DRIVING ACCESSORY FOR HANDICAPPED

A Project Report
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ABSTRACT

The goal of our final year project is to ameliorate the inability of paraplegics or double-leg amputees to effectively control manual transmission automobiles through the creation of a minimally invasive hand control interface. The inspirations for this project include those who desire the ability to drive a manual transmission vehicle because of their interest in recreational driving or because they own one of a kind cars. While several unique and effective products exist, which allows people with disabilities to drive automatic cars, there are few solutions for standard automobiles. We establish that these products either require the use of one leg or reduce control of the vehicle. The team conducts research in several areas including exploration of driving motions, maneuvers, and ergonomics, and calculation of the dynamics of pedal depression. This leads to the design and fabrication of an ergonomic interface refining existing concepts to allow those without the use of their legs to maintain full control of all of the inputs of a standard transmission vehicle.