

Automated Web-Based Laboratory Monitoring & Control

Software Features:

- Sensor Monitoring
- Control Panels
- Alarm Notification
- Real Time Graphs
- Math Functions
- SPC

Sensor Options:

- Temperature
- Pressure
- Force
- Fluid Level
- Position
- pH
- Power
- Flow Rate
- Safety Switches
- Alarms

Other sensors are available for your specific application

Control Options:

- Control of Experiments
- Laboratory Automation
- Feeding & Dosing
- Lab Equipment Control

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Case Study: Levin Lab of the Forsyth Institute

Problem: Researchers needed a way to monitor the water quality metrics and other conditions within their frog colony.

Solution: Web-based data acquisition system. The system has sensors located in the water system which measure temperature, pH, water resistivity, and other key metrics. Measurements from these sensors are acquired in real time and displayed on a web site accessible to key lab personnel. If any of the measurements are outside of the designated safe range, an automated alarm message will be sent via e-mail. With the use of a web enabled phone, these alarms can be received anywhere there is cell phone coverage.

Results: The system has proven to be a powerful tool for providing scientists with up to the minute system conditions from any computer with a web browser. Data is accessed through the universal web communications protocol. This allows researchers to easily view their laboratory data in real time from *anywhere in the world!*

Benefits:

- Worldwide access to data from home, lab, PDA, or cell phone
- Automated notification if alarm conditions exist
- Control lab equipment remotely based on current conditions
- Use data analysis and trending to optimize your processes
- Can interface with your existing equipment and sensors
- Customize your own website to display key lab metrics
- Systems and sensors can be customized to meet your specific laboratory monitoring and control needs

Parameter	Value	Safe range:
Temperature (°C):	+17.47	16 °C - 19 °C
Conductivity (µS):	+1888	1200 µS - 2400 µS
pH:	+6.497	6.1 - 7.0
Inlet water resistivity: (MΩ)	+17.852	12 MΩ - 18 MΩ
System electrical power:	+5.997	>5 = power ON

Real time data displayed on a custom website