

# Enabling the Disabled

Calling all engineers, technical specialists and engineering students – here's a chance to create and engineer devices and products to solve specific disabilities. ADELINE ANG investigates the work of the Project Assistive Technology For All programme.

If you were unable to speak, how would you communicate with people around you? Most would immediately think of using a writing pad or a computer to type out their thoughts. But what if you were not physically able to write or type?

The Society for the Physically Disabled (SPD) was approached some time back by a young man with this very problem. He had both cerebral palsy and a speech impairment, and was experiencing great difficulty doing what so many of us take for granted – communicating with others.

The Project Assistive Technology for All (PATA) programme is a new SPD initiative designed to help individuals like this young man. Thanks to the work of volunteers, PATA was able to present him with a customised pointer, enabling him to efficiently access his communication device.

**“Often, people with disabilities may just choose to live with limitations, not knowing that something can be done about it.”**

In 2008, SPD's Specialised Assistive Technology Centre began to recruit engineers, technical specialists and engineering students under its PATA programme, to fabricate, modify and adapt Assistive Technology devices for people with special needs. These devices are items which help to enable individuals to function more independently in daily activities in life, work and school.

“There are individuals who can use off-the-shelf devices and function well



A lecturer and student PATA volunteer from ITE Central (Macpherson) modifying a commode chair.

with them. But some of the commercially available devices cannot appropriately fit the needs of some people with specific disabilities. So there's a need to fabricate devices for these specific needs, or to modify existing devices to better fit the disabled,” said Ms Sarah Yong, Head, Clinic Services at the Specialised Assistive Technology Centre.

To date, PATA volunteers have fabricated or adapted numerous devices. These include customised pointers, a modified commode to enable a young boy with cerebral palsy to use the toilet, and even modified toys for children with severe physical impairments to participate in play.

SPD hopes to get the word out about PATA's services. “There is definitely a need for such customised devices and products which are not available in the market. Often, people with disabilities and those who work with them, are not aware of adaptive possibilities,” Ms Yong said. “They may just choose to live with the limitations, not knowing that something can be done about it.”

New clients who come to PATA are charged a nominal fee of \$50 for a one-time consultation where their needs are evaluated. When an adaptive device

has been completed for use, the client only has to pay for the basic cost of the materials used in the fabrication or modification. There are no labour or expertise charges. Applicants who cannot afford the consultation fee and material costs can apply for a subsidy from SPD.

Last year, SPD received a \$90,000 New Initiative Grant from the National Volunteer and Philanthropy Centre, to further PATA's work. Currently, the grant has gone towards employing a Technical Specialist, and to cover operating costs such as volunteer recruitment events and orientation programmes.

It may surprise many that the bulk of PATA's work is done by volunteers. Ms Yong acknowledges that some degree of skill is required in this customisation work. “Mechanical, electrical, electronics skills, and some hands-on experience with using workshop tools is also needed. However individuals who are technically inclined, but do not have hands-on experience, can also provide ideas and design concepts,” she said.

The centre's Technical Specialist and Occupational Therapists, such as Senior Occupational Therapist Mr Tan Chuan Hoh, provide guidance, and clinical input for the various adaptation projects.

SPD is working hard to recruit more PATA volunteers. Ms Yong points out, “People with technical expertise often have heavy work duties which makes it hard for them to volunteer.” PATA clients often approach SPD with urgent needs, so it also helps to have a larger pool of volunteers on tap. ☆

NEW INITIATIVES GRANT

DO YOU HAVE A STRONG INITIATIVE FOR VOLUNTEERISM OR PHILANTHROPY? Get funding up to \$200,000! Details at [www.nvpc.org.sg/grants](http://www.nvpc.org.sg/grants).