**University of Dundee**

**Ethical Approval for Non-Clinical Research Involving Human Participants**

**FORM A: Application for ethical approval for low risk projects**

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| Name | Craig Chicken |
| School | Science and Engineering – Computing |
| University e-mail Address | cchicken@dundee.ac.uk |
| Title of Project | A System to Link Tobii Pro Glasses to a Standard Desktop Environment |
| Co-Investigators (with organisational affiliation) |  |
| Projected Start Date | 29/09/18 |
| Estimated End Date | 22/10/19 |
| Funder (if applicable): |  |

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| **Students Only** | |
| Name of Supervisor | Dr. Michael Crabb |
| Degree (e.g. BA, BSc, MA, MSc, MPhil, PhD) | BSc |

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| Please provide an overview of the research project providing a short explanation of the issues the project will address and why they are an important area of research.  *Please write this section in a way that is accessible to a person who is not an expert in your field.*  **Eye-gaze tracking is a very effective method of controlling a computer, but current methods of implementing it fall short in some areas. Not least of all, they require the user to be facing a computer at all time, or else tracking accuracy decays rapidly when the user turns their head and is lost altogether at ±45° from the origin point.**  **While some methods of counteracting this problem exist, there is an alternative that counteracts the issue altogether: Changing the hardware that requires the user to restrict their movements. If the hardware in charge of tracking the user’s eyes was always oriented to their eyes, there would be no loss of tracking when the head is turned.**  **Eliminating this issue would allow eye-tracking to work in a larger capacity, allowing for a wider range of seating arrangements and multi-monitor systems.**  **However, existing head-mounted eye-trackers are geared primarily – and often exclusively – to data analysis, not control of a computer. One such system is the Tobii Pro Glasses. In this work we examine the possibilities and technical challenges present in linking the Tobii Pro Glasses to a standard desktop environment as an interface method.** |
| What are the aims and objectives of the project?  **The aim of this project is to establish a connection method between a pair of Tobii Pro head-mounted eye-tracking glasses and a standard desktop environment.** |
| Please describe the design of your study and the research methods including information about any tasks or measuring instruments (validated or otherwise) that you will be using.  **The tasks associated with the study will involve basic tasks such as navigating a website and data will be recorded by the Tobii Pro Glasses and the Tobii SDK.** |
| How will participants be identified and recruited?  **Participants will be recruited via email among members of computing modules and the testing will be carried out during free time between lectures.**  **The testing will be carried out on a regular basis throughout the second semester until sufficient data has been collected for analysis and verification.**  **The testing will take place in the HCI labs of the Queen Mother Building.** |
| How will you obtain informed consent?   * **Participants will be explained about the scope of the research and what their involvement will entail through an information sheet. Participants will also be given the opportunity to ask any questions that they may have.** * **Consent will be obtained through a written format.** * **Explicit consent for AV recording exists on the consent form.** * **If participants wish to withdraw at any time after they have signed the consent form, they will be able to do so without any restrictions.** |
| Data storage and access   * **Collected data will be in the form of written material made by the workshop participants and data recorded by both the computer and the Tobii Pro Glasses.** * **Data will be stored securely using the University ‘Box’ system** * **Data will be anonymised for storage** * **The data will only be accessed by the student and supervisor associated with this project.** * **Data will be stored until June 2019.** * **All data is anonymised and will be stored in a central repository attached to any research outputs that are created from this work.** |
| Are any other permissions (e.g., clearance under the Protecting Vulnerable Groups Scheme (PVG)) required? If so which?  **No other permissions are required** |
| Does the research involve fieldwork in or outside the UK? Have necessary risk assessments be carried out? If not, please state when you will be likely to conduct the risk assessment.  **No research involves fieldwork outside the UK** |
| Are there any other ethical considerations relating to your project which have not been covered above? If so, please explain.  **No other ethical considerations.** |

By signing below I declare that I have read the University Code of Practice for Non-Clinical Research on Human Participants and that my research abides by these guidelines.

Principal Investigator

Name Craig Chicken Date 08/11/18