



Department of Rehabilitation Sciences
Occupational Therapy Programme
**Environmental Issues Student Innovation Project
(EISIP)**

The project is presented in form of a showcase at the Pao Yue-kong Library learning hub for our students studying occupational therapy in Department of Rehabilitation Sciences.

The aims of the project is to assess students understanding in identifying problems for persons with disability with reference to environmental issues, their innovations and creative ideas in the design of assistive device, their sensitivities in making use of updated technology, and on how occupational therapy can adapt this device to improve functional performance and community participation of persons with disabilities.

The project is run under a subject "RS320 Environmental Issues in OT practice" for year two occupational therapy students which require them to work for a group project leading to the Prof. Alan Tam Memorial Fund Award. The group with the highest marks as given by the teaching staff and members of the assessment panel will be nominated for the award together with an amount of HK\$3,000 incentive. This project has been implemented for 4 years since 2008.

Students are required to design an assistive device for a person with disabilities. The presentation of the project usually takes the form of a showcase at week 14 (end of April) and students are required to display their products, demonstrating its use and answering questions from the teaching staff, members of the assessment panels and peers. This project requires students to present their design in the form of a prototype or real product of the assistive device, a poster showing the device in a standard form and a video or powerpoint to be showed in the computer.

For more details of the project, please contact Dr. Kenneth Fong at 2766 6716 or email: Kenneth.Fong@inet.polyu.edu.hk

References:

Appendix 1: Four posters of the winners in April 2011.

Appendix 2: Public Awards for the design of assistive devices for people with disabilities in 2011.

Appendix 1 Posters of winners in 2011

ENVIRONMENTAL ISSUES STUDENT INNOVATION PROJECT 2011
"Innovation Rules"
EIP SIP

"zzZIP"

Designed by
Lee Po Chi, Liu Oi Fung,
Liu Shuk Yin, Ng Siu Ho

Concepts

Isn't it difficult if you can only use one hand to zip up your coat? This is the challenge faced by many people with problems in their upper extremities. zzZIP is here to solve the concern. Inspired by a retractable phone strap and combined with little concepts of mechanics from our old physics teacher, zzZIP is a dynamic masterpiece with a character of its own. zzZIP helps you zip up your jacket with the comfort of one hand.

Characteristics

Simple but powerful. Stabilised by the colourful rock strap with adjustable length, the main body of zzZIP features a retractable strap with a hook inserted. Simply connect the hook with the pull tab, then press the button on the device to retract the strap – the jacket will be pulled up automatically, ready for the insertion of the zipper tape to the slider body. What's remaining is to simply lift the rock strap up to zip the jacket.

Tiny but mighty. The pocket-sized zzZIP allows you to zip up your clothes anytime, anywhere. It can be used at home, on the street, sitting and even standing!

Smart and cool. The trendy design ensures that zzZIP doesn't really look like an assistive device. It is available in multiple sizes. Mix and match with your unique style!

Applications

zzZIP is perfect for all, particularly for people with hemiplegic stroke, spinal cord injury (SCI), and traumatic brain injury (TBI).

Try it – buy it – zzZIP it!



BSc (Hons) in Occupational Therapy
R5320 Environmental Issues in OT Practice

The Hong Kong Polytechnic University
Department of Rehabilitation Sciences

ENVIRONMENTAL ISSUES STUDENT INNOVATION PROJECT 2011
"Innovation Rules"
EIP SIP

"Portafoglio Banconote"

Designed by
Chan Yuk, Lam Chi Yan,
Lee Ying-Tang, Wong Chi Wa

Concepts

We are determined to design a wallet which enables clients with limited upper limb and finger control to deal with daily transactions using paper money. Meanwhile we keep the design as sleek as an ordinary wallet and do not look like an adaptive device.

Characteristics

Inspired by the built and mechanism of facial blotting tissues container, the design of Portafoglio Banconote is simple but efficient in helping spinal cord injury patient to handle daily transaction using banknotes. With 3 finger loops, our clients can easily take out banknotes from the wallet one by one with minimal upper limb movement, which they cannot accomplish by using ordinary wallets before.

Applications

Portafoglio Banconote targets on clients with limited finger and upper limb coordination, especially spinal-cord-injury patients. Daily tasks like taking out a desired note from the wallet will be very challenging when one has limited fine motor functions. With Portafoglio Banconote, clients can make use of their residual hand motor functions like tendinous grip to take out paper currency as any other do. The wallet also suits those with Rheumatoid Arthritis or chronic finger pain.



BSc (Hons) in Occupational Therapy
R5320 Environmental Issues in OT Practice

The Hong Kong Polytechnic University
Department of Rehabilitation Sciences

ENVIRONMENTAL ISSUES STUDENT INNOVATION PROJECT 2011
"Innovation Rules"
EIP SIP

"iFind"

Designed by
Ip Ling Chun, Joshua,
Kwok Wing Man, Ng Man Ch,
Tang Wai Ho, Wong Ka Yan

Concepts

iFind is an innovative device that can be used by everyone, especially the elderly and the people with memory deficit who easily lose household items, from keys to TV remote control. Users can find the missing items in just seconds, avoiding stress and anxiety in finding objects.

Characteristics

iFind is universally designed. All people, ranging from children, housewife, blind people and people with memory deficits can use iFind. It is a user friendly device and extremely easy to use, just press and find the objects. It allows the users to find 9 objects over distances up to 300 feet (100m). The device's main control panel is large so as to reduce the chance of getting lost. Large tailor-made buttons are easy to press accurately and find the objects. Moreover, different photos can be inserted into the buttons according to the users' needs. Braille can also be stuck on the buttons for blind and users with low vision.

iFind has small receivers with pre-installed Velcro strips and key chains which allow users to attach the receivers onto almost all objects. Receivers are small and light.

Applications

iFind is an universal design, applicable for all people with memory deficit, for example, elderly, dementia, TBI, MCI patients, people with low vision and even blind people. The device allows the users to find out the lost objects in the fastest way and independently and finally increase their quality of life.



BSc (Hons) in Occupational Therapy
R5320 Environmental Issues in OT Practice

The Hong Kong Polytechnic University
Department of Rehabilitation Sciences

ENVIRONMENTAL ISSUES STUDENT INNOVATION PROJECT 2011
"Innovation Rules"
EIP SIP

"ProTurner 3000"

Designed by
Chan Fei, Hung Chi Hung,
Li Fook Lur, Pang Ioi Koi

Concepts

PRO Turner 3000 is so much more than just another new product. This will have a lasting impact on the assistive device development. It demonstrates a perfect balance between strength, multiple function, weight and size. For those having poor lateral pinch and decreased strength, they may need extra assist to open a door.

Characteristics

PRO Turner 3000 makes use of lever system provided by two enlarged handles which users can use a grip to hold the key inserted in the device instead of holding the key by the lateral pinch. Therefore, less strength is needed. An auto switch LED light bulb is ingenuity in Pro Turner 3000. It can facilitate people in inserting the key into the correct position.

The universal USB port is a design of great originality to expand multiple functions! Different adaptive device parts like a bottle opener and a can opener can be installed to the PRO Turner 3000. These parts are also an enlarged adaptive USB memory stick!

Applications

PRO Turner 3000 is an amazing product for people with Rheumatoid Arthritis, spinal cord injury or upper limb weakness such as deteriorating geriatrics, stroke, Parkinson's disease. Clients who cannot perform the lateral pinch grip for holding the key or do not have enough strength to turn the key are applicable. It is also a universal design for energy conservation and simplifying task.



BSc (Hons) in Occupational Therapy
R5320 Environmental Issues in OT Practice

The Hong Kong Polytechnic University
Department of Rehabilitation Sciences

Congratulations

PolyU Long Service Award

- Prof Gabriel Ng
- Dr Gladys Cheing
- Mr Philip Ng



Prof Gabriel Ng (third from right) & Dr Gladys Cheing (second from right) receiving the congratulations of other colleagues

The President's Awards for Excellent Performance/Achievement 2009/2010

Faculty/School Awards for Outstanding Performance/Achievement

Research and Scholarly Activity -
Dr Marco Pang



Dr Marco Pang (left) receiving his award from Prof George Woo

Teaching (Team) - Prof Cecilia Li,
Dr Andrew Tse, Dr Karen Liu, Ms Rebecca Wong and Mr Tang Kin Chun



The team receiving its award from Prof George Woo (third from right)

Best Paper Presentation Award, the Australasian Society for Ultrasound in Medicine 40th Annual Congress



Miss Sammi Tsui, Physiotherapist I from the Rehabilitation Clinic, received the 'Best Paper Presentation Award' at the Australasian Society for Ultrasound in Medicine 40th Annual Congress in September 2010

Love Ideas Hong Kong Competition

Dr Margaret Mak

Winning Project:
滿心飛躍、柏齡全城——柏金滿症社區運動計劃

Impact

Editors' Corner

Editors :
Ms Rufina Lau (PT)
Mr Tsui Chi Man (OT)
Department of Rehabilitation Sciences
The Hong Kong Polytechnic University

Tel :
2766-6718 / 2766-6729

Fax :
2330-8656

Email :
Rufina.Lau@inet.polyu.edu.hk
Chi.Man.Tsui@inet.polyu.edu.hk

First Prize, Assistive Device Competition



Year 3 Occupational Therapist students Charles Lau, Teresa Tsui, Ben Wong, and Kristy Yuen won first prize in the Assistive Device Competition organized by the Association for Engineering and Medical Volunteer Services (EMV) in August 2010 with their 'Flace' device - a simple tool to help hemiplegic people to tie their shoelaces with one hand. The winning team are pictured here with Mr Chan Fan, the Deputy Director of the Electrical and Mechanical Services Department, Hong Kong

Third Prize, Assistive Device Competition



Year 3 OT student Ms Tsoi Yin Ni representing her teammates, Deng Xin, Wang Yixuan, Wong Wai Shan and Wong Wai Shan, to receive the third prize. Their winning product is the 'E-drinker'

Certificate of Merit, Assistive Device Competition



A group of Year 3 OT students, Chan Tsz Yu, Chu Wa Ho, Ho Yuen Ting, Ng Tsz Yan and Yang Yi Ling, won a certificate of merit for their product, the 'Pump-pump drug'