

How to generate current outside the battery

Can a current flow in a battery?

Maybe something like "Current flow in batteries"? Actually a current will flow if you connect a conductor to any voltage, through simple electrostatics.

Why do batteries need to be connected in a circuit?

With this analogy, it is plainly obvious why both the positive and negative ends of a battery must be connected in a circuit. If, say, you connect only the negative electrode to ground, there is no current because there is no electricity coming in on the positive electrode that can be pumped out.

Why does no current flow in a battery?

In your battery example, there is no return current path so no current will flow. There is obviously a more deep physics reason for why this works but as the question asked for a simple answer I'll skip the math, google Maxwell's Equations and how they are used in the derivation of Kirchhoff's voltage law.

Can you use alternators with electromagnets without a power grid?

You could use alternators with electromagnets, without a connection to the power grid by one of these means: Use solar panels to generate the current for the electromagnets. Use batteries to power the electromagnets, the batteries being charged using either solar panels and/or using a fraction of the power produced by the alternators.

Does current flow in a loop?

The easiest way to think of it is this: Current will only ever flow in a loop, even in very complex circuits you can always break it down into loops of current, if there is no path for current to return to its source, there will be no current flow. In your battery example, there is no return current path so no current will flow.

How does a battery work?

The confusion here is from the initial poor description of how a battery works. A battery consists of three things: a positive electrode, a negative electrode, and an electrolyte in between. The electrodes are made of materials that strongly want to react with each other; they are kept apart by the electrolyte.

Lithium ions create an electric current in a battery by moving between the anode and cathode. When the battery discharges, lithium ions travel through the electrolyte ...

How Does a Battery Generate Current? A battery generates current through a chemical reaction that occurs between its internal components. The battery consists of two ...

If you don't have a battery, it may be tricky to get an output from an alternator at all: the alternator doesn't

How to generate current outside the battery

have permanent magnets but rather electromagnets that require ...

Learn about different ways to charge a battery outside of a car with this insightful article. Explore options such as solar chargers, jump starters, battery maintainers, portable ...

What is the basic principle behind how batteries create voltage? The fundamental principle behind voltage generation in batteries is based on electrochemical ...

Instead of moving a magnet in and out of a coil, we can generate a current much easier by rotating a magnet and placing the coils around this. The strongest part of the ...

What makes a battery rechargeable is that these chemical reactions are reversible. If the chemical reaction is not reversible then you have a non-rechargeable battery ...

90V and 90kΩ gives you a constant current source that will be within 10 percent of 1mA over the load range of 0 to 10000 ohms. The higher the voltage and the higher the series resistor, the better the approximation to an ...

Whether you're burning wood, pellets, paper, or even trash (where legal and ethical), these specialized generators can supply power directly or, more commonly, charge a battery bank for subsequent use.

Fuel cells are replacing battery banks and diesel generators in office buildings as they can be installed in tight storage places with minimal maintenance and without the need ...

\$begingroup\$ i have learned in chemistry, that any battery is made of negative electrode and positive electrode and an electrolyte .the electrons goes outside the circuit from ...

Web: <https://vielec-electricite.fr>