

Comment from Anonymous Anonymous

This comment is directed to "National Highway Traffic Safety Administration (NHTSA), DOT." regarding Agency/Docket Number: Docket No. NHTSA-2020-0102, Document Number: 2020-24951. Specifically about the technologies that can monitor a driver's physical characteristics, such as eye tracking or other measures of impairment as stated in the supplementary information.

At Eyegaze Inc, formerly LC Technologies, Inc. we develop state of the art eye tracking technology. Currently our eye trackers are widely used by locked-in users to communicate with the world as well as by various universities for research. One of the key capabilities of our eye trackers is the robustness in tracking the highest percentage of human population.

Eyegaze Inc. has in the past, collaborated with NHSTA on a SBIR-funded project titled Unobtrusive Eyelid Closure and Visual Point of Regard Measurement System to develop a Driver Eye Monitor. Our preliminary work performed in a laboratory setting has already established that it is feasible to measure metrics such as eyelid opening, percent of pupil occlusion , and point of regard in real time with high accuracy. Our current technology is capable of eye tracking different kinds of human eyes as well as glasses, contact lenses, and various eye conditions. Our eye trackers are remote and only require short amount of time to calibrate (<15 sec), they are non-intrusive and have the potential to reduce the inconvenience of calibration to a driver. With the various advancements made since the SBIR project, we believe our technology with some additional work can provide a solution to monitor driver attention when housed in an automobile.

Our technology to track eyelid occlusion of the pupil is available now and has been used in other applications for over 30 years. Application of our technology to impaired driving detection and mitigation is both exciting and promising.

Reference:

Cleveland, D. (1999). Unobtrusive Eyelid Clo