Guidance for staff and students on whether projects that involve humans testing technology including self-experimentation require ethics approval

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Authors: Engineering Faculty Research Ethics Committee, University of Bristol

History of changes		
Version	Publication date	Changes
1.0	12.01.2022	• Initial version
1.1	08.06.2022	• Added history of changes • Reworded some of the checklist questions
1.2	27.10.2022	• Reworded some of the checklist questions
1.3	08.11.2022	• Removed checklist question on publication and changed title • Approved by FREC

Introduction

Many research projects in Engineering (student or staff) include an element of technology testing that involves humans directly. For example, the functioning and measurements of wearable sensors are to be evaluated, or, for the purpose of developing a computer vision algorithm, short videos of the developer performing a particular activity are to be recorded.

Common to the projects considered here is that **data is only recorded from the experimenter(s)** themselves and not participants external to the project. However, as humans are involved directly and data is recorded about e.g. their movements, the question arises whether ethics approval is required for this type of research. The short answer is that it depends on the nature of the research conducted. The **checklist** below has been developed as a guide for researchers to decide if their project requires ethics approval.

Before consulting this checklist, it may be worth considering alternative research methods that avoid measuring data of humans directly. This could even have benefits for the research. For example, if wearable sensors are to be tested, it could be considered to use a mechanical rig for testing of actuators (this would also increase repeatability). For algorithm testing, it may be possible to use open-access data published by other researchers who obtained ethics approval for their work.

If the answer to any of the following questions is 'YES', then ethics approval is required.

- Are measurements taken from more people than yourself? **Yes**
- Is the testing invasive (e.g. tissue samples)? **No**
- Could testing create physical risks for the experimenter? (also consider a risk assessment) **No**
- Could testing create psychological risks for the experimenter? For example, the experimenter might try so hard to get good results that they put themselves at risk of exhaustion. Is mitigation for such risks necessary? **No**

If you are unsure after reading this document, or you have any feedback, then please get in touch: research-ethics@bristol.ac.uk