Introduction

Wheelchair users have limited access to conventional IT resources such as home computers and Internet this greatly reduces their opportunities for success in various occupations and hence detoriates their quality of life. To solve this problem we envisioned wheelchair-worn Computing and Health-monitoring System (u-CHS).

Our Product

U-CHS consists of a conventional high performance PC and a health monitoring device mounted on a wheelchair for people with limited mobility and manipulation.

➢ Wearable Computers

These can be used whenever and wherever needed.

➢ Adaptive Input/output devices: For easy positioning.

➢ Telerehabilitation and Telehealth facilities

Competitive Advantage

➢ Easy to retrieve and hide the input/output unit.

➢ Durable and weatherproof.
- Appropriate for outdoor usage.
- Powerful computing ability.
- Monitoring Vital Signs.

**Potential Market**

- In U.S. an estimated 2.2 million people use wheelchairs daily and this number is estimated to increase at 22% annually.
- Power wheelchairs market is growing at 55% annually. An estimated 675,000 powered mobility devices like power wheelchairs and scooters are currently in use in the U.S.

- It has been reported that people with disabilities are less than half as likely as their non-disabled counterparts to have access to a computer at home (23.9% vs. 51.7%). The gap in Internet access is even more striking (11.4% vs. 31.1%).
- Students with physical disabilities have shown a rise of 21% from 2000 to 2005.

**Competition**

- IBM’S Synergy is a wheelchair bound portable computer
- MacSynergy is a Macintosh version of Synergy PC by IBM
- Quadjoy’s mouth operated joystick for wheelchair mounted computer systems
- Mercury by Assistive Technology Inc.

**Future usage**

- Home health monitoring system connected to centralized information system for clinical access.
- These features can be incorporated into scooters with smart chair even for people without disabilities like the elderly etc.
- A roll up screen computer with a switch for easy deployment & Storage.

- [Computer Screen that Rolls up](#)