ABSTRACT

Development of Logistics Robot with Line Follower Method

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Logistics is a series of processes of moving goods from a storage place to the place where the goods are destined. Logistics activities have 6 stages, one of which is the storage process, and within the storage stage there is a distribution process. The distribution that has been implemented at every logistics PT in Indonesia is still implemented manually. The problem in implementing manual grouping is that there are grouping errors which can have fatal consequences in the form of goods having an incorrect delivery destination along with the increasing number of consumers ordering goods via e-commerce. Paying attention to these problems, the author tries to provide solutions that are in line with current technological developments which have entered the era of industrialization 4.0. One of the solutions offered is to develop an intelligent system in the form of a logistics robot in the warehouse using a line follower method which automatically, apart from being able to group things based on the destination of sending goods, this robot has the ability to recognize the delivery destination. Robots can find out the location of goods delivery destinations after they are grouped using grid line mapping and can avoid obstacles by using infrared sensors. The robot developed is not only able to detect the destination of goods delivery, through a grid line system, this robot also succeeds in delivering goods from the warehouse to logistics cars that suit the different purposes of the goods.

Keywords: ***Logistic robot, Arduino UNO, grid line, Infrared, Line follower***