

Welcome to the Smart Lab



The **ELEMENTAL MACHINES SENSORY NETWORK** is the fastest path to the Smart Lab. It monitors equipment performance and environmental factors that can influence research and manufacturing outcomes, and provides valuable new data streams and insights to improve operational efficiency. The system includes Elements, intelligent wireless sensors, Elemental Insights dashboard, and Elemental Alerts, and enables teams in science-based industries to automatically:

- **Monitor lab equipment and environment**, both on-site and remotely 24x7 with WiFi and cellular backup
- **Receive real-time alerts** if there are issues with equipment or the lab environment
- **Access real-time visualizations** of key data for increased visibility and accountability
- **Create compliance reports** - standard and customizable to support GLP and GMP
- **Share data** via API with other systems and applications (LIMS, ELN)



Elements

THE FASTEST, EASIEST WAY TO MAKE YOUR LAB SMART

Whether you want to monitor freezers, refrigerators, ovens, incubators, liquid nitrogen tanks and other equipment, or understand the ambient temperature and humidity in the lab itself, Elements are the answer. Versatile, easy-to-install, and battery-powered, they stream high-resolution data to the Elemental Insights dashboard for easy access to visualizations and a lab-wide view of equipment performance. NIST-traceable devices available.

Element-Ts - Monitor critical lab equipment – -80C freezers, -20C freezers, 4C refrigerators, ovens, liquid nitrogen tanks, incubators and more.

- Document sample storage conditions
- Verify oven temperature
- Are suitable for a broad temperature range, from -200C-150C (up to 600C available)

Element-As - Monitor the lab environment – temperature, humidity, light and air pressure.

- Track and quantify factors that affect outcomes
- Characterize lab environment
- Monitor vivarium conditions



Elemental Insights

THE PORTAL INTO THE SMART LAB

The rich, web-based dashboard gives teams on-site and remote access to all data from Elements. Track performance of critical equipment to understand usage patterns and identify potential maintenance issues. Manage notifications and alerts. Generate monthly performance reports for compliance requirements. Anytime. Anywhere. Lab monitoring has never been easier.

- Visualize usage patterns in critical equipment
- Access current and historical data to understand long-term patterns
- Download standardized or customized reports for compliance
- Create custom groups for each team or manager
- Visual notifications in the Insights dashboard
- Use the API to integrate data with third-party systems and applications -- ELNs (electronic lab notebooks), LIMS (laboratory information management systems), or other systems of record.



Elemental Alerts

INSTANT TEXT AND EMAILS NOTIFY STAFF IF SYSTEM DETECTS ISSUES

Alerts ensure that the right people are notified – immediately -- if there are unexpected variations in conditions. Instant texts and emails notify designated recipients if Elements detect unexpected variations in conditions. Temperature and humidity monitoring, incubator monitoring, refrigerator monitoring, freezer monitoring and more.

- **Fully customizable** - Anyone in the organization can be notified in the event that alert thresholds are crossed, or if power or wifi outages affect the equipment they work with.
- **Phone, email, text notifications** - Alerting to fit your organization structure.
- **Cascading** - Teams can establish a hierarchy of people to receive alerts so that if the situation isn't resolved and cleared by the first, the next person will be contacted.
- **Alert Tiles** - Dashboard Alert Tiles provide a comprehensive view of all notification events in an easy-to-see heads-up display.



Automated monitoring. Instant visibility. Real-time alerts. On-site or remotely. Elemental Machines provides deep, data-driven insights into equipment performance and metadata about the lab environment. The results? Clarity. Confidence. Repeatability.