Therma°

Stop Guessing, Start Sensing

Automated, affordable, awesome cold chain management.



The Facts

The average restaurant

spends 30-33% of its revenue on ingredients[1]

wastes around 50,000 pounds of inventory per location per year[2]

1. Forbes, How Much Do the Ingredients Cost in Your Favorite Foods?
2. Green Restaurant Association, Zeroing in on Restaurant Food Waste

The Facts

85%

of restaurant product loss issues are attributable to

substandard food storage conditions

IoT temperature and humidity sensors save restaurants money. Therma sensors save restaurants a minimum of $15,111 per location, per year[3] by

1. Eliminating product loss resulting from equipment failures, power outages, and human error

2. Saving valuable employee time spent on daily temperature checks for other tasks

3. Preventing equipment downtime by catching issues before they happen and avoiding costly last-minute repairs

3. Therma, Calculate how much Therma will save you each year

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How IoT Temperature and Humidity Sensors Work

Temperatures exceeding 40 degrees Fahrenheit spoil sensitive items such as greens or meats in less than 2 hours. Warmer temperatures allow bacteria to thrive and multiply every 20 minutes[4]. Delicate ingredients such as fish or greens are ultra-sensitive, with a few degrees difference between freshness and food waste.

Temperature monitoring has always been part of the restaurant business, traditionally through manual thermometer temperature checks. Unfortunately, manual temperature checks put inventory at risk through human error, inaccurate readings, or equipment failure. To eliminate loss events and improve profits, restaurateurs and fast-casual franchises have turned to a new solution — IoT temperature and humidity sensors.

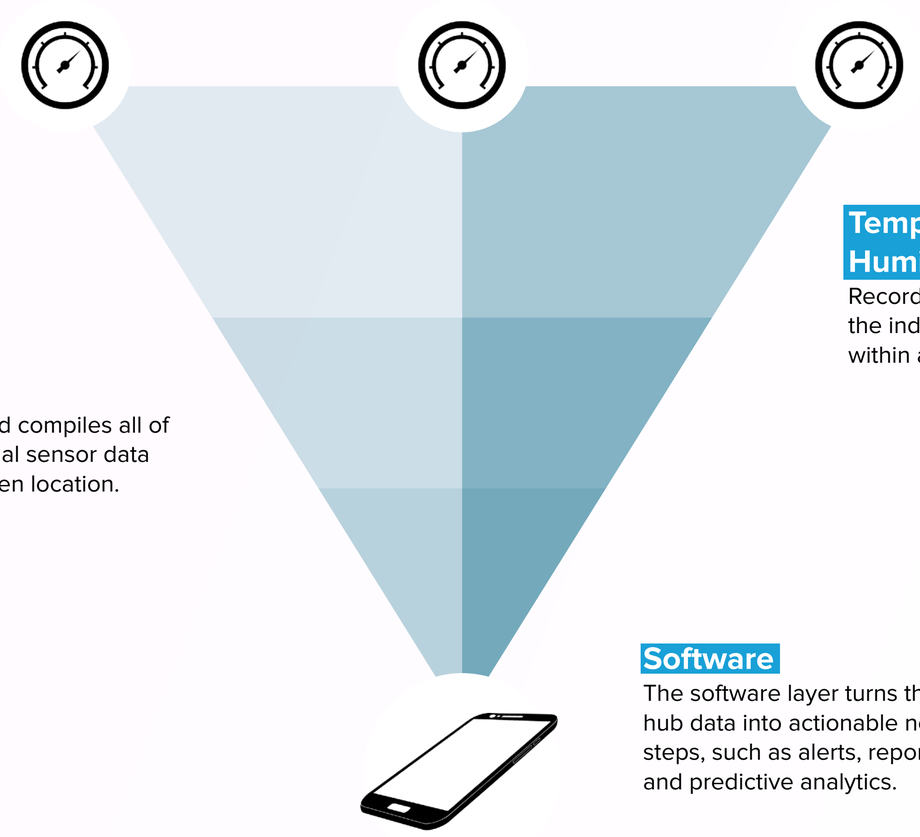
4. Eat This, Not That, This Is Why Food Poisoning Is So Much More Common in Summer

Why Restaurants Need Temperature Sensors

IoT temperature sensors automatically record refrigeration equipment temperature and remove traditional temperature management issues — calibration, multiple checks per day, dedicated staff member(s), and paper logs.

IoT temperature monitoring systems use three essential parts:

Smart Temperature Monitoring Systems

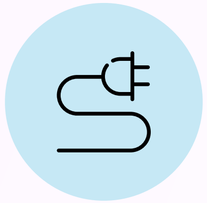


Hub
Records and compiles all of the individual sensor data within a given location.

Temperature and Humidity Sensors
Records and compiles all of the individual sensor data within a given location.

Software
The software layer turns the hub data into actionable next steps, such as alerts, reports, and predictive analytics.

Types of Temperature Sensors



Wired Sensors

Sensors are embedded in a kitchens' physical infrastructure and use wired Ethernet cables to transmit data between the sensors and hub



Wireless IoT Temperature Sensors

These sensors do not require wires and utilize Bluetooth, WiFi, or LoRaWAN® communication protocols to send data from a sensor to a hub. This type of sensor is the most popular in restaurants because of its easy installation.

What is LoRaWAN®

LoRa® is a long-range, low bandwidth radio network. LoRaWAN® builds on top of LoRa® with technologies including adaptive data rate, quality of service, transmission guarantees, and other systems that automatically compensate for dense and noisy urban deployments.

Sensors built with LoRaWAN® do not require WiFi or Ethernet to work and provide full coverage throughout any environment. Performance is proven to exceed that of Bluetooth or WiFi.

How To Evaluate A Temperature Monitoring System

Wireless temperature monitoring is already prevalent in healthcare, transportation, and logistics. Like a restaurant, these businesses necessitate precise data and can't afford to throw away valuable products.

Roughly 5% of restaurants have already started using sensor technology to create more profitable businesses[5]. Still, not all IoT sensors will work well in restaurants, so it is crucial to understand the differences between sensors.

5. QSR Magazine, Why Temperature Sensors are a Worthy Investment

How To Evaluate A Temperature Monitoring System

When evaluating temperature monitoring systems, restaurants should consider the following critical decision criteria:

Criteria	Questions to Consider
Range and Signal Type	Does the device require WiFi to work? Will the signal transmit out of your walk-in and freezer? Is the signal range large enough to cover your equipment, or will you need multiple sensors or hubs?
Customizable Alerts	Can your team receive alerts via email, SMS, and/or phone call when an issue arises? Are the alert settings fixed based on set temperatures and configurable based on your risk? Can you turn off alerts when equipment is undergoing maintenance?

How To Evaluate A Temperature Monitoring System

Criteria	Questions to Consider
Software Interface and Record Keeping	Is there a record of your temperature, humidity, and alert patterns? Can the software be easily used by your management and maintenance teams? Can the data be integrated with your existing dashboards?
Customizable Alerts	Is the signal secure? Could hackers access your backend data?
Data Security	Is the system ready to use out-of-the-box, or does it require professional installation?
Change Management	What is the sensor battery life? How often will your team need to reset or re-purchase the sensors?

Introducing Therma

Therma° is the first temperature and humidity sensor system built with restaurants in mind.

Built to perform inside coolers, freezers, and other harsh environments, **Therma°** temperature sensors are easy to place and don't require wiring or drilling.



Therma° has prevented thousands of equipment failures to date. Our customers love us because we provide:

1,200+ foot range with LoRaWAN®, through thick walls

4G connectivity — no WiFi or Ethernet required

10 minutes or less setup time

Customizable SMS, email, or phone alerts

Ten years of battery life

Military-grade data security

Easy-to-use dashboard to access all of your data in one place

Real Life Savings from Therma's IoT Temperature Sensor

Eggs Up Grill

Eggs Up Grill is located in the hurricane belt, where power goes out often. With no alert system in place, they turned to Therma to monitor their refrigeration and freezer units around the clock.

While on vacation, the owner received a Therma notification that a cooler temperature was steadily climbing. Because the temperature rise was relatively slow, the restaurant employees did not immediately recognize the problem. When the temperature alerts continued, it became clear that maintenance was required, so the Eggs Up Grill owner directed his staff to relocate the food from the cooler and repair it. Because of the alerts, he saved $1,000 in food spoilage and hundreds in overtime labor costs to re-prep lost food — all remotely![6]

Real Life Savings from Therma's IoT Temperature Sensor

Wyndham Grand Jupiter

The Food and Beverage team from Wyndham Grand Jupiter at Harbourside Place was doing multiple manual temperature checks per day. Manually checking temperature was an expensive use of labor hours, and logs were inconsistent and not tracked outside of business hours. The team turned to Therma to provide a comprehensive temperature monitoring system with alerts and a reporting dashboard.

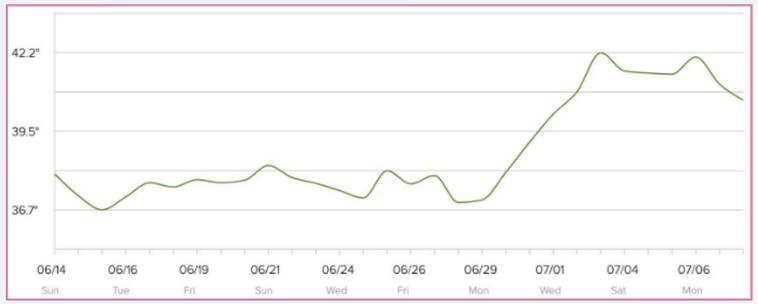
A few months after installing Therma, the Director began receiving text alerts that the main walk-in cooler holding nearly all of their inventory was running warm. He quickly logged into his Therma dashboard and noticed a gradual upward trend in temperature for his walk-in cooler.

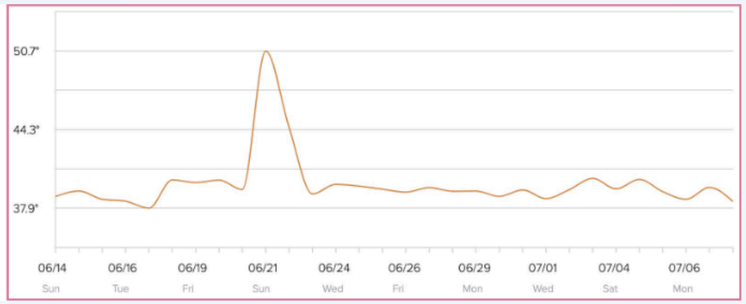
6. Therma, Eggs Up Grill Case Study

Real Life Savings from Therma's IoT Temperature Sensor

Wyndham Grand Jupiter

The maintenance team discovered a leak that had caused the cooler to shut down completely. The team moved $15,000 worth of inventory safely to other units and avoided massive food spoilage, which would have gone unnoticed without Therma alerts and dashboard.[7]





The graphs below are from a live Therma dashboard. At this location, two warming incidents occurred at a restaurant location. The graph on the right corresponds to a temperature spike when a walk-in door was left open. The graph on the left indicates a broken cooler, evidenced by the prolonged elevated temperatures. This data does not represent either case study and serves only as an example of the dashboard.

7. Therma, Wyndham Grand Jupiter Case Study

Buy Therma Today

Get Therma up and running in minutes. Our wireless sensors are easy to place and don't require wiring or drilling. The sensors automatically connect to a 4G hub using LoRaWAN® — no WiFi or configuration required. Get set up and start saving money in minutes.

Buy your first sensor kit through our easy-to-use **eCommerce platform** or **request a demo** with a Therma sales representative through our website at **hellotherma.com**.



Therma°

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