

EQUOS-LITE - THE EASY MOBILITY SOLUTION FOR WHEELCHAIR

TECHNOLOGY OVERVIEW

Wheelchairs are used to assist users who experience mobility challenges to commute around different locations and environments. The design of the wheelchair reflects the functional needs of different tasks and environmental requirements. In many occasions, users have to switch between the manual and electric wheelchairs as they transit between the indoors and the outdoors respectively. This can be cumbersome due its bulkiness, weight and cost.

Republic Polytechnic has developed a modular docking and locking system to provide flexibility for manual wheelchair users to convert their existing mobility device to an inexpensive power chair. The prototype is available for demonstration and industry validation is currently in progress. The technology is pending for provisional IP filing.

POTENTIAL APPLICATIONS

- Converts manual wheelchair to electrical powered wheelchair with module minimize physical challenge over distances & terrain. It may also be used by people with cardiovascular and fatigue-based conditions.
- Existing health and rehabilitation services (including referral networks) managed by governmental, private, nongovernmental, international nongovernmental or disabled people's organizations

MARKET OPPORTUNITIES

The future of the global wheelchair market looks promising with opportunities in homecare and institutions. Worldwide Power Wheelchairs and Personal Mobility markets are poised to achieve significant growth with power wheelchair markets anticipated to reach \$2.4 billion in 2022. The major drivers for the growth of this market are growing elderly population, rising spinal cord injuries, and necessity of wheelchair for physically disabled people.

COMMERCIALISATION

The project team is open to discuss potential business spin-off opportunities with investors and other interested parties.

CONTACT DETAILS

help-otd@rp.edu.sg



Looking for an open innovation partner? Contact Republic Polytechnic today!

Whether you are looking for new ideas to improve your current business flow, need access to research and technology expertise, or require facilities to bring your innovative ideas to life, we may be the partner for you.

At Republic Polytechnic (RP), we bridge the gap between knowledge and application by facilitating information and technology transfer to industry partners. Taking a holistic approach, our team of experts can assess your business needs, provide consultancy, conduct feasibility studies, and render support to help increase your company's competitiveness.

Facilities and Equipment

RP is home to state-of-the-art facilities and the latest technology, which are on par with industry standards. You can access these facilities by collaborating with RP on joint projects or through facility and equipment rentals.

Research and Development

Transform your ideas into reality. RP's multi-disciplinary applied R&D centres can work with you in many different ways, including exploiting new technologies, developing new products and streamlining processes.

Current Opportunities for Collaboration and Commercialisation

- Innovative Single-tube Multiplex Diagnostic Platform for Dengue and Chikungunya Viruses
- New Chemical Entities with Potential Applications in Photodynamic Therapy
- Wireless Proximity Sensing for Safety and Security Applications
- Cloud-based Logistics Tracking
- Multilingual Note Taking Software with Speaker Recognition
- Ambidexter: Portable Rehabilitation Device for Training Fine Motor Skills
- Plastic Heat Sink: Prevents heat related failures in integrated circuits and devices
- E-Scooter- Wheelchair Dockable

For more details, visit <http://www.rp.edu.sg/Industry.aspx>, or email us at help-otd@rp.edu.sg.