



INFORMED CONSENT FOR PARTICIPATION IN RESEARCH ACTIVITIES UNIVERSITY OF MARYLAND, BALTIMORE COUNTY INFORMED CONSENT FORM

Study: Hazard and Anomaly Detection for Robot Learning

Thank you for agreeing to participate in our research study. Before you begin, please read the informed consent information below carefully. Informed consent means that you understand what this study is about, what you will be asked to do, and the risks and benefits, before you decide to take part.

ELIGIBILITY

You must be 18 years of age or older, and fluent in English to participate in this study.

PURPOSE OF THE STUDY

This experiment is conducted by researchers from IRAL Lab at the University of Maryland, Baltimore County (UMBC). The goal is to develop interfaces and communication models that enable robots to effectively identify hazardous or anomalous (unusual or out-of-place) situations using computer vision and large vision-and-language models (VLMs/LLMs). VLMs/LLMs are computer programs, similar to well-known AI tools like ChatGPT, that can look at images and understand text so a robot can figure out what is happening in a picture.

PROCEDURES

If you agree to participate, you will be asked to:

- Review images or scenarios and label each as anomalous, hazardous, both, or neither.
- Provide brief descriptions to help a robot learn to identify such situations.

Each image or scenario should take approximately 10-30 seconds. Your participation begins when you agree to participate and continues until you complete or discontinue the tasks. All data collected are for research purposes only.

RISKS AND BENEFITS

Risks: Risks are those typical of basic computer tasks, including boredom, fatigue, mild stress, or the small chance that your private information could be exposed. These risks are considered minimal.



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Benefits: There are no direct personal benefits beyond compensation for completing tasks. The broader benefit is a contribution to scientific knowledge about robot safety and hazard detection.

CONFIDENTIALITY

Your Prolific ID will be used solely to distribute payment. Researchers will not access any personally identifying information about you.

Any reports or presentations about this study will not include your name or any information that could identify you. All data, including demographic data (such as age and gender), may be stored and shared with other researchers for future studies, but will not be linked to any identifiable information.

Data will be stored on password-protected systems accessible only to the research team. By completing this survey, you give the research team permission to share your anonymous (not identifiable) records with the UMBC IRB and government agencies if required by law.

VOLUNTARY PARTICIPATION

Your participation is completely voluntary. You may stop at any time by closing the browser window or program. If you stop, you will not be penalized, and you will not lose any payment or benefit you have already earned.

If you withdraw, the investigator may use information collected up to the time of your withdrawal for analysis.

CONTACT INFORMATION

For questions about this research, contact the Principal Investigator:

Dr. Cynthia Matuszek

Email: cmat@umbc.edu | Phone: +1 (512) 577-4025

ITE 325B, Department of Computer Science and Electrical Engineering (CSEE)

University of Maryland, Baltimore County, 1000 Hilltop Circle, Baltimore, MD 21250



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This study has been reviewed and approved by the UMBC Institutional Review Board (IRB). For questions about your rights as a research participant, or to report concerns about this research, contact:

UMBC Office of Research Protections and Compliance (IRB)

Phone: (410) 455-2737 | Email: compliance@umbc.edu

University of Maryland, Baltimore County, 1000 Hilltop Circle, Baltimore, MD 21250

PARTICIPANT CONSENT STATEMENT

By proceeding with this study, I confirm that:

- I am 18 years of age or older.
- I am fluent in English.
- I have read and understood this informed consent form.
- I understand that my participation is voluntary and I may withdraw at any time without penalty.
- I understand that my responses will be kept confidential and not linked to my identity.
- I am aware I may contact the study investigator or the UMBC IRB at any time with questions or concerns.

By clicking "Next" or proceeding to the survey, I agree to participate in this research study.

You may print or save a copy of this consent form for your records.