

عنوان مقاله:

Effective Mechatronic Models and Methods for Implementation an Autonomous Soccer Robot

محل انتشار:

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خلاصه مقاله:

Omni directional mobile robots have been popularly employed in several applications especially in soccer player robots considered in Robocup competitions. However, Omni directional navigation system, Omni-vision system and solenoid kicking mechanism in such mobile robots have not ever been combined. This situation brings the idea of a robot with no head direction into existence, a comprehensive Omni directional mobile robot. Such a robot can respond more quickly and it would be capable for more sophisticated behaviors with multi-sensor data fusion algorithm for global localization base on the data fusion. This paper has tried to focus on the research improvements in the mechanical, electrical and software design of the robots of team ADRO Iran. The main improvements are the world model, the new strategy framework, mechanical structure, Omni-vision sensor for object detection, robot path .planning, active ball handling mechanism and the new kicker design, , and other subjects related to mobile robot

كلمات كليدى:

Mobile robot, Machine vision, Omni directional movement, Autonomous Systems, Robot path planning, Object Localization

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