

# Portable Wheelchair Rollers

## Industries for this invention

- Basic Education
- Maker spaces
- Home schools
- Extra curricular clubs

## Innovation Status

TRL 6  
Integrated prototype system verified in relevant environment

## Intellectual Property

Know-how

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## Invention

A portable training apparatus for wheelchair bound individuals/athletes (paraplegics). The latest software and program applications allow athletes to “map” a particular race’s route and train adequately. Resistance (on the rollers) can be set for uphill, level or downhill training purposes, and for times to be achieved over a set distance/period.

## Problem Solved

The focus is on people with disability, particularly people with limited or no function of their lower body. Currently, limited training equipment exist for disabled people in public, private and university facilities used for rehabilitation and training purposes. Athletes, specifically elite athletes, do not have an environment where they can train safely through all seasons of the year and prepare for races. The available training equipment is too expensive for most disabled persons to afford.

## Application

The portable wheelchair rollers will be used by athletes to prepare for races through uploading electronic versions of the competition and/or training routes to ensure maximum performance. The portable wheelchair roller design ensures that an athlete can train anywhere (as it is portable) without the assistance of a third party through the innovative access and securing devices. These rollers also provide training and rehabilitation opportunities for paraplegics.

## Advantages

- The product is portable, rollers are adjustable, unassisted access, unique methodology for attachment to ensure the athlete/patient can train without 3rd party assistance
- Can accommodate a variety of wheelchairs
- Collapsible for easy transport by disabled individual
- Cellphone application interface for tracking and roller tension adjustment
- Lightweight and compact design

