a race circuit where the **multimeter** is the start and finish line. The cars are **electrons**, racing along the **wires** (racetrack). When they complete the circuit and reach the finish line, **the multimeter beeps!**



What is and electronic circuit

Electronic Circuit

An electronic circuit is a path through which current(electrons) flows.

It needs to be continuous to work.

Needs a starting line (a battery +) and a finish line (battery -) .

A multimeter has a battery inside that provides the cars(electrons)).

A circuit can also have other electronic components that make it work like a buzzer(speaker) in this case.

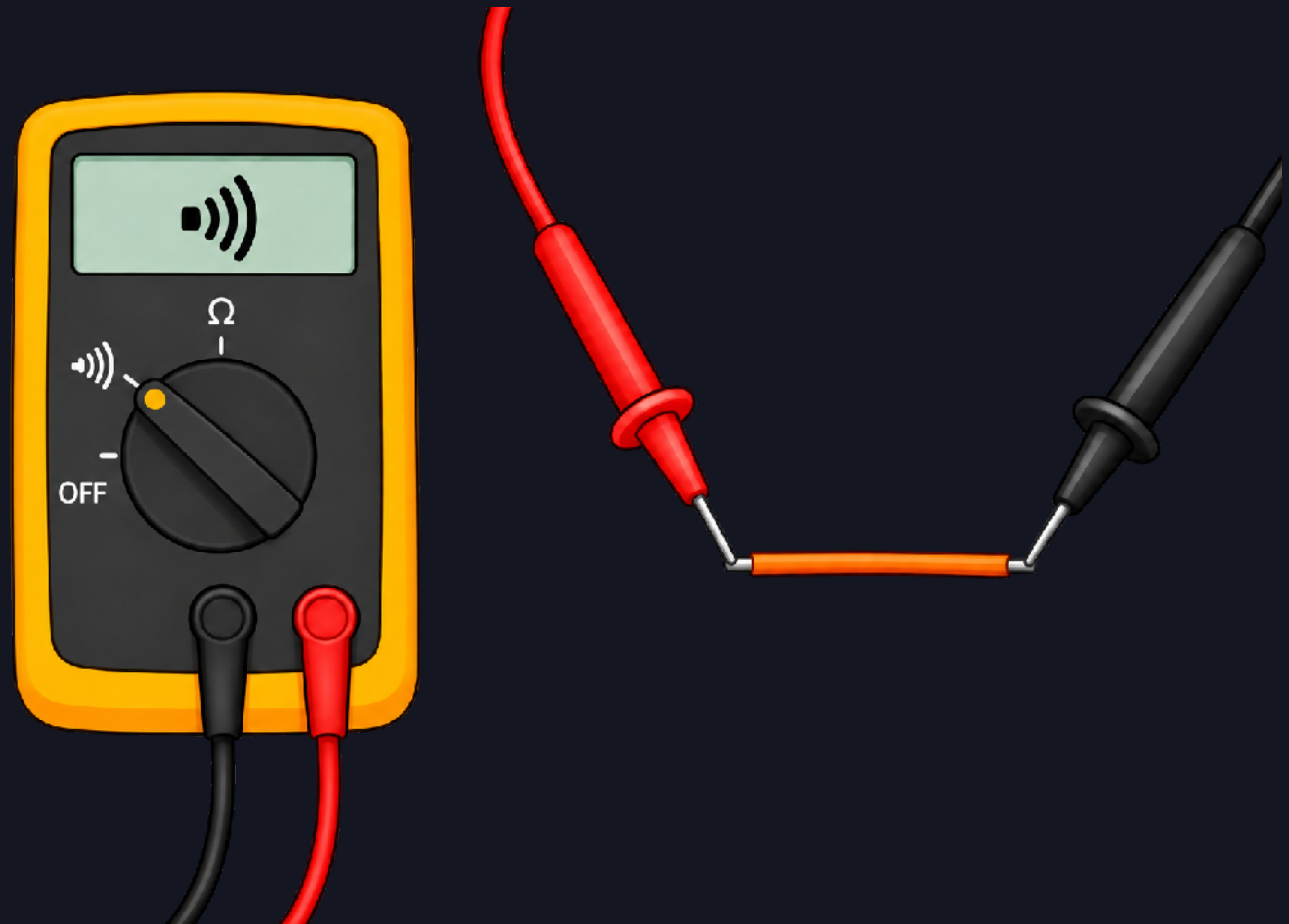


What is a multimeter

Multimeter

A Multimeter is a device used to measure electricity in a circuit.

It can measure many more things than continuity.



What is and electronic circuit

Electronic Circuit

Current is measured in Amps (A) and tells us how many electrons (cars) pass the same checkpoint every second.

1 A $\approx$ 6,240,000,000,000,000,000 electrons (cars) passing the checkpoint every second.

6,240,000,000,000,000,000 = Six quintillion, two hundred forty quadrillion.

Voltage(V) is the power(energy) each car(electron) gets to race around the circuit.



What have you learned?

What is an electronic circuit

An electronic circuit is a path through which current(electrons) flows.

There are many basic electronic components that make up a more complex circuit.

What have you learned?

What is current

Current is the flow of electrons(cars) though the circuit.

It is measured using Ampers, that tells how many electrons pass through. checkpoint each second.

How many types of batteries do you know and what voltage does each one have ?

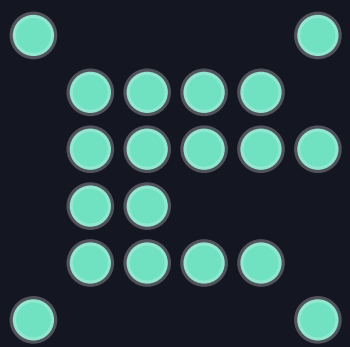
Tip: Use multimeter to find this out.

What have you learned?

What is voltage

Is the energy available to move the cars(electrons) through a circuit.

Batteries have a voltage rating that tells us how much electrical energy they provide.



CONGRATULATIONS

Let's talk

Need a hand with GlowGrid?

Drop us a line – we'd love to hear from you.

info@nodes.ro

