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Abstract
This study presents a visual servoing system that integrates fixed and moving camera information for robustly tracking the moving objects. This system not only effectively attenuates the servo oscillation, encountered in employing the moving camera information, but it also preserves the original high resolution of the information obtained from the moving camera.
This study exploits an un-calibrated visual servoing technique that establishes the relationship between the camera image and the configuration of robot arm by using the theory of Self-Organization Map. Moreover, this study combines the two types of vision information by a weighting adjustment. In the experiment, the position of target in the image space is firstly obtained from an image processing, and then the position of the target is predicted with gray method. The experiment validates the feasibility of this study.
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