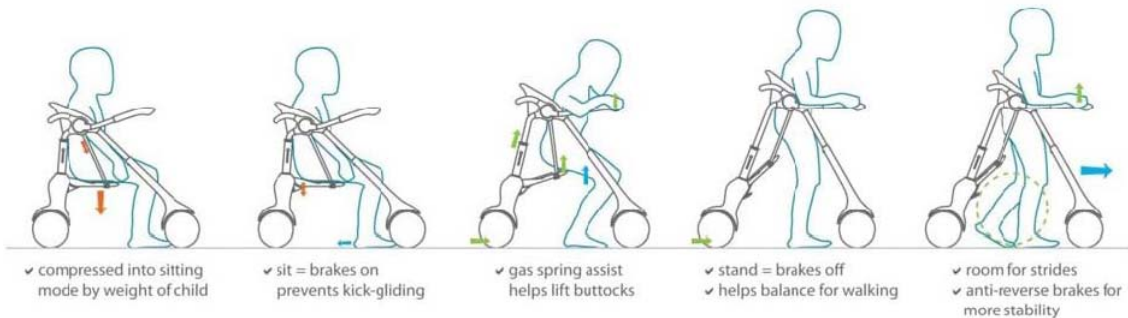
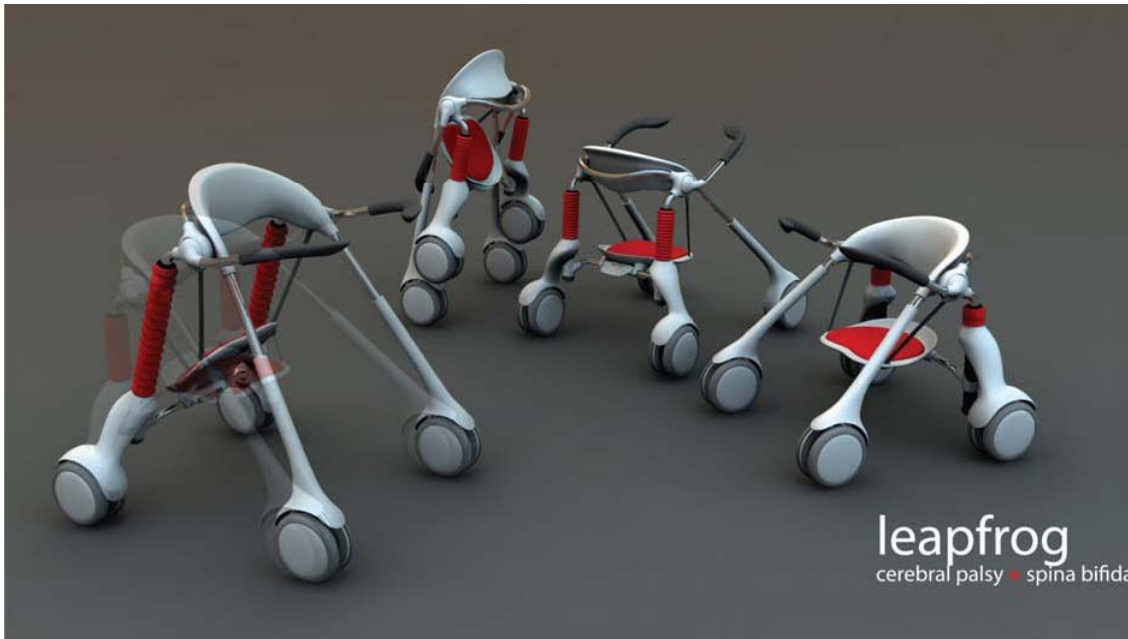


## LEAPFROG: ASSISTIVE WALKER FOR CHILDREN WITH CEREBRAL PALSY OR SPINA BIFIDA



LeapFrog consists of a walker with a unique mechanism that helps children with impaired mobility to develop walking. It gives stability to prevent falls and provides calibratable partial uplift for standing assistance. Its mechanism layout also enables automatic transformation between sitting and standing modes for developing the patient's standing ability. Its innovativeness has won the concept 3 major international awards: BraunPrize 2007, RedDot Award 2007, and iF Award 2008.

The proposed grant will be used for developing a fully-functioning engineering prototype, and to subsequently use it for conducting clinical trials on real patients to measure specific aspects of the device's efficacy in real patients' development. The documented scientific results will be vital to further refining the robustness of the designed mechanical system, and will also be useful for attracting potential manufacturers, and will also be used in the eventual certification of LeapFrog as a medical device.

The fully-functioning engineering-level prototype will be developed in partnership with PSB's Product Design Engineering Department, while the clinical trials will be

conducted with assistance from the Singapore Cerebral Palsy Centre. Through their coordination, a medical expert and possibly a local hospital will be brought in to oversee the research.

This concept can further expand to other type of users, such as elderly and other mobility related disability.