Machine Vision

"Vision without execution is just hallucination" - *Henry Ford*

Industry	**Sector**	**Segment**
Food & Beverage	Manufaturing	Production Systems

Project

- The client has been manufacturing preserved fruit, preserved vegetables and fruit juice cordials in Australia since the 1940's and currently produces over 150,000 tonnes annually.

- The client had identified production of the fruit cordial Tetra Pak line was suffering due to packs being filled incorrectly, missing straws and QR code errors.

- To address this complex issue the client determined that a vision system could be utilised to assist in reducing downtime and keep production flowing.

- The client looked for a partner who possessed vision engineering skills backed by a deep understanding of automation, networking and ERP Intergration.

- With a known capability Cromarty were the obvious choice.

Solution

Cromarty worked collaboratively with the client to develop the solution and then integrate the system into the packaging lines. Challenges were:

- The system needed to use industry-proven technology and adjust to the different packaging sizes automatically without operator intervention.

- The operator had to be able to select product via a local HMI.

- QR codes and straw position needed to be compared to a reference image.

- On a discrepancy, reject the package and on excessive rejections, halt production.

Scope included:

- Develop functional description and electrical schematics.

- Build the vision automation system including the reject station and the control panels.

- Install and commission the system during line downtime as to not interfere with production.

- Provide operation manuals and ongoing system support.
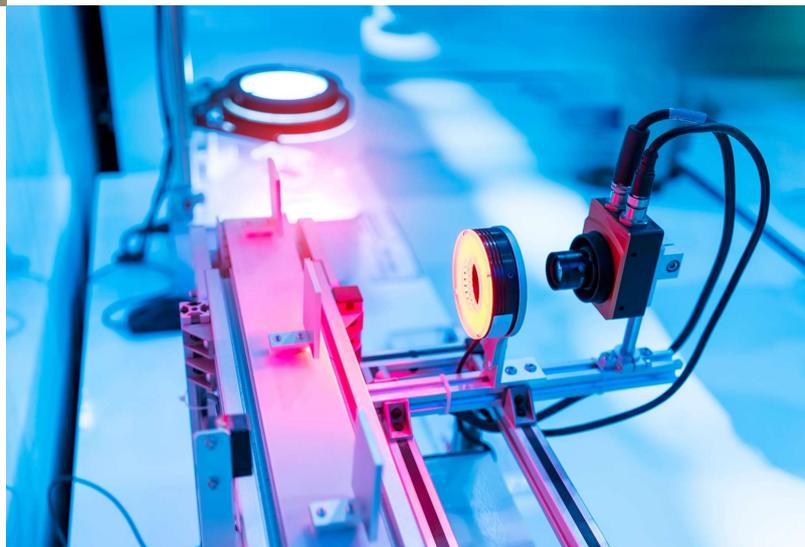
Outcome

The key benefits realised were the client realised a reduction in downtime costs associated with the line as having to call back incorrectly filled product was reduced and excessive faults were recognised early enough to prevent excessive wastage. The packaging met quality standards (straw available and QR Codes were readable at the point of sale) and the end customer received the expected content in line with the labelling.