



Monnit and AIMNET Automate Climate Condition Systems for YogaSol

Whether you're a new yogi, an advanced practitioner, or a seasoned instructor, a classic hot yoga class is going to make you sweat. Not only because of your concentrated effort but also because the yoga studio temperature can reach a steaming 110°. So as you twist and bend through set sequences of sweat-inducing asanas (postures) and pranayamas (breathing exercises), go ahead and sweat while paying close attention to your body and breath.

Yes, you may also feel slightly stressed and self-conscious, turning yourself into a proverbial pretzel. But rest assured. Hot yoga is scientifically designed to warm up and stretch your muscles, ligaments, and tendons in highly beneficial ways to your body and mind.

However, if you're a hot yoga studio owner or manager, you shouldn't have to sweat over or worry about the performance of your facility's heating, ventilation, and air conditioning (HVAC) systems. Your hot yoga customers expect and pay for a seamless, predictable, orderly experience even when exercise in studios gets hot and humid.

Read how [AIMNET](#) Smart Building Systems—a Monnit® partner—helped YogaSol Hot Yoga and HIIT Pilates Studio remotely monitor and manage studio temperature and humidity using innovative and cost-effective solutions connected to the Internet of Things (IoT).

Spoiler alert: The return on investment (ROI) is significant. Using Monnit Remote Monitoring Solutions, AIMNET Smart Building Systems provided YogaSol with an automated system to control and optimize studio temperatures and humidity 24/7. It's all easily managed using an online dashboard and Google Calendar on a mobile device or computer. Plus, alerts via email, text, or call from various fast-install, easily configurable IoT sensors.

Challenges

YogaSol (Yogasol.com) is a pilates and hot yoga studio and community in Norwalk, CT. Dan Markowitz, founder and owner of YogaSol, and Jeanne Tang, his wife and managing partner, wanted to automate the entire facility's climate control and environmental management system. Their goal was to reduce staff responsibilities before, during, and after business hours that run 16 hours a day, seven days a week.

The studio offers multiple yoga and pilates classes per day at different temperatures and humidity levels ranging between 90° and 110° and 50% relative humidity (RH). Instructors leading classes in the company's varied studio environments also needed to quickly and easily activate a timed fresh air system. Instructors must act fast during classes when climate conditions become too oppressive or participants exhibit any temperature-related stress signs.

The climate control and environmental management system also needed to:

- Support thorough cleaning required between each class with a timed exhaust system to reduce temperature and humidity during the cleaning periods.
- Provide automatic, timed exhaust shutoff after cleaning to bring the temperature back up for the next class.
- Automatically log climate condition data for compliance and track various HVAC operations to detect malfunctions or failures.
- Allow remote monitoring and override control using mobile devices.

Markowitz and Tang contacted AIMNET Smart Building Systems in Orange, CT. AIMNET offers, as a part of its broad range of technology services, building automation with remote monitoring and management solutions. As a Monnit partner, AIMNET sells, installs, and configures the entire Monnit product line.

Solution

YogaSol management worked directly with David Dickson, Project Engineer of AIMNET Smart Building Systems. Dickson and his team developed a reliable way to monitor the studios and climate control equipment remotely 24/7.

“It was certainly one of the most unique and challenging projects I’ve encountered in more than two decades of engineering building automation systems,” said Dickson. “Among many things, the cost was an important factor. As a new small business, YogaSol’s management team needed something they could afford with a rapid ROI. This was a primary focus as we selected the overall products to use.”

The customized climate remote monitoring and control solution for YogaSol included automation technologies with ALTA® by Monnit Wireless Humidity, Temperature, Water Detection Puck, and Button Press Sensors, and 10 Amp Wireless Control units.

The AIMNET Team installed:

- Humidity and Temperature Sensors for data logging climate conditions and sending alerts
- Push Button Sensors to allow the activation of exhaust and fresh air
- Relay control units to open fresh air dampers and activate exhaust fans
- Water Detection Puck Sensors near the steam humidifier
- The iMonnit Sensor Management and Remote Monitoring Software on manager and staff smartphones and computers
- Gateways to aggregate, protect, and communicate data sent from each Monnit Sensor to iMonnit and Google Calendar

AIMNET designed and installed the integrated solution that allows Markowitz, Tang, and their staff to schedule classes with the desired studio space climate conditions through Google Calendar. This customized Google Calendar sends scheduled commands to all internal ALTA 10 Amp Control relay devices without employee intervention. All heating and humidity operations are based on class schedules, allowing climate conditions to return to normal ranges between scheduled classes and when the yoga studio is closed.

“Markowitz’s and Tang’s desires required the integration of several unique product lines that could not only perform specific and unusual integrated functions but could also be monitored and managed remotely,” said Dickson.

Dickson and his team configured the Wireless Button Press Sensors in YogaSol’s studios to send the relay control units a command to open the fresh air damper and activate the exhaust for a predefined run-time. The Wireless Button Press Sensors are mobile and can easily move around the studio based on the need of each instructor.

In addition, the AIMNET Team configured the ALTA Temperature and Humidity Sensors to send data through iMonnit to the 10 Amp Control units to activate or deactivate exhaust and fresh air when studio conditions fall outside of a preferred range. All Monnit IoT devices are programmed to send YogaSol managers and staff an alert via an email, text, or voice call if any condition is out of normal preset range. Real-time alerts allow them to respond immediately and control conditions from wherever they are.





Results

Monnit makes it easy to realize an immediate ROI. AIMNET's designed and configured Monnit IoT solution quickly proved valuable to YogaSol.

"It is a quixotic notion to operate a hot yoga studio in Connecticut where the weather doesn't cooperate for much of the year," said Tang. "And oh, by the way, the studio has to be energy efficient and generate revenue. Somehow, harnessing the magic of automation from AIMNET, we can do that—even navigating through a pandemic.

Automation allows us to manage the studio when we are not physically present. The heat, humidity, and ventilation systems are programmed to come on and off for class schedules, but if there is a change in the class schedule, we still control and monitor from afar. We could not run the studio and have any semblance of family life without it."

Using the comprehensive monitoring and control solution, the yoga studio can:

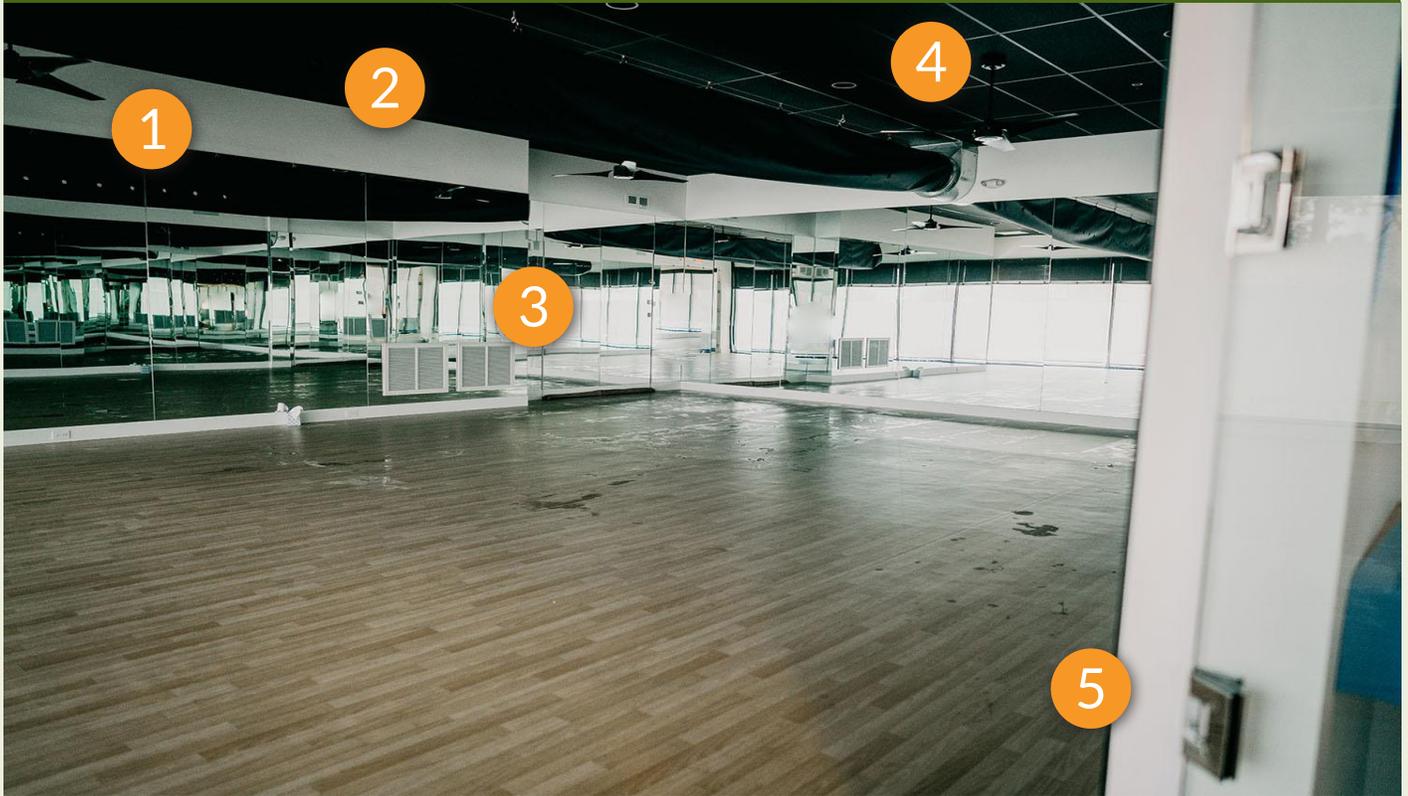
The AIMNET Team installed:

- Enhance the customer experience by maintaining efficient climate control and automated environmental systems.
- Ensure staff and instructors aren't overwhelmed with manual, technical, and administrative responsibilities.
- Optimize processes with remote monitoring and data tracking to save energy, reduce operational costs, and improve productivity.

ROI: Ultimately, the result was complete automation of the entire yoga facility's combined class scheduling and climate control operation that negated the need of any employee other than the instructor to be at the studio, saving more than 60 hours of labor costs per week. Plus, AIMNET developed a web-based portal combined with iMonnit and Google Calendar that allows the owner to remotely monitor and manage all operations from any PC or smart device.

"Monnit Wireless Sensors and iMonnit cloud software were an important part of the overall design and at a cost that fit the YogaSol's budget," said Dickson. "After reviewing several options, ultimately, several Monnit products filled our need at about 75% less installation cost than the other options. Now more than four years in operation, the business owners and we are still very pleased with the results. We exceeded the owner's expectations and fulfilled their every desire at a very reasonable cost."

Monnit Remote Monitoring Solutions Optimize Yoga Facility Climate Management



1

Temperature Sensors

Get alerts when the studio exceeds or falls out of preset temperature preferences. Install an ALTA Wireless Temperature Sensor in duct vents and the studio. The sensor's leads range from three to 100 feet for various placements.

2

Humidity Sensors

Install the scientific-grade ALTA Humidity Sensor near the studio's steam humidifier vent to remotely monitor relative humidity (RH) between 10-90%, temperature, and dew point in a studio. Get alerts via text, email, or call.

3

Button Press Sensors

Trigger an alert or command and control by pressing the on-sensor button of an ALTA Button Press Sensor. Use the sensor to activate relay control of the exhaust and fresh air fans after a class or if conditions rise too much.

4

10 Amp Wireless Control Units

Use two separate relay switches to control and open and close fresh-air damper systems and exhaust fans through iMonnit or automatically from any ALTA Sensor or sensor group using an ALTA 10 Amp Wireless Control unit.

5

Water Detection Puck Sensors

An ALTA Wireless Water Detection Puck Sensor is ideal for monitoring studio steam humidifiers for leaks. The Water Detection Puck Sensor can also be placed for monitoring under or next to pipes, sinks, boilers, and water heaters.

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