CaPow
Power in Motion

Eliminating Downtime with CaPow

The JLC Robotics Case Study

Introduction

When JLC Robotics began marketing their Thouzer AGVs in the USA, they faced a significant challenge: charging downtime. After running for several hours, Thouzer robots need up to 8 hours to recharge. Enter CaPow, a game-changing solution that transformed JLC Robotics' business and eliminated charging downtime to stay ahead of competition.

The Challenge

JLC Robotics, an American robotics distributor, excels at finding top-tier robotics solutions from around the globe and introducing them to American manufacturers through its national reseller network. One of JLC's flagship products is the Thouzer mobile robot by the Doog Company in Japan. Despite its advanced capabilities, the Thouzer AGV faced significant challenges: extensive downtime due to lengthy charging periods, misalignment issues during charging, safety hazards from potential overheating, and inefficiencies that hindered operational performance. Phil Denton, Channel Sales Manager at JLC Robotics, recalls frequent customer concerns: "We see lots of opportunities for Thouzer, but it takes too long to charge. How do we cut down the charging time?"

The need to charge a depleted battery for up to eight hours meant lost productivity and increased operational costs. Additionally, attempts with other solutions failed due to inefficiencies in handling misalignment and the safety risks associated with metal objects causing potential fires.

The Solution: CaPow

400% Throughput Increase

Complete Energy Flexibility

24/7 Continuous Operations

Misalignment Tolerant

Discovering the Solution: A Breakthrough in Robotic Power Delivery

When JLC Robotics encountered CaPow, they were introduced to a groundbreaking technology that promised to eliminate these inefficiencies. CaPow's Genesis solution offers "Power-In-Motion," enabling robots to charge while en route, thus eliminating the need for lengthy stationary charging periods and the travel time from the working area to the charging area.

Phil Denton from JLC Robotics highlights key advantages of CaPow's Genesis:

- The lock-on mechanism is exceptionally fast, significantly reducing the time required for robots to begin charging.
- Unlike competitors that require precise alignment of the transmitter and receiver, CaPow's system is very forgiving, allowing for some misalignment without affecting the charging process.
- The ability to charge in motion means that the system can handle continuous misalignment in the direction of travel, maintaining power delivery as robots move.
- The Genesis solution is completely robot agnostic, meaning it can be adapted for any type of moving industrial robot, including AMRs, AGVs, AGCs, and pallet shuttles.
- CaPow's system prevents overheating and fires caused by metal objects, unlike inductive charging systems.

These features were critical factors in JLC Robotics' decision to choose CaPow over other solutions.

The Implementation

The implementation of CaPow's Genesis solution was swift and seamless. Within less than one workday, JLC Robotics retrofitted their Thouzer robots with CaPow's supercapacitors, replacing the cumbersome lead-acid batteries. This instant transformation was a game-changer.

As Phil Denton highlights,

**"CaPow solves just about all of our charging problems.
No more dedicated charging areas.
No more forgetting to charge the robots between shifts.
No more messing with batteries. It just works!"**

Instant Improvement

The results were immediate. The retrofitting process was quick, and the improvement in operational efficiency was noticeable from day one. By replacing the heavy, downtime-intensive lead-acid batteries with CaPow's advanced supercapacitors, JLC Robotics not only eliminated the downtime but also significantly enhanced the overall performance of their AGVs. This breakthrough technology reduced the total cost of ownership for one of their clients, a tier 1 manufacturer, by an average of 32% and slashed operational losses related to automation by more than 50%.

Jamie Callihan, President and Owner at JLC Robotics:

"The clear return on investment for our operators is undeniable. The primary cost of robot fleets, which is downtime, has been drastically reduced. This quantifiable cost-saving is a huge advantage for our customers."

Conclusion

The transformation experienced by JLC Robotics highlights the profound impact of CaPow's Genesis solution. By addressing the core issue of energy efficiency, CaPow has enabled JLC Robotics to offer a superior product to their customers, ensuring continuous operation and maximizing productivity. This case study highlights the critical role of innovative solutions in driving the future of industrial automation, setting a new standard for operational excellence.

About CaPow

CaPow is revolutionizing robotic automation
with its unique energy transfer solution, Genesis.
Utilizing the groundbreaking "Power-in-Motion" technology, Genesis delivers continuous energy to robots while they operate, eliminating downtime and stationary charging.
This ensures 100% uptime for automated fleets, drastically enhancing operational efficiency.
CaPow's adaptable and scalable Genesis solution seamlessly integrates into any industrial environment, elevating automation and efficiency to unprecedented heights.

Learn more about CaPow at capow.energy.

About JLC Robotics

Based in Cincinnati, OH, JLC Robotics is a leading distributor of industrial automation solutions.
They offer the Thouzer AGV, renowned for its simplicity, power, and flexibility in automating material handling processes. Partnering with top integrators across the continent, JLC Robotics delivers innovative solutions and significant cost savings.
For more information about JLC Robotics, visit jlcrobotics.com.