



Skills Gap

Robots to the Rescue: 3M Helping Businesses Solve Worker Shortages with Automation

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The U.S. is facing a “*structural labor shortage*.”

That’s what Jerome Powell, the Federal Reserve chair, said during a recent speech.

The *latest data* shows 10 million U.S. job openings with only 5.7 million unemployed workers available to fill those roles. One of most affected industries has been manufacturing, with a *reported 803,000 vacancies* in the United States. Globally, the vacancies are estimated to reach 8 million by the year 2030.

With such a tight labor market expected for years to come, more businesses are investing in automation, with many calling 3M for help.

3M opened its first robotics lab more than 30 years ago and now operates 10 labs in eight countries around the world. The company *offers a wide portfolio* of robotic solutions that automate abrasive and adhesive manufacturing processes. These systems allow businesses to continue operations with better reliability, consistency and, ultimately, cost effectiveness.

Robots for automakers

One notable example is an *award-winning* solution for the automotive industry called the **3M™ Finesse-It™ Robotic Paint Repair System**.

Nearly every new vehicle off the assembly line needs to be visually inspected for paint defects and then sanded, polished and repainted. It’s a labor intensive and costly process for auto manufacturers.

3M partnered with world-leading robotics expert **FANUC** to help deliver a solution by fully automating this inspection and rework process. The two companies are working closely with several major auto manufacturers.

“3M has perfected the recipe of paint repair over decades and holds the utmost credibility in the market,” said Jonathan Karr, vice president at FANUC. “We’ve taken that knowledge and added it to a robotics application.”

Here's a *video* of the robot at BMW's plant in Regensburg, Germany.

Robots and tape

3M is also blending robotics with its world-leading adhesives.

The *RoboTape™ System for 3M™* launched in 2022 and uses 3M™ VHB™ Tapes to automate repetitive bonding applications. The new system allows industrial manufacturers to take advantage of the benefits of 3M tape while maximizing production throughput, improving quality, reducing or re-tasking manual labor and limiting re-work.

Another recent innovation is the *3M™ On Demand Bonding System featuring 3M™ VHB™ Extrudable Tape*. This end-to-end automatic bonding solution combines all the benefits of 3M™ VHB™ Tapes with the versatility of a liquid adhesive in a single contained footprint, enabling usage on any scale. This product looks to make an impact in several industries, including appliances, transportation and windows and doors.

"In some cases, automation is the only path forward," said Todd Lutkauskas, a 3M product marketer for the new bonding system. "I'm working with a customer who has 70 open positions they can't fill and it's probably going to get worse."

But what about the negative stereotype that robots are taking jobs?

"People are starting to see that humans and robots can coexist at work," Jonathan said. "Automation can be a partner in your operations and we're seeing a lot more acceptance."

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