

Design of Manipulator Robot for Badminton Game to enhance punch optimisation

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ABSTRACT

This paper presents the design of badminton robot with motors and pneumatic actuators for generating punch optimisation shuttlecock. The steps consist of identifying the needs analysis, simulation, and implementation of the system to produce a prototype system, as well as quality test system is generated through a test on a laboratory scale. The experimental results show designing the arm robot with two models, namely the holding arm using pneumatic for shuttlecock holder, other way the actuator for both lower and high arm using motor actuator to anticipate high and lower punch respectively. The shuttlecock holder arm and a lower racket holder have been functioning with a success rate of 100% and 70 % respectively.

Kata Kunci: *design, punch optimisation*