

Raxwell: How Industrial Automation Turns "Small Things" into Strategic Risks



New York City, New York Jul 30, 2026 ([Issuewire.com](https://www.issuewire.com)) - In modern manufacturing, automation is no longer a luxury—it has become the foundation of survival. However, practice shows that the most serious failures occur due to the malfunction of common components: limit switches, PLC batteries, or electrolytic capacitors. These seemingly "minor details" can paralyze a workshop for days or even weeks. **Raxwell**, a system integrator and supplier of industrial automation solutions, highlights three critical scenarios that should prompt enterprises to rethink their maintenance strategies.

Scenario 1: Phase Loss in an Electric Motor

When a three-phase induction [motor](#) loses one phase, it does not stop—contrary to popular belief. It continues to run on the remaining two phases, showing no visible signs of trouble. However, the current in the windings surges by 50% or more, leading to critical overheating. Every additional 10°C of heat cuts insulation life in half, eventually causing inter-turn shorts and costly rewinds or replacements. The solution is a phase control relay, which cuts power in milliseconds. Such protective devices are part of Raxwell's portfolio, alongside a wide range of other automation components.

Scenario 2: Battery Failure in PLCs and Programmable Terminals

Many [PLCs and programmable terminals](#) from older generations store their operating programs and settings in volatile RAM, backed by a lithium battery. The typical battery life is 3–5 years, and it is often forgotten until it dies during a power outage. The result—complete loss of data, including recipes and calibrations—can cause downtime lasting days. Raxwell, specializing in supplying **PLCs**, I/O modules, and HMI panels, emphasizes the critical importance of scheduled battery replacement while power is on, as most controllers hold data for only a few minutes during a swap.

Scenario 3: Drying Out of Electrolytic Capacitors in Electronic Components

Electrolytic capacitors are the only mass-produced **electronic components** that age simply from time and heat. As electrolyte evaporates, internal resistance rises, manifesting as "floating" faults: random reboots, false errors, and panel freezes. Diagnosing such issues can take weeks, though replacing the capacitor costs a fraction of that downtime. Notably, lowering the internal cabinet temperature by 10°C doubles capacitor lifespan—making proper cooling the best friend of all **electronic components** in a control cabinet.

These three scenarios illustrate the core principle of industrial automation: there are no trifles. The failure of any component—whether a door sensor on a subway train or a capacitor in a variable frequency drive—can cripple the entire system. This is why Raxwell offers a comprehensive approach: from supplying individual **motors**, **PLCs**, sensors, and communication equipment to full integration of process automation solutions.

About Raxwell

Raxwell is a system integrator and supplier of industrial equipment for production automation. The company specializes in supplying original, OEM, and refurbished components from leading global brands, as well as sourcing equivalents for obsolete or discontinued items. Raxwell's portfolio includes **PLCs**, HMI panels, sensors, servos, **motors**, switching and protective gear, industrial networking solutions, and instrumentation. The company serves legal entities across Russia, providing full closing documentation and warranty on all products. Raxwell helps enterprises reduce downtime risks and improve production efficiency through quality [electronic components](#) and expert support.

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