

Tridimensional Visual Servoing

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Abstract: This paper presents a tridimensional visual servoing that gives the information of the position, height and orientation of several objects presented in the working area of a robot manipulator. With this information, the robot manipulator's effector can pick and place objects to a specific position. A pair of stereo camera produces the feedback obtaining a particular position of the effector of robot. The servoing implemented is based on vision stereo lateral model. This servoing system is tested experimentally in real time on a Scara Manipulator, including the stereo cameras and image processing using Matlab.

Keywords: Visual Servoing Systems, Robotic Manipulators. Stereo vision, Kinematics control.