

Case Studies



The only intelligent and affordable automation solution

TURNKEY SOLUTION | ZERO CAPEX | 60-SECOND SETUP

RAPID
ROBOTICS

Automating a traditional pad printing process in less than a week



Overview

Based in the San Francisco Bay Area, Delphon is a materials developer and advanced manufacturing center that specializes in engineered polymer and adhesive solutions for the semiconductor, photonics, medical and electronics industries. Through its Gel-Pak®, UltraTape®, and TouchMark divisions, the company is recognized worldwide for developing breakthrough products that provide solutions for manufacturing processes in a wide range of markets.



Challenge

With machine operators impossible to find, Hayward manufacturer Delphon was eager to automate; but previous robotics solutions never made it past the initial review. They cost too much, took too long to install and delivered too little.

Solution

The Rapid Machine Operator (RMO) from Rapid Robotics offered everything Delphon was looking for, and more. It took only days to get up and running on an important pad printing job, without systems integration or training. Delphon soon started using RMOs to remove foreign material during the assembly process for parts used to handle semiconductor chips.

Benefits

By “hiring” RMOs at an OpEx friendly monthly rate, Delphon was able to:

 \$70K ROI in less than a year

 Maintain productivity in the depths of the pandemic

 No integration costs

 Improve throughput consistency

 Work 6 machines with 2 human operators

 Redeploy 8 operators to other jobs

Story

Delphon's TouchMark pad printing division had been looking to automate for some time, to make its manufacturing processes faster, more efficient and more consistent. Another driving factor was the difficulty of finding machine operators in the ultra-competitive Bay Area labor market.

TouchMark had considered robotic automation in the past, but the ROI never made sense. Other cobots worked at the same rate as a human operator, needed constant supervision and came with a big sticker price. TouchMark's labor costs and throughput would have stayed the same, while its CapEx would actually have increased.

"I've been on an automation mission for years. Recruiting operators has been next to impossible. It only got harder once the pandemic hit."

James Garner
Director of TouchMark Manufacturing



But the Rapid Machine Operator (RMO) was different. RMOs could be "hired" for a low monthly fee. They arrived ready to work, with computer vision built-in and AI pre-trained to operate the kinds of machines TouchMark used. RMOs took days at most to set up, and needed only light supervision from an operator who could work another machine at the same time.

Perhaps best of all, RMOs didn't need system integration — a huge plus in TouchMark's book.

TouchMark put its first RMO on a task it had been running the same way for 30 years: applying pressure-sensitive adhesive to semiconductor packaging.

It took less than a week for Rapid to set up TouchMark's first RMO, and only a day to train TouchMark's staff.

"With integrators, we've experienced all kinds of design delays and miscalculations. We literally just received a piece of equipment [from an integrator] that has been in the works for two and a half years, and was supposed to be in-house a year and a half plus ago. With the RMO, there was none of that hassle"

Philip Haseltine
VP Manufacturing Operations, Delphon



TouchMark soon brought in another RMO to work a pad printer alongside the first.

TouchMark had previously assigned an operator to each pad printing machine. Now it needed only one employee to supervise both RMOs while operating a third machine at the same time. The other two operators were redeployed elsewhere in TouchMark's warehouse.

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“The difference between Rapid and system integrators is night and day. Rapid is there when you need them. You can deploy extremely fast and the support is phenomenal,”

James Garner

Director of TouchMark Manufacturing

With RMOs in place,

TouchMark was quickly saving \$15,640 per month

Production became less expensive and more consistent. TouchMark’s RMOs worked at the same rate, hour by hour, day by day, unaffected by breaks, sick days and PTO. That steady pace proved invaluable during the pandemic, when other manufacturers were struggling to staff their machines.

Looking Ahead

TouchMark’s automation project went so well, its sister division, Gel-Pak, started using RMOs to clean molded parts with an ionized air knife prior to assembly, saving \$20,400 per month. Gel-Pak can run many different parts of various sizes and features with very little change to the RMO over time.



“One nice thing about RMOs: they don’t need social distancing,”

Philip Haseltine

VP Manufacturing Operations, Delphon

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Conclusion

Two RMOs now do the work of five Gel-Pak operators,

for savings of \$20,400 per month

For a company with a “show me” approach to automation, RMOs turned out to be everything Delphon had hoped for — and then some.

With RMOs in place, TouchMark was

quickly saving \$15,640 per month

“If you don’t have a massive engineering staff and you want to start saving immediately, this is the business model for you.”

Philip Haseltine

VP Manufacturing Operations, Delphon



“We don’t have a ton of engineering resources. We don’t have any robotics engineers, or software engineers. For us, the RMO was an easy, quick and incredibly rewarding entry into the world of robotics,”

James Garner

Director of TouchMark Manufacturing



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RAPID ROBOTICS

Rapid Robotics is the creator of the first affordable robotic machine operator designed for simple machine tasks. Available for a monthly subscription fee that is a fraction of the cost of human labor, and requiring absolutely no programming, systems integration, specialized hardware or robotics skills, the Rapid Machine Operator enables manufacturers to easily deploy a pretrained cobot in hours and see ROI in months. Rapid Robotics’ founding team combines robotics and manufacturing expertise with a SaaS business model to deliver affordable solutions to real-world industry problems. The company is based in San Francisco, California.



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