

FLEX-LINE

A U T O M A T I O N



AUTOMATION:

***simpler, safer, & more accessible
than you think***

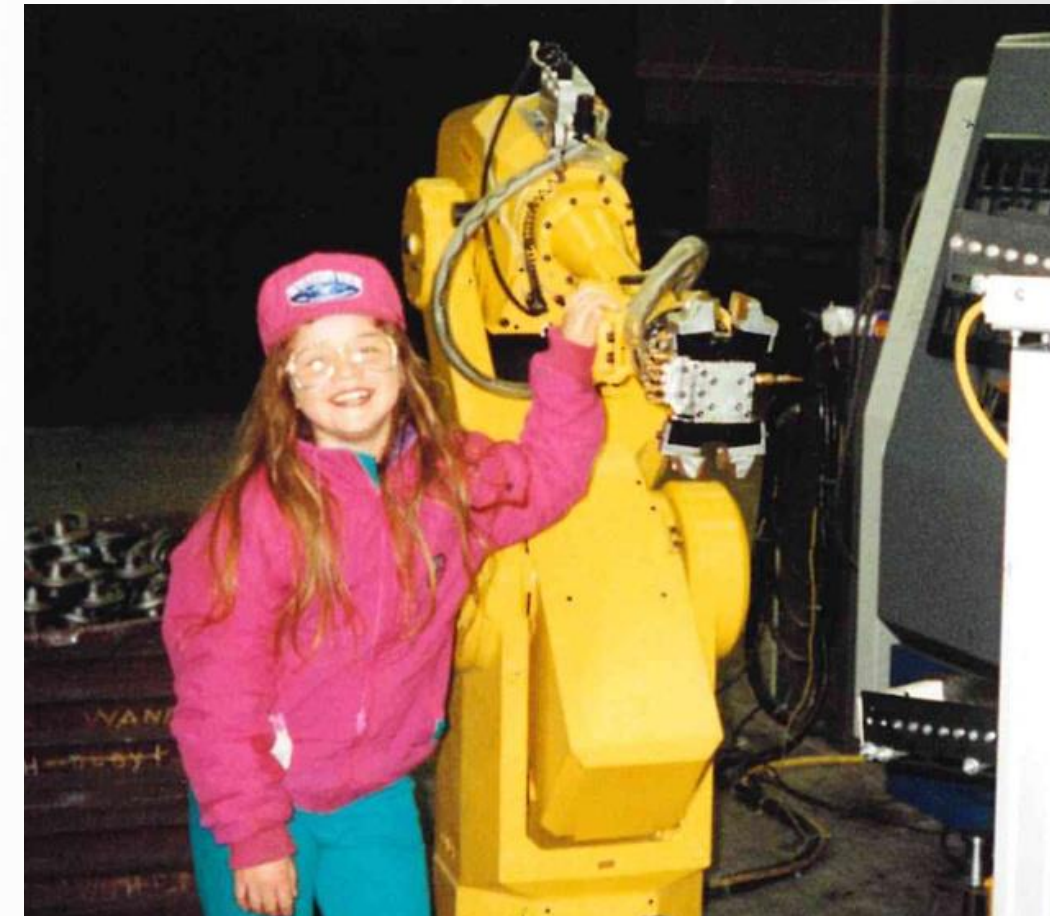


about your speaker



Women-Owned Small Business
specialized in integrated material
handling solutions throughout
production & end of line processes

- Custom conveyor systems
- Turnkey EOL automation
- Component sales
- Installation & commissioning
- Maintenance & support



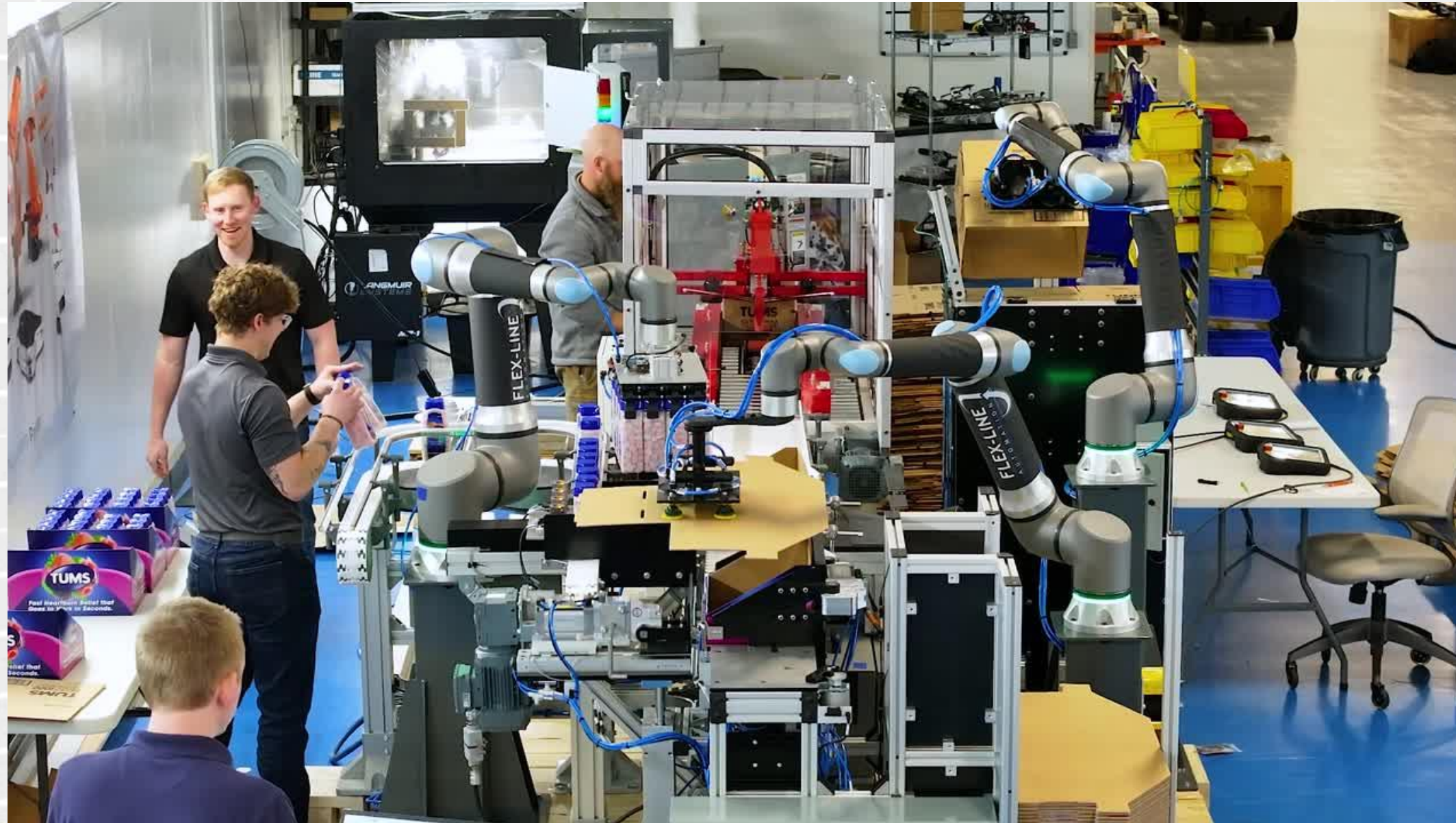
Meadville Forging Co. circa 1991



what is automation?



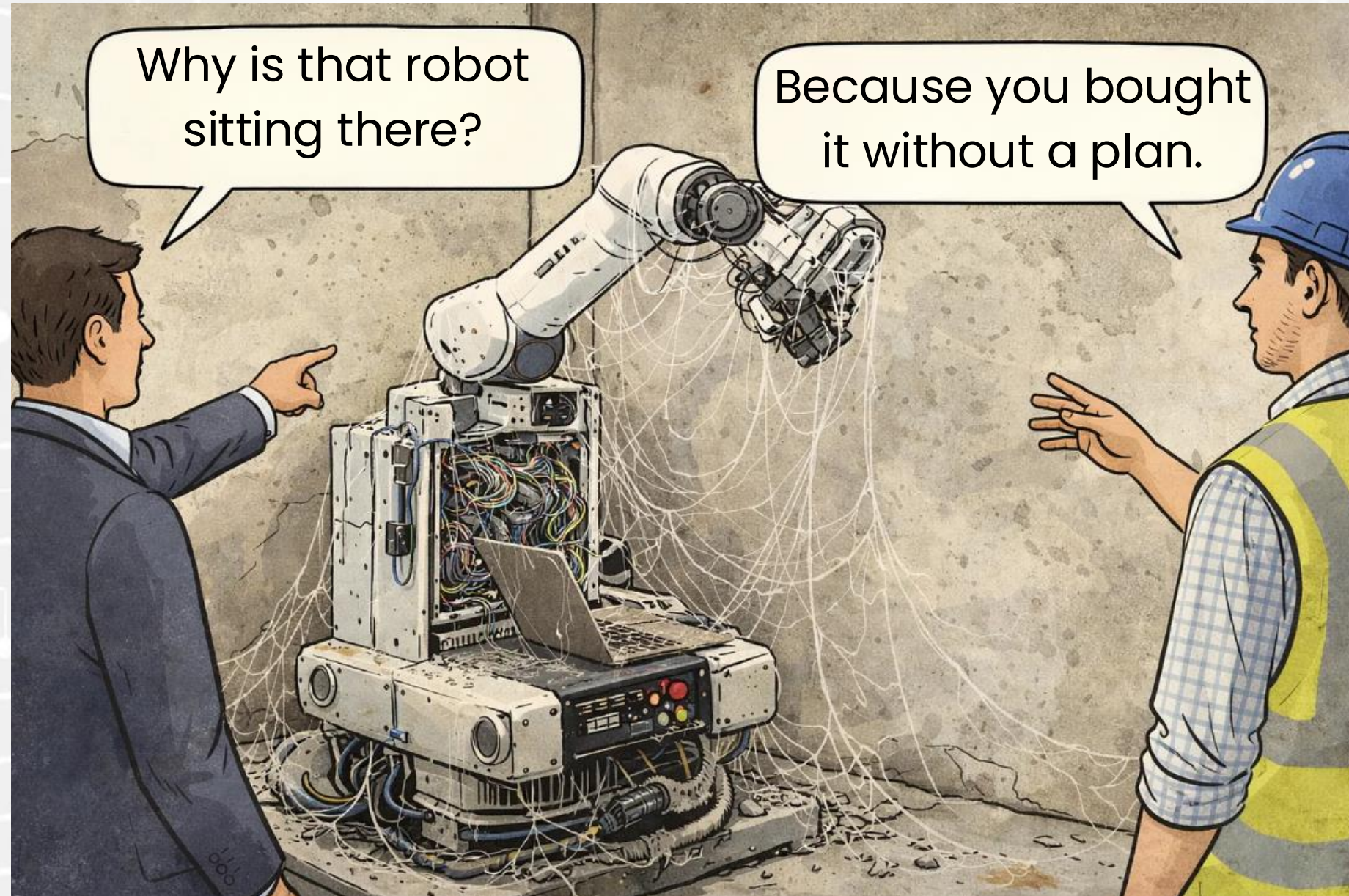
what is automation?



what is automation?



automation is not one size



options



how do you pick



PEOPLE ➤

PROCESS ➤

PRODUCT



How many workers will we need by 2030?



The manufacturing sector will need 3.8 million total new employees between 2024 and 2033.

1.9 million jobs could remain unfilled

- 2.8 million open positions from retirements
- 760,000 from industry growth
- 230,000 from recent federal legislation
 - Fabricated metals
 - Automotive
 - Machinery manufacturing

Help Wanted: U.S. Factories Seek Workers for the Nearshoring Boom

Manufacturers say hiring is one of their big challenges as they try to meet demand for American-made products

By Paul Berger [Follow](#)
Dec. 27, 2024 7:00 am ET

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A Jones Plastic & Engineering assembly plant in Louisville robotic arm as part of its manufacturing operations. PHO

Source: <https://www.wsj.com/articles/factories-look-for-workers-for-the-nearshoring-boom>

Tariffs may mean more US steel jobs. Will there be workers to fill them?

By Timothy Aepfel

April 23, 2025 12:29 PM EDT - Updated April 23, 2025



[AP] An employee works inside a Nucor steel factory in Bethelville, Arkansas, U.S., March 28, 2024. REUTERS/Karen Palmer/Photo Purchase License Rights

Source: <https://www.reuters.com/markets/us/tariffs-may-mean-more-us-steel-jobs-will-there-be-workers-fill-them-2025-04-23/>

US manufacturers face uphill battle to attract, retain skilled workers

Andy Medici, Senior Reporter, The Playbook
Apr 14, 2025, 5:03am EDT



place them — is a pernicious problem for manufacturers.

[i.com/atlanta/bizwomen/news/workers-workforce-2025-tariffs-](https://www.atlantabizwomen.com/news/workers-workforce-2025-tariffs)

<https://www.cargoson.com/en/blog/how-many-manufacturing-jobs-are-unfilled-in-the-us>





**HUMANS
WANTED**

The Jobs Robots Are Creating—And the Workforce Rising in Their Wake



Aaron Prather 

Director, Robotics & Autonomous Systems Program at ASTM International



4 Robots Unlock Growth And Growth Creates Jobs

The real multiplier of robotics isn't the robot itself—it's what the robot *makes possible*. When a factory automates welding, it can add new product variants. When a warehouse deploys mobile robots, it can expand service windows and win new contracts. When construction robots speed up finishing tasks, firms can take on more projects. Growth requires people, and automation is often the only way to make that growth feasible.

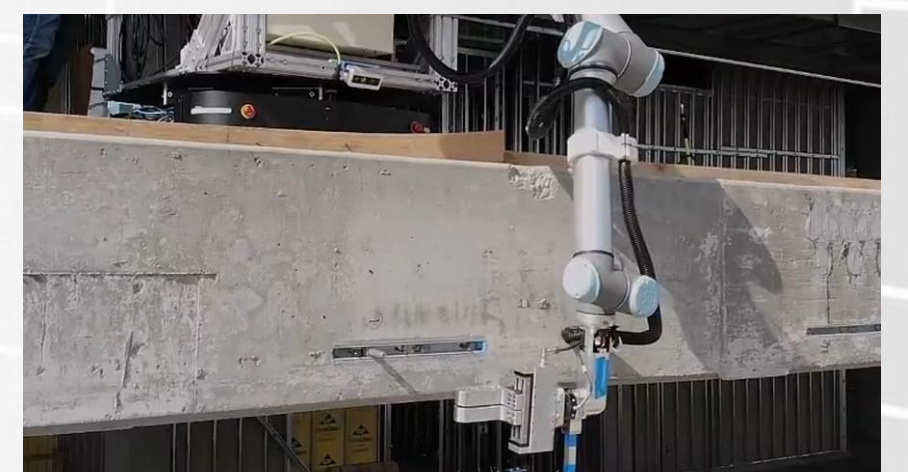
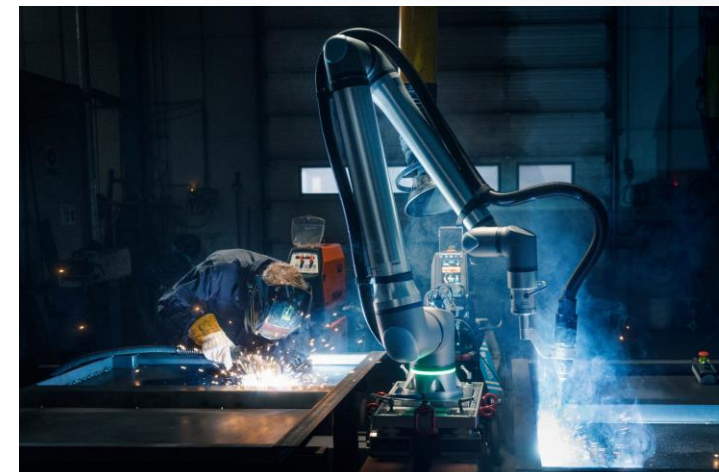
A University of Cambridge [research review](#) found that firms adopting robotics tend to **add** jobs because automation enables them to capture work that would otherwise be impossible at current staffing levels.

Robots are not replacing humans. They are clearing the bottlenecks that have constrained human-led industries for decades.

<https://www.linkedin.com/pulse/jobs-robots-creatingand-workforce-rising-wake-aaron-prather-hoehe/>



automate for SAFETY



automate for ACCURACY



automate for EMPLOYEES



automate for PRODUCTIVITY



automate for PREDICTABILITY



barriers to automation



- mental
- cost
- variation
- environment

- labor
- exposure



breakdown the barrier COST

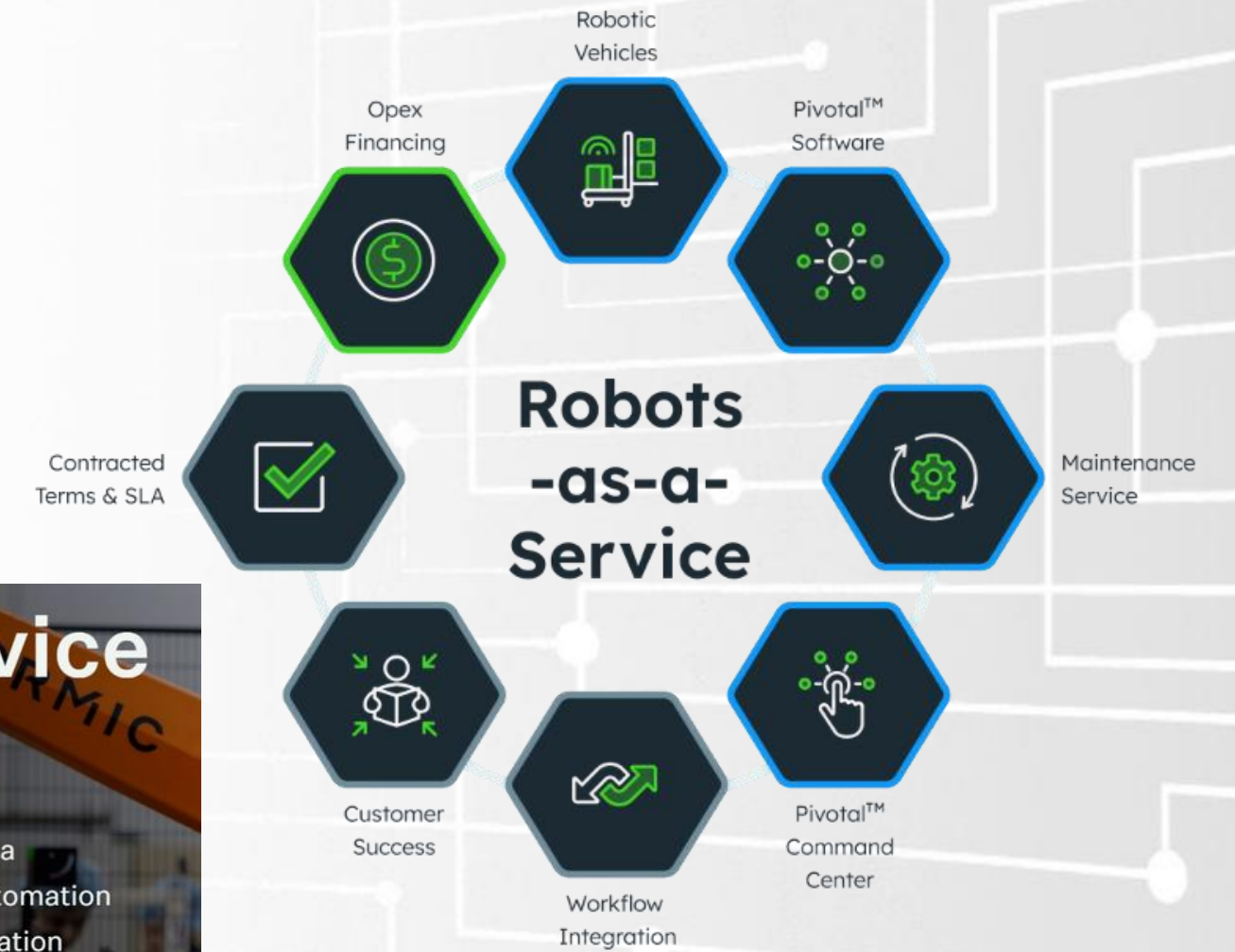


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Path Robotics

Obsidian Rove Welding Cells Resources Careers About

Path Robotics • November 25, 2025 • 7 min read

What Is RaaS: A Guide to Robots as a Service for Welding Automation

What Is Full Service Automation?

Full Service Automation (Robots-as-a-Service) is a complete solution for manufacturers who want automation without the complexity. It delivers the ideal automation solution for your production needs, handles programming and deployment, provides ongoing 24/7 support and maintenance, and includes software to capture, analyze, and optimize production data. All of this comes with no capital expenditure and a single fixed monthly fee.



breakdown the barrier VARIATION

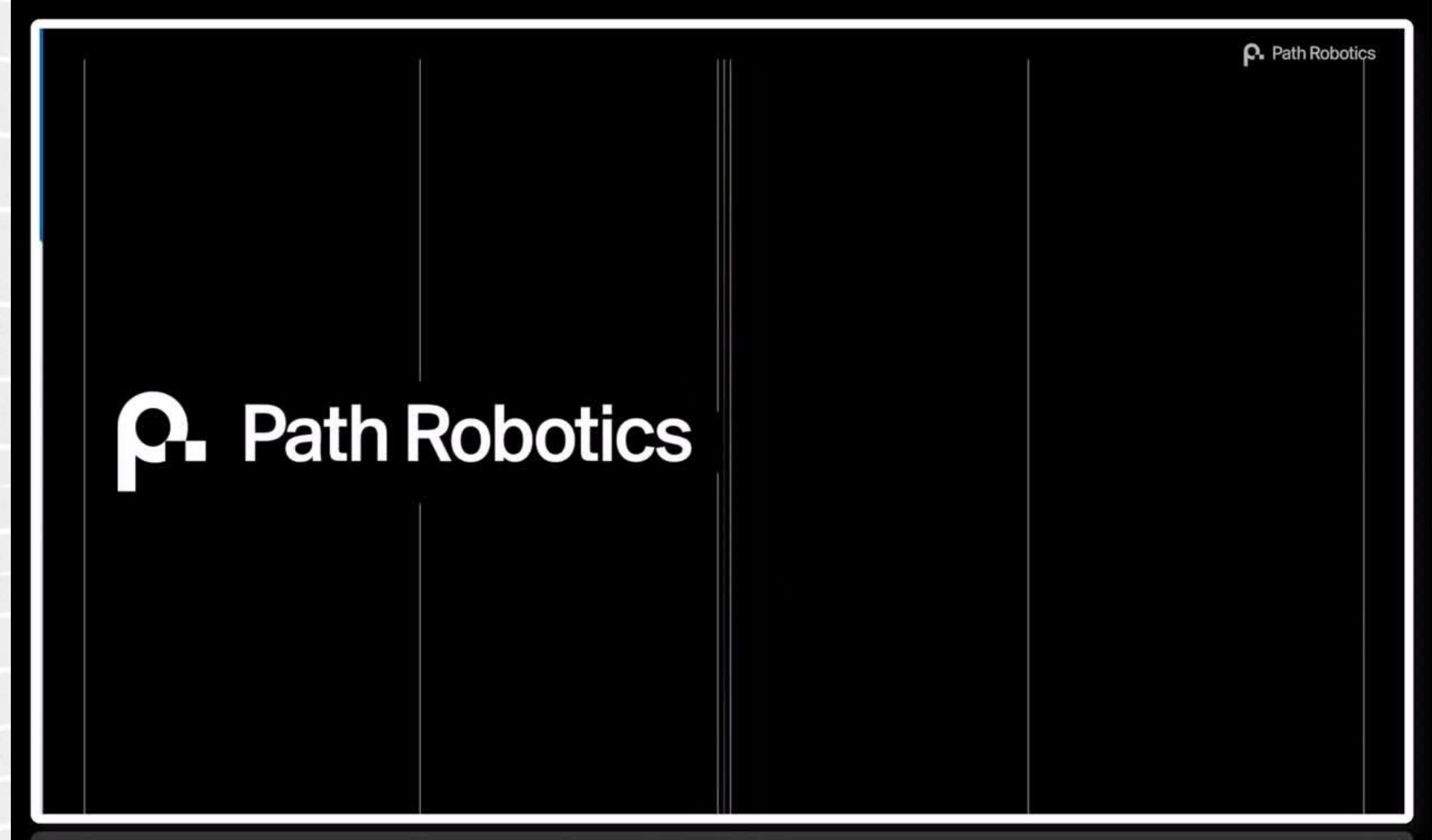


MECH MIND

Mech-Eye LNX
Ultra-High Precision 3D Laser Profilers



breakdown the barrier VARIATION



breakdown the barrier ENVIRONMENT



The TX2-200 is the highest-capacity robot in the TX2 range, delivering the ideal combination of high speed, rigidity and precise path accuracy for heavy-duty automation.

The TX2-200 series come in 2 models, TX2-200 with standard reach and TX2-200L with an extended reach.

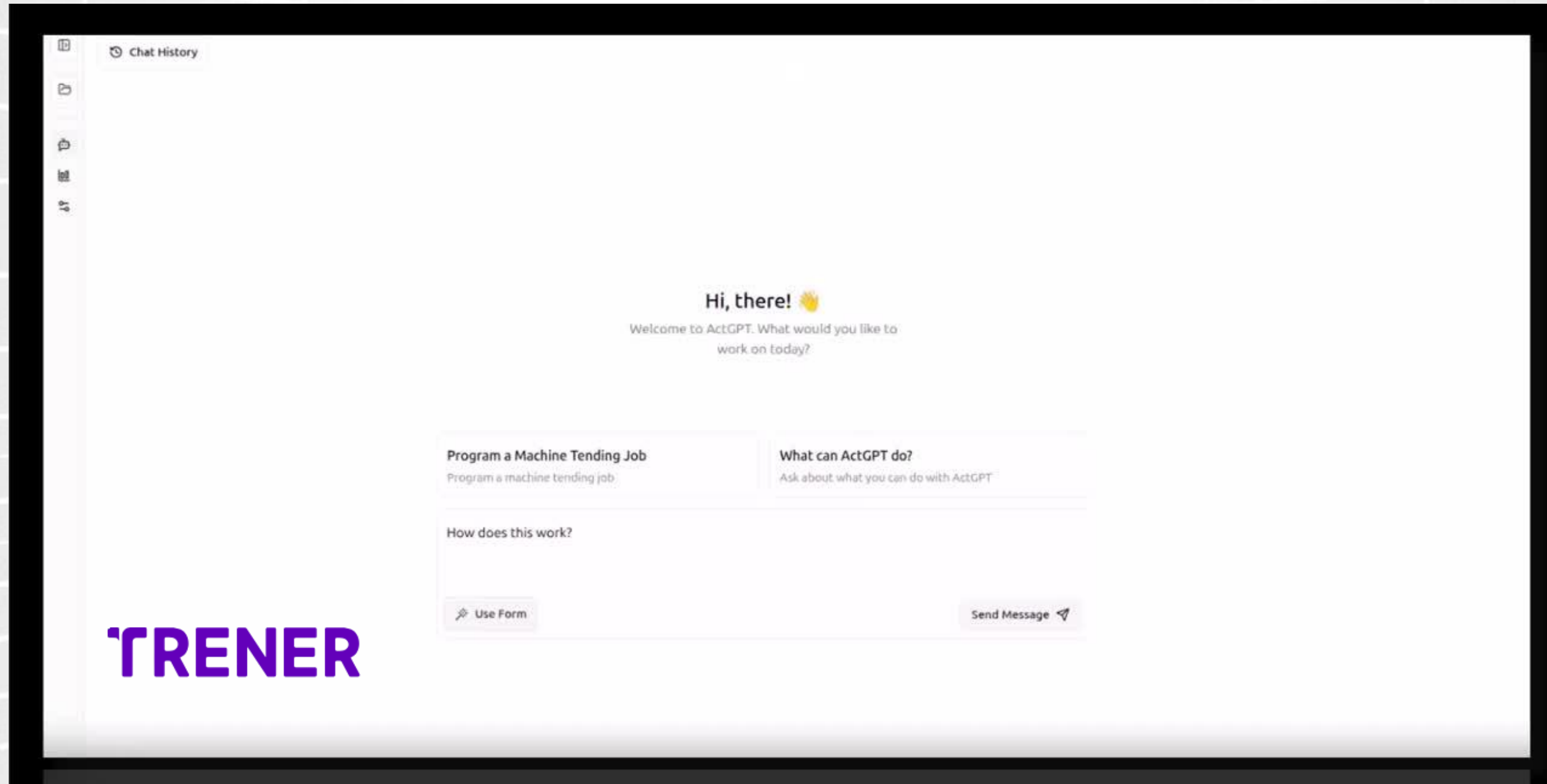
Designed for both harsh and [sensitive environments](#), it features a fully encapsulated IP65 (and IP67 with pro version) structure, large chemical compatibility and optional [SIL 3 / PL e safety functions](#), ensuring reliable and safe collaboration.



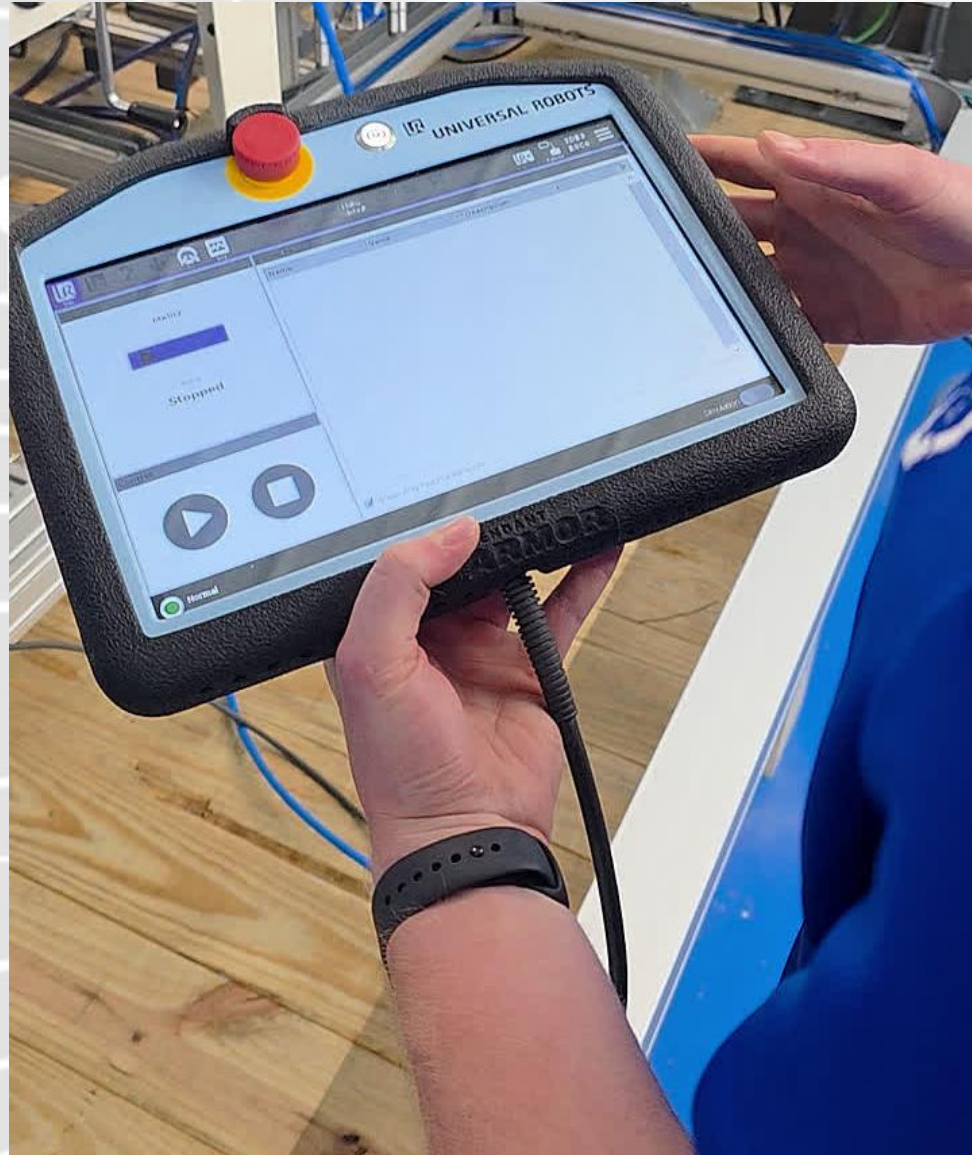
Kontaktgießen von Flüssigeisen mit KR 1000 titan
Contact casting of liquid steel by KR 1000 titan



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 **VENTION™** TIPS 



automation: you aren't alone



safety: you aren't alone



A3 is a trusted world leader in robot safety. Get the training you need for a safer workplace!

The benefits of Robot Safety Training are numerous, helping the employer and most especially the employee - the person most at risk. Regardless of the size of your business, making sure that you and all your technicians are safety-trained is necessary.

Join A3's Robot Safety and Risk Assessment Virtual Training with a live instructor. You will learn key information directly from our industry expert to help you keep your team safe. The live format allows you to ask questions and interact with the instructor to better address your needs. In just two half-day sessions, you will receive safety guidelines for robotic applications and learn how to apply the standard in your own daily operations.

A3 ASSOCIATION FOR ADVANCING AUTOMATION ROBOTICS | **ROBOT SAFETY TRAINING**

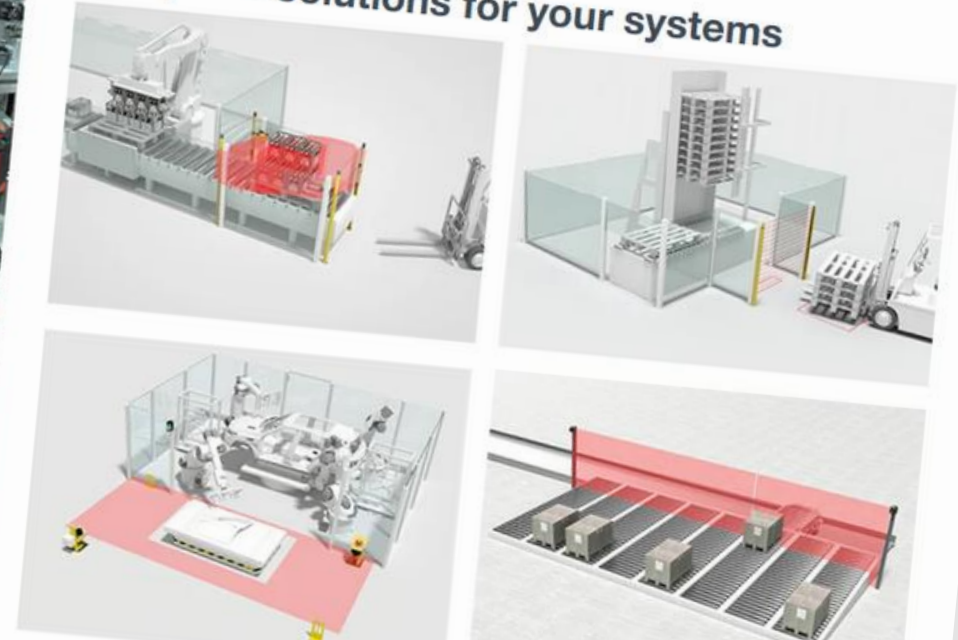
TRAINING FEE: \$395.00 PER PERSON

[VIEW SYLLABUS](#)

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Vista Safety Consulting, LLC

Vista Safety Consulting works with you to identify the unique safety and health challenges within your operations. While addressing OSHA compliance, our total risk management approach also targets the key loss drivers affecting your bottom line.

...table machine safety begins with the professional... s and extends over the entire life cycle... d and certified experts offer the r... rs and operators - e.g. with a risk at...

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[BACK TO OVERVIEW](#)



Risk Assessment e-Learning

Learn how to assess risks in a robot application and how to make your application safer.

Recommended Browser & Settings. We recommend using the latest version of Microsoft Edge or Google Chrome to view the e-Learning modules. JavaScript must be enabled.



you aren't alone



there are ways to optimize **YOUR** process
there are solutions for **YOUR** problems

automation is here to help, and so are we

you don't have to be an automation expert – you just have to work with one!

618.826.5086 / flex-lineautomation.com



let's connect



reach out to me on LinkedIn by scanning the QR code



www.linkedin.com/in/laurenvandemark

618.826.5086 / flex-lineautomation.com



tell us what you thought



scan to complete a quick survey

