

MARCCRAFT

an ETG Brand

GREEN ELECTRONICS GT-8000

GREEN ELECTRONICS PROGRAM

The GT-8000 Green Electronics Technology Panel provides students an introductory hands-on interactive experience with multiple energy generating and electronic component technologies

● Fundamentals of Electricity

Learn about the atom, electricity, conductors, insulators, current, voltage, electromagnetic fields, loads and resistance.

● Electrical Circuits

Discuss how different components are represented on block diagrams, functional diagrams, schematic diagrams and pictorial diagrams.

Measure voltage, resistance and current.

● DC Power

Compare and contrast different types of batteries. Measure voltages of batteries connected in various configurations.

Generate hydrogen gas and produce electricity using fuel cell technology.

Explore solar photovoltaic cells & wind turbines and use both to generate electricity.

Learn about and utilize switches, diodes, photodiodes, fuses, relays and conductors in electrical circuits.

Introduction to electrical circuits, ohm's law and power calculations. Create complete electrical circuits and calculate voltage, current and resistance of any point in the circuit.

● AC Power

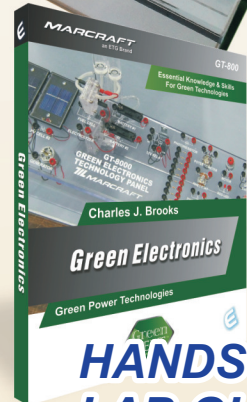
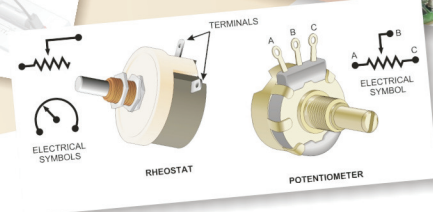
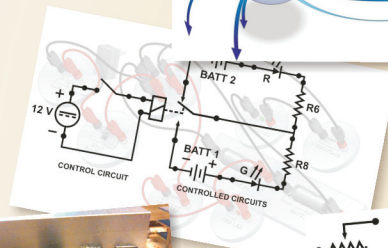
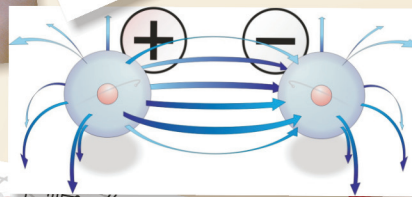
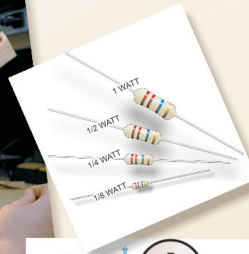
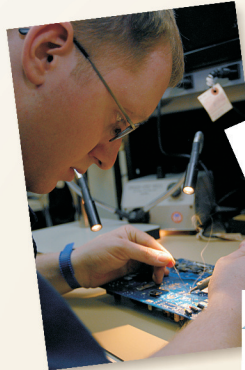
Learn the basic aspects of the AC power sine wave and measure an AC power source.

Introduction to Faraday's Law, Lenz's Law, power losses, inductive action, phase angles, electromagnetic induction and transformer construction. Learn about inductors and capacitance.

● Electrical Loads

Explore resistors, lights, solenoids and electric motors.

Reinforced with Hands-on Labs



HANDS-ON LAB GUIDE



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