

Connecting the DotBots

Conventional wisdom holds that “change is good.” In times like these, however, it’s sometimes difficult to believe. COVID-19 has spurred rapid shifts in consumer behavior, causing monumental strains on all aspects of the supply chain. E-commerce orders skyrocketed by 49% in April 2020, and many brick-and-mortar retail businesses now receive nearly half their sales from e-commerce.

These sudden changes in consumer demands are also affecting how goods reach consumers. Warehouse management systems are struggling to accomplish tasks and capacities for which they were never designed.

What’s often at issue is that warehouse management systems (WMS) support numerous single automation technologies programmed to communicate through unique custom-coded integrations. These are neither flexible nor extendable and are ill-equipped to handle the dynamic needs of today’s marketplace. Replacing them would take an enormous amount of time and money since traditional automation solutions typically require custom code that needs to be created by individual programmers. Worse, implementing this entire process can take months or even years.

How can these businesses meet demand while justifying the costs of updated automation?

The answer is synergy.

Mecha Robotics’ Quick Start Program and the SVX Robotics’ DotBot Platform present a perfect pairing, truly greater than the sum of its parts. Each has redefined the robotics industry with agnostic, autonomous automation systems, and together, they can tackle any new supply chain demands head-on.

Mecha Robotics’ Quick Start Program determines the most effective use case for deploying Autonomous Mobile Robots (AMRs) and allows organizations to pivot into new automation solutions with tremendous elasticity.

SVX Robotics removes the need for costly custom-coded robotics integrations and makes it possible to connect any company to any robot with relative ease and speed.

The Grocery Store Problem

With quarantine, there was an appreciable rise in baking at home. Instagram, blogs, podcasts, and traditional media all extolled the virtues of homemade sourdough bread. Posting the

development of one's starter dough became a ubiquitous achievement. Given this sudden interest, there was a significant spike in one of sourdough's main ingredients — flour.

As a natural consequence of this enthusiasm, many retailers quickly emptied their shelves of the staple. Due to an overstrained supply chain system, timely stock replenishment became an issue in some markets, frustrating consumers and grocery stores.

And it wasn't just flour — supply chain woes affected all sorts of commodities, suddenly seeing increased demand.

"Sales from grocery delivery and pickup in the United States have surged in 2020 due to the COVID-19 outbreak," observed Jan Conway in a market and consumer data trend piece for Statista. "In August 2019, grocery delivery sales were 1.2 billion U.S. dollars and grew to 4 billion dollars in March of 2020, a 233 percent increase. Sales grew by an additional 80 percent from March to June."

Indeed, companies that previously believed they had five or ten years to evolve their home grocery delivery strategies are suddenly facing an entirely new level of market pressure within just the past few months. All Indicators suggest that this trend will continue.

Conventional automation deployments can't keep up in the present grocery environment. Their development and implementation time alone puts them at a disadvantage inversely proportional to the market trend.

At issue for many organizations is the fact that they are using a mosaic of third-party logistics (3PL) systems and a disparate array of automation technologies harnessed to a WMS with arduously handmade custom code. Suppose a grocer running their facility suddenly needs to make a pivot in their existing automation infrastructure. In that case, a conventional solution will take at least six months of dedicated IT work to program, not to mention hundreds of thousands of dollars.

Change *Is* Good

What's needed is a new way to think about the problem and eliminate one of the main hurdles of conventional automation — the need for custom software development.

Advances in automation implementation pioneered by Mecha Robotics and SVX Robotics do just that. Companies can now scale and automate their workflow in a fraction of the time of solutions past their expiration date.

Mecha Robotics' flexible automation systems — AMRs, including tuggers, pallet jacks, and lift trucks — allow organizations to pivot into new automation solutions quickly. Mecha's Quick Start Program identifies the most effective and efficient use case for deploying AMRs in a facility and how best to integrate automation into any specific workflow.

Companies connected to SVX's DotBot Platform can easily connect their WMS or enterprise system to any other robot or automation. Site and operation-specific data is collected to facilitate continuous system improvement and point to future solutions. The DotBot Platform effectively decouples AMRs from the complexities of whatever is at the start and the end of the processes — once a task has been executed, it assigns the robot to another subsystem or manual operation. Together, that means automation can deploy faster and justify more quickly. Depending on the scale of the organization's needs, this dual implementation can be completed in a matter of days versus months or even years. Once the DotBot Platform is installed, companies can easily make changes via a cloud-based dashboard connecting all their automation systems.

This is where the Mecha and SVX, respectively, offer a unique and compelling value proposition. Additional automation can be fully integrated into a grocery supply chain without requiring time-consuming custom code. In this regard, change *is* good.

The Bottleneck Breaker

One of the inherent advantages of automation and artificial intelligence is that workflows can be managed to prevent bottlenecks. If a grocery store facility experiences a sudden surge in the need for flour and an unexpected fleet of ten trucks arrives, these complementary systems route them, on the fly, to the most appropriate area for processing, alleviating congestion.

This is one of the benefits of having a greater degree of autonomy and intelligence within the robots themselves — they can work in concert to maintain overall throughput and optimize the functioning of every aspect of the facility.

If it's determined that additional Mecha AMRs must be deployed to address this "new normal," an organization can commission the equipment and integrate it into their existing WMS quickly and remotely.

Moreover, this process can easily be replicated at additional facilities. If, for example, a facility in the Northeast is stabilized and effectively has a surplus of forklifts that are needed at another facility in the Midwest that is deluged with bread flour, those forklifts can be easily redeployed at the new facility, even if it uses a different WMS. The DotBot Platform can integrate with any WMS, anywhere. The facility could run with the DotBot Platform and Mecha machines within a day.

Mecha and SVX provide a plug-and-play solution that integrates instantly with the existing systems but allows scalability without any downtime. The customer gets a standardized integration and the ability to add on any additional technology Mecha offers that they want to deploy, and through the DotBot Platform, it's possible to quickly and seamlessly integrate those technologies and additional functionality within the WMS itself. The combined solution is modular and extendable and can keep growing as your organization grows.

Tomorrow's Solutions Today

Mecha Robotics has created the industry's most advanced autonomous artificially intelligent mobile robots, and SVX Robotics has revolutionized robot deployments, making their implementation in warehousing and manufacturing industries near-instantaneous. It's finally possible to deploy industrial robotics to a warehouse or manufacturing facility with the speed and flexibility needed to meet real-world demands. It's automation made agile.

Organizations can now react nimbly to the ever-changing environment while preparing operations to respond to whatever comes next. Together, these synergized technologies present a powerful solution that redefines the future of automation. It's the future. And it's available now.

Click the link below to schedule a joint consultation with our representatives.