

Smart Wheelchair with SMS Alert and Safety Features

Abstract— Smart Wheelchair with SMS Alert and Safety Features is an electronic wheelchair, which has been designed to provide mobile independence with security to the differently abled people who suffer from various difficulties on movement in daily life even on using a manual wheelchair. To update it from manual to smart, RC remote has been used so that the wheelchair user can move on any direction just moving the stick of RC remote with one hand, reducing the need of manual force for moving the wheels. To control the system, ATmega328p microcontroller has been used with the added security features. The buzzer directly helps the user to be able to learn about any problem with the surrounding and provide instant aids. Similarly, accelerometer and ultrasonic sensors have been used for making the system safe and trustworthy. GSM module has been used to alert caretaker/family of wheelchair user. The system was well designed with SMS alert and safety features under lowcost.

KEYWORDS: *Smart, Differently Abled, Wheelchair, Mobile Independence, Accelerometer*