

# SENSORS FOR COLD STORAGE: TEMPERATURE-CONTROLLED PHARMACEUTICALS

*Small and powerful, our sensors protect patients and profits*

Over 20% of temperature-sensitive drugs are damaged before they reach patients because they aren't kept at the appropriate temperature. Mini-sensors from Disruptive Technologies ensure temperatures are correct and alert you if conditions change.

## Prevent spoilage of temperature-sensitive products

Getting pharmaceuticals from manufacturing plant to patient is time consuming and complicated, involving multiple hand-offs and diverse locations. The cost of getting it wrong impacts patient safety and corporate profitability. The top 10 pharmaceutical companies **lose more than \$35B annually** due to temperature excursions.

## Know the temperature before you arrive

Pharmaceuticals have many stopping points on their journey. You must ensure every location is prepared to accept the shipment and store it appropriately. Sensors help you anticipate problems and take corrective action. For example, if a cold storage warehouse or specific pharmacy is having trouble maintaining the right temperature, a shipment can be rerouted.

## Continuous monitoring for regulatory compliance

At each point, temperatures must be monitored and recorded to document regulatory compliance. Automated logging of conditions creates an audit trail at cold storage facilities to satisfy reporting requirements. Sensors embedded in packaging and within key facilities automatically collect temperature data and reduce the need for manual checks and documentation.



## Why Disruptive Technologies Sensors

First-generation sensors were bulky, complex and often inaccurate. We've completely rethought sensor design to enable data collection anywhere and everywhere.

There's no need to "rip and replace" legacy systems to turn them into "smart" equipment.

- Mini-sensors are the size of a postage stamp
- Low power consumption means long battery life (up to **15 years**)
- Robust construction
- Cost efficient
- Direct connections provide maximum accuracy
- Industrial-grade connectivity and built-in redundancy
- Supports next-generation Internet of Things (IoT) networks
- End-to-end security built into the design
- Extensible platform to integrate into your systems



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## Sensors anywhere. Insights everywhere.

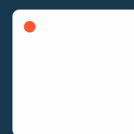
Disruptive Technologies is a rapidly growing innovator in the IoT market and developer of the world's smallest commercial-grade wireless sensors. Our sensing solution based on these mini-sensors simplifies data collection and delivers the data securely to our partners' analytics programs in the cloud.

Leading-edge companies build radically different smart solutions on our platform for Industry 4.0, commercial real estate, retail, food service and safety, and connected living applications. Together we enable facility managers to maximize space and keep tenants happy, pharmacists to ensure drugs don't spoil, and engineers to protect critical assets. From predictive maintenance to proper refrigeration, we're connecting people and information to deliver Connected Change™.

To learn more, visit [www.disruptive-technologies.com](http://www.disruptive-technologies.com)

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