

Improving Flow, Reducing Lead Time, and Increasing Output: A Lean Transformation at Projects Inc.



BACKGROUND

Founded in 1959, Projects Inc. is a Glastonbury, Connecticut-based manufacturer specializing in precision-machined components for aerospace, industrial, and commercial applications. With 102 employees, the company operates out of 66,000 square feet of manufacturing and office space and supports customers across a range of industries, including aerospace and power generation.

Projects Inc. has deep roots in the aerospace industry, where it has provided high-quality machining services for decades. Since 1996, the company has supplied FAA Parts Manufacturer Approval (PMA) components to the aviation sector.

Projects Inc. received FAA Repair Station Certification in 1984. As a maintenance, repair, and overhaul (MRO) provider, Projects supports customers with repair solutions that help keep critical aerospace equipment operating safely and efficiently. Its customer base includes major aerospace companies such as Sikorsky, Pratt & Whitney, and GE Aerospace, along with airlines including United, Delta, American, and Lufthansa.

Projects Inc. is Federal Aviation Administration (FAA), European Union Aviation Safety Agency (EASA), and UK Civil Aviation Authority (CAA) – approved.

The company is also AS9100D and ISO 9001: 2015-certified, reflecting its commitment to quality, consistency, and industry standards.

With capabilities that include prototyping, CNC machining, EDM, laser cutting, and grinding, Projects Inc. offers a broad range of precision manufacturing services supported by advanced in-house equipment and technical expertise.

Today, Projects Inc. is recognized as an experienced supplier of high-quality components, with a long-standing focus on quality, reliability, and customer service.

CHALLENGE

The 16-person MRO Business Unit at Projects Inc. handles production requirements for PMA (new) manufacture and overhaul/repair of thermocouples—high-temperature sensors used in aircraft engines to monitor performance and prevent overheating-related damage.

Results for Projects Inc.:

CONNSTEP's work with Projects Inc. resulted in the following metrics for the company:

- **Increased Sales: \$225,000**
- **Retained Sales: \$1.2 Million**
- **Cost Savings: \$186, 750**
- **Unnecessary Investments Avoided: \$65,000**
- **New Investments: \$84,500**
- **Jobs Created or Retained: 7**



“Working with CONNSTEP was a turning point for Projects Inc. Their hands-on approach to implementing Lean practices helped us fundamentally improve how we plan, execute, and deliver our work. Through value stream mapping, standardized processes, and continuous improvement coaching, CONNSTEP empowered our team to eliminate waste, improve flow, and respond faster to customer needs.”

*John Rigby
Vice President, Projects, Inc.*



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The team faced a significant customer-driven demand: reducing turnaround time for thermocouple orders by half, from 56 to 28 days. They also needed to clear their backlog of past-due new components and account for the many sub-assemblies needed to meet daily shipping requirements.

If the demand was not met, Projects Inc. risked losing its largest contract with an international airline and being forced to reduce the unit's workforce by 50 percent.

Several factors contributed to the extended turnaround time, including work stoppages caused by shortages of critical parts, an inefficient floor layout that increased part travel time, and a lack of employee cross-training, leading to delays resulting from worker absences.

The leaders of the MRO Business Unit knew they needed to take immediate action to improve their processes, reduce worker strain, and keep their business unit viable.

SOLUTION

Projects Inc. has partnered with CONNSTEP on a range of initiatives over the course of a nearly decade-long relationship. Previously, Internal Quality Audit training, energy programs, continuous improvement, Lean initiatives, and AS9100/ISO 9001:2015 training have delivered meaningful value to the company.

Building on this strong foundation, along with CONNSTEP's industry expertise, Projects Inc. once again turned to CONNSTEP to develop and implement a Lean program aimed at positioning the MRO Business Unit to meet evolving customer demands.

To achieve these goals, CONNSTEP worked with the company to implement a structured Lean approach that aligned leadership, established clear performance measures, and created systems to support long-term sustainability.

The project began with Lean methodology training for leadership, focused on tools such as process flow mapping, shop floor time studies, cycle time tracking, Kanban systems, and 5S. This ensured leaders shared a common understanding of the program's objectives and were equipped to actively support improvement efforts on the shop floor.

From there, the team identified key performance indicators (KPIs) to uncover opportunities, set priorities, allocate resources, and track progress over time. Clearly defining process ownership and accountability for these metrics helped reduce the risk of backsliding and reinforced

consistency across improvement efforts.

The project also included the implementation of visual management tools for KPI tracking and project visibility, making performance more transparent across the organization and reinforcing a daily focus on continuous improvement.

RESULTS

Projects Inc. experienced immediate and measurable improvements across key performance areas, including cycle time, process efficiency, delivery performance, and workforce engagement. Just as importantly, the organization is now equipped with the tools to sustain these gains, including leadership training in Lean methodology, standardized work and documentation, and visual management systems to track KPIs and ongoing improvement efforts.

Operational changes have produced significant results. The implementation of a Kanban system reduced part travel distance from 1,265 feet to 427 feet, improving flow and reducing waste. Cross-training employees enabled greater flexibility across roles, minimizing delays caused by bottlenecks or absences. At the same time, excessive overtime was eliminated, reducing costs while improving overall employee experience. The team was able to meet growing demand without increasing headcount, invest in a CNC machine to boost production capacity, and implement a new ERP system—laying the groundwork for a more efficient, paperless operation.

These improvements quickly translated into increased output, with a 211% increase in PMA units shipped and a 29% increase in repair units shipped within just two months of project implementation. As a result, the MRO Business Unit exceeded aggressive customer turnaround and shipping requirements within weeks, retaining its largest airline contract, preserving jobs, and earning recognition from the customer, including an appreciation event for the team's turnaround.

Together, these outcomes established a strong and sustainable Lean foundation, enabling the team to consistently meet customer expectations while continuing to improve performance.

Building on this momentum, the MRO Business Unit is positioned for continued growth, with a projected 106% increase in total MRO shipments in 2026 and plans to move into a facility three times the size of its current space—supporting a more efficient layout and expanded production capacity.



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