

Technical Report Documentation Page

1. Report No. UMTRI-2015-12		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle Motion Sickness in Self-Driving Vehicles				5. Report Date April 2015	
				6. Performing Organization Code 383818	
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9. Performing Organization Name and Address The University of Michigan Transportation Research Institute 2901 Baxter Road Ann Arbor, Michigan 48109-2150 U.S.A.				10. Work Unit no. (TRAIS)	
				11. Contract or Grant No.	
12. Sponsoring Agency Name and Address The University of Michigan Sustainable Worldwide Transportation				13. Type of Report and Period Covered	
				14. Sponsoring Agency Code	
15. Supplementary Notes Information about Sustainable Worldwide Transportation is available at http://www.umich.edu/~umtriswt .					
16. Abstract <p>Motion sickness is expected to be more of an issue in self-driving vehicles than in conventional vehicles. The reason is that the three main factors contributing to motion sickness (conflict between vestibular and visual inputs, inability to anticipate the direction of motion, and lack of control over the direction of motion) are elevated in self-driving vehicles. However, the frequency and severity of motion sickness is influenced by the activity that one would be involved in instead of driving.</p> <p>This report calculates the expected frequency and severity of motion sickness in fully self-driving vehicles based on the expected frequencies of different activities from a recent survey of what individuals would be likely to do in a fully self-driving vehicle—a survey performed in the U.S., China, India, Japan, the U.K., and Australia. The results indicate that, for example, 6%-10% of American adults riding in fully self-driving vehicles would be expected to often, usually, or always experience some level of motion sickness. Analogously, 6%-12% of American adults riding in fully self-driving vehicles would be expected to experience moderate or severe motion sickness at some time. Calculations for the other five countries are also presented.</p> <p>The report concludes with a discussion of ways to minimize the frequency and severity of motion sickness in self-driving vehicles.</p>					
17. Key Words Self-driving vehicles, driverless vehicles, motion sickness, frequency, severity, countermeasures				18. Distribution Statement Unlimited	
19. Security Classification (of this report) None	20. Security Classification (of this page) None	21. No. of Pages 13	22. Price		