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Voltage

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TL;DR Voltage is represented by V, in units of V (volts). It is the flow of charges from one point in the circuit to another.

Voltage

To quote my textbook:

> If energy is expended (as work) on a quantity of charge, the ratio of work to charge is given the name voltage. For example, a battery uses chemical processes to do the work on charged particles , thus a voltage appears across its terminals. The unit of voltage in the M. K. S. system is the Volt (abbreviated V) . It is equal to energy of one joule given to a charge of one coulomb. In other words, if a total energy of one Joule is required to move a group of charged particles with a total charge of one coulomb from one point to another in a given circuit , then a potential difference of one volt is produced between the two points. We shall use the literal symbol *v (t)* for voltage.
> (Basic Circuit Theory (Third Edition) , 2017, page 4.)

If the following information confuses you, I would suggest you review Ohm's Law. (Link needed)

Voltage: The electrical potential difference between two points in a circuit.

Voltage is represented by *v* (lower or upper case, see notes below);
The unit of measure is *v* (voltage, volts).

Symbolism

V	Uppercase	
v	Lowercase	
v(t)	Lowercase	time-varient

Polarity Reference Direction

In short,

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