Electricity Glossary and Terms

- Ampere: An ampere is a unit of measurement used to measure electric current.
 - <u>An Introduction to Amperes</u>
 - What Is an Ampere?
- Alternating Current (AC): Alternating current is electric current that alternates directions. It's the most frequently used type of power sent through power lines.
 - What Is Alternating Current (AC)?
- **Battery:** A battery is a chemical cell that can store electricity. Batteries are used to power a wide array of devices, from small toys to large machinery and computers.
 - How a Battery Works
- **Capacitor:** Two electrical conductors with an insulator in between make up a capacitor, which stores electric charge.
 - What Is a Capacitor?
 - <u>Capacitors</u>
- **Conductor:** Conductors are materials that allow electrical charge to pass through easily. The most common conductor is copper wire.
 - What Are Conductors and Insulators?
 - Forces on Conductors
- **Coulomb's Law:** Charged particles exhibit an electrostatic interaction, and this law describes this interaction in detail.
 - o <u>Coulomb's Law</u>
 - <u>Coulomb's Law of Electric Charge</u>
- **Diode:** A diode is a device that regulates the direction in which current can flow.
 - Diodes as a Circuit Element
 - <u>The Diode Theory</u>
- **Direct Current (DC):** Direct current is a type of electric current that only flows in one direction.
 - Direct Current Transmission Lines
 - The Direct Current Generator
- **Electric Charge:** Electric charge is determined by whether something contains more protons, which are positively charged particles, or electrons, which are negatively charged particles.
 - Electric Charge, Force, and Field Problems
 - Electric Charge
- **Electric Circuit:** When electronic components are connected by a wire that allows electric current to flow, it makes an electric circuit.
 - o <u>Fundamentals of Electrical Engineering</u>
 - <u>Electric Circuits</u>
- **Electric Current:** Measured in amperes, electric current is the flow of electric charge through a material.
 - Electric Current
 - <u>Electricity and Electric Currents in the Atmosphere</u>
- **Electric Potential:** Measured in volts, the electric potential is the difference in electrical charge between two points.
 - Electric Potential and Capacitance
 - Electric Potential
- **Electromagnetism:** Electric currents and magnetic fields interact in different ways, and this interaction is electromagnetism.
 - Anatomy of an Electromagnetic Wave
- **Electron:** Electrons are negatively charged particles that carry electricity by jumping from one atom to the next.
 - <u>The Equation of Motion of an Electron</u>

- Farad: Capacitance, or the ability to store an electric charge, is measured in Farads.
 - <u>How is Electricity Generated?</u>
 - What Is a Farad?
- Henry: A henry is a unit of measurement of inductance.
 - <u>Measurements of Electrical Quantities</u>
- Inductor: An inductor resists changes in electrical current. This resistance is measured in henrys.
 All About Inductors
- Insulator: An insulator prevents the flow of an electric current.
 - <u>Electrical Insulators</u>
- **Magnetic Field:** Electric currents and electric materials interact to create a magnetic influence known as a magnetic field.

• Magentic Fields and How to Make Them

- **Ohm:** An ohm is the unit of measurement for resistance.
 - Ohms: Definition and Formula
- **Ohm's Law:** Known as V = IR, Ohm's law describes the relationship between voltage, current, and resistance.
 - <u>Understanding Ohm's Law</u>
 - o Ohm's Law and Why We Care About Resistance
 - o Ohm's Law for Beginners and Novices to the Field of Electricity
- **Resistor:** A resistor is something that prevents electric current from flowing.
 - What Is a Resistor?
 - o <u>Resistors</u>
- **Semiconductor:** Semiconductors are in between conductors and insulators, carrying electrons well or less well depending on other variables.
 - What Are Semiconductors?
- Static Electricity: When an electric charge builds up on an object, it is known as static electricity.
 - Questions and Answers: Static Electricity
 - Static Electricity Experiments
- **Transformer:** A transformer moves electrical energy between two winding circuits using inductive coupling.
 - Practical Transformer Model and Calculations
 - Power Transformer Open and Short Circuit Tests
- Transistor: A transistor is a device that acts as a gate or amplifier for electric current.
 - Theory of Transistors and Other Semiconductor Devices
- Volt: Electric potential is measured in volts.
 - <u>Electric Potential</u>
- Watt: Electric power is measured in watts.
 - What Are Watts?