Abstract

As a result of the increasingly demands in modern industry, the development of robotic systems with greater flexibility between processes and lower human factor modification and intervention requirements, were necessary. The visual control technology simplifies the process of calibration of a robot with the assistance of visual feedback. The visual inspection of a robot includes the use of industrial cameras and a computer vision system to control its position relative to the work piece. In this paper a system will be designed and constructed, which will be using computer vision to monitor a production line and remove the defective products. For this purpose a stereoscopic camera will be built that will perform and calculate the object’s coordinates in its environment. The system controller will make the trajectory planning into the three-dimensional environment, and the control of the robotic arm.

References

Intelligent Design and Algorithms to Control a Stereoscopic Camera on a Robotic Workspace


Index Terms

Computer Science

Algorithms

Keywords

Robotic arm, visual recognition, object identification, quality control, movement algorithm, robotic working space