IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 5, Issue 8, June 2025
Impact Factor: 7.67

Voice Controlled Car for Physically Challenged

B. Sandeep Kumar[1], CH. Vennela[2], L. Navya Sri[3], K. Padmapriya[4], K. Prashanth Kumar[5]
Assistant Professor, Dept. of Electronics & Communication Engg.[1]
UG Students, Dept. of Electronics & Communication Engg.[2,3,4,5]
Christu Jyothi Institute of Technology & Science, Jangaon, Telangana, India
Sandeepkumarb526@gmail.com, chopparivennela3s@gmail.com, navyasrilavishetti@gmail.com,
kundarapupadmapriya@gmail.com, kprashantnani30@gmail.com

Abstract: *Mobility challenges significantly affect individuals with severe physical disabilities, particularly those who cannot control their limbs. This project presents the design and implementation of a cost-effective, voice-controlled robotic vehicle integrated with obstacle detection capabilities. The system facilitates autonomous movement based on spoken commands received through a smartphone application. These commands are transmitted wirelessly via Bluetooth to an Arduino-based microcontroller, which controls the vehicle's movement through a motor driver circuit. The prototype features real-time voice command processing, wireless communication, and safety enhancements using Infrared (IR) sensors to detect obstacles. The proposed solution emphasizes safety, independence, and affordability for users with mobility impairments.*

Keywords: Assistive mobility, Arduino, Voice-controlled vehicle, Physically disabled, Obstacle avoidance, Bluetooth communication

DOI: 10.48175/IJARSCT-28181