CorGrid Smart Machine

QuickDeploy SaaS Application

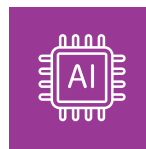# From Reactive to Predictive, the Power of Smart Machine

Our CorGrid Smart Machine SaaS application brings intelligence to the heart of your operation, your equipment.

Through continuous monitoring of motors, machines, and critical assets, we collect and analyze vibration, temperature, pressure, and energy data in real time. Our AI algorithms detect early signs of wear, predict failures weeks in advance, and recommend corrective actions automatically.

CorGrid is transforming the smart machine industry by enhancing safety and efficiency through innovative applications:

- IoT sensors ensure safe, efficient production by monitoring air and liquids.
- Detects pollutants to ensure compliance and sustainability.
- Offers real-time insights and quick anomaly responses.
- Enables informed decision-making and better operations.
- Enhances performance and promotes smart manufacturing.

Predictive maintenance and optimization of machine and equipment performance

AI-based Predictive Maintenance

Setup and Performance Optimization

Equipment Status Monitoring

Energy-Cost Reduction

www.corgrid.io/smart-machine/

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Is Your Operational Equipment Ready for the Future?

Unplanned downtime, unexpected failures, and costly maintenance are the silent killers of industrial productivity.

In a competitive market, reactivity is no longer enough. The future belongs to plants that predict and prevent failures before they happen. With CorGrid, your operation becomes proactive, data-driven, and resilient.

EQUIPAMENT / SENSOR	MONITORING	OBJECTIVE	RESULT
Vibration Sensors	Vibration patterns of motors/pumps/compressors/bearings; Abnormal frequencies indicating wear/misalignment	Detect early mechanical failures; Predict remaining life of rotating components	Up to 70% fewer unplanned stoppages; Longer asset life; Condition-based maintenance
Temperature Sensors	Operating temperature of motors, Electrical panels, mechanical systems; Overheating/cooling issues	Identify overload or lubrication/cooling problems; Prevent thermal failures	Increased safety; reduced fire/damage risk; Optimized energy consumption
Pressure Sensors	Pressure in hydraulic/pneumatic systems; Leak detection; Variations indicating obstructions	Ensure stability & safety of pressurized systems; Detect leaks	Accident prevention; Energy efficiency in compressed-air systems
Electric-Current Sensors	Energy consumption; Current spikes; Energy efficiency analysis	Detect mechanical issues via electrical anomalies; Optimize machine energy use	Lower energy costs; remote diagnostics; Basis for energy-efficiency projects
Acoustic Sensors (Noise Detection)	Abnormal machine noise; compressed-Air/gas leaks via sound; Acoustic patterns for wear	Capture anomalies without vibration/heat; Very early fault detection	Higher diagnostic accuracy; Reduced waste in air systems; Non-invasive monitoring
Thermal Cameras	Surface temperature distribution; Hot spots in panels; Insulation issues	Detect electrical issues before failure; Identify energy losses	Fire/accident prevention; Reduced energy use; Large-area non-invasive inspection
Humidity Sensors	Ambient/equipment humidity; Condensation; Storage conditions	Prevent corrosion & moisture damage; Ensure ideal operating conditions	Longer equipment life; Protection of electronics; Quality compliance
Speed (RPM) Sensors	Motor/shaft rotation; Conveyor speed; Rotating equipment performance	Monitor operational efficiency; Detect performance variations	Process optimization; Identify mechanical issues; Precise speed control

*For complete list of sensors, contact us at salesteam@corvalent.com

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