



## Abstract

It is obvious that every country in the world have disabled people and almost all of them use wheelchairs to achieve their daily targets. Especially because of the 30 years long civil war in Sri Lanka, there are lots of soldiers who have lost their mobility due to spinal cord related injuries. This project will be mainly focused on people with spinal cord injuries (SCI) and paraplegics.

Though there are various types of wheelchairs in the current market, most of them fails to fulfil their needs such as standing while mobility, ease of transferring, hassle free propelling and low cost. A drivable manual standing wheel chair will be designed from scratch which will be propelled manually, with standing feature and allowing mobility while seating and standing.

The designed wheelchair will also have a light weight compared to the commercially available standing wheelchairs, number of wheels will be limited to 4 and will have a single anti-tipping wheel, low centre of gravity making the wheelchair more stable.

The standing wheelchair would help individuals with disabilities to uplift their confidence, reach objects placed higher, do most of work on their own & deliver a speech on stage.