



Smart Environment Monitoring for Critical Care Environments

Precision-controlled temperature and humidity management to ensure patient safety, protect medicines, and simplify compliance



In today's critical facilities, environmental stability is operationally vital. Even small fluctuations in temperature or humidity can compromise vaccine potency, alter drug efficacy, or affect patient well-being.

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According to WHO, nearly **1 in 5** temperature-sensitive products suffer damage due to poor environmental control. In parallel, manual monitoring & unoptimized HVAC systems can reduce operational efficiency by up to **30%**.

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Healthcare, laboratories, and life-science environments must now maintain validated, traceable, and compliant conditions - to meet NABH, ISO, and GMP standards while ensuring patient and product safety.

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The Everyday Challenges



The Answer: Smart Environment Monitoring, Simplified



Centelon Robotics introduces the **RHT (Relative Humidity & Temperature) Unit**, an intelligent ambient monitoring system that ensures precision, compliance, and peace of mind across every controlled environment.

Built for **continuous accuracy, instant alerts, and automated reporting**, the RHT Unit transforms how facilities manage environmental stability, turning compliance into confidence and control into insight.

What our RHT Unit Can Do for You

Wide Temperature Measurement Range

Measure temperatures from **-40°C to +125°C** & humidity levels from **0% to 100% RH**, covering extreme storage, cold chain, and ambient healthcare conditions with exceptional stability.



High Accuracy

The RHT unit offers a precision level of $\pm 0.2^\circ\text{C}$ for temperature and $\pm 2\%$ RH for humidity, ensuring the highest reliability for pharmaceutical-grade monitoring and hospital safety standards.



Robust Display and Connectivity

Equipped with a 4.3-inch LCD/OLED screen, the unit gives instant local visibility of parameters while also supporting remote data viewing. Connectivity options include:

- Wi-Fi for fixed installations (labs, ICUs, clean rooms)
- GSM for mobile or distributed applications (vaccine vans, satellite storage units)

Durable Build for Long-Term Reliability

The RHT probe, available in metal with copper sintered filter or PE material, ensures minimal interference and high durability in challenging environments. The system is USB-powered, simplifying installation and integration with existing infrastructure.



The Outcome for You



Automated Compliance Assurance

Eliminates manual temperature logs and simplifies NABH / ISO audit preparation.



Patient Safety & Drug Integrity

Maintains optimal storage conditions for vaccines, blood, and medicines, ensuring efficacy and safety.



Instant Alerts

Real-time notifications prevent spoilage in cold rooms, ICUs, and pharmacies.



Operational Efficiency

Reduces staff workload through centralized, automated monitoring.



Air Quality Monitoring

Ensures clean and safe indoor environments by tracking particulate and humidity levels critical to infection control.

About Centelon Robotics

Backed by the Centelon Group, our vision is to integrate hardware precision, software logic, and intelligent responsiveness, to create solutions that align with how people live, feel, and work. From humanoid robots to IoT Platforms, Centelon Robotics transforms your world with automation, insight, and adaptive design.



About Centelon Group

Centelon is a Melbourne, VIC-based technology solutions company that has grown from two employees in 2017 to nearly 400, spread across multiple locations. We serve several large and medium enterprises as well as government departments and non-profits in their digital transformation journeys. Over the course of several years, we have built several IP assets that enable us to significantly increase impact for our customers' businesses and improve time to realisation for them.

