

**School of Computing Science Ethics Committee  
University of Glasgow**

**Request for Ethical Approval**

This form is to be used by 3<sup>rd</sup> year, 4<sup>th</sup> year, MSci, MRes, and taught MSc students in the Department of Computing Science whose projects entail human participation and which do not conform to any one of the criteria on the project ethics checklist form (<http://www.dcs.gla.ac.uk/ethics/projects-form.pdf>). Students enrolled for an MSc by Research or a PhD, and members of academic or research staff should submit their request for ethics approval to the Faculty Ethics Committee (see <http://ethics.ims.gla.ac.uk/>)

The form should be completed and returned by email to Prof Stephen Brewster ([stephen@dcg.gla.ac.uk](mailto:stephen@dcg.gla.ac.uk)) to whom all enquires or requests for advice should be directed.

All sections of this form must be completed.

Before completing this form, please read the British Psychological Society's Code of Conduct (available on <http://www.dcs.gla.ac.uk/ethics/>). The relevant sections of the code are noted against questions in this form.

Copies of the participant information form and consent form should be submitted together with this form (BPS § 3&6).

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Student's name: Ryan Williamson

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Year level (3<sup>rd</sup>, 4<sup>th</sup>, MSci, MRes, MSc): 4<sup>th</sup>

Supervisor: Dr Jeremy Singer

Project title: Keep Your Distance! Real-time Social Distancing Using ESP32

1. Describe the basic purposes of the proposed research:  
To determine the effectiveness and accuracy of the social distancing system built on the esp32 devices.
2. Describe the design of your experiment (e.g. conditions, number of participants, procedure, equipment) (BPS §2&8):  
No of participants: 2  
Equipment: 2 Android devices, 2 ESP32 microcontrollers (non-standard devices), 2 micro usb cables, 2 portable power banks, 2 clothes pegs.  
Conditions: Location description, distance measures, device readings  
Procedure:  
The participants will wear the device as shown in the tutorial sheet that will be provided, I've included this image at the end of this section to demonstrate how it will be worn. It has been designed to prevent strangulation and tripping. It will be powered via micro usb cable from a portable power bank, worn in the participant's pocket. The device will be attached to their t-shirt, shirt, etc using a clothes peg.  
At each chosen area one participant will move towards the other participant at a steady pace. They will stop and record the distance between each other when the device alerts them or if the device does not alert them but continuing further would cause them to collide with the other participant. They will then move back until the device stops alerting them and record this distance. They should do this 5 times in total for each area.  
At the end of the experiment, they will be asked to fill in a survey and submit the collected data along with this.