

CONTROL MODULE FOR TOUCH BASED FINGER GESTURE CONTROLLED INTELLIGENT PATIENT VEHICLE

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| Laboratory Name | <ul style="list-style-type: none"> CSIR-Central Scientific Instruments Organisation, Chandigarh |
| Brief Profile of Technology | <ul style="list-style-type: none"> The finger gesture on touch screen module based alternative drive controller works similar to Joystick Controller, compatible with any motorized wheelchair chassis available. It helps to make independent mobility possible for paraplegics as well as patients having weak arms/hand muscles and subjects who cannot hold the manual joystick properly. It consists of a touch screen proportional controller that requires no force to activate and drive. Making contact with the screen activates the device, and maintaining contact enables full driving capabilities. |
| Returns/Benefits | <ul style="list-style-type: none"> Due to the absence of care-givers, currently available mobility solutions needs to be upgraded using alternative drive controls to help make independent mobility possible. The imported version of general purpose motion controllers comes with stiff Joysticks only and are very costly due to which the wheelchair manufacturing in India is expensive at the moment. |
| Validation Level | <ul style="list-style-type: none"> Tested Prototype |
| IPR Status | <ul style="list-style-type: none"> Patent Filing under process |
| Salient Technical Features/Applications | <ul style="list-style-type: none"> Finger gesture based alternative drive controller requires no force to activate and drive. Indigenously developed with optional rear obstacle detection Compatible with the available wheelchair chassis or mobility assistive devices at affordable price. |
| End product price (estimated price) | <ul style="list-style-type: none"> Up to Rs. 20,000/- (approx.) (Alternative Drive Controller with Touch Screen Device) |
| Technology/Product Collaborator | <ul style="list-style-type: none"> In-house design and development |
| Relevance of Technology in present times | <ul style="list-style-type: none"> The paraplegics having weak limbs who cannot hold the Joysticks, by simple finger gestures on touch screen device can maneuver their motorized wheelchair similar to the actual Joystick. So, this alternative drive control helps to make independent mobility possible when a standard joystick isn't the best option. |
| Similar technology/product developed | <ul style="list-style-type: none"> Touch based controller module for motorized wheelchair is available in international market at 3465 USD (Rs. 3.5 Lakhs approx.) |

Picture of the technology

