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One Versus Two Handedness: Directional Preference in a Silent-Failure Scenario

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This study focused on the direction drivers of a self-driving car will turn to avoid a crash at a T-intersection. We hypothesized that drivers would steer differently when they drive using both hands and when they use their dominant hand only. Specifically, we hypothesized that participants would favor the direction of their dominant hand (if they use their dominant hand only) and that there will be no directional preference if driving with both hands. To test this hypothesis, we implemented a driving simulator study. We asked the participants to use either both their hands or only their dominant hand to avoid a crash. We are currently analyzing the data.

Keywords: one-handed, two-handed, automated vehicle, silent takeover, directional preference