

Case study: automation expertise for aerospace temporary masking

Description



The Challenge

“A leading UK aerospace company commissioned **Astech Projects** to build a bespoke Automated Masking System to mask complex areas of aircraft components to avoid precious metal coverage during the manufacturing process,” explained Craig Hamilton, Business Development Manager at Astech Projects. “The system was required to have the capability to mask 14 component variants, while offering the functionality to add additional variants in the future.

[Astech Projects](#), part of Schauenburg International group of companies, is a supplier of robotics and automation solutions to the advanced manufacturing and regulated industries including pharmaceutical, medical device, consumer healthcare, chemical, aerospace and automotive. They

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build systems from concept to completion on a custom basis, and can turn their hands to any application not currently available in the market.

“The main drivers behind the project were to accurately and repeatably mask the component,” said Baseley. “The final result dispenses to an accuracy of 100 microns, a great achievement. Astech Projects’ bespoke system offers the client a significant labour saving and increases throughput, with the client now channeling 60% of its components through the system.”

The Solution

Together the team came up with a fully automated system which incorporates a [3-axis cartesian robot](#) and two 6-axis robots working in sync according to one robot program. It also includes a high-definition vision system, masking dispensing system and UV curing station. On a batch-by-batch basis, the system can correctly identify and orientate 14 types of part against the [preeflow@eco-PEN450](#), which accurately dispenses the [Dymax 717-R SpeedMask](#) product. The part is then taken to a curing chamber, where it is illuminated with high intensity UV. Once the process is complete, the component is returned to its original input location. The process repeats itself until the entire batch of components has been processed.

“Intertronics is an extremely knowledgeable company, providing Astech with vital coatings expertise. Intertronics was a great partner for this project and we look forward to working together in the future,” concluded Hamilton.

[Read the full case study \(pdf\)](#)

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