

Customer Demands

Grundfos A/S, a world leading pump manufacturer demanded a flexible solution to automate press machine loading to increase productivity and to relieve their workers from the repetitive task. The flexibility warranted a solution to handle 71 different discs types with one bin-picking system. In addition the complete solution should be mobile, so it can be transported to appropriate press machine. To make the solution feasible a cycle time (part to part) of less than 10 sec was important. The solution should be simple to use by workers on the production line.



Success Story

Scape Technologies A/S worked closely with Grundfos technology centre to create a robot cell that is flexible, mobile, highly precise and has a simple user interface. SCAPE Bin-Picker Software being the core of the solution finds the 3D pose (position and orientation) of the objects in the pallet box by using cameras. The software guides an industrial robot to pick objects that are piled at random in a pallet box. The mobility of the robot cell is realised by using calibration routine that is quick and require no operator intervention.

System Configuration List

- KUKA KR16 robot (6 axis)
- Scape Bin-Picker Software performs
 - Object recognition
 - Controlling robot for pick and place
- Standard Firewire industrial cameras
- Standard industrial PC