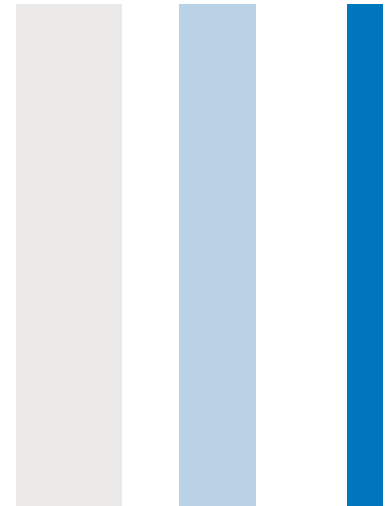


# Collaborative Robot Solutions



## So what do you know about a collaborative robot?

Collaborative robots are safe to be around, requiring a much smaller footprint, and are cost-effective enough to provide a rapid return on investment. They are the solution of choice for manufacturers looking to reduce overall costs, improve quality and reliability in their operations. Previously industry looked to automation for volume production. Now industry seeks flexibility, as labour rates rise and consumer demands constantly changing, pushing companies to compete in a global market.

There are a multitude of varying collaborative robots currently in the market place, single arm, double arm with varying lengths of reach and weight carrying capabilities. Some have built in vision capability and some do not.

iconsys supplies customers with robust automation solutions using collaborative robots. As a business we focus on providing customers with an automated solution that will reduce their production costs and ultimately save them money. As an independent robotic integrator iconsys can help you identify the most cost-effective, suitable solution for your application requirements.

## Human & Robot working together

Out go the large and heavy imposing robots, it's time to make way for collaborative robots!

These robots are now capable of picking up an object and giving it to a human, acting as an assistant, in a cooperative environment, very different to that of the more traditional manufacturing robots which were kept behind cages and programmed by highly paid specialists.

Most collaborative robots are capable of "learn by demonstration": An operator will guide the robot arm through the required position, which will then remember these movements and repeat them. This revolutionary learning-by-doing approach is a technique that non computer-programming operators can quickly master.

Due to their smaller footprint and lighter weight, collaborative robots no longer need to be confined to a single task: They can be integrated into numerous projects, making them much versatile and therefore more profitable. They can be easily reprogrammed, moved (by mounting them on a mobile base for example) and redeployed at different stages in the production chain!

A collaborative robot can be used to tend machines and relieve employees of dull and repetitive work – freeing their time to be used to add value to your business. They are able to quickly adapt production lines to new products.

### Examples of solutions include:

- CNC machine tending
- Small press tending
- Injection moulding
- Production line picking
- Small parts assembly
- Electronic assembly and test

### The benefits of collaborative robot solutions include:

- Increased operator safety
- Decreased manufacturing labour
- Reduced overall costs
- Short implementation times
- Teach by demonstration
- Operational flexibility

## EOAT Design

iconsys are highly experienced at addressing difficult issues with innovative workable solutions.

Designing tooling to suit your application requirements incorporating:

**Standard Parts** – Quick delivery of components & spares

**Lightweight** – Reduce robot wear and maintenance

**Rigid** – Precise placement

**Modular** – Easy to adjust and make changes

**Durable** – long life with lower maintenance

iconsys integrate vision systems, bar code readers, servo and pneumatic actuators enabling our customers to be able to pick, handle and assemble the most complicated parts.

## 3D Robotics simulation

Our in-house Robotic team will recreate a complete 3D virtual model of the working environment and the robots themselves. A 3-dimensional simulation offers advantages to both the customer and the robotic team; reducing the costs, as robots can be programmed off-line, eliminating down-time for assembly line. Robot actions and assembly parts can be visualised in a 3-D virtual environment prior to the prototypes being produced, ensuring the robot system is running in its trimmest and most efficient configuration.

## Independent

Our engineers are able to commission all major collaborative robotic brands such as: ABB, KUKA, Yaskawa, FANUC and Universal Robot.



## Who we are

iconsys is a leading UK automation solutions provider and systems integrator. Well-established and highly respected, we combine innovative technologies with extensive industry knowledge and experience, supporting you throughout the asset lifecycle to enhance the performance of your business.

Our vision is to lead customers into the digital era, through close working partnerships built on trust. We are driven to delivering world-class solutions that inspire change across multiple markets.

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