



## ThingWorx and Lantern Tech Help Establishment Labs Improve Safety and Meet Strict FDA Requirements

### LANTERN TECHNOLOGIES AND ESTABLISHMENT LABS

An IoT technology integrator, Lantern Technologies (Lantern Tech) develops solutions for industries and commercial businesses that combine the best match of IoT software and hardware technologies.

When approached by Establishment Labs to provide a centralized system for controlling, monitoring and reporting on its various oven operations, Lantern Tech sought a partner to help develop a highly integrated, automated solution that would be sustainable in a rapidly evolving, regulation-driven medical industry.

Establishment Labs is a global, privately held, high-tech medical device and aesthetics company that designs, develops, manufactures and markets an innovative product portfolio consisting of advanced silicone-filled breast and body shaping implants. During the manufacturing process, they utilize pharmaceutical ovens to cure and dry silicone products.

## The Challenge

As a medical device company, Establishment Labs must balance the importance of safety and regulatory compliance with the market demand for rapid product development. To accelerate their production process without compromising Federal Drug Administration (FDA) requirements, Establishment Labs partnered with Lantern Tech to centralize pharmaceutical oven control across a variety of sizes and locations. Along with improving downtime, oven control enables greater data reliability, streamlined visibility and remote monitoring capabilities for its operators.

Lantern Tech did not have the technical capabilities internally to integrate a complete view of the hardware, middleware and the front end of Establishment Labs' application all at once, so they enlisted several employees who were each skilled in specific areas to try and improve visualization. Unfortunately, aligning multiple open source technologies to create a stable application was difficult without a common standard. Engineers at Lantern Tech struggled to select the appropriate corresponding hardware and to learn each program, which required a significant investment in time and money.

Additionally, because they work with multiple technology systems, Lantern Tech lacked a dedicated support resource to track technical issues in a timely manner and alert the customer of a potential failure before it impacted product quality and ultimately customer safety.

Finally, strict FDA regulations required certain redundancy, reliability and recording standards, including the need to maintain medical device information for 15 years.

## The Approach

Lantern Tech initially tried to develop an application by themselves, but after many months they realized they were reinventing the wheel and sought a faster way forward. The company evaluated five IoT platforms and selected the ThingWorx Industrial Innovation Platform to decrease the time to market for their technology. ThingWorx enabled Lantern Tech to complete their solution in half the time it would have taken had they created a solution on their own.

The company was able to quickly leverage the ThingWorx platform using PTC training materials, including online classes, manuals and step-by-step videos for application development. ThingWorx enabled Lantern Tech to connect multiple devices and provide a unified interface for comprehensive reporting.



I've worked for other IoT companies for more than 10 years, and the ThingWorx platform from PTC is easier to learn and provides the quickest time to market. There is nothing we can't do with the platform."

Alban Sanchez Cabezas  
CEO & Co-Founder, Lantern Technologies

### The Solution

Previous systems implemented by Establishment Labs required at least a year to achieve initial results. The solution from Lantern Tech, built on the ThingWorx platform, helped accelerate this timeline to just three months.

Every oven now has a gateway that allows 1:1 communication, increasing the reliability of the device's data accuracy and security. Each one of these gateways sends information from the ovens to the ThingWorx remote server, which provides a comprehensive view into device performance. Lantern Tech helped fill the gaps of the previous systems, and now when issues arise, alarms automatically sound to expedite a resolution, reducing product on hold and ultimately product waste.

Additionally, to facilitate FDA compliance and meet traceability standards, oven operators can track performance via read-only oven profiles on their mobile devices, and automatically save non-editable PDF record files.

Using the ThingWorx platform, Lantern Tech can now host solutions either on-premise or in the cloud, tailoring IoT solutions to customers of any size, and scaling to accommodate as many servers or other connected devices as needed. In the case of Establishment Labs, this resulted in the flexibility to more quickly develop a solution that improved oven safety and simplified regulatory compliance adherence.

### Want to Learn More?

For more information, visit [PTC.com](https://www.ptc.com). Follow us on Twitter @ThingWorx and LinkedIn @ThingWorx

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