ABSTRACT

In this day the development of technology in the field of robots has increased rapidly. One type of robot that has been developed is Automated Guided Vehicle (AGV). Automated Guided Vehicle (AGV) is a mobile robot that functions to carry an object somewhere regularly. However, in its application, the AGV robot has not been widely used in vehicle parking systems, because there are not many parties who have developed robots that can deliver vehicles in parking lots. In this study the authors designed an Automated Guided Vehicle (AGV) system in the automatic parking process that can be done by providing input through RFID card tapping. In the initial conditions of the parking lot has been given a path or line for the robot to do line tracking, then the robot can lift the vehicle to be delivered to a predetermined position in accordance with the path that has been made on the RFID database. Then the Automated Guided Vehicle (AGV) will return to the starting position to deliver the next vehicle. The system can work based on destination inputs stored on an RFID database.

From the results of tests that have been done, it can be concluded that the value of the ADC proximity sensor used as a threshold is 400 which has an accuracy level on the reading of a straight line pattern turning left, turning right towards the line threshold of 98%. And the maximum load that can be carried by the mechanical system section of the prototype AGV is 1.5 kg.

__Keywords__ : Automated Guided Vehicle (AGV), Proximity Sensor, Load Lifting Mechanics