

# Study Design of Electronic Trolley by Using Arduino

**Ritesh V. Vaidya<sup>1</sup>, Sonal Rajput<sup>2</sup>, Rutvik Pohokar<sup>3</sup>, Vaishnavi Kale<sup>4</sup>,  
Shubham Fharkade<sup>5</sup>, Dr. R.M Deshmukh<sup>6</sup>**

Department of Electronics & Telecommunication, Collage of Engineering, Amravati, India

Professor & HoD, Department of Electronics & Telecommunication

Dr. Rajendra Gode Institute of technology & Research, Amravati

ritesh2vaidya@gmail.com<sup>1</sup>, sonalrajput3131@gmail.com<sup>2</sup>, rutvikpohokar@gmail.com<sup>3</sup>

vaishnavi27.kale@gmail.com<sup>4</sup>, shubhamgfarkade@gmail.com<sup>5</sup>

**Abstract:** *Trolley is the mechanical device used for carrying load or to transport the material at various points. For different kind of applications, we have to select specific type of trolley. To overcome the problem of specific task trolley, one new trolley is designed which can be used for more than one field application. This paper contains based on geasture of trolley on the basis of creativity skills. The trolley designed is the integration of airport trolley and shopping mall trolley. The major areas of focus while designing are aesthetic ergonomics, function.*

**Keywords:** 4 Dc Motor, L289n Motor Driver, Ultrasonic Sensor, 2 IR Sensor, Servo Motor, 9v Battery

## REFERENCES

- [1]. K. Morioka, J.-H. Lee, and H. Hashimoto, "Human-following mobile robot in a distributed intelligent sensor network," IEEE Trans. Ind. Electron., vol. 51, no.1,pp.229–237, Feb.2021
- [2]. Y. Matsumoto and A. Zelinsky, "Real-time face tracking system for human-robot interaction," in 2021 IEEE International Conference on Systems, Man, and Cybernetics, 1999. IEEE SMC '99 Conference Proceedings, 2021, vol. 2, pp. 830–835vol.2.
- [3]. T. Yoshimi, M. Nishiyama, T. Sonoura, H. Nakamoto, S. Tokura, H. Sato, F. Ozaki, N. Matsuhira, and H. Mizoguchi, "Development of a Person Following Robot with Vision Based Target Detection," in 2021 IEEE/RSJ International Conference on Intelligent Robots and Systems, 2021 pp. 5286–5291.
- [4]. H. Takemura, N. Zentaro, and H. Mizoguchi, "Development of vision based person following module for mobile robots in/out door environment," in 2021 IEEE International Conference on Robotics and Biomimetics (ROBIO), 2021, pp.
- [5]. Muhammad Sarmad Hassan, MafazWali Khan, Ali Fahim Khan,"Design and Development of Human Following Robot", 2021, Student Research Paper Conference, Vol-2, No-15. [6]. N. Bellotto and H. Hu, "Multisensor integration for human-robot interaction," IEEE J. Intell. Cybern.Syst., vol. 1, no. 1, p. 1, 2021.