

MECHANICAL IMPROVEMENT ON AUTONOMOUS MOBILE ROBOT

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.

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ABSTRACT

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Automation Mobile Robot (AMR) has been widely used in many applications and has relevance around the world due to the ability of AMR to maneuver in a situation without the use of electro-mechanical guidance or physical devices. The goal for the robot is to navigate from one location to another in an uncontrolled or recognized environment. The purpose of this thesis work is to improve and maximize the AMR design to gain marketplace acceptance. AMR mechanical improvement has some problem such as; Is it plausible a more compact design Autonomous mobile robot for field tests and does the locking mechanism efficient enough for this system. In this thesis work, mechanical design from previous work has been changing such as; the frame, body, driver mechanism, and new add on parts; cart carrier and locking system. This thesis work resulting the mechanical improvement of the robot is successfully presentable. This thesis work suggests to focus on programing and automation with all the sensor such as LiDAR and making sure AMR can work mobile properly but overall system can show a promise.

Keywords: AMR, Mechanical, Improvement AMR, Locking system

DEDICATION

I dedicate this work to my family, my friends, my advisor and my lecturer.

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