DUBLIN CITY UNIVERSITY
Plain Language Statement (approx. 400 words)

I. Introduction to the Research Study

Human activity recognition using wrist-mounted sensors based on symbolic aggregate approximation (SAX) and machine vision. The university department involved is the School of Computing and specifically the Insight Centre. The purpose of this research is to ascertain feedback from a group of willing candidates to offer feedback and direction for the application and its inherent design.

Human activity recognition (HAR) is an active area of research concerned with the classification of human motion. Cameras are the gold standard used in this area, but they are proven to have scalability and privacy issues. HAR studies have also been conducted with wearable devices consisting of inertial sensors. Perhaps the most common wearable, smart watches, comprising of inertial and optical sensors, allow for scalable, non-obtrusive studies. We are seeking to simplify this wearable approach further by determining if wrist-mounted optical sensing, usually used for heart rate determination, can also provide useful data for relevant activity recognition.

This is a fourth-year project for the Computer Applications and Software Engineering degree ran in the School of Computing.

Investigators: Shane Creedon and Tomas Ward

II. Details of what involvement in the Research Study will require

Completion of 2 questionnaires based on the software quality, functionality, accessibility, usability.

III. Potential risks to participants from involvement in the Research Study (if greater than that encountered in everyday life)

None

IV. Benefits (direct or indirect) to participants from involvement in the Research Study

None

V. Advice as to arrangements to be made to protect confidentiality of data, including that confidentiality of information provided is subject to legal limitations

Confidentiality of recorded data will be kept between myself and my project supervisor (Tomas Ward). This confidentiality requirement for the research findings is only subject to the confines of the law.

VI. Advice as to whether or not data is to be destroyed after a minimum period

All gathered data will be disposed of and destroyed May 20th 2019.

VII. Statement that involvement in the Research Study is voluntary

Participation in the research study is entirely voluntary. Subjects can withdraw from the process at any time.

A Plain Language Statement should end with the following statement:

If participants have concerns about this study and wish to contact an independent person, please contact:
The Secretary, Dublin City University Research Ethics Committee, c/o Research and Innovation Support, Dublin City University, Dublin 9. Tel 01-7008000