

ABSTRACT

Wheeled Robot is a kind of mechanical robot that uses wheels to be a robot actuator to perform the migration from a position to another. This position may change or swordfish depending on the trajectory of the robot, if the trajectory of the robot proficiency level in the form of the track line that does not have a tip or circular then the starting point and end the movement of the robot can operate in a unit of time but the robot still said to be moving because of their physical transfer Wheel the robot in a unit time. If its trajectory in the form of track that has unjung that is the starting point and end point as the other end of the robot dikatan move from one point to another where in each time point where the robot will be different from the previous time unit.

Coordinates GPS (Global Positioning System) can be used as a real form of the starting point and end of the movement, it becomes important for the movement of the robot can be calculated and expressed in the form of a concrete and real and can not be accounted for sure whenever and wherever considering the GPS is a human invention that can map all the points places on the earth's surface in the state in the form of numbers and the obvious reference point so that we can mudah use GPS coordinates to identify any place on earth at sea even though. GPS coordinates are expressed in numbers Latitude and Longitude. Latitude is a line of horizontal / horizontal. Point 0 is the angle of the equator, a + sign indicates an upward direction towards the north pole, while a minus sign in coordinates Latitude heading to the south pole.

The point that is used from 0 to 90 degrees towards the north pole, and 0 to -90 degrees to the south pole Longitude is the latitude. Figures from the rounded corners of the earth horizontally. Starting point from 0 to 180 degrees, and 0 to 180 in the opposite direction. 0 starting point of the line of the British state. Leads to Indonesia will be a positive number. Longitude coordinate minus the reverse is the opposite direction. GPS coordinates can also be expressed in a variety of formats, namely mathematical figures: decimal format (Decimal Degree Format) and the format of minutes and seconds (Degree Minute Second Degree Format), and can be converted to one another between the format of writing numbers

In this thesis I use Arduino to be the control center of the Autonomous Wheel Robot. Arduino been selected for this board can be compatible with the objective of this thesis is to reach the end point GPS point desired by the system automatically, so the user will only input the end point or destination robot in any format GPS coordinates without controlling the direction and movement of the robot because it will move Autonomous basis with the help of Fuzzy Logic as the

robot control method. Fuzzy logic is a control method that can convert a lot of input from the surrounding environment and generate a customized input circumstances at the time. This method was considered suitable for many points of reference which will respond by arduino with all equipment including sensors for robot determines the direction, speed, and what action to take the robot to reach the target point desired GPS koordinat end of man as a user.

Keyword: *Wheel Robot, Autonomous, koordinat GPS, Arduino, Fuzzy Logic*