# MARCRAFT



## **GREEN TECHNOLOGY CONCEPTS** AND PRACTICES

GT-900T

This Marcraft GreenSTEM Training Guide sets the stage introducing the principles that led us to the quest for rapid expansion of green technologies - the worldwide energy crisis, global warming, rapidly expanding middle classes around the world, diminishing worldwide resources, and global power economics. In subsequent chapters, basic electrical principles are covered along with the theory of each major green technology, which is covered in detail. In each case, you will learn the underlying science of the technology, the application of the science to these technologies, math principles associated with the technology as well as engineering and design principles required to implement and scale the technology.





### The Marcraft Green Technology Concepts and Practices Text Book covers these topics:

Solar (Photovoltaic) Power (Design and Installation)

Solar Thermal (Solar Hot Water)

Small Wind Power (Design and Installation)

Fuel Cell Technology

Biofuels (Ethanol and Biodiesel) and Biomass

Micro-Hydro Power Systems

**Energy Conservation Techniques** 

**Energy Auditing** 

Green Building Concepts

Transportation Issues

**Environmental Compliance and Monitoring** 

Ocean Energy, Geothermal Energy, and Nuclear Energy

AND MUCH MORE!

### **INCLUDES:**

**GT-900T** 

Green Technology Concepts & Practices Text Book

## SCADA SC-1000

SCADA (Supervisory Controls And Data Acquisition) systems are comprised of both hardware and software used to control processes as well as acquire all necessary data needed for future analysis, from one location.

This functionality can be added to all Marcraft Green Technologies Panels and/or Programs with the exception of the GT-4000 trainer. By attaching the SCADA-Pro interface and sensors to the back of the panel, a computer can then be connected to the SCADA-Pro interface. Using the provided software, students can monitor multiple measurements in real time.

#### Sensor Types:

DC Current

DC Voltage

AC Current

AC Voltage

Temperature

Pressure

**RPM** 

Flow Rate

## Data Acquisition & Control Buildable Systems:

On/Off

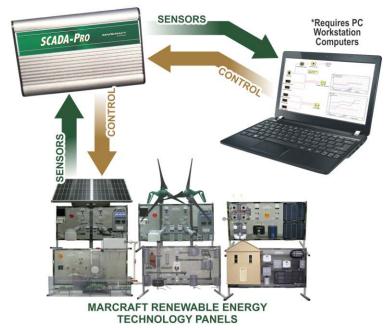
Digital Logic

Proportional

Derivatives

Integral Controls

Combinations



## **AVAILABLE ON THESE PANELS:**

GT-100SC	SCADA for the GT-1000
GT-150SC	SCADA for the GT-1500
GT-200SC	SCADA for the GT-2000
GT-250SC	SCADA for the GT-2500
GT-300SC	SCADA for the GT-3000
GT-500SC	SCADA for the GT-5000
GT-600SC	SCADA for the GT-6000
GT-750SC	SCADA for the GT-7500
GT-950SC	SCADA for the GT-9500