THE DEVELOPMENT OF MINI-SUMO ROBOT

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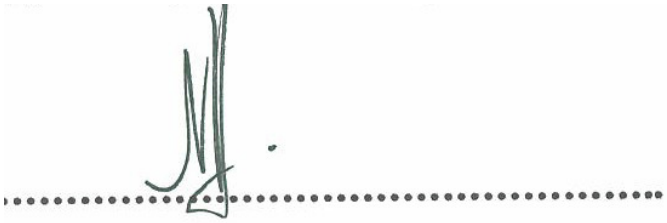

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ABSTRACT

Robot has played an important role in human life especially in industries, education tools, surgery operation, entertainment or household equipment. Therefore robots are created with multi function in capabilities and also the variety appearance of the robot itself. In simple explanation, robots have been created to assist and ease human in handling various tasks. To create interest among students, many robot competitions have been held. For example is Mini-Sumo robot competition. Therefore, this project is to add some intelligent to the fighting robot that will be used by UITM robot maker team to be compete in Mini-Sumo-Robot competition next year. This project is a collaboration project between student FTMSK, FKE, and FKM. The focus of this project intended to be more toward embedded software and sensors, rather than mechanical. The robot should able to do the basic movement such as move forward, reverse and stop. It also should know how to manipulate sensors in order to win in the competition. The robot will be controlled by microcontroller, embedded with assembly language and the movement of its wheels will be generated by a dc motors. Procedure of programming and result are presented in this report. Currently the robot is only designed for basic movement systems which are move forward, reverse and stop and also used simple sensor to response with situation. Therefore, hopefully in future, more integration and enhancement will be done by other researcher in expanding the function of this autonomous robot.

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