

Design and fabrication of a hand gesture-controlled wheelchair model for people with disabilities

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Abstract: In the context of the increasing dependence of people with disabilities on mobility aids, this topic focuses on the design and fabrication of a wheelchair model system controlled by hand gestures. The goal is to improve the quality of life for people with disabilities by addressing the problem of independent transportation without relying on external assistance. The research method is carried out by combining theory and experimentation, including mechanical design, electronic control programming, and testing with disabled individuals to ensure the system's effectiveness. The significance of the topic lies in contributing to the development of assistive technology for people with disabilities, while also providing them with greater autonomy and independence.

Keywords: wheelchair, hand gestures, disabled people, mechanical design, electronic control