

---

## >Robot with vision system

.....  
Monday, 16 November 2009

News Release  
Robot with vision system from Apex Automation and Robotics  
Apex Automation and Robotics has been delivering automation solutions across different industry sectors with the aim of using the most suitable technologies for each application. In a recent project for the ceramic industry, Apex used a robot combined with a vision system to pick up green toilet pans out of a casting machine, present them to a machining centre where they are deburred and polished before they are loaded onto kiln cars. The biggest challenge of this application was the fact that the position of the pans coming out of the casting machine vary slightly from one product to the other. This slight variation meant that gripping had to be perfect to avoid squashing and damaging the product which is soft at this stage of the process.

To overcome this problem, the engineering team at Apex decided to use an optical vision system that can take a snap shot of the pan then uses the digital image to determine its exact position (x,y) and orientation (angle). The data is sent to the robot which will adjust its pickup position to suit each new pan. The robot then presents the pan to the machining centre that has been supplied as part of the full turnkey system. The use of vision systems and other technologies such as laser scanning has enabled Apex Automation and Robotics to use robots to automate applications that have been impossible in the past.