

Faculty of Science and Engineering Ethics Committee
Expedited Form for
research involving human participants

1: Applicants Details

Form Must Be Typed

Principal Investigator name (ie supervisor): <i>J.J.Collins</i>
Investigator email: <i>J.J.Collins@ul.ie</i>
Student name: <i>James Preston</i>
ID number: <i>12159247</i>
Email address: 12159247@studentmail.ul.ie
Programme of study: <i>LM110 – Computer Games Development</i>
FYP, MSc or PhD Dissertation: <i>FYP</i>
Working title of study: <i>Vehicle Self Diagnosis Application</i>
Period for which approval is sought: Start Date: <i>Date of Approval</i> End date: <i>30th March 2016</i>

2. Human Participants

Does the research proposal involve:

- | | |
|--|----|
| <input type="checkbox"/> Working with participants over 65 years of age? | No |
| <input type="checkbox"/> Any person under the age of 18? | No |
| <input type="checkbox"/> Adult patients? | No |
| <input type="checkbox"/> Adults with psychological impairments? | No |
| <input type="checkbox"/> Adults with learning difficulties? | No |
| • Relatives of ill people (e.g. parents of sick children) | No |
| • Adults under the protection/control/influence of others (e.g. in care/prison)? | No |
| <input type="checkbox"/> People who may only have a basic knowledge of English? | No |
| <input type="checkbox"/> Hospital or GP patients (or HSE members of staff) recruited in medical facility | No |

3. Subject Matter

Does the research proposal involve:

- | | |
|---|----|
| <input type="checkbox"/> Sensitive personal issues? (e.g. suicide, bereavement, gender identity, sexuality, fertility, abortion, gambling)? | No |
| <input type="checkbox"/> Illegal activities, illicit drug taking, substance abuse or the self reporting of criminal behaviour? | No |
| <input type="checkbox"/> Any act that might diminish self-respect or cause shame, embarrassment or regret? | No |
| <input type="checkbox"/> Research into politically and/or racially/ethnically and/or commercially sensitive areas? | No |

4. Procedures

Does the research proposal involve:

- | | |
|---|----|
| <input type="checkbox"/> Use of personal records without consent? | No |
| <input type="checkbox"/> Deception of participants? | No |
| <input type="checkbox"/> The offer of large inducements to participate? | No |
| <input type="checkbox"/> Audio or visual recording without consent? | No |

- | | |
|---|----|
| <input type="checkbox"/> Invasive physical interventions or treatments? | No |
| <input type="checkbox"/> Research that might put researchers or participants at risk? | No |
| <input type="checkbox"/> Storage of results data for less than 7 years? | No |

If you have answered **Yes** to any of these questions in sections 2 to 4 above, you will need to fill in the S&E full application form and submit to the Faculty Ethics Committee for review. However, if the research is to be conducted **during or after/associated with School Placement**, and within the Department of Education subject syllabus outline, and provided the student has the permission of the class teacher and the school principal and that parent/guardians consent to participation, this expedited form can also be used. Please note that if the Faculty Ethics Committee deems it necessary you may be asked to fill in the full application form

Please note that only **1** hard copy of the FREC form is required for the Faculty Ethics Committee. You can get more information and download the forms needed at this address: www.ul.ie/researchethics/ **NB:** If you answered **Yes** to the last bullet point in section 2 then you will need to apply to the local HSE ethics committee not the FREC.

If you have answered **No** to all of these questions, please answer the following questions in sections 5.

5 Research Project Information

5a Give a brief description of the research. (Give details of what you and the participant will be doing for this study)

Participants will be asked to do a survey, rating the usability of a software application that communicates with a vehicle's Engine Control Unit (ECU). The application can read live data from the vehicle as well as detect and clear diagnostic trouble codes that lead to the illumination of the check engine light.

I will give the participant a Bluetooth device and a tablet to use the application on their car, and I will be present to answer any questions they have about the application. The questions they ask will be documented to help improve the application. The participant will then fill out a survey in private based on their experience with the application and place it in a sealed envelope to ensure anonymity.

5b How many participants will be involved?

Up to 4 participants

5c How do you plan to gain access to /contact/approach potential participants?

I will contact the potential participants through a mutual contact in the motor industry (my father). The participant will be approached and asked if they are interested and available to participate in the survey.

5d What are the criteria for including/excluding individuals from the study?

As the domain of the application is focussed on the diagnosis of issues with vehicles, all participants must have experience as a car mechanic or experience in the motor industry.

5e Have arrangements been made to accommodate individuals who do not wish to participate in the research? (NB This mainly relates to research taking place in a classroom setting)

N/A

If Yes

Please state what these arrangements are.

5f Can you identify any particular vulnerability of your participants other than those mentioned in section 2?

No

5g Where will the study take place? (If in UL please state where)

The survey will take place at the garage/workshop of the participant

5h What arrangements have you made for anonymity and confidentiality? (How will participants be referenced in the final report)

All information gathered will be strictly confidential. All participants will remain anonymous throughout the process. In the final report, only the results of the survey will be published, no personal information will be displayed.

5i What are the safety issues (if any) arising from this study, and how will you deal with them?

There are no safety issues arising from this study.

5j How do you propose to store the information once the project is completed? Will the file/computer be password protected? (Information must not be stored on student's PC or on a USB Key)

Only hard copies of the survey will be stored. There will be NO soft copies.

Where will the information be stored (room number):

In a locked cabinet in CS1-028

5k Insurance Cover

Insurance cover is required for all research carried out by UL employees. Principal Investigators/Supervisors should carefully view the University's 'Guidelines on Insurance Cover for Research' document and the University's Insurance cover to ascertain if their proposed research is covered. These documents are available at www.ul.ie/insurance.

Where any query arises about whether or not proposed research is covered by insurance, the Principal Investigator/Supervisor must contact the University's Insurance Administrator at cliona.donnellan@ul.ie to confirm that the required level of insurance cover is in place.

Please indicate by way of signature that the research project is covered by UL's insurance policies:

PI/Supervisor signature: _____  _____

5l Please attach the relevant information documents and complete the following checklist to indicate which documents are included with application



Participant Information Sheet	Yes
Participant Informed Consent Form	Yes
Parent/Guardian Information Sheet	No
Parent/Guardian Informed Consent Form	No
School Principal Information Sheet	No
School Principal Informed Consent Form	No
Teacher Information Sheet	No
Teacher Consent Form	No
Child Protection Form (must be included if dealing with <18 year olds)	No
Questionnaire & Explanatory Cover Letter	No
Interview/Survey Questions	Yes
Recruitment letters/Advertisements/Emails, etc.	No

6. Declaration

The information in this form is accurate to the best of my knowledge and belief and I take full responsibility for it.

I undertake to abide by the guidelines outlined in the UL Research Ethics Committee guidelines <http://www.ul.ie/researchethics/>

I undertake to inform S&EEC of any changes to the study from those detailed in this application.

Student:	Name: James Preston  Signature:	Date: 02/02/2016
Principal Investigator*:	Name: J.J. Collins  Signature:	Date: 02/02/2016

* In the case where the principal investigator is not a permanent employee of the University, the relevant head of department must sign this declaration in their place.

You should return this form with signatures to the S&E Ethics Committee c/o Faculty Office, Faculty of Science & Engineering, University of Limerick. In addition, a single pdf file containing the completed form and additional information (e.g. participant information sheet) should be emailed to SciEngEthics@ul.ie **This form must be submitted and approval granted before the study begins.**



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PARTICIPANT INFORMATION SHEET

My name is James Preston and I am currently undertaking a final year project at the University of Limerick under the supervision of Mr. J.J. Collins. The title of my proposed research is Vehicle Self Diagnosis Application. The purpose of this project is to allow vehicle owners to connect to their vehicle and retrieve live data and diagnose trouble codes in order to get a high level overview of the status of their vehicle.

You are invited to take part in a usability study for this application. This will help to determine the quality of the application and allow me to improve the usability of the application in future updates. I would first like to describe the process before you make a decision as to whether you would like to accept this invitation.

I will provide you with a Bluetooth device and a tablet with the application pre-installed. I will then ask you to do the following:

- Fill in the consent form provided
- Connect the Bluetooth device to your car
- Use the features of the application for approximately 10 minutes
- Fill in the survey provided

I will be present while you use the application, to observe what actions you take and to answer any questions you may have. When you are ready to fill in the survey, I will leave you in the room with the survey and an envelope. You will fill in the survey and place it into the envelope and seal it. The envelope will only be opened when all other participants have completed their surveys to ensure absolute anonymity.

The information you provide will be completely anonymous. We will only be holding paper copies of the documents, which will be stored in a locked cabinet until the end of the project, when they will be destroyed. There will be no digital copies of these documents and we will not record video or audio of your participation.

There are no risks involved with participating in this survey and I would like to highlight that you do not have to participate if you do not wish to and that you can withdraw from this survey at any time.

If you have further questions regarding this research please feel free to get in touch with either myself or my supervisor using the email addresses listed below.

If you have concerns about this study and wish to contact someone independent, you may contact: The Chair, Faculty of Science & Engineering Research Ethics Committee, University of Limerick, Limerick. Tel: 061 202802

Yours sincerely,

James Preston

James Preston, Student 12159247@studentmail.ul.ie	Mr. J.J. Collins, Supervisor J.J.Collins@ul.ie
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OLLSCOIL LUIMNIGH

CONSENT FORM

Consent Section:

I, the undersigned, declare that I am willing to take part in research for the project entitled “**Vehicle Self Diagnosis Application**”.

- I declare that I have been fully briefed on the nature of this study and my role in it and have been given the opportunity to ask questions before agreeing to participate.
- The nature of my participation has been explained to me and I have full knowledge of how the information collected will be used.
- I fully understand that there is no obligation on me to participate in this study
- I fully understand that I am free to withdraw my participation at any time without having to explain or give a reason
- I am also entitled to full confidentiality in terms of my participation and personal details

Signature of participant

Date

In all cases involving research on participants under the age of 18, the Child Protection Form must be signed by all researchers involved in the project and submitted with the application.

Usability Survey

Description of the application

You will be testing an application that can connect to a vehicle through its OBD-II port, using an ELM327 Bluetooth dongle (provided). The application can then communicate with the vehicle, retrieving live data and diagnostic trouble codes as well as being able to clear these codes to turn off the check engine light.

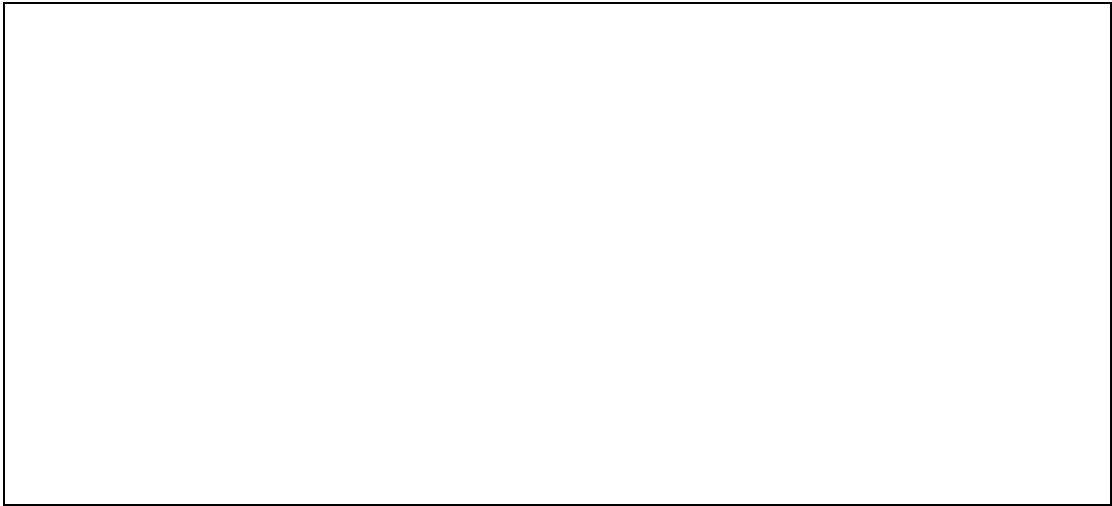
As someone with experience in the motor industry, I invite you to use the application for up to 30 minutes and give your opinion on the application by answering the questions below. Your answers will be completely anonymous and will help to plan future improvements and features for the application.

Questions

There are a number of questions that you should answer by ticking the relevant box. Following these questions, there will be areas for you to give your opinion about what you liked about the application and what you think should be changed.

#	Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I found the application slow or unresponsive					
2	I found it easy to understand the available options on each screen					
3	I always knew the status of the application					
4	I felt in command of the application when I was using it					
5	I found the look and feel was consistent across the application					
6	I found it easy to recover from any mistakes I made					
7	I had to go back to the help guide at times					
8	I liked the flow and organisation of the menus / options					
9	I found it easy to learn how to use the application					
10	I could understand the information given by the application					
11	I found the information was displayed in a clear way					
12	I found the look and feel of the application attractive					
13	I found the error messages easy to understand					
14	I found the instructions and help information useful					
15	I found the user input options (buttons, scrolling etc.) did what I expected them to do					

What did you like about this application?

A large, empty rectangular box with a thin black border, intended for the user to write their response to the question above.

What changes would you make in this application?

A large, empty rectangular box with a thin black border, intended for the user to write their response to the question above.