The Assistive Technology Unit

Goals
1. Assess usability of equipment and extrapolate to the wider population from the perspective of both potential users and health professionals
2. Create a risk profile for the equipment being evaluated
3. Match the equipment to the target group
4. Assess the potential market value of the equipment

The unit accesses skills from across The University of Auckland in:

- Occupational therapy
- Physiotherapy
- Nursing, medical practitioners, health economics and engineering

Why New Zealand?
New Zealand is a microcosm of larger Western markets which enables it to provide a timely, cost-effective and socio-demographically accessible test market with the additional benefit of independent evaluation outside the country of development.

Why The University of Auckland?
The University has a strong medical devices and health information technology (IT) platform for test bed projects.

It boasts a large network of experts who can be brought together to form multi-disciplinary teams for evaluation-based projects. These range from computer scientists, software engineers and robotics experts, to mechanical engineers and biologists, and psychologists, medical practitioners and clinical trial experts.

Auckland UniServices Ltd
Auckland UniServices Limited is the largest research and development company of its kind in the Southern Hemisphere and a wholly owned company of The University of Auckland.

By connecting its clients with The University’s brightest academic minds, UniServices provides commercial organisations the innovative technologies they seek, and governments the national programmes they need. The results can mean huge strides in a company’s international competitive edge, or in a country’s health, education and welfare capability.

UniServices manages all of The University’s intellectual property and is responsible for all research-based consultancy partnerships and commercialisation.

UniServices’ open innovation and world-class thinking can change the world.

Assistive technologies
Creating new health care solutions with health information technologies

The University of Auckland provides a world-class test bed environment for New Zealand and international companies to support the development and marketing of assistive technology-based products and services.
## Current testbed projects

The University is currently assessing four innovative products from Korea.

### Nice walker

**State-of-the-art technology**

- Mechanical backward prevention
- Auto brake device
- Electronic backward speed reduction

**Features**

- Very stable structure
- Left and right folding body for ease of transport and storage
- Auto brake
- Roll prevention on downward and upward slopes
- Multiple models with seat/basket options

### Portable physiology phenomenon monitoring system

**State-of-the-art technology**

- A system for monitoring faeces, urine and sound in newborn babies and disabled or elderly users with microphone and USN technology.
- Can be used under the sheet on a bed and for toilet training handicapped, elderly, and those confined long-term to a bed
- Sensors monitor temperature, humidity, and gas.
- Transmits sound to a portable system in real time.
- Small receiving device can be worn on the waist.

### Smart medicine helper

**State-of-the-art technology**

- Monitors dosage and medication for those with chronic condition or elderly with memory problems.
- Dosage data is loaded into the medicine schedule.
- Alerts the patient to the take right medication at the right time preventing missed medication or possible overdosing.
- Supports regular and intermittent medication requirements.
- Sends SMS to the guardian if a dosage is missed.
- Confirms whether medications are taken for the required time period.
- Maintains records for clinicians.

### Heart Call: ECG monitoring system and service

**State-of-the-art technology**

- Remote 24-hour monitoring of heart activity
- Uses mobile phone/broadband technology
- Links to cell phone or PC for monitoring