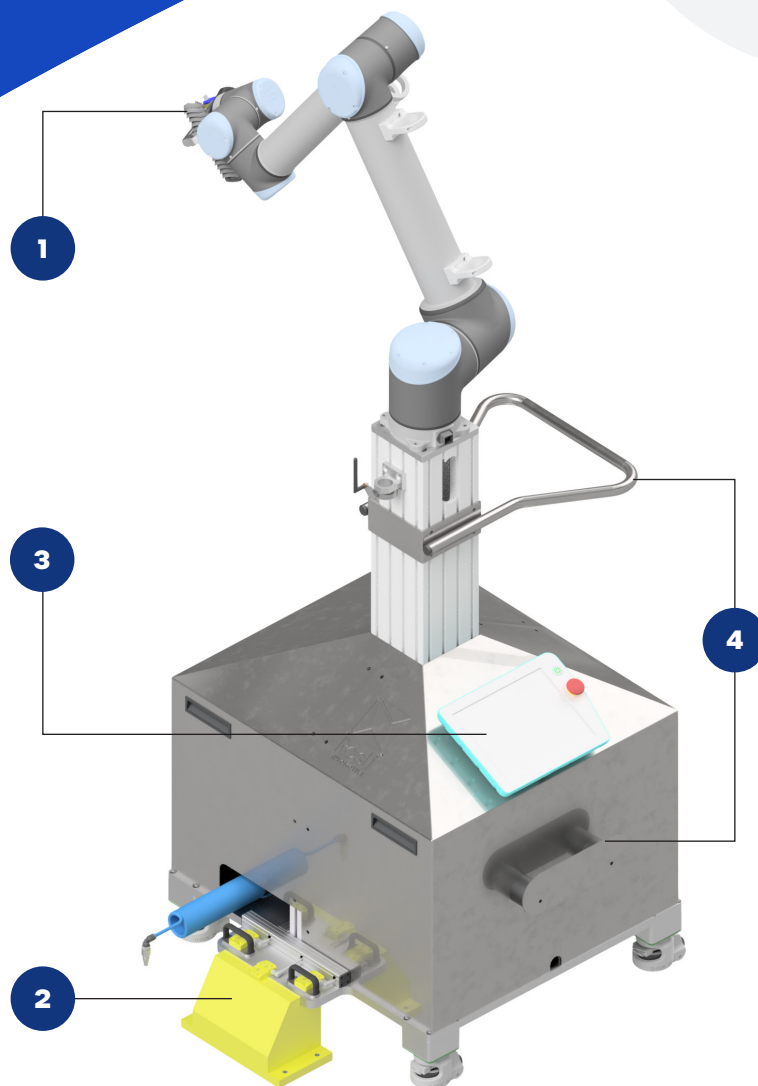


Cobot Unload System



1 Multi tooled head with grippers, vision and vacuum

2 Docking position to allow system to be easily redeployed in another locations

3 Integrated control system to enable selection of new programs

4 Fully and easily moved between operating positions

Cobot Unload System

Automation systems are often viewed as large static units that are used in production and process facilities; however this is not always the case. Automation can just as easily be transferable between different areas of a company.

Our client required a cobot unloading system, but with the ability to move it between different work stations within their facilities.

The Challenge

Automotive related industries are at the forefront of automation and on this occasion the system was required to interface with existing equipment as well as having the ability to be moved between work stations. A further objective was to design a system which could adapt to using current configurations as well as future changes. The client also required a system that can be easily configured by personnel with limited machine or robot programming knowledge.

- System to be able to remove moulded products from end of an offload conveyor
- System to be able to inspect parts during off load
- System to be portable but easily docked
- System to be able to interface with existing moulding machines

The Solution

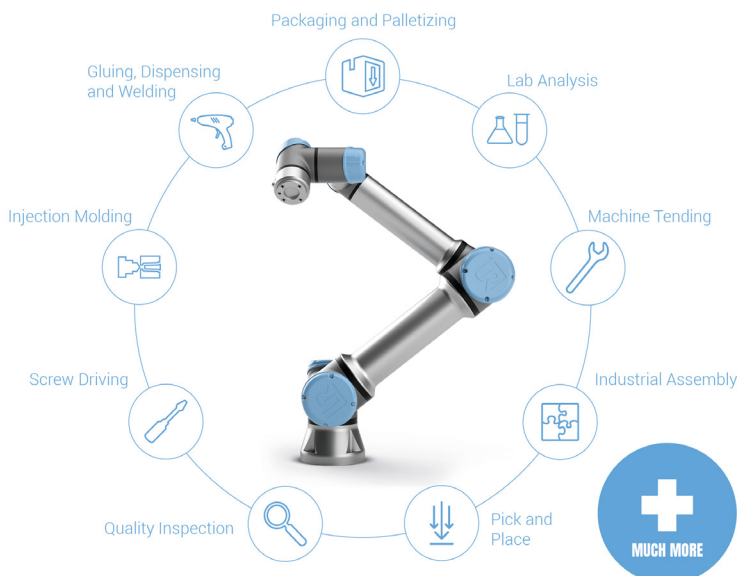
A Division of SP Automation & Robotics, called SP-Elements specialises in the use of Universal Robots. These robot arms are easily programmed even by personnel with no previous robotic or coding experience which fitted in ideally with the clients requirements.

The system was designed to interface with a moulding machine. An existing robot was used to unload moulded components and place them onto an output conveyor. At the ends of the conveyor, a sensor detected the component and sent a signal to the unload robot. Using a specially developed vision system, the robot then inspected the component.

On completion, the specially designed robot end effect tooling then picked up the product. Depending on the results from the inspection, the component was either dropped into a reject bin, or loaded into a client supplied rack. The system was designed to interface with an existing moulding machine, using its current configurations. The robot and control system were mounted on a framework and castors to allow them to be portable for moving between work stations.

Features & Benefits

- Simple programming using Universal Robots polyscope software
- Seamless integration with mould machine, using part presence sensors
- Simple program callup to allow for redeployment to other workstation
- System used for unloading and also palletising
- Quick change tooling, to allow for fast change over between workstations
- Fast set up for new products or processes
- Fully collaborative so no guarding required



 **UNIVERSAL ROBOTS**
Preferred Distributor

For more information or to discuss your bespoke solution get in touch.

 **01382 880088**
 **sales@sp-automation.co.uk**

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