

ABSTRACT

ROBOT MOTION CONTROLLING SYSTEM BASED ON WALL AND LINE FOLLOWER

Robot is a mechanical device that was created to replace some repetitive human work. Where can perform certain tasks automatically or program given based on logic. One example of a robot is a follower wall (wall follower) and line follower (line follower). Wall follower is a robot that has the ability to detect and move on the path of wallless space without a roof (maze wall) while the line follower is a robot that has the ability to detect and move on the line track (line tracking).

This final project aims to develop the design of two-mode based system that is followers of wall and line automatically. Wall followers use ultrasonic sensors while line followers use photodiode and control systems using the fuzzy logic control method. Fuzzy logic control applied to problems that contain elements of uncertainty and then developed based on the way of human thinking.

The results of the fuzzy logic control implementation of the robot testing of the wall follower and the line followers made it through the track. Where the robot can change the mode from wall to line or line to wall with speed 0,171 m / s

Keywords : *Wall follower, line follower, fuzzy logic control.*