5 Ways to Upskill Your Manufacturing Workforce Using RoboDK

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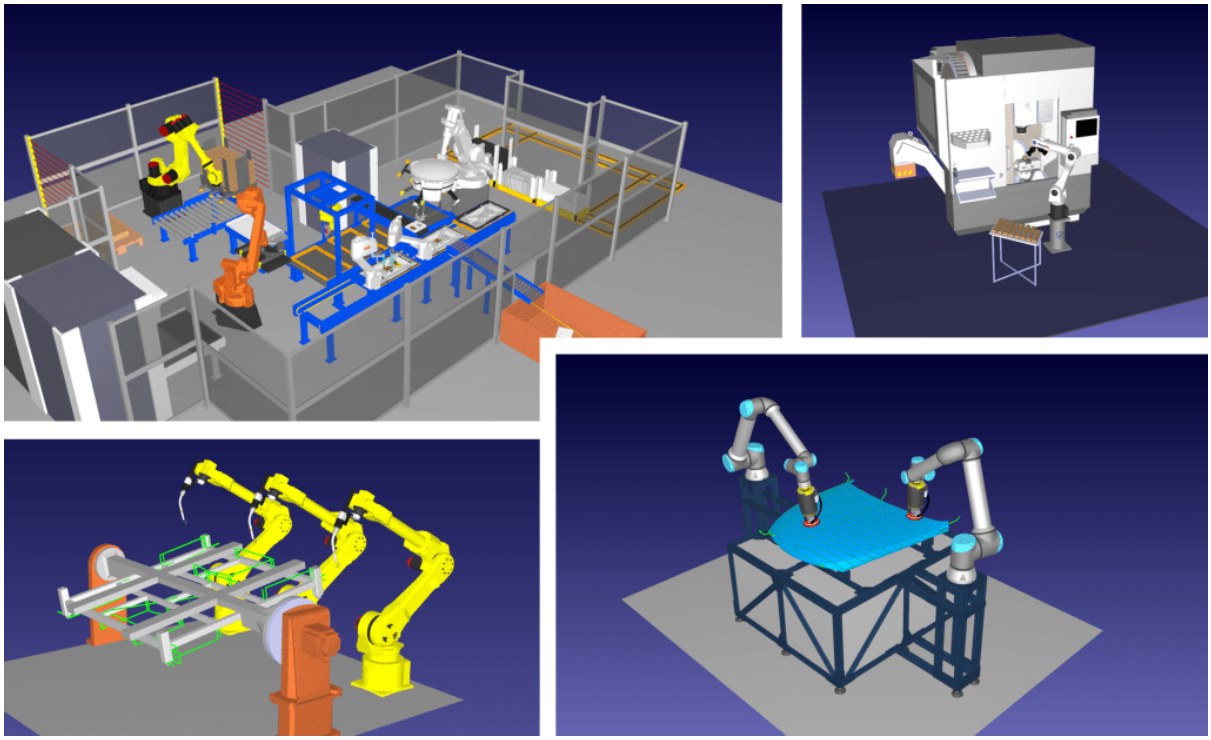
There are 250,000 active manufacturing businesses in the UK, with 99% of these being micro and small to medium-sized enterprises (SMEs). A study shows that almost two-thirds (64%) of these SMEs have the ambition to grow into large businesses over the next decade. But one of the biggest barriers to growth remains: difficulty in adopting automation due to a shortage of skilled engineers and technical leadership.

How Can RoboDK Help Upskill Your Workforce?

RoboDK is a versatile robotic simulation and offline programming platform, compatible with over 80 robot brands and more than 1,200 industrial robot models. But its value goes beyond its technical power: it also serves as a highly effective and low-risk environment for training. Whether you're preparing staff for automation or bridging knowledge gaps in industrial robotics, here are five practical ways UK manufacturers can use RoboDK to upskill their teams.



1. Deliver Hands-On Robotics Training Without Physical Robots

Investing in industrial robots for training alone is costly, especially for SMEs. RoboDK offers a virtual alternative by replicating real robot brands in a digital 3D environment. Trainees can learn robot programming, tool path planning, and cell layout, all from a standard PC. This means manufacturers can:

- Program and test robot movements without the risk of damaging expensive machinery
- Offer robotics training anytime, anywhere
- Upskill more staff without interrupting production

For training providers and in-house supervisors, this represents a low-cost and high-impact method of building robotics competence.

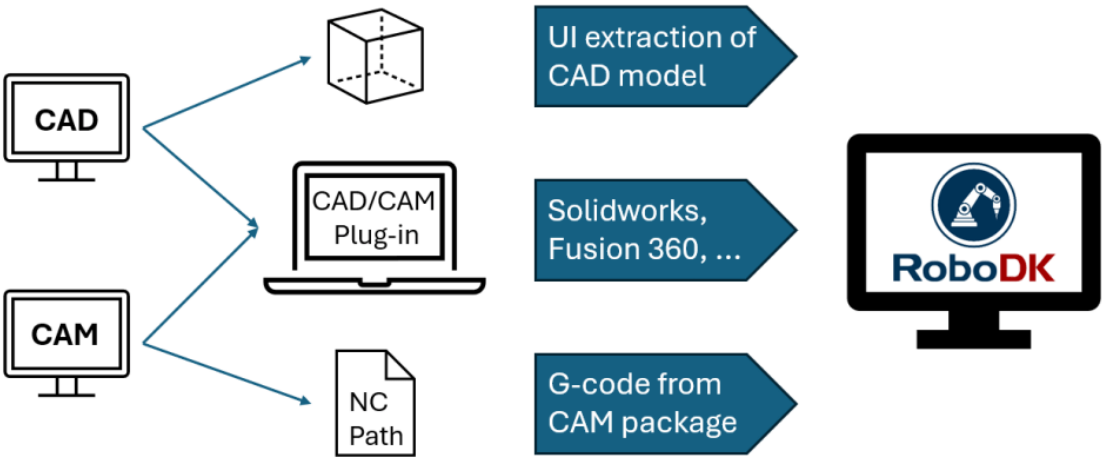
2. Teach Cross-Brand Robot Programming Skills

The manufacturing sector often uses robots from various OEMs: ABB, KUKA, FANUC, UR, Yaskawa, and more. Learning the different programming languages and systems can be daunting. RoboDK bridges the gap by supporting over 80 robot manufacturers with one unified interface. Your workforce can:

- Learn universal programming concepts
- Export and test native robot code for different brands in one environment
- Be more comfortable when working across different lines or facilities

By training on RoboDK, employees gain transferable skills that apply across multiple robot types and brands, improving versatility.

3. Integrate Robotics into Real-World CAD/CAM Workflows



RoboDK integrates directly with major CAD/CAM tools like SolidWorks, Fusion 360, Mastercam, and so on. This makes it easy for designers and engineers to simulate how robots work with real parts and assemblies, from CAD design to CNC machining. Key features:

- Import CAD data/CAM toolpaths and generate robot paths
- Validate robotic processes during the design stage
- Train staff to understand the full digital manufacturing workflow

The CAD-to-Path and CAM-to-Path workflows prepare your team for cross-disciplinary and integrated manufacturing, reduce disengagement and encourage cross-department collaboration.

4. Prepare for Deployments with Offline Programming

Traditionally, robot programming requires stopping production to manually teach the robot using a pendant, which is a slow and expensive process. With RoboDK, your in-house employees can program, simulate, and optimise robot tasks offline. This means:

- Engineers can plan and simulate multi-step processes in advance
- Workers can learn how to validate robot programs before they reach the shop floor
- Teams can reduce on-site programming time, leading to faster commissioning and re-commissioning

RoboDK helps transform operators into engineers that plan, modify and maintain robotic processes, not just button-pushers.

5. Build an Internal Culture of Innovation and Continuous Learning

Upskilling isn't just about technical knowledge. It's about adopting curiosity, problem-solving, and a mindset for innovation. RoboDK is an ideal tool for experimentation. Encourage staff to test ideas, simulate new layouts, or explore automation for tasks that weren't previously considered viable. Manufacturers can:

- Set up internal innovation labs using RoboDK

- Let employees propose prototype ideas using simulation
- Improve employee retention by offering development opportunities

This cultivates a culture of innovation and adaptability, both are essential traits for the modern workforce.

Final Thoughts

The UK faces a growing need for robotic automation, and an equally urgent demand to equip workers with the skills to deliver it. As manufacturers push toward greater automation, the skills gap remains one of the biggest barriers to progress. RoboDK offers more than just a simulation tool. It's a strategic investment in workforce development: practical, scalable, and cost-effective. By integrating RoboDK into your upskilling initiatives, you can future-proof your operations and gain a competitive edge by investing in people alongside technology.