

## **ABSTRACT**

Maze solver robot is an example of autonomous robot that using algorithm. Algorithm is an important part of autonomous robot. Maze solver robot used to trace and find way to finish from a maze. Depth first search is an algorithm which has a backtracking option that totally help the maze solver robot to going back to previously vertex of the maze if the robot finds dead end.

In this final task, maze solver robot using depth first search algorithm are analyzed when tracing several kinds of maze. Using right hand rule, the priority turn of this robot is right. Backtracking feature will be used when robot finds dead end.

Result of this final task is maze solver robot using depth first search algorithm and right hand rule has good ability to finish the maze. It can be shown by result when system tested to finish several mazes with 83,3 percentage of success and 88,6 second average finish time.

Key Word: Autonomous Robot, Microcontroller, Depth First Search, IR Sensor