

THE INNOVATIONS LAB





INNOVATION LAB

As modern warehouses, distribution facilities, and E-commerce facilities evolve, so do our innovative solutions. The Hy-Tek Innovation Lab is your opportunity to see the latest in emerging technology and autonomous robots at work.

Schedule an appointment to receive a live demonstration virtually or in-person. Contact our experts at hy-tek@ahs1.com or **513.351.3500**.

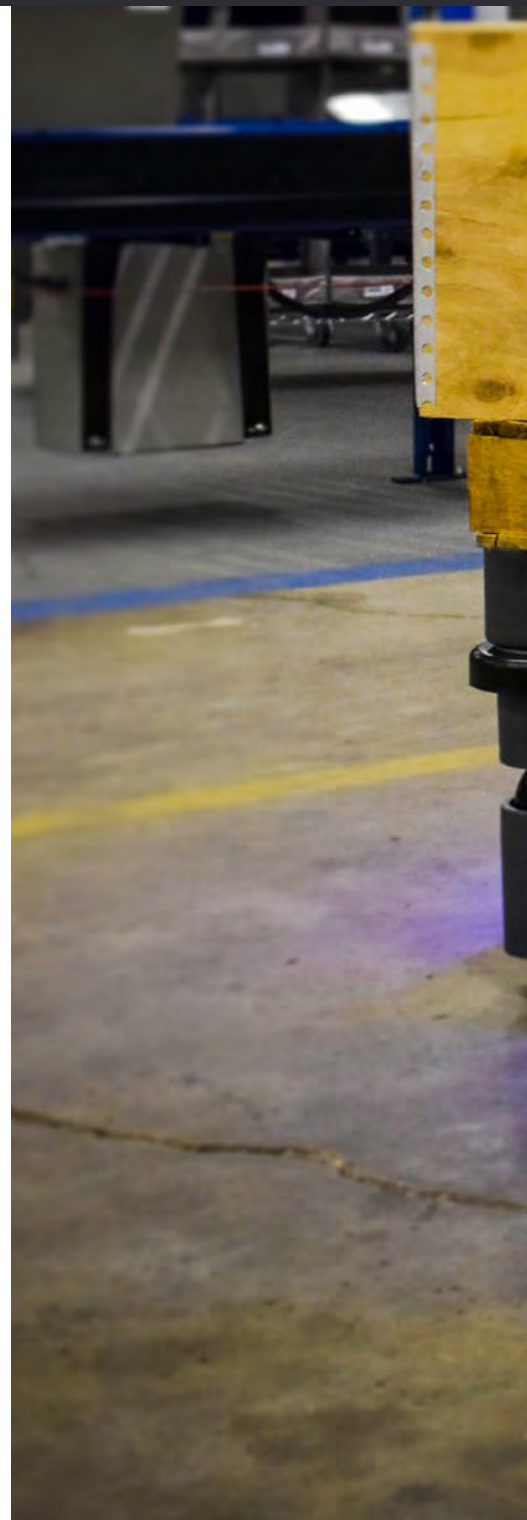
AS A PART OF THE BELIEF IN
CREATING MUTUALLY
BENEFICIAL RELATIONSHIPS,
WE STRIVE TO PRODUCE
INNOVATIVE SOLUTIONS
AND PROVIDE SUPERIOR
CUSTOMER SERVICE TO OUR
CURRENT AND FUTURE
CUSTOMERS.

TRANSPORTBOT500

Powerful, Advanced, and User-friendly

TransportboT500 is designed to lift pallets up to 1,100 pounds and safely maneuver around people and physical obstacles. With no need to change your facility layout, the TransportboT500 is designed with very sophisticated navigation software. This now gives your employees the freedom to perform more valuable tasks.

The TransportBoT500 can quickly and independently move pallet loads at 1.5 meters per second, utilizing a MIR500 Robot. It is designed for industry use with a robust exterior that can withstand dropped cargo.





UNIVERSAL ROBOTS



www.universal-robots.com

MiR
MOBILE INDUSTRIAL ROBOTS

MiR

CONVEYBOT

Secure, User-Friendly, and Refined

The ConveyBoT allows for cases, totes, and other materials to be conveyed onto or from a robot. It will dynamically replace fixed conveyor solutions, or it can be utilized for sortation. The ConveyBot can move material up to 440 pounds and safely maneuver around people and physical obstacles. With no need to change the facility layout, the ConveyBoT is designed with very sophisticated navigation software. This now gives your employees the freedom to perform more valuable tasks.

The ConveyBot can easily integrate with different top modules, utilizing a MiR200 Robot. The MiR200 can be equipped with pallet forks, conveyors, a robot arm, or other options to support a wide range of applications.





CONVEYBOT
powered by MRR

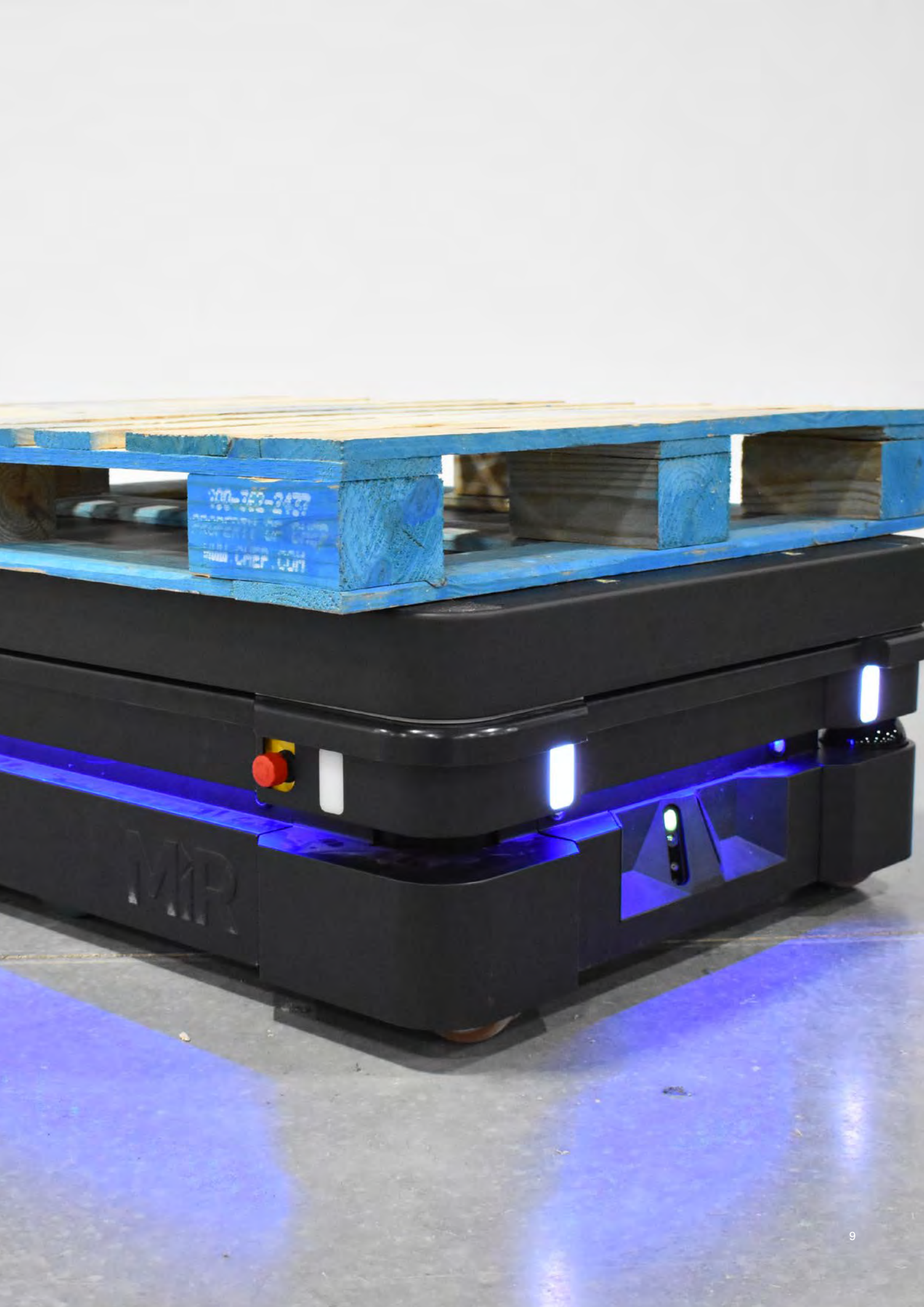
TRANSPORTBOT1000

Fast, Powerful, and Flexible

The TransportBoT1000 is our most powerful MiR! It is designed to automate and optimize the internal transportation of heavy payloads and pallets. With a total payload capacity of 1000kg, or 2200lbs, the TransportBoT1000 can safely maneuver around physical obstacles. With no need to change the facility layout, the TransportboT1000 is equipped with the newest laser-scanner technology and has optimal safety with 360 degrees vision around itself.

TransportBoT1000 creates efficient transportation by utilizing a MiR1000 Robot. The MiR1000 lives up to EN/ISO 13489 and the EMC requirements for industrial use. The MiR1000 is designed for the industry, with a tough exterior that can withstand fallen objects.



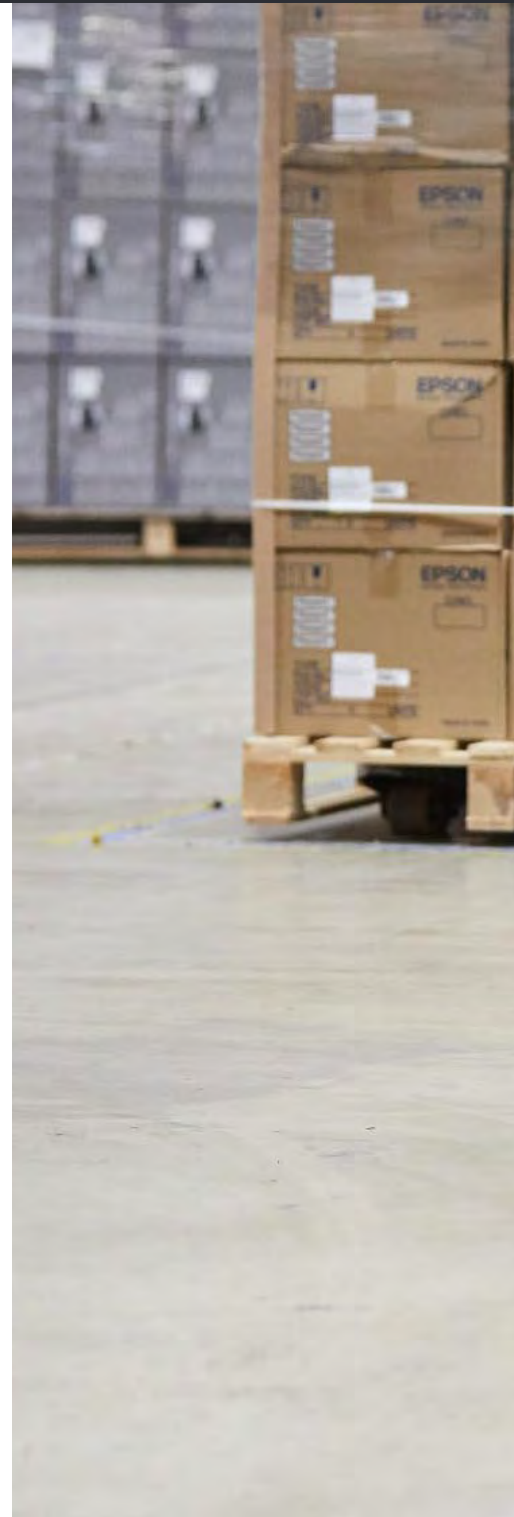


F3 NIPPER

Versatile, Low Maintenance, and Independent

The Nipper is a compact automated vehicle for unmanned, internal pallet transport. It can easily lift pallets up to 1000kg and safely navigate through narrow spaces. The Nipper consumes limited amounts of energy, ensuring low maintenance and remarkably low total cost of ownership.

The Nipper's intelligent software makes it easy to customize its routes, add multiple Nippers to the program, and change existing commands. Additionally, it meets the most stringent safety requirements. High-quality safety components, such as a 360° scanner and Blue Spot, are installed to ensure the Nipper can safely navigate through manned spaces making it an excellent vehicle for use in a production or warehouse environment.





Nipper
intelligent pallettruck

EXOTEC SKYPOD SYSTEM

Scalable, Efficient, and Intelligent

The Exotec Skypod System utilizes 3D mobile robots that are able to move in 3 dimensions. Laser scanner navigation and AI allow the Skypods to navigate in a multidirectional manner, carrying 30+ kg bins. This frees up time for the employees to focus on packing and shipping, avoiding long-distance walks to access inventory.

The Skypod System can adapt to intense flows and seasonal increases. With unlimited design capabilities, the Skypod System can be tailor-made to fit the customer's demands today and in the future.

Exotec's intelligent software, Advanced Astar, seamlessly controls a fleet of robots using the best of computer modeling and mathematics to allow for fast order preparation with minimal resources.





UR ROBOT

Cost-Effective, Adaptable, and Space-Saving

Universal Robots (UR Robots) are lightweight industrial collaborative robots built for medium-duty applications (up to 16 kg). These general-purpose robots are built with versatility and adaptability in mind. UR Robots are designed for seamless integration into a wide range of applications.

The UR Robot is lightweight, space-saving, and easy to redeploy to multiple applications without changing production layouts. These collaborative robots can be moved between tasks quickly and are able to reuse programs for repetitive tasks, giving customers the flexibility to automate multiple manual processes within one production facility.

The UR Robot can take over strenuous tasks in dangerous or dull environments to minimize risk in the production process. Safety functions such as customizable stop time and stop-distance limits in UR Robots can ensure safety when the cobots work hand-in-hand with operators.





CAJA ROBOTICS

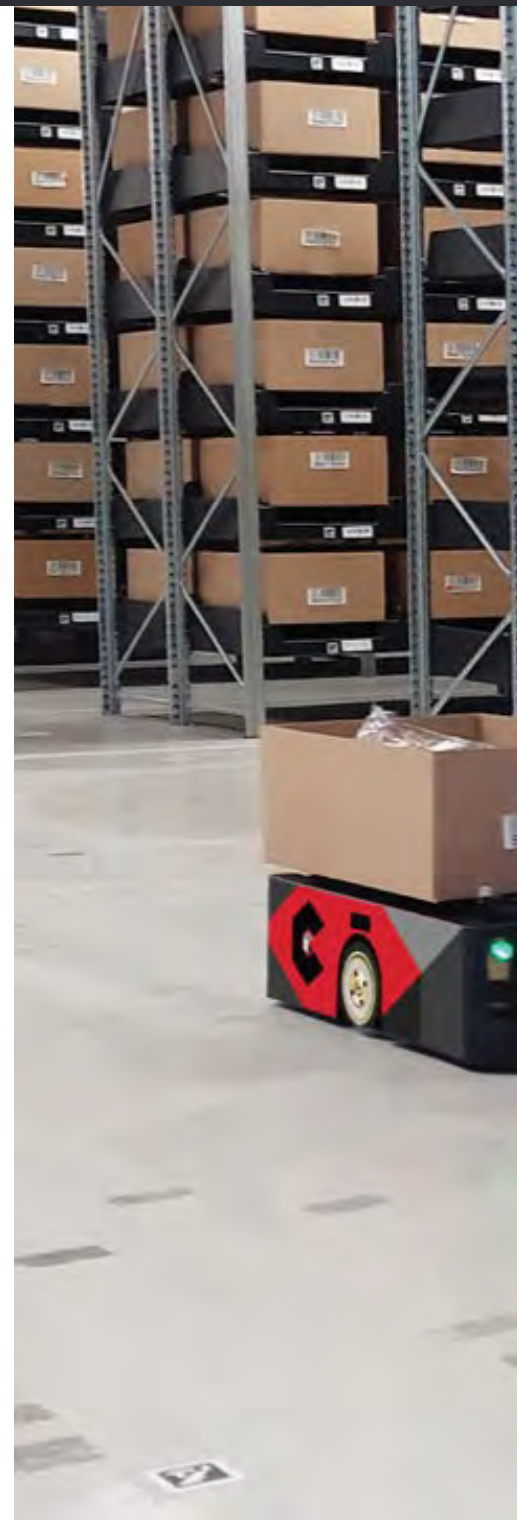
Adaptable, Flexible, and Responsive

Caja's solution is comprised of two types of robots that can adapt to any existing warehouse infrastructure.

The cart robot specializes in picking and quickly transporting boxes between storage locations and user-friendly workstations, which saves 60% of the picker's time typically spent retrieving inventory. The cart robot travels at speeds of 5 mph, reaches a height of 3ft, and has a carrying capacity of 66 lbs.

The lift robot is designed for storage optimization and replenishment. It reaches just over 13ft high and can travel at speeds up to 4 mph.

Caja's system can be gradually expanded and cope with fluctuating demands. This scalability allows customers to change the warehouse layout quickly and easily add additional parts, sections, or warehouses as needed.



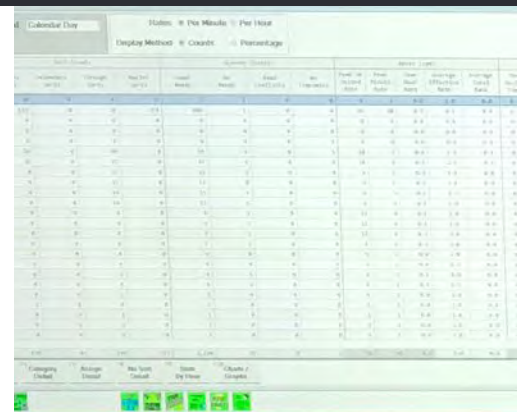


COMMAND CENTER

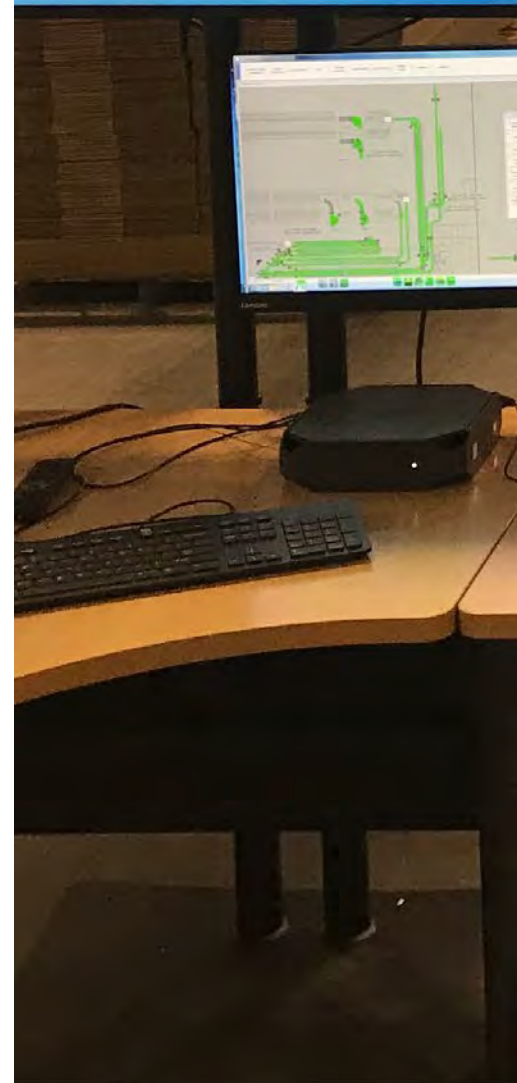
User-Friendly, Time-Saving, and Effective

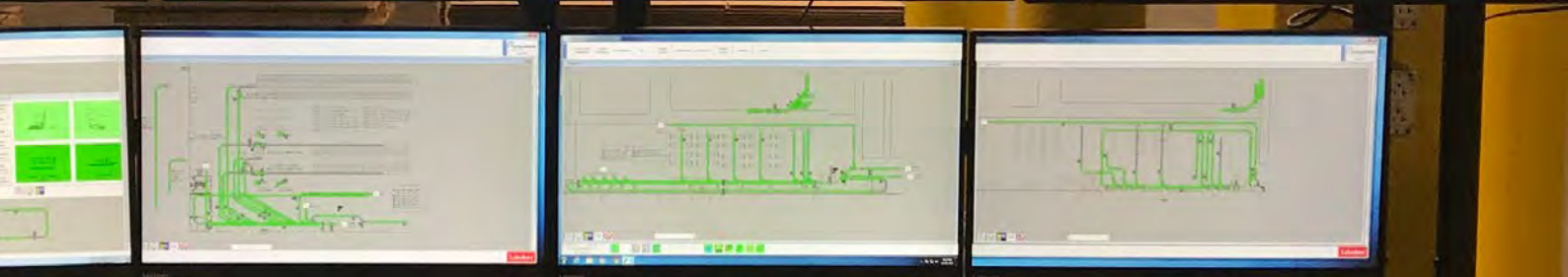
To ensure the continued success of our customers, Hy-Tek leverages our Command Center to help monitor and maintain implemented solutions. Through the use of cameras and WES director software, this maintenance and production tool enables viewing activity throughout the facility. This allows the supervisor, executive, or lead person to monitor the facility for bottlenecks, jams, or production issues. The operator monitoring the system can use the Command Center to see the facility live or look at event history to troubleshoot and diagnose problems. This allows for faster troubleshooting, giving our customers the ability to receive advice and reduce downtime of critical operations.

The Command Center can be customized to include any number of monitors and cameras most effective for each individual system design.



The screenshot shows a data table with multiple columns and rows. The columns include 'Calendar Day', 'Status', 'Per Minute', 'Per Hour', 'Display Method', 'Credits', and 'Percentage'. The table contains numerical data for various categories, likely representing production or maintenance metrics over time.





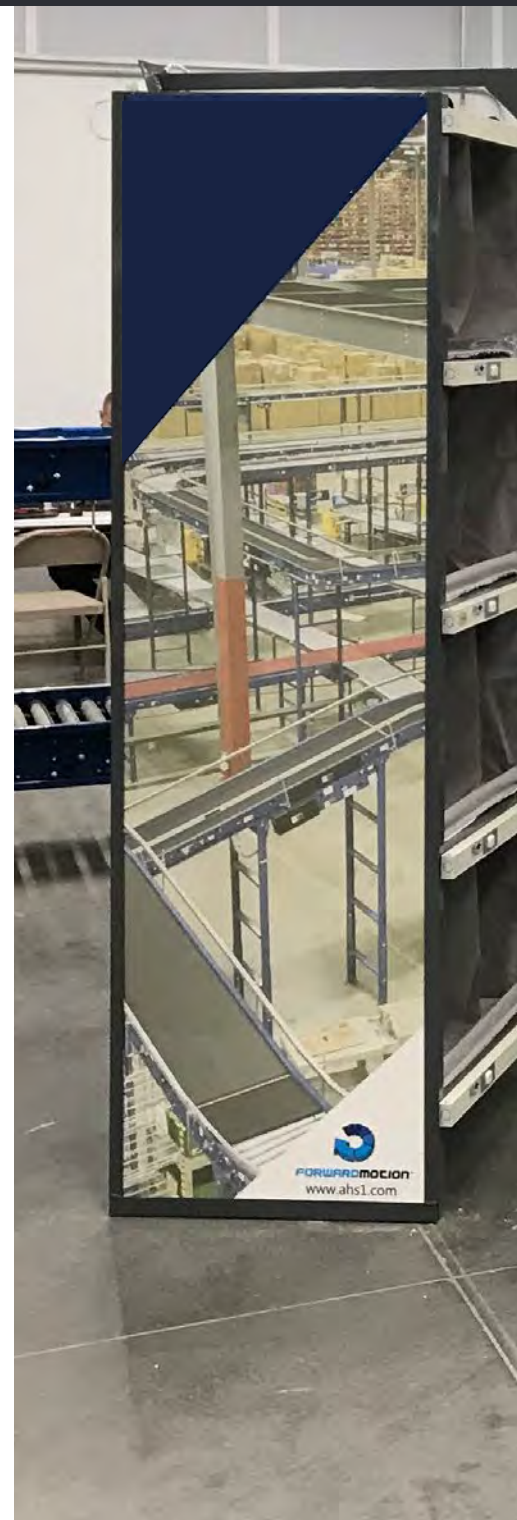
PUT-TO-LIGHT

Accurate, Reliable, and User-Oriented

Put-To-Light is the most widely used method in today's distribution centers because of its accuracy and efficiency. The Put-to-Light method allows warehouse employees to sort and organize items in the correct location by the direction of light modules. The method has minimized errors significantly--resulting in a faster fulfillment process.

Put-to-light is often used on bins, picking carts, totes, put-walls, and other sortation equipment. These systems are sometimes referred to as "scan and sort."

This type of solution leads to a reduction in the costs of reverse logistics, inventory management, an increase in the number of orders picked per day, a reduction in operating costs, and great flexibility in employees due to the short learning period.





THE
FUTURE
IS
MOTION.

ABOUT HY-TEK EMERGING TECHNOLOGIES TEAM



At Hy-Tek, our business model has been to create strategic partnerships in order to provide the best solution for our customers. In an ever-changing environment in the supply chain, we see the value and potential of automation. As a company, we believe the future is in optimizing space and time while keeping quality high. Hy-Tek is excited to partner with companies that share this vision and creating exciting new products and possibilities that will move into the next generation of warehousing and distribution.

In the Innovation Lab, humans can collaboratively work with mobile robotics and robot arms. With an emphasis on high productivity and safety, our lab currently houses a variety of different robots, each unique in the task they are performing. Through many hours of research, development, and testing, we have created an optimized space to show the new age of picking, transporting, and storing of goods and equipment. In our lab, we are able to present the future in motion.



www.hy-tek.com | 513.351.3500