

## GREEN TECHNOLOGY CONCEPTS AND PRACTICES GT-900T

This Marcraft GreenSTEM Textbook 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

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 program. 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 ADD-ONS FOR THESE PANELS:

GT-100SC	GT-1000 SCADA Add-on	GT-300SC	GT-3000 SCADA Add-on
GT-150SC	GT-1500 SCADA Add-on	GT-500SC	GT-5000 SCADA Add-on
GT-200SC	GT-2000 SCADA Add-on	GT-750SC	GT-7500 SCADA Add-on
GT-250SC	GT-2500 SCADA Add-on	GT-950SC	GT-9500 SCADA Add-on

### PANELS BUILT FOR SCADA

GT-600SC Biofuels SCADA Panel