

IoT Assistive Technology for People with Disabilities

David Mwayi Matewera and Mr Mtende Mkandawire

Dmi St John The Baptist University, Lilongwe, Malawi

Abstract: *This project is dedicated to developing a Smart Medication Alert System utilizing Arduino and a variety of hardware components designed to improve medication adherence, particularly for individuals with disabilities. The system combines visual, auditory, and display-based notifications through LEDs, a buzzer, and an LCD screen, making it accessible to users with visual impairments or those managing complex medication schedules. With real-time tracking and user-specific reminders, the system will prompt users about scheduled medication times, notify them of missed doses, and provide dosage instructions if necessary. By streamlining the medication-taking process and reducing the risk of missed doses or errors, this system aims to foster greater independence, enhance the user's quality of life, and ultimately support improved health outcomes for those requiring regular medications.*

Keywords: Smart Medication Alert System