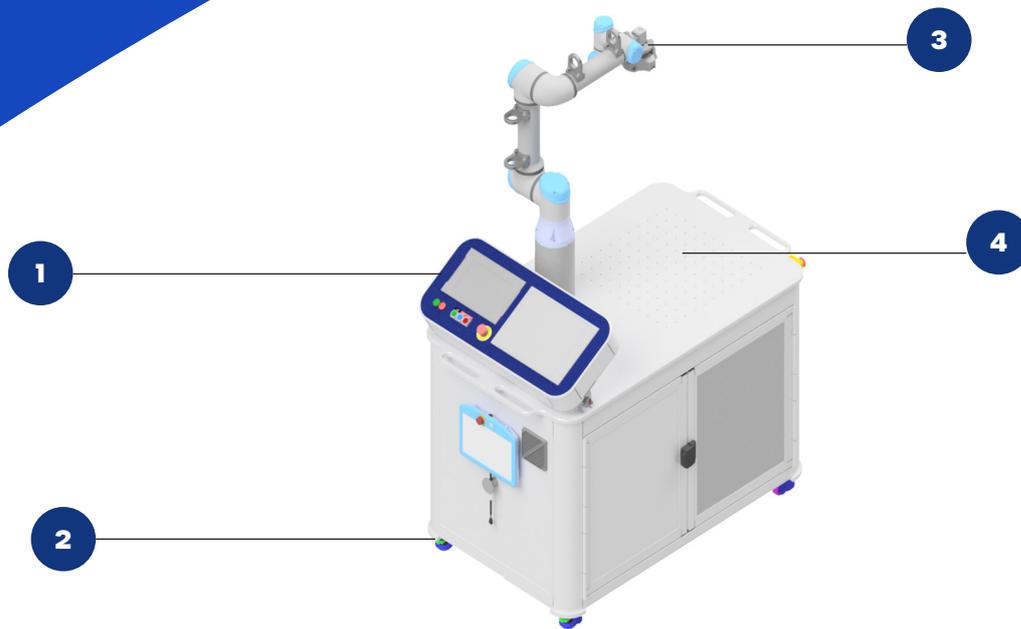


Cobot Vision Inspection System



1 Ergonomically designed operator interface and Vision system display

2 System mounted on castors to allow quick and easy redeployment.

3 Cobot with vision system and grippers mounted to allow for multiple use.

4 Predrilled tooling plate to allow for multiple fixture locations

Cobot Vision Inspection System

In today's fast-moving pace and ever-changing requests of customers of manufacturing companies, the ability to change and adapt is crucial. The project required a solution to allow for a flexible inspection system that could be easily reconfigured. The client also required to have a system that could quickly be re-tooled.

The Challenge

To design and manufacture a required a flexible inspection system that could be easily transportable, and quickly reconfigured to suit other products. In addition, the system had to easily accessible, without compromising safety. The inspection system was also required to inspect for a long list of items including screw presence, barcode reading and eve down to the quality of solder joints on a PCB.

Requirement Overview:

- Easily Portable
- Ability to quickly re-configure
- Loading devices into test stations
- Area to allow for clamping of products

The Solution

To allow for complete flexibility and the ability to operate around a large product area, a Universal Robot (UR10e) was used. The cobot allowed the customer to inspect around the circumference of the range of products.

A Keyence camera (CV-X 470F 5mp) was fitted to the end of the robot arm along with a light source. To future proof the system, the controller had the capability of accepting a 21mp camera. This enabled the client to upgrade the camera for future products if required.

The system was also supplied with an On Robot RG6 gripper, for certain applications. The seamless integrations ensures a quick changeover from inspection, to pick and placing.

The module had its own controls for setting up the UR and camera and was mounted on a trolley with a predrilled tooling plate for part location.

Features & Benefits

- Ability to inspect around the circumference of or product
- Portable and easily configurable
- Location for work holding
- Simple change over from vision inspection, to parts handling
- Future proofing to allow for new product variants
- Simple products set up using camera and UR control



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

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