ABSTRACT

Robot is a technology that could simplify or could alleviate human tasks and can replace the jobs that are at high risk for humans. Robot Waiter is the development of robots that have a purpose as a servant to deliver food, and many restaurants overseas such as Japan, Korea, Thailand using a Robot Waiter to attract visitors. Waiter robot can not only help to the waiter but it can be used to help disabled people.

In order to increase convenience for the disabled people, then designed a Robot Waiter to assist disabled people in terms of delivering the food. with the goal of designing a Robot Waiter was able to move objects, the object is a plate containing food, the plate was automatically be transferred from the refrigerator to the table.

This design has been done on the testing of two modes starting position, the standard model starting position and start position of an arbitrary fashion. obtained an average percentage of success of 96% for standard mode starting position from 1000 experiments conducted, and the average percentage of success of 94% to fashion an arbitrary starting position from 1000 experiments conducted. Conditions of each experiment failed due to several factors such as the gripper mechanism that could change at any time, error conditions occur on the mechanism of the robot, the program will change, sensor readings that do not clearly state the robot can cause errors, that affects the battery voltage changes from robot motion that it experiences an error.