

FIVE STEPS TO MAKE AUTOMATION A SUCCESS

Introducing robots for automated production is no longer a journey into a strange new world. Our checklist outlines the points you need to bear in mind to make automation a success.

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STEP 1

Put forward convincing arguments

The coronavirus crisis clearly illustrated how quickly economic conditions can change. Masks and face shields were suddenly in demand by the millions. Companies capable of swiftly switching and scaling up their products, turning them into in-demand solutions in similar situations, enjoy a clear competitive advantage. Automated processes can be scaled up to 24/7 operation more easily than manual ones, because robots can perform work steps as often as required without experiencing any fatigue whatsoever. They also relieve the strain on the increasingly scarce skilled workers. Using robots for the first time is no more difficult than using other machines for the first time. Some companies provide a plan outlining procedures, objectives and a safety concept. Someone who has prior PLC knowledge can learn how to program robots quickly.

Checklist

- [ ] Do you basically have the approval of your factory's and your company's decision-makers?

STEP 2

Involve and prepare your workforce and the union and workers' representation

Involve your staff at an early stage and use internal communication to dispel any fears, instead turning it into the confidence you need. By doing this, you leave little room for uneasy speculation surrounding job security. Don't forget: Coordinate plans and steps early on with the workers' representation, company medical officers, Occupational Safety and, of course, any superiors.

Checklist

- [ ] Have you informed all the relevant parties (workers' representation, employers' liability insurance association, etc.) of the planned automation?



STEP 3

Identify production steps for efficient robotics

From incoming goods to production and shipping, choose open-minded people in each department and have them examine the everyday work routine to find work steps that a robot could also complete:

- Physically demanding tasks that put a strain on people's health (e.g. handing over heavy parts)
- Tasks that need to be done with a particular level of accuracy (e.g. product calibration)
- Unpopular, monotonous tasks

Even substeps performed in close proximity to people can be well automated when collaborative robots are used. To begin with, concentrate on those areas where introduction seems particularly easy and worthwhile.

Checklist

- [ ] Have you put together a team for your planned automation?
- [ ] Have you identified and prioritised the specific starting points for automation?

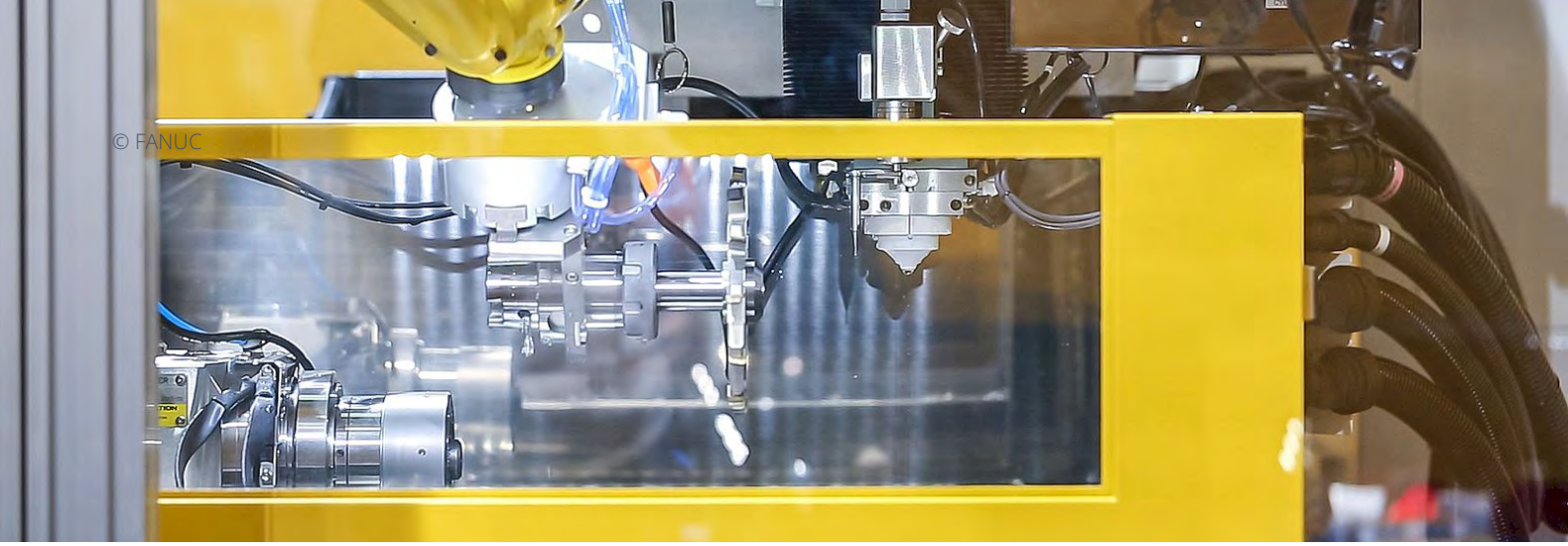
STEP 4

Find the right robot

Manufacturing companies can now choose from a wide range of industrial and collaborative robots. Talk to a manufacturer. By entering into dialogue, you will soon come to understand which types of robot are of interest to you. Humans and robots have different capability profiles. With collaborative robots, humans' and robots' strengths can be combined to achieve higher levels of efficiency and productivity. Industrial robots are suitable for large-series production.

Checklist

- [ ] Have you talked to manufacturers and users and found the right robots?
- [ ] Have you worked out a concept that enables you to integrate the robot into the production flow?



STEP 5

Identify production steps for efficient robotics

Now, organise when and who will receive training to look after the robotics and how employees will be introduced to working with the robot. Like all machines, robots must be subjected to a risk assessment in accordance with DIN ISO 12100 before they are put into operation to ensure that they are not hazardous to humans. To use robots collaboratively, observing ISO TS 15066 is also a must. Have the providers advise you on this too.

Checklist

- [ ] Have you organised training courses for colleagues?
- [ ] Did you develop and implement the safety concept prior to use?

Once you have taken these five steps, it won't be long until you are getting started with practical robotics and soon discover more and more rewarding areas of use.

About IFR / Go4Robotics

As a non-profit organization IFR's mission is to promote the use of robotics to address societal challenges and improve the quality of life for all. Our vision is that robotics will revolutionize various industries and create a better future for all. With almost 100 institutional members from more than 20 countries representing over 3000 robotics organizations worldwide, we offer the all-round view of the world of robotics across industries and countries. With our Go4Robotics campaign, we want to provide beginners with easily accessible and understandable information and experts with deeper insights into trends and innovations in the robotics industry.



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