

COMINO MONITORING SYSTEM

CONTROLLER BOARD WITH SENSORS & SOFTWARE FOR REAL-TIME MONITORING

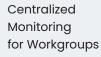
KEY ADVANTAGES

| | | | 1 |
|---|---|--|---|
| | | | |
| н | ï | | |
| | | | |
| | | | J |

Cooling System & CPU/GPU Monitoring

| /ww |
|-----|
| |
| |

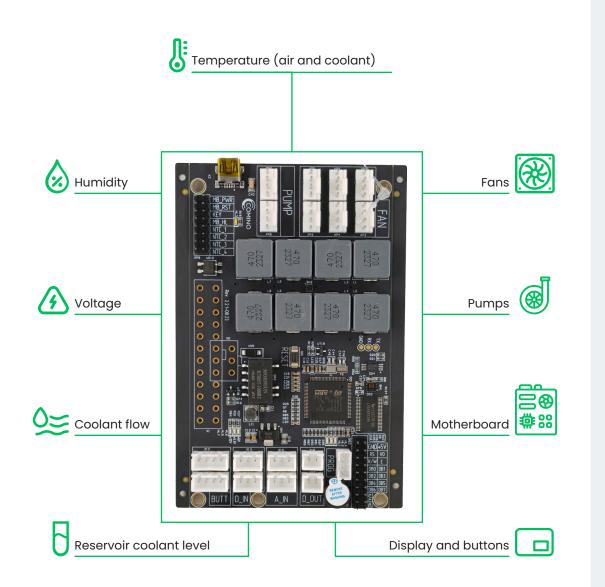




Comino Monitoring System (CMS) gathers hardware and environment data, analyzes these data and provides the insights to the user

- The system incorporates a separate board that autonomously makes decisions, enhancing agility and decision-making capabilities.
- Includes a self-diagnosis feature and an emergency shutdown function to further enhance safety.
- Guarantees uninterrupted operation according to specified requirements and promptly alerts you if any anomalies or issues arise.
- In case multiple machines are involved, the system is seamlessly integrated into monitoring for centralized groups (Zabbix, Grafana).

SENSORS & CONNECTED DEVICES





The Controller Board serves as the central intelligence of the entire system, acting as its brain. It plays a pivotal role in orchestrating the seamless operation of various components. All sensors, fans, pumps, the display, and the motherboard are intricately linked to this vital hub.

Its primary responsibility lies in vigilant monitoring of crucial parameters within the system. This includes overseeing temperatures, coolant flow and level, and other essential metrics. The Controller Board is designed to promptly raise alarms in the event of malfunctions, ensuring a rapid response to any issues that may arise.

Furthermore, the Controller serves as both a vigilant guardian and a skilled manager. It adeptly balances performance and noise levels, optimizing system efficiency without sacrificing user experience. Essentially, the Controller Board acts as the linchpin, ensuring a well-coordinated and efficient operation of the entire system's components.

COMINO MONITORING SYSTEM

CMS allows collecting cooling system logs offline to analyze device usage history, log failure events and to monitor the temperature statistic. WEB based GUI allows you to inspect multiple devices remotely. The monitoring system increases system availability.

CONTROLLER HEALTH MONITOR

Indicates if any errors/alerts happen and shows controller hardware components status, including voltage line, coolant flow and level sensors.

CURRENT / TOTAL UPTIME

Shows the duration of the controller's current session / total duration of the controller operation.

COOLING PERFORMANCE

Shows how efficent the cooling system works. It includes Air and Coolant inlet & outlet temperatures, CPU & GPUs temperatures as well as Total Energy Consumptions.

GPU & CPU POWER CONSUMPTION

Shows the power consumption of the processor and video cards as real-time data to inform on how high-load operations affect the device consumption.

TECHNICAL REQUIREMENTS

- OS: Windows 11/10, Ubuntu 22.04/20.4 (Dependency for Ubuntu: the target system must have nvidia-smi and sensors utilities installed)
- Web Browsers: Mozilla Firefox, Google Chrome, Chromium, Apple Safari, Microsoft Edge (!) Attention: Internet Explorer 11 is not supported
- Hard disk drive: 300MB
- Controller firmware version: 1.0.6 or newer
- Controller PCB version: 2.xx.xx

FANS & PUMPS LOAD

Shows the rotation speed for fans and pumps at real time to inform about components status



INTEGRATION POSSIBILITIES

Establish monitoring via REST API and push the sensor data into monitoring software (Zabbix, Grafana) or databases (InfluxDB).

