



Curriculum Coverage

- Acquiring Physical Phenomena
- Solar Panel Characteristics
- Wind Turbine Power Curve
- Off-Grid Renewable Energy System

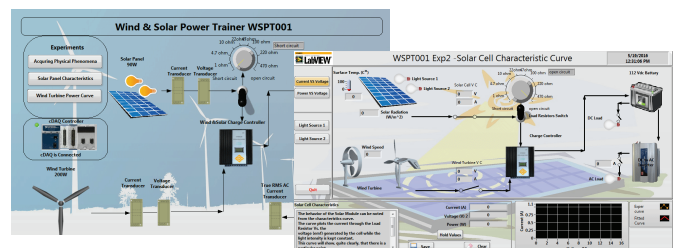
Features

- Computer based Wind and Solar Power Trainer
- Includes all required sensors to measure the light level, temperature, wind speed, voltage, current, and power
- For use with National Instruments Data Acquisition & Control hardware

Description

The Wind and Solar Power Trainer is designed to teach students the characteristics of solar panels and wind power generators. Using this trainer, students will be able to monitor data such as the output current, voltage and power from solar panels and wind mills, in addition they will be able to measure temperature, wind speed, battery voltage, load current, etc....

Developed for use with a wide variety of National Instruments data acquisition and control platforms - easy-to-use, highly expandable programmable automation controllers, intelligent communication interfaces, and rugged I/O modules.



Components

- Wind Turbine
- PV Panel
- DC to AC Inverter
- Temperature Sensor
- Wind Speed Sensor
- Solar Radiation Sensor
- AC/DC Loads

NI¹ Compatible Platforms

- Compact RIO
- Others²

¹ NI: National Instruments

² Please check with us about compatibility of other NI Platforms

Required NI Modules

- cRIO: NI-9208, NI-9476, NI-9263

Software

- User friendly with easy to use interface
- Developed using NI LabVIEW package
- Built-in safety features & limitations, and designed for students' use

Ordering Information Wind and Solar Power Trainer

WSPT001 - A - B

NI* Platform
1... cRIO

Power
1... 220 VAC

*Purchase NI Hardware Separately



For complete product specifications, pricing, and information:
e-mail: info@saabrd.com / website: www.saabrd.com

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Technical Specifications

Wind Turbin:

- *Peak Power: 50-100 W*
- *Rotor Diameter: 1 m*
- *Start-up wind Speed: 1.5 m/s*
- *Survival wind Speed: 35 m/s*
- *Voltage: 12V*
- *Overspeed protection: electronic torque control*
- *Blades: Carbon fiber compsite*

30-60W Solar Panel