



Ennaid's ROME Diagnostics Product

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ROME (Repeatable Objective Measure of Eyetrack), that can diagnose, objectively and repeatedly measure traumatic brain injuries over time (neurological disorders such as, concussions, Parkinson's, Alzheimer's, etc...).

ROME

Ennaid Digital Health (EDH) is a subsidiary of Ennaid Therapeutics focused on developing Computer Vision and Eye Tracking Software in Healthcare. EHIT was established upon Ennaid Therapeutics receiving worldwide, exclusive rights from VehWare and Binghamton University to develop and commercialize the technology for use in healthcare applications.

A recent conversation with Thomas Quiter, a disabled young man, brought to light some of the issues facing disabled persons. We discussed how the technology we are working to develop in the transportation market could be confined to wheelchairs.

We have been working with Binghamton University to develop some of their research into commercial applications. One project we are currently developing a funding proposal for is Real Time Eye Scan Tracking and fatigue/health level monitoring for drivers (REST). REST intends to develop an intelligent monitoring system for real-time scrutinizing of driver distraction and their health/fatigue/impairment status with the ultimate goal of improving driving safety and security. However health monitoring may also be a major benefit of this technology that has not been addressed. The United States secretary of transportation and others have cited studies that found truck drivers have a life expectancy of 61 years, 10-15 years lower than the national average.

Some of the components of the proposed research include monitoring of distraction, impairment, fatigue, pain and perception levels. The proposed research also determines scan patterns, fixation and if driver is looking outside normal viewing parameters. Many of these components could be used for wheelchair applications. A number of areas of research and development would include the use of eye tracking to initiate other functions. A user could initiate wheelchair functions or other functions in environment around them. The end goal would be the integration of algorithms being developed to recognize and classify hazards around a vehicle into a wheelchair. Imagine, a wheelchair that a user can drive or initiate in to self-drive to another room or location and once they arrive they can turn on lights or other functions.

The major research questions that have to be answered include problems with eye tracking individual wearing glasses, different lighting testing of the technology installed on a wheelchair with special

attention paid to transition and false triggers. Due to the physical circumstances of the users, they may be very sensitive to sudden movement, impact on other glitches.

Key member of our team include: William Howe, VehWare CEO/former program manager optical systems at Pacific Missile Range Facility, Darnisha Grant Harrison, Ennaid Therapeutics Founder and CEO, Daryl Fleming PhD, VehWare CTO, Patrick Fleming PhD, VehWare Science advisor/ Professor at University of Notre Dame, Lijun Yin PhD, Binghamton. University and Robbie Walker, PhDc, Sr. Manager of Software Development, Ennaid Healthcare IT.