Detect changes in your driving behavior whether they occur rapidly or infrequently.

DriveCap is a low-cost, aftermarket, in-vehicle system that measures one’s capabilities performing common driving tasks in a range of vehicles. By collecting driver information over an extended period of time, DriveCap systems analyze and learn distinct driver behaviors to help users better account for their changing abilities and for their familiarity with specific vehicles and environments.

TARGET POPULATIONS:

- Older drivers
- Drivers with disabilities
- Drivers at risk of experiencing sudden physical, cognitive or behavioral changes

BENEFITS:

- Improves driver safety
- Caters to driver style and preference
- Extends driver independence
- Supports early detection of physical, cognitive or other behavioral changes

ABOUT THE RESEARCH

Add-on sensors monitor different aspects of driver capabilities including speed, turning, and the ability to stay in lane. The system also leverages on-board sensors such as GPS or cruise control radar for further data collection. Through analysis of driver data, the system can help clinicians assess and advise drivers.

The DriveCap systems build on decades of research on autonomous vehicles and driver assistance systems at Carnegie Mellon’s Robotics Institute. Current work is focused on creating a small footprint package and validating system performance. Core driving assessment measurements and methods for enhancing the Certified Driving Rehabilitation Specialist’s reports are in early testing.

“...there are only about 400 driver rehabilitation specialists in the U.S.; most drivers will not be able to access expert assistance to detect decline in their driving capabilities or to identify adaptive equipment solutions. DriveCap extends the reach of these specialists by collecting driver capability metrics using low cost sensor technologies.”

--Nahom Beyene, University of Pittsburgh

TO LEARN MORE: Contact Nahom Beyene at nmb32@pitt.edu or visit www.qolt.org