

ABSTRACT

Nowdays many mobile robot has been develop for the purpose to help human with their works expecially in industrial field, medical field even military field. Industrial field is one of many fields which already used many advantages from robots. The way robot work continously and constantly can optimize the industrial production.

Because of it, to optimize the production of an industry a mobile robot that can move automaticaly was made, it can replace all the works which require human power,so the human power left can distributed to other works. One of the applied method was fuzzy logic control, fuzzy is an adative control and it is perfect for a high precision in industrial robot.

In this paper, a mobile robot with 3 wheels was designed. Two wheels on the front works passively and one locomotive wheel as a steering wheel on the rear. Up to 49 rules have been used and did not get effect the fuzzy execution time on each different input sensor, and the avarage execution time is 94ms. Robot can move smoothly on track even when the motor's driver voltage is above 12.3 volt and can carry a load up to 26 kg on top of it without affecting the robot performance.

Keywords : Circular Line Sensor, Fuzzy Logic Control, Line Follower Robot, One Steered Traction Wheel