

# Self Driving Load Carrier

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**Abstract:** This project introduces an "Automatic remote control material handling trolley robot" is developed by to carry any book's and parcel in collage library or other places from one to another place easily no damage to the parcels and materials. The robot is basically works on the principle of line follower robot and relay logic system. The robot is to be control the motor rotation via remote control. Firstly we press number button of remote control the relay will be RF based remote control circuit operated. The circuit are classified as one transmitter and receiver, in transmitter circuit Ito 8number of remote control are used to transmit particular signal through wireless, then operate receiver side receive signal and operate particular relay in receiver. In receiver circuit relay provide supply line follower or obstacle circuit are fitted to robot body and can be driven any of four directions like left, right, forward, back. and the robot trace black line on ground surface and also detect obstacle in front direction thane after robot stop and give the alarm. This robot will be installed in collage library for books are traveling one place to another easily and robot also applicable for the industry, shopping mall to travel small weight up to 25kg

**Keywords:** Automatic remote control material handling trolley robot

## REFERENCES

- [1]. D. Nikolov, G. Zafirov, I. Stefanov, K. Nikov and S. Stefanova, "Autonomous navigation and speed control for line following robot," 2018 IEEE XXVII International Scientific Conference Electronics - ET, pp. 1-4, September 2018.
- [2]. MJ Islam, J Hong, J Sattar, "Person-following by autonomous robots: A categorical overview", The International Journal of Robotics Research, vol. 38 issue: 14, pp.1581-1618, October 2019.
- [3]. R. Tasaki, H. Sakurai and K. Terashima, "Moving target localization method using foot mounted acceleration sensor for autonomous following robot," 2017 IEEE Conference on Control Technology and Applications (CCTA), pp. 827-833, August 2017
- [4]. C. R. Weisbin, G. de Saussure, J. R. Einstein, F. G. Pin and E. Heer, "Autonomous mobile robot navigation and learning," in Computer, vol. 22, no. 6, pp. 29-35, June 1989.
- [5]. N. Sarif and N. Buniyamin, "An Overview of Autonomous Mobile Robot Path Planning Algorithms," 2006 4th Student Conference on Research and Development, pp. 183-188, 2006.
- [6]. J. Bao, X. Yao, H. Tang and A. Song, "Outdoor Navigation of a Mobile Robot by Following GPS Waypoints and Local Pedestrian Lane," 2018 IEEE 8th Annual International Conference on CYBER Technology in Automation, Control, and Intelligent Systems (CYBER), pp. 198-203, 2018.
- [7]. Bukhari Ilias, R. Nagarajan, M. Murugappan, Khaled Helmy, Awang Sabri Awang Omar and Muhammad Asyraf Abdul Rahman, "Hospital nurse following robot: hardware development and sensor integration," International Journal of Medical Engineering and Informatics, vol. 6, no. 1, pp. 1- 13, January 2014