



MANUFACTURING  
ROBOTICS

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# REDEPLOYING LABOR & SOLVING THE GLOBAL MANUAL LABOR SHORTAGE



# OVERVIEW

**In today's world, consumers spend approximately 40 billion hours shopping in the United States, which is about the same as 20 million full-time jobs.** The COVID-19 pandemic has accelerated the growth of e-commerce by 40%, which had historically grown at a rate of 15% per year. This drastic trend will only continue.

As consumers continue to shift more and more of their purchasing online, we've seen a growing need for those equivalent work hours to be carried out by manual labor in fulfillment centers. In March 2021, manufacturing across the United States reached its highest level of activity in 37 years, with over half a million job openings.

However, according to Deloitte and The Manufacturing Institute, 2.1 million manufacturing jobs are forecasted to be unfulfilled through 2030. Where the discrepancy lies is the shrinking pool of available labor, due to several major trends:

1. Retiring baby boomers
2. Younger generations more focused on technology jobs
3. As mentioned above, the exponentially growing need for labor in the e-commerce industry

In particular, as it relates to manufacturing today, it is quite difficult to find qualified welders and machinists. There is a perception that these positions are stationary, low-progression, and low-knowledge—when this is not the case at all.

**Thankfully, autonomous robots are now capable of many new tasks and will help fill the growing gap for labor in manufacturing.**

# FILLING THE PRODUCTIVITY GAP



With flexible automation solutions, manufacturers can successfully fill their labor gaps amidst the shrinking labor pool.

With automation, manufacturers have been able to leverage:



## IMPROVED SAFETY

- Automation reduces the risk of humans getting hurt due to repetitive strain



## ENHANCED QUALITY

- Humans are susceptible to misjudgment and forgetfulness
- Humans can become tired throughout the day, impacting productivity



## MAGNIFIED EFFICIENCY

- Automation moves more quickly than humans



# MANUFACTURING ROBOTICS

**In particular, robotic solutions can ultimately offer lower costs and more flexibility when compared to traditional automation methods.**

*How have these robotic programs kept businesses scalable and competitive?*

Robots are used as force multipliers.

They are a new generation of tools that allow workers to accomplish more tasks with less effort. One person, acting as a robot supervisor, can accomplish as much (if not more) as multiple people.

A solid example of this can be seen through machine tending, where collaborative robots have been used to automatically load and unload parts from CNC machines. In these applications, one person can oversee the tending of many machines, where in the past they would have been able to handle fewer machines.





WORKING WITH



***IAM Robotics* provides the premier material handling robotics solution with the Power to Move More.**

We are dedicated to delivering adaptable, scalable, and comprehensive autonomous mobile robot material handling solutions that seamlessly integrate into any operational environment. Our robotics engineers and supply chain veterans work closely with partners and clients to model, simulate, and configure optimal solutions that keep their businesses competitive.

*IAM Robotics* was founded in 2012 and is proudly based in Pittsburgh, Pennsylvania. The company is home to over 70 employees and supports customers worldwide.

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