**Delft University of Technology**

**ETHICS REVIEW CHECKLIST FOR HUMAN RESEARCH  
(Version 10.10.2017)**

*This checklist should be completed for every research study that involves human participants and should be submitted before potential participants are approached to take part in your research study.*In this checklist we will ask for additional information if need be.Please attach this as an Annex to the application.

*Please upload the documents (go to* [*this page*](http://www.tudelft.nl/en/about-tu-delft/strategy/integrity-policy/scientific-integrity-committee/research-ethics/application/) *for instructions).*

*Thank you and please check our* [*website*](http://www.HREC.tudelft.nl) *for guidelines, forms, best practices, meeting dates of the HREC, etc.*

1. **Basic Data**

|  |  |
| --- | --- |
| **Project title:** | **Protocol for communication between manned and unmanned ships** |
| **Name(s) of researcher(s):** | **Ingmar Wever** |
| **Research period (planning)** | **September 2017-October 2018** |
| **E-mail contact person** | [**i.wever@student.tudelft.nl**](mailto:i.wever@student.tudelft.nl) |
| **Faculty/Dept.** | **EEMCS – Interactive Intelligence** |
| **Position researcher(s):[[1]](#footnote-1)** | **Master student** |
| **Name of supervisor (if applicable):** | **Mark Neerincx** |
| **Role of supervisor (if applicable):** | **Professor** |

1. **A) Summary Research**

(Please very briefly (100-200 words) summarise your research)

The purpose of this experiment is to prove the effectiveness of a new protocol based on existing system for communication between manned and unmanned vessels. The question answered in this experiment: Will a protocol based on existing maritime systems and communication protocols be sufficient to ensure safe navigation while manned and unmanned vessels encounter each other?

The experiment will include a screen on which a maritime situation is shown. This is than simulated at double speed. During the experiment the participant will have to take actions, such as change speed, change course or engage in communication and answering several questions throughout the experiment, this is all related to the protocol.

The aim is to have about 10 seafarers to finish the experiment, all having sufficient experience as seafarer to represent other captains.

**B) Risk assessment**Please indicate if you expect any potential risks for the participants as a result of your researchand, if so, how you will try to minimize these, also consider personal data.

The only personal data which will be stored is a summary of the experience of the attendee. By making it anonymous no link can be made and thus is the risk mitigated.

1. **Checklist**

| **Question** | | **Yes** | **No** |
| --- | --- | --- | --- |
| 1. Does the study involve participants who are particularly vulnerable or unable to give informed consent? (e.g., children, people with learning difficulties, patients, people receiving counselling, people living in care or nursing homes, people recruited through self-help groups). | |  | X |
| 1. Are the participants, outside the context of the research, in a dependent or subordinate position to the investigator (such as own children or own students)?[[2]](#footnote-2) | |  | X |
| 1. Will it be necessary for participants to take part in the study without their knowledge and consent at the time? (e.g., covert observation of people in non-public places). | |  | X |
| 1. Will the study involve actively deceiving the participants? (e.g., will participants be deliberately falsely informed, will information be withheld from them or will they be misled in such a way that they are likely to object or show unease when debriefed about the study). | |  | X |
| 1. Personal data  * Will the study involve discussion or collection of personal data? (e.g., BSN number, location, sexual activity, drug use, mental health). Please check the following definition (here link to data stewards website).  **If yes’:** Did the data steward approve your data management plan? (Electronic Consent) | |  | X |
|  | X |
| 1. Will drugs, placebos, or other substances (e.g., drinks, foods, food or drink constituents, dietary supplements) be administered to the study participants? | |  | X |
| 1. Will blood or tissue samples be obtained from participants? | |  | X |
| 1. Is pain or more than mild discomfort likely to result from the study? | |  | X |
| 1. Does the study risk causing psychological stress or anxiety or other harm or negative consequences beyond that normally encountered by the participants in their life outside research? | |  | X |
| 1. Will financial inducement (other than reasonable expenses and compensation for time) be offered to participants? | |  | X |
| **Important:**  if you answered ‘yes’ to any of the questions mentioned above, please submit a full application to HREC (see: website for forms or examples). | | | |
| 1. Will the experiment collect and store videos, pictures, or other identifiable data of human subjects? [[3]](#footnote-3)   If “yes”, please fill in Annex 1 and make you sure you follow all requirements of the applicable data protection legislation. In addition, please provide proof by sending us a copy of the informed consent form. | X | |  |
| 1. Will the experiment involve the use of devices that are not ‘CE’ certified?   *Only, if ‘yes’: continue with the following questions:* |  | | X |
| * Was the device built in-house? |  | |  |
| * Was it inspected by a safety expert at TU Delft?  (*Please provide device report, see:* [*HREC website*](https://www.tudelft.nl/en/about-tu-delft/towards-a-new-strategy/integrity-policy/scientific-integrity-committee/research-ethics/)*)* |  | |  |
| * If it was not built in house and not CE-certified, was it inspected by some other, qualified authority in safety and approved?  *(Please provide records of the inspection ).* |  | |  |
| 1. Has or will this research be submitted to a research ethics committee other than this one? (*if so, please provide details and a copy of the approval or submission).* |  | | X |

1. **Enclosures (tick if applicable)**

* Informed consent form (if ‘yes’ to question 11)

1. **Signature(s**

Signature(s) of researcher(s)

Date:

Signature (or upload Electronic Consent) research supervisor (if applicable)

Date:

Appendix1: Privacy and data protection

Please fill this in if you have answered ‘ yes’ to question 11 in the checklist

1. Will the participants have access to their own data? If no, please explain.  
   Yes
2. Will covert methods be used? *(e.g. participants are filmed without them knowing)*No, the data which is collected are pictures to show the set-up of the experiment, voice recordings, questionnaire and screen recordings to process experiments and retrieve which decisions were made. Starting these recordings is done with consent of the participant.
3. Will any human tissue and/or biological samples be collected? *(e.g. urine)*No

# **Informed consent form**

|  |  |
| --- | --- |
| **Project title:** | **Protocol for communication between manned and unmanned ships** |
| **Name(s) of researcher(s):** | **Ingmar Wever** |
| **Research period (planning)** | **September 2017-October 2018** |
| **E-mail contact person** | [**i.wever@student.tudelft.nl**](mailto:i.wever@student.tudelft.nl) |
| **Faculty/Dept.** | **EEMCS – Interactive Intelligence** |
| **Position researcher(s):** | **Master student TU Delft** |
| **Name of supervisor (if applicable):** | **Mark Neerincx** |
| **Role of supervisor (if applicable):** | **Professor Interactive Intelligence** |

The purpose of this experiment is to prove the effectiveness of a new protocol based on existing systems for communication between manned and unmanned vessels. The question answered in this experiment:

Will a protocol based on existing maritime systems and communication protocols be sufficient to ensure safe navigation while manned and unmanned vessels encounter each other?

The experiment will include a screen on which a maritime situation is shown. This is than simulated at double speed. During the experiment you have to take actions, such as change speed, change course or engage in communication and answering several questions throughout the experiment, this is all related to the protocol. During the experiment data is collected in the form of photos, screen recordings, voice recordings and questionaires.

There are no known risks. You may decline to answer any or all questions, and you may terminate your involvement at any time if you choose. Your responses will be anonymous.

If you have questions at any time about this study, or you experience adverse effects as the result of participating in this study, you may contact the researcher. Your participation in this study is voluntary. It is up to you to decide whether or not to take part in this study. If you decide to take part in this study, you will be asked to sign a consent form. After you sign the consent form, you are still free to withdraw at any time and without giving a reason. Withdrawing from this study will not affect the relationship you have, if any, with the researcher. If you withdraw from the study before data collection is completed, your data will be returned to you or destroyed.

## **Consent**

## I have read and I understand the provided information and have had the opportunity to ask questions. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and without cost. I understand that I will be given a digital copy of this consent form. I voluntarily agree to take part in this study.

Participant's signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_   
  
  
  
Investigator's signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_

1. For example: student, PhD, post-doc [↑](#footnote-ref-1)
2. **Important note concerning questions 1 and 2.** Some intended studies involve research subjects who are particularly vulnerable or unable to give informed consent .Research involving participants who are in a dependent or unequal relationship with the researcher or research supervisor (e.g., the researcher’s or research supervisor’s students or staff) may also be regarded as a vulnerable group . If your study involves such participants, it is essential that you safeguard against possible adverse consequences of this situation (e.g., allowing a student’s failure to complete their participation to your satisfaction to affect your evaluation of their coursework). This can be achieved by ensuring that participants remain anonymous to the individuals concerned (e.g., you do not seek names of students taking part in your study). If such safeguards are in place, or the research does not involve other potentially vulnerable groups or individuals unable to give informed consent, it is appropriate to check the NO box for questions 1 and 2. Please describe corresponding safeguards in the summary field. [↑](#footnote-ref-2)
3. Note: you have to ensure that collected data is safeguarded physically and will not be accessible to anyone outside the study. Furthermore, the data has to be de-identified if possible and has to be destroyed after a scientifically appropriate period of time. Also ask explicitly for consent if anonymised data will be published as open data. [↑](#footnote-ref-3)