Integrator Spotlight

IQ Corporation



IQ Corporation team members on site at an industrial control cabinet.

IQ at a Glance

Established:	2003
Locations:	Pomona + Garden Grove
Team:	~27 Engineers
Primary coverage:	Los Angeles / Orange County/ Inland Empire
Core focus:	Controls & Automation engineering
Industries:	Life Sciences, Pharmaceutical, Food & Beverage, Manufacturing, Aerospace, Mining
Capabilities:	Controls, SCADA, Vision, Modernization, Custom Machines, Robotics, Automation Roadmaps

Integrator Overview

IQ Corporation is a Southern California engineering and integration company that has been serving industrial customers since 2003. The company is headquartered in Pomona, with an additional office in Garden Grove, with a widespread team of approximately 27 people spanning electrical, mechanical, computer science, and other technical disciplines.

Rather than specializing in a single industry, IQ focuses on the technology behind industrial processes. They work with control and automated systems found throughout industrial facilities, including PLCs, HMIs, SCADA systems, computer-based controllers, I/O, vision systems, motion, VFDs, data systems, and other factory-floor technologies.

IQ describes its approach as technology-agnostic, having vast experience and supporting manufacturers such as ABB, Schneider, Omron, Mitsubishi, Allen-Bradley, within other technology platforms. That flexibility allows IQ to work within a customer's existing technology environment rather than forcing every project into a particular platform or solution.

Emphasizing long-term customer relationships, many IQ connections begin with a troubleshooting or system-analysis request and develop into machine upgrades, new systems, automation projects, and ongoing support.

What Makes IQ Different

Engineering beyond the control panel

One of the key distinctions IQ highlights is that their definition of integration extends beyond PLC and HMI programming.

IQ has electrical and mechanical engineering capabilities and can participate in mechanical design, 3D modeling, simulation, custom machine development, controls engineering, and software development.

In recent years, the company has increasingly helped customers develop machines and processes that do not already exist as standard products in the industry, meaning you

don't necessarily need to arrive with a fully defined solution. A problem, process, or desired outcome can be the starting point.

Technology-agnostic problem solving

IQ's focus is on determining what the customer needs and then identifying the appropriate technology to achieve it, working across multiple PLC, HMI, visualization, control, and automation platforms rather than limiting its work to one technology ecosystem.

The same philosophy applies when IQ determines that it is not the right company for a particular project. Ken, the owner, explained that IQ will rather tell a customer when another solution or provider makes more sense than pursuing work simply because it is available.

A long-term customer mindset

IQ's approach is built around becoming a resource customers can call when something needs to be fixed, upgraded, modernized, or developed, describing their philosophy as treating the customer's money as if it were their own and focusing on the long-term relationship rather than simply completing one project.

Depth of engineering resources

IQ also pointed to the depth of its engineering team as an important differentiator. Instead of a customer relying on a single controls engineer, IQ has a broader team capable of supporting multiple customers and projects. For customers, this means less downtime and knowledge that is readily transferable between the IQ team and the customer.



The IQ Corporation team at a company gathering.

Core Capabilities

IQ's capabilities span much of the automation and controls infrastructure found on a modern industrial floor.

Controls & Automation

IQ works extensively with:

- PLC-based control systems
- HMI development
- SCADA systems
- Computer-based control systems
- Industrial I/O
- Machine controls
- Control-system upgrades and migrations
- Troubleshooting and system analysis
- Software development

Most of the systems IQ work on involve some form of PLC, but the company also develops solutions that may rely primarily on HMIs, computers, vision systems, or software developed specifically for the application.

Data, Visualization & Connectivity

IQ supports multiple visualization and software platforms and maintains training across different tools. The company can develop systems that collect and display machine information through HMIs, SCADA systems, computers, plant-floor displays, and other interfaces.

Machine Vision & Inspection

IQ also develops vision-based solutions for applications such as inspection and measurement, having designed systems capable of inspecting characteristics such as diameter and thickness, and building control solutions around those requirements.



IQ team members review a machine control interface.

Custom Machine & Mechanical Engineering

IQ has expanded its mechanical engineering capabilities in recent years. The company can support 3D modeling, mechanical structures, simulation, and the development of custom machines or processes where an off-the-shelf solution does not exist.

Robotics

Robotics is an area IQ has increasingly supported over the last several years. Although IQ is not actively pursuing robotics as its sole or primary business focus, it can support existing robotics customers and help identify when robotics is a good fit for an application or process.

Modernization & Migration

IQ also works with older equipment and controls systems that have become difficult to support. Depending on the situation, the solution may involve troubleshooting an existing machine, temporarily keeping it operational, or developing a migration or upgrade strategy to move it onto supportable technology.

Industries & Applications

IQ does not position itself around one specific industry. Instead, their experience crosses industries given the underlying controls and automation technologies are transferable.

They largely work in:

- Life Sciences & Pharmaceutical
- Food and Beverage
- Aerospace
- Manufacturing and Consumables
- Mining



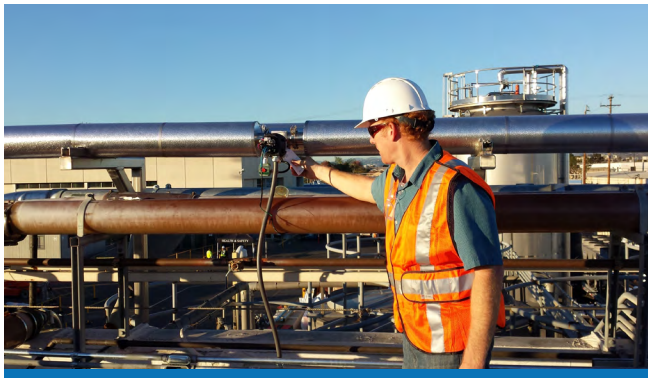
IQ team member troubleshooting inside a control cabinet.

Common Applications

Across these industries, IQ's work can include:

- Machine troubleshooting
- Controls upgrades
- Legacy-system migration
- PLC/HMI development
- SCADA and plant-floor visualization
- Machine monitoring
- Data collection
- Vision inspection and scanning
- Industrial networking
- Custom machine development
- Robotics
- Process automation
- Automation planning and road mapping

The common thread is the machine, controls, and technology, rather than the specific product being manufactured. As Ken explained, "IQ may not be an expert in how a particular product is manufactured, but our engineers can apply their knowledge of machines and controls to the process."



An IQ team member validating processes.

Integration Process

IQ's process can begin in several different ways depending on the application. A customer may contact them because an existing machine has stopped working, because a legacy system needs to be upgraded, or because the customer has an idea for a new automated system.

Although each customer and application may vary in the exact approach, IQs process often looks as follows:

1. Discovery & Assessment

IQ begins by understanding the customer's process, equipment, objectives, and constraints.

For an existing machine, this can include:

- Reviewing the equipment
- Photographing the control panel
- Reviewing available drawings
- Backing up existing software
- Determining whether the existing software and hardware are supportable
- Identifying potential modernization requirements



An IQ team member with drawings beside industrial control equipment.

2. Automation Roadmap

For customers with multiple systems or longer-term modernization needs, IQ has developed an automation roadmap approach.

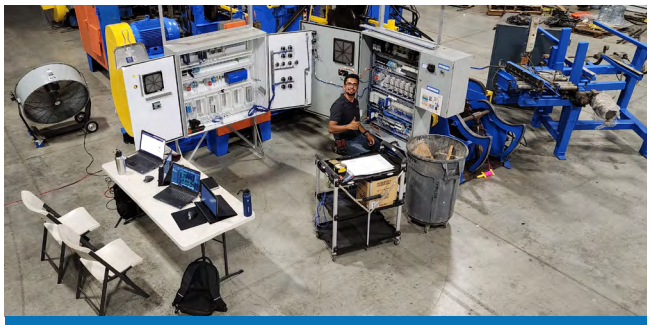
The roadmap can cover a three-to-five-year period and identify current and future needs, budget constraints, system priorities, and the order in which improvements should be made.

3. Design

IQ then moves to the design phase, which often includes determining the required hardware, engineering requirements, system architecture, and other details necessary to develop a complete implementation plan.

4. Implementation

Once the design and scope are established, IQ can move into implementation. Depending on the project, this can include engineering, panel design/build, installation, programming, and system integration.



An IQ team member beside open control panels on a manufacturing floor.

5. Startup & Support

Finally, the relationship does not necessarily end when the machine is running. Customers may continue to contact IQ for troubleshooting, future upgrades, additional projects, or support.

Featured Projects

Project 1 Modernizing a Product Drying System

The Challenge

A client was operating a product drying system controlled by mechanical timers and pushbuttons, with cycle times largely based on estimates rather than actual product conditions. As a result, products sometimes remained in the dryers for up to seven hours, even when a shorter cycle would have achieved the same results.

This led to unnecessary energy consumption, reduced equipment availability, and limited production capacity. The client recognized an opportunity to improve the process through data-driven automation but lacked the internal engineering resources to develop and implement the solution.

Having previously worked with IQ, the client turned to the integration team for its experience, engineering capabilities, and ability to develop and prototype custom solutions.

The Solution

IQ designed and integrated a new control system built around a Rockwell CompactLogix 5069 PLC and Ignition SCADA, aligning the solution with the client's corporate automation standards.

The project also introduced several new technologies to the facility:

- **Humidity-Based Endpoint Control:** Sensors monitor discharge air humidity and automatically end the drying cycle once the target humidity level is reached. The system records the data and alerts operators, allowing the process to end based on actual product conditions rather than predetermined timers.
- **IO-Link Sensor Communication:** Introduced at the facility for the first time, IO-Link provides richer sensor data and improved diagnostic capabilities.
- **RFID, Barcode, and QR Code Identification:** A handheld reader allows operators, maintenance personnel, and engineers to log in using their identification badges,with system access determined by role-based permissions. The same device is used to scan product serial numbers.
- **Database & Recipe Management:** Database integration enables recipe management and automatic collection of production data, providing greater visibility and traceability throughout the process.

The Result

The upgraded system delivered significant improvements in production efficiency, equipment utilization, and process visibility.

- **Approximately 57% reduction in drying time:** Average drying cycles decreased from approximately seven hours to three hours in most cases, reducing energy consumption per batch and allowing for more than twice as many cycles per station.
- **Improved equipment availability:** Multiple drying stations provide built-in redundancy, allowing individual stations to be taken offline for maintenance while production continues to meet demand.
- **Full product traceability:** Serial-number tracking allows the manufacturer to access the history of individual modules, including which station processed them, any issues encountered, and the corrective actions taken.
- **Ongoing technical support:** IQ continues to support the system after implementation, responding to warranty items and troubleshooting requests in a timely manner.

This project demonstrates how combining controls engineering, industrial data collection, and process-specific automation can turn an equipment upgrade into a measurable production improvement.

Featured Projects

Project 2 Replacing an Unsupportable Test System

The Challenge

A client's product testing process relied on a custom C# program developed by a previous integrator. The software collected serial data from the tester and printed the results onto a form. However, the original integrator had not provided the source code, and many of the program values were hard-coded, making the system difficult to troubleshoot, maintain, or modify.

The software also crashed frequently. When it did, operators had to manually record test results on pre-printed forms, leaving the automated system barely more effective than a manual process.

The client turned to IQ again to replace the unreliable system with a solution that could be supported and maintained internally.

The Solution

IQ upgraded the tester to a model that communicates over EtherNet/IP and moved the control logic into a Rockwell CompactLogix 5069 PLC. This gave the client ownership of the control platform and eliminated its reliance on unsupported, black-box software.

The upgraded system also included:

- **Recipe Management & Automatic Data Collection:** A recipe manager allows operators to select test programs, while test results are collected automatically, eliminating the need for manual recording.
- **Ignition SCADA Tablet Operation:** The entire process can be operated from a tablet running Ignition SCADA, so operators no longer need to interact directly with the tester.
- **Consistent Identification & Traceability:** The system uses the same handheld RFID, barcode, and QR code reader introduced in the drying system project, providing a consistent way to identify operators and products across both applications.

The Result

The new system replaced a frequently crashing application with a reliable, supportable testing platform that improved day-to-day operations.

- **Near 100% uptime:** The tester now operates reliably across shifts, giving production a system it can count on.
- **Reduced manual work:** Operators no longer need to handwrite test results, re-enter data, or work around recurring software failures.
- **Simplified daily operations:** Removing the frustration of an unreliable system has made the testing process easier for operators and reduced the burden on operations, quality, and engineering teams.
- **End-to-end traceability:** The system connects test program selection with automatic data collection, allowing results to be tracked by individual module serial number.
- **A supportable control platform:** Built around the manufacturer's standard architecture, the new system eliminates dependence on undocumented, hard-to-maintain code.

This project highlights IQ's ability to take over and modernize difficult-to-support systems, replacing unreliable legacy software with a structured controls platform that the customer can own, maintain, and build on.

The Value of the B&K + IQ Partnership

The B&K and IQ relationship bring together two complementary capabilities.

B&K provides access to automation and electrical technologies, manufacturer relationships, product expertise, and existing customer relationships. IQ brings engineering, controls, integration, troubleshooting, modernization, and custom solution capabilities.

For the customer, the value is not simply having another company involved in a project. The goal is to give customers access to a broader technical resource when their needs extend beyond the B&K scope. The result being a more complete resource for the customer: B&K can help identify and supply the technology, while IQ can help engineer and implement the solution around it.

The partnership also gives customers a local engineering resource with the ability to respond to problems and opportunities relatively quickly. IQ's proximity to many Southern California customers is an important part of its service model, particularly for customers within its primary Los Angeles, Orange County, and Inland Empire coverage area.



IQ comes prepared for any type of environment.

When to Consider IQ

A customer does not need to have a fully defined automation project before contacting IQ.

IQ's philosophy is essentially:

> If there is something on the factory floor that you don't understand, need help fixing, want to improve, or want to make work differently, it is worth starting the conversation.

Consider involving IQ when you have:

An existing machine that is difficult to support

The original OEM is no longer available, parts are becoming obsolete, documentation is missing, or the machine has become difficult to troubleshoot.

An aging control system

A legacy PLC, HMI, computer, or other control component is becoming unsupported and needs to be evaluated or migrated.

A machine that is down

IQ can assess the machine, identify the issue, and determine whether the appropriate answer is a repair, temporary solution, upgrade, or larger modernization project.

A new automation idea

You have an idea for monitoring, inspection, data collection, machine control, robotics, or another automated process but do not yet know exactly how to implement it.

A custom machine requirement

The equipment you need does not exist as a standard product and requires mechanical, electrical, controls, and software engineering.

A larger modernization effort

Multiple machines or systems need to be upgraded, but the work cannot happen all at once. IQ can help develop an automation roadmap that prioritizes the work around operational needs and available budgets.

A robotics opportunity

Currently have a robotics cell or are just curious to learn more about the benefits of robotics? IQ can help support your existing robots or help you identify potential opportunities in your current processes.

You simply aren't sure who to call

That may actually be one of the most appropriate times to contact IQ.

IQ emphasizes that it does not try to force every customer into an IQ solution. If IQ cannot support the application effectively, the team is willing to tell the customer and point them toward another resource.