

BETACOM

use collaborative robots to stay ahead of the competition...



Challenge

Betacom develops lighting solutions for roads, areas and Tunnels. Construction and build quality is paramount, as the solutions are used to provide high-quality lighting to roads, pathways and other areas where visibility is extremely important. The complex products that Betacom builds must be identical to the original design. Even something as small as a human fingerprint can affect the performance of the final design.



Solution

Betacom turned to Design Energy to develop a Universal Robots' UR10-based solution. The flexible, easy-to-program UR10 is used with an array of different tools in order to quickly and efficiently produce the new LED lighting products. Using a multi-head vacuum gripper the UR10 picks a circuit board from a rack and positions it on an aluminium pressing. The robot then picks six LED lenses and locates them onto the circuit board. The final step is to pick up a pneumatic screwdriver with auto feed screws and fasten the lenses and circuit board to the aluminium pressing.

Given the lenses need to be positioned in different orientations to ensure the best spread of light, Betacom was very focused on ensuring no mistakes were made during the production process to guarantee the delivery of a high functioning product. Another benefit is that the LEDs and lenses are not touched by human hands – ensuring minimum contamination.

According to Mike Shatford of Design Energy, the UR10 met Betacom's needs because it quite simply does not make mistakes.