

Consent for Eligibility Questionnaire + Study Introduction

This questionnaire is administered online and contains branching and display logic not shown in this Word version. This version was created via PDF converted to Word, so formatting and font do not display correctly.

Thank you for your interest in our series of studies examining how humans interact with driving automation systems! In order to complete the online eligibility questionnaire for these studies, you must be age 18 or older.

Are you 18 years of age or older?

☐ Yes ☐ No

Under the Paperwork Reduction Act, a federal agency may not conduct or sponsor, and a person is not required to respond to a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control number. The OMB Control Number for this information collection is **XXXX-XXXX** (expiration date: **MM/DD/YYYY**). Responding to this collection of information in its entirety is estimated to be approximately 15 minutes, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are voluntary. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to: Information Collection Clearance Officer, National Highway Traffic Safety Administration, 1200 New Jersey Ave, S.E., Washington, DC, 20590

If YES:

Thank you. Several criteria must be met for participation. This online eligibility questionnaire takes about 15 minutes to fully complete, including the time for reading all of the study information. There is no compensation and you will not have any costs for completing this questionnaire.

- You will be asked several questions to determine your eligibility. We ask that you answer honestly.
- You will not be allowed to skip any questions because we need these answers to be able to determine your initial eligibility for the study.
- If at any time you do not wish to continue, simply close your browser window.
- If you do not meet criteria at certain points while taking this questionnaire, you will receive a message stating you do not meet criteria and you will not continue in the questionnaire.
- If you are not interested or are determined not eligible for the driving study, we will not ask for your name or any other information that would identify you.
- If you are determined potentially eligible for the driving study, you will be asked to provide your name and contact information so that a researcher may contact you to set up a study screening appointment.
- We will be collecting personal (e.g., age, sex, driving history) and health information (e.g., medication use and certain diagnoses) as part of this eligibility screening.
- This information will only be kept until this study is complete. Researchers have access to this data until it is deleted. No information will be released to the public.
- Taking part in this questionnaire is completely voluntary.
- If you decide not to be in this study, or if you stop participating at any time, you won't be penalized or lose any benefits for which you otherwise qualify.

There are no known risks from completing this questionnaire and you will not benefit personally. To help protect your confidentiality, a record ID was automatically assigned to you when you began the questionnaire. If you meet study criteria and provide your name, this link between your record ID and your name will be stored in a secure location and will be accessible only to researchers at the University of Iowa. We will keep your information secure and confidential. However, federal regulatory agencies and the University of Iowa Institutional Review Board (a

committee that reviews and approves research studies) may inspect and copy records pertaining to this research. If we write a report about the results of this questionnaire, we will do so in such a way that you cannot be identified.

If you have any questions about the research study itself, please contact **Rose Schmitt at 319-335-4666 or dsri-recruit@uiowa.edu**. If you experience a research-related injury, please contact **John Gaspar at 319-335-4776 or dsri-recruit@uiowa.edu**. If you have questions about the rights of research subjects, please contact the Human Subjects Office, 105 Hardin Library for the Health Sciences, 600 Newton Rd, The University of Iowa, Iowa City, IA 52242-1098, (319) 335-6564, or e-mail irb@uiowa.edu. To offer input about your experiences as a research subject or to speak to someone other than the research staff, call the Human Subjects Office at the number above.

Do you still wish to continue? By selecting "yes", you are consenting to provide us information for screening purposes. You will then be shown information about the study.

☐ Yes ☐ No

If YES:

Thank you. The purpose of this series of three studies is to examine how humans interact with driving automation systems (DAS) across different mixed traffic situations and different levels of driving automation. Driving automation systems are vehicle technologies that control some portion of the driving task. Mixed traffic situations are those in which there are vehicles with and without varying degrees of automated control. You can only participate in one of the three studies.

You will be required to come to our facility, the University of Iowa Driving Safety Research Institute (DSRI), home of the National Advanced Driving Simulator (NADS), located in the University Research Park on Oakdale Blvd. to participate. You are responsible for arranging your own transportation to and from study visits; DSRI will not be arranging any transportation. We ask that you refrain from recreational drugs and alcoholic beverages within 24 hours of any study visit.

If you participate in Study 1, you will either be driving on the NADS-1 simulator with motion or the NADS-2 simulator with no motion. This will be randomly determined (like the flip of a coin) when you are scheduled for your study visit. If you participate in Study 2 or Study 3, you will be driving the NADS-1 simulator with motion. For all studies, you will be randomly assigned to a study condition regarding the behavior of the driving automation system. There will also be periods of time during the drives where no automation will be engaged, regardless of condition assigned.

This study involves one study visit lasting approximately 2.5 hours. At this visit, we will review and sign the informed consent document, have you complete a payment form, and verify your driver's license validity. Then you will watch a training presentation and complete two questionnaires. The training presentation will provide more information about the simulator, your drives, the driving automation system, and how to complete an email task you will be asked to do while driving. You will be escorted into our NADS-1 simulator or our NADS-2 simulator, then complete a familiarization drive of about 20 minutes. After this we will ensure you are feeling well enough to continue in the study, then you will complete a study drive of approximately 40 minutes. You will complete ratings of trust in the driving automation system during the study drive. After your drive, you will again be asked how you are feeling and be asked to complete a set of questionnaires. After the questionnaires, you will complete a computerized task to assess risk-taking propensity called the Balloon Analogue Risk Task (BART). This task involves determining how many pumps a deflated balloon can hold without popping. After the BART, your visit will be complete.

Questionnaires throughout the visit will collect information about how you feel, your understanding of the driving automation system, trust in the system, driving behaviors, and demographic information (age, sex, gender, race, ethnicity).

If you complete the study visit and all study procedures, you can earn up to \$90 for your time and effort. If you withdraw from the study or your participation ends, your compensation will be pro-rated at a rate of \$36/hour. You will receive a minimum of \$10.

Are you interested in participating in this research study? If you indicate yes, you will need to press "Next Page" and then you will be directed to the eligibility questionnaire.

☐ Yes ☐ No

If YES: proceeds to Eligibility Questions

If NO to any of above:

We appreciate the time you took to read about our research and to consider participating. There are no additional questions. Press "Next Page" to exit the questionnaire.

If you have any questions about the research that may affect your interest or if you believe you may have answered something incorrectly, please email dsri-recruit@uiowa.edu (refer to study "HIDAS") and a researcher will gladly speak with you. A phone call can be set up via this email address if that is preferred.

If you would like to be added to our registry for future research, or if you are in the registry and would like to update your information, you can visit drivingstudies.com to fill out a submission form.

Thank you!

Eligibility Questions

Thank you. The following questions will ask you some basic eligibility questions. Please respond honestly.

	Yes	No
Can you attend one visit to DSRI that lasts approximately 2.5 hours?	☐	☐
Are you comfortable using email on a cell phone and willing to engage in an email task on a cell phone while driving the simulator?	☐	☐
Do you agree to abstain from alcohol use and recreational drug use in the 24 hours prior to your appointment?	☐	☐
Do you agree to be well-rested for your visit?	☐	☐
Do you possess a valid U.S. Driver's License?	☐	☐
Have you been a licensed driver for at least 2 years?	☐	☐
In a typical year, do you drive at least once weekly or at least 2000 miles per year?	☐	☐

Do you have any of the following restrictions listed on your driver's license? Check all that apply.

- ☐ Intermediate License (Restriction Y in Iowa) or similar
- ☐ No interstate or freeway driving (Restriction Q in Iowa) or similar Maximum speed of 35 mph
- ☐ (Restriction R in Iowa) or similar None of the above

What is your age? _____

What is the sex listed on your driver's license? ☐ Male ☐ Female ☐ X

Due to pre-existing health conditions, some people are not eligible for participation in this study. We need to ask you some questions at your appointment.

Do you have an active tumor, or have you had a stroke in the past 6 months?

☐ Yes ☐ No

(If you can answer "yes" to any of these questions, please mark "yes")

OR

Do you have any of the following lingering symptoms from a stroke, tumor, head injury, or infection?

Vision impairment (blurring, loss, or double vision) Weakness or numbness in arms, legs, or face Trouble swallowing or slurred speech Coordination issues or loss of control Trouble walking, thinking, remembering, talking, or understanding OR

Are you currently receiving any radiation and/or chemotherapy treatment, or have you received any radiation and/or chemotherapy in the last six months?

OR

Have you been diagnosed with a serious illness where the condition is still active or has lingering effects?

Examples include (but not limited to) cancer, Crohn's disease, Hodgkin's disease, Parkinson's disease, Huntington's disease, Lou Gehrig's disease (ALS), Alzheimer's, multiple sclerosis, or any condition requiring radiation or chemotherapy treatments.

Do you have normal or corrected-to-normal (via surgery, glasses, contacts, hearing aids, or similar) vision and hearing?

☐ Yes ☐ No

Have you recently (past 72 hours) had any inpatient or outpatient procedures done that required the use of anesthesia?

☐ Yes ☐ No

Due to potential safety concerns related to the NADS-1 simulator with motion, the following questions are required.

Are you, or is there any possibility that you are pregnant?

☐ Yes

☐ No

Have you ever been diagnosed with seizures or epilepsy?

☐ Yes

☐ No

Have you had a seizure in the past 12 months?

☐ Yes

☐ No

Have you experienced any pain from neck or back injuries within the last year?

☐ Yes

☐ No

Is it a current or chronic neck or back injury?

☐ Yes

☐ No

Do you have any mobility issues that would make climbing down a short ladder or walking on a narrow walkway without assistance difficult for you to perform safely?

☐ Yes

☐ No

In the event normal exiting of the simulator is not possible (e.g., rare instances such as power outage or fire), you would need to climb down a short ladder and walk on a narrow, grated walkway to the nearest exit location.

Do you require the use of any special equipment to help you drive, such as pedal extensions, hand brake or throttle, spinner wheel knobs, seat cushion, booster seat, or other non-standard equipment?

☐ Yes

☐ No

Medications, Supplements, or Herbal Remedies

Are you currently taking any prescription or over-the-counter medications, supplements, or herbal remedies?

☐ Yes

☐ No

Have you been taking any of the medications, supplements, or herbal remedies for less than 6 months or do any of them cause daytime drowsiness or make you drowsy?

☐ Yes

☐ No

Please tell us which medications, supplements, or herbal remedies you have been taking for less than 6 months, cause daytime drowsiness, or make you drowsy.

—

Please use this space for any comments you would like to add about your responses to any of the health questions.

The following questions are related to your comfort in the simulator. We want to do our best to prevent any discomfort, and certain past experiences or medical concerns are a good tool to help us do that.

Do you have Ménière's Disease or any inner ear, dizziness, vertigo, or balance problems?

☐ Yes ☐ No

Note:

Ménière's Disease is a problem in the inner ear that affects hearing and balance. Symptoms can be low- pitched roaring in the ear (tinnitus), hearing loss that may be permanent or temporary, and vertigo.

Vertigo is a feeling that you or your surroundings are moving when there is no actual movement, described as a feeling of spinning or whirling and can include sensations of falling or tilting. It may be difficult to walk or stand and you may lose your balance and fall.

Do you experience discomfort or motion sickness when using an electronic device (such as a cell phone) as a passenger in a moving vehicle?

☐ Yes ☐ No ☐ Unsure

Do you experience discomfort or motion sickness in stop-and-go traffic situations such as traffic jams?

A moving vehicle can include, but is not limited to, a passenger vehicle (such a sedan, truck, SUV, van) or a transit vehicle (such as a bus).

Please describe your discomfort or motion sickness while trying to use an electronic device as a passenger or during stop-and-go traffic situations. Please include how or when this occurs and the severity.

This questionnaire is designed to measure your experience with different visual display or entertainment devices and if the Visual display or entertainment devices include Movie Theatre or Cinema, Smartphones & Tablets with movies or games, V

Please answer these questions solely with respect to your experiences during adulthood (older than 18 years) and ignore c

How often have you experienced each of the following symptoms when using any of these devices?

- | | | | |
|-----------------------------|-----------------------------|------------------------------|---------------------------------|
| Nausea | ☐ Never | ☐ Rarely | ☐ Sometimes |
| ☐ Often | | | |
| Headache | ☐ Never | ☐ Rarely | ☐ Sometimes |
| ☐ Often | | | |
| Dizziness | ☐ Never | ☐ Rarely | ☐ Sometimes |
| ☐ Often | | | |
| Fatigue | ☐ Never | ☐ Rarely | ☐ Sometimes |
| ☐ Often | | | |
| Eye-Strain | ☐ Never | ☐ Rarely | ☐ Sometimes |
| ☐ Often | | | |

Have any of these symptoms stopped you using any of these devices or made you avoid viewing such displays? ☐ Never ☐ Rarely ☐ Sometimes ☐ Often

If you have answered stopped or avoided, please list the devices or displays that you avoid:

Please use this space for any comments you would like to add about your responses to any of the questions (e.g., situations that may cause motion sickness, more information about a diagnosis, mobility concerns, etc.).

Eligibility Questionnaire

This following message displays if the potential participant does not meet eligibility criteria.

Thank you for your interest in our study. Unfortunately, it appears you are not eligible at this time. You may still qualify for future research with the University of Iowa Driving Safety Research Institute. If you would like to be added to our registry for future research, or if you are in the registry and would like to update your contact information, you can visit drivingstudies.com to fill out a submission form.

If you have any questions about your eligibility, please email dsri-recruit@uiowa.edu (refer to study "HIDAS") and a researcher will gladly speak with you. A phone call can be set up via this email if that is preferred over email contact. Please note that we will not know which specific set of responses belong to you because your name is not linked to your data. Thanks again!

Eligibility Questionnaire

This following message and questions display if the potential participant meets eligibility criteria.

Thank you for your responses! A research team member will contact you if you are eligible to continue or if there is a need to follow up on a response. If you wish to contact a researcher directly, please email dsri-recruit@uiowa.edu and reference "HIDAS" and a researcher will get in touch as soon as possible.

Be sure to add dsri-recruit@uiowa.edu to your contact list or safe senders group so you don't miss any emails from us.

If you'd like us to contact you to participate, please enter your contact information below.

Please note that by providing contact information, you are linking your name and contact information to your questionnaire responses. This is required to verify eligibility for our study. If you do not provide a name or contact information, your responses will not be associated with you in any way, but we will be unable to verify eligibility to participate or contact you to participate.

Preferred or Chosen First Name

You will be addressed by this name in
communications from us.

Legal First Name

Legal Last Name

Email Address
This is the primary contact method.

Primary Phone Number

When might we call
you?

You will be called at this number if your email address bounces back as undeliverable, if we have a last-minute appointment available that might work for you, if we need to cancel your appointment on short notice, or if you are running late to your appointment.

If you have any comments regarding your contact information, please note those in the space provided.

Have you ever gone by another name?

For example, if your name is Kathryn, have you ever preferred to go by Katie? Have you ever had a different last name?

This allows us to look you up in our registry and check your participation history to confirm you haven't done a related study that might exclude you from participation. Please note potential other names in the space provided, if you are comfortable doing so.

prior study participation does not necessarily exclude you

Please indicate which days and times would work best for the 2.5-hour study appointment. your choices.

	8 a.m. to 12 p.m.	12 p.m. to 4 p.m.	4 p.m. to 8 p.m.
Monday	☐	☐	☐
Tuesday	☐	☐	☐
Wednesday	☐	☐	☐
Thursday	☐	☐	☐
Friday	☐	☐	☐

Please indicate any dates that you know will NOT work for a study visit through (date to be entered once data collection window confirmed)