

# Terminology

## Basic Electrical Terminology

Volts (Power), V

The potential difference in charge between two points

The size of the force that sends the electrons through a circuit

Amperes (Current), Amp, I

The unit used to measure electric current

The number of electrons flowing through a circuit.

Watts, W

A measure of the rate of energy transfer of an appliance

The rate of energy generated or consumed

Ohms (Resistance),  $\Omega$

A measure of the opposition to current flow in an electrical circuit

Circuit:

A closed loop of conductive material.

Continuous flow of electric current. Positive to negative or ground. (+, -)

Series:

Components are chained together from positive to negative to positive, etc.

Parallel:

Negative to Negative and Positive to Positive

CANchain -

The chain of CAN devices and their connections gives information to each other. Also referred to as CAN bus, there may be multiple for different parts of a robot.

Electrically, the FRC CAN network is a two-wire bus, designed to allow dozens of devices to talk to each other with a single network.

Needs two 120-ohm resistors to terminate the ends of the bus.

Bandwidth:

the ability to measure a signal

Multimeter:

- Electronic measurement tool
- Used to measure various electrical values
- Analog vs Digital

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Revision #5

Created 6 June 2025 16:02:16 by mukiewukie16

Updated 9 July 2025 15:32:32 by mukiewukie16