

FOR IMMEDIATE RELEASE

CONTACT:

Dr. Jesse Leaman

Gryphon

(916) 995-7347

[drjfl@comcast.net](mailto:drjfl@comcast.net)

<https://gryphon2020.com/>



### **iChair Revolutionizes Power Wheelchair Navigation**

*Reno, Nev. – February 22, 2016* – According to inventor Jesse Leaman, the newly designed iChair, or Intelligent Power Wheelchair, promises to revolutionize navigation for individuals with disabilities. The prototype of the iChair has already been built and is being tested in preparation of taking product orders by 2016.

The advent of the power wheelchair made mobility possible for millions of people whose impairments prohibited them from operating a manual wheelchair. Leaman says the impact of the iChair's navigation upgrades on disadvantaged populations "will be much greater."

Depending on the degree and nature of impairment, power wheelchair users can face difficulties navigating their vehicles. A variety of input methods, including touch, voice, and computer vision can all aid individuals with steering their power wheelchairs. Each method has strong disadvantages.

In the future, it is expected the iChair will be able to extract the user's thoughts via electroencephalograph (EEG) so the chair can be controlled by brain waves, but the method is still under research and development.

The iChair brings together the above input methods, as well as artificial sensors, software, and algorithms to form a smart robotic system that can automate much of the navigation process. Users with cognitive, motor, or sensory impairments are relieved of much of the burden of navigation.

In addition to improved input methods, the iChair's robotic system uses a 3-D scanner and software that allows it to map the environment and automatically follow preset courses at the user's instruction.

The same scanners and mapping software provide collision avoidance and docking

features. The iChair is able to detect empty spaces such as at tables and desks where the power wheelchair can automatically dock.

The included navigation and object classification software also allows the iChair to automatically stay in formation with recognized people and vehicles. This system will make it possible for users who have difficulty with any input method to simply follow others who serve as guides.

In case of emergencies such as the wheelchair tipping over, the iChair is equipped with an LED system and sirens to signal distress. Text messages or other electronic beacons are sent out to designated contacts to facilitate timely rescue.

The iChair is currently being refined through trials by participants at the Nevada Center for Excellence in Disability (NCED).

Leaman estimates that the market of vehicles covered by health insurance could be up to 180,000 iChairs per year. The extended market for Personal Electric Vehicles (PEVs) using the same assistive technology for non-disabled individuals would be even larger.

Jesse Leaman is the inventor and developer of the iChair. Since his accident paralyzing him from the neck down, one of Jesse's missions has been to develop systems that enable him and other individuals with impairments to function more fully in society and carry out their dreams.

Dr. Leaman can be contacted at 916-995-7347 or [drjfl@comcast.net](mailto:drjfl@comcast.net). Information about his GoFundMe campaign can be found at <https://www.gofundme.com/gryphontour>.

###