

# **IoT-based Portable Electric Health Wheelchair To Improve The Independence Of People With Physical Disabilities**

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## **ABSTRACT**

A wheelchair is a basic need for people with disabilities, especially the physically handicapped. Although conventional wheelchairs have helped the mobility of people with disabilities, but in a short range due to physical fatigue. Thus, the selection of a wheelchair requires consideration of user preferences and the need for performance, capacity, and environmental conditions. Therefore it is necessary to modify the wheelchair, such as the addition of an electric motor for propulsion and other supporting features. The use of electric wheelchairs in Indonesia is still very rare, because the price of electric wheelchairs is too expensive so it is difficult to reach. Based on these problems, an IoT-Based Health Electric Wheelchair Portable is needed, namely a wheelchair with an electric motor drive and equipped with an ergonomic back and seat pad for the physical health of people with disabilities. Features electric motor drive, controller, steering Joystick and Health Pad that can be easily disassembled and installed in any wheelchair that is already on the market. Thus, it can be easily applied to ordinary wheelchairs, and the price is relatively cheap so that it is easily accessible to people with disabilities.

*Kata Kunci: disabled, Health Electric Wheelchair Portable*