Dublin City University
School of Computing
ETHICS COMMITTEE (SEC)

NOTIFICATION FORM FOR LOW-RISK PROJECTS AT UNDERGRADUATE OR TAUGHT MASTERS LEVELS

Please read the following information carefully before completing your application. Failure to adhere to these guidelines will make your submission ineligible for review.

1. **Download this form, complete the appropriate fields, attach additional pages (e.g. plain language statement) as appropriate and save as a PDF file**
2. **Completed applications must be uploaded to your School of Computing GitLab repo, and must be located in "`docs/ethics.pdf`".**
3. **Your SUPERVISOR will then be notified automatically and must approve your approach initially.**
4. **Your application should consist of one electronic file (PDF) only.** The completed application must include this form and also must incorporate all supplementary documentation, especially that being given to the proposed participants e.g consent forms, plain English language statement. It must be proofread and spell-checked before submission.
5. **All sections of the application form must be answered as instructed and within the word limits given.**
6. **Your ethics approval submission will be circulated to the School's Research Ethics Committee and you will be notified if/when it is approved**
7. **All projects must have either a derogation from an ethics approval requirement (as determined by your supervisor) OR must have an approved ethics submission (this form), before work with human subjects commences.**

Applications which do not adhere to these requirements will not be accepted for review and will require resubmission

Applications must be completed on this form; answers in the form of attachments will not be accepted, except where indicated. No hard copy applications will be accepted. **The project must not commence work with human subjects until written approval has been received from the School of Computing Ethics Committee (SEC).**

PROJECT TITLE	IOT Garden

PROJECT SUPERVISOR(S)	Dr. Donal Fitzpatrick
START AND END DATE	Start: 22nd November 2019 End: 11th May 2020

Please ensure that all supplementary information is included in your application (in one electronic copy). If questionnaire or interview questions are submitted in draft form, please indicate this by putting (draft) after YES. A copy of the final documentation must be submitted for final approval when available.

My application has been collated as one electronic file which includes the following documentation:	**INCLUDED (mark as YES)**	**NOT APPLICABLE (mark as N/A)**
Bibliography		N/A
Recruitment advertisement (How are you getting volunteers?)		N/A
Plain language statement/Information statement	YES	
Informed consent form	YES	
Personal Data Security Schedule https://www.dcu.ie/sites/default/files/info/3._blank_data_security_schedule.xls		N/A
Evidence of external approvals related to the research		N/A
Questionnaire/Survey	YES	
Interview/Focus Group Questions	YES	
Debriefing material		N/A
Other (e.g. local government approval)		N/A

Please note:

1. Any amendments to the original approved proposal must receive prior SCEC approval.
2. As a condition of approval investigators are required to document and report immediately to SCEC any adverse events, any issues which might negatively impact on the conduct of the research and/or any complaint from a participant relating to their participation in the study

1. ADMINISTRATIVE DETAILS

Project Type (select one): Undergraduate Project – Final Year	X
Undergraduate Project – non-final Year	
Taught Masters (Practicum)	

(projects at other levels, e.g. PhD or research Masters, should be approved by the University's REC if necessary)

1.1 INVESTIGATOR CONTACT DETAILS

SUPERVISOR(S): *Your supervisor and other academic staff who are assisting, it should be clear who is the person who is carrying out the research procedures.*

NAME	*SCHOOL/UNIT*	*EMAIL*
Dr. Donal Fitzpatrick	School of Computing	donal.fitzpatrick@dcu.ie

STUDENT(S):

NAME	*SCHOOL/UNIT*	*EMAIL*
Daniel Pereira	School of Computing	daniel.pereira2@mail.dcu.ie
Jacob Byrne	School of Computing	jacob.byrne233@mail.dcu.ie

DECLARATION BY SUPERVISOR(S)

The information contained herein is, to the best of my knowledge and belief, accurate. I have read the University's current research ethics guidelines, and accept responsibility for the conduct of the procedures set out in the attached application in accordance with the form guidelines, the SCEC guidelines (https://www.dcu.ie/researchsupport/researchethics.shtml), the University's policy on Conflict of Interest, Code of Good Research Practice and any other condition laid down by the Dublin City University Research Ethics Committee. I have attempted to identify all risks related to the research that may arise in conducting this research and acknowledge my obligations and the rights of the participants.

If there exists any affiliation or financial interest for researcher(s) in this research or its outcomes or any other circumstances which might represent a perceived, potential or actual conflict of interest this should be declared in accordance with Dublin City University policy on Conflicts of Interest.

I and my co-investigators or supporting staff have the appropriate qualifications, experience and facilities to conduct the research set out in the attached application and to deal with any emergencies and contingencies related to the research that may arise.

Electronic Signature(s):

Supervisor(s): Dr Donal Fitzpatrick

*Print Name(s) here:*_____

Date: 24/03/2020

2. PROJECT OUTLINE

2.1 SIMPLE DESCRIPTION *(Max. 300 words)*

Please outline, in terms that any non-expert would understand, what your research project is about, including what participants will be required to do. Please explain any technical terms or discipline-specific phrases.

The project will be an automated plant monitoring system. It will use an array of sensors to monitor various parameters associated with plant life and make alterations to the plant environment. Users will be required to sign into a secure online interface to choose and view plant environment specifications.

2.2 AIMS OF AND JUSTIFICATION FOR THE RESEARCH *(Max. 400 words)*

State the aims and significance of the project. Where relevant, state the specific hypothesis to be tested. Please provide a brief description of background research, a justification as to why this research project should proceed in that context and an explanation of any expected benefits to the community. NB – all references cited should be listed in an attached bibliography.

Our goal is to build a fully automated plant monitoring system that can make alterations to the plants environment. This system will be useful for home-owners/plant enthusiasts that don't have the means/time to maintain it fully. Using user testing we aim to gather usability feedback from users.

2.3 DESCRIBE THE METHODOLOGY BEING USED TO ACHIEVE YOUR STATED AIMS

Provide an outline of the proposed method and state who is doing which task – include details of data collection techniques, the tasks participants will be asked to do, the estimated time commitment involved, and how data will be analysed. If the project includes any procedure which is beyond already established and accepted techniques please include a description of it. There should be enough detail provided to facilitate ethical review, but applicants are encouraged to keep it as succinct as possible.

Our survey will be anonymous and will ask students a series of questions related to our project. We will ask them to use our system and then prompt them to provide feedback in the form of a survey provided in this document.

2.4 PARTICIPANT PROFILE

Provide the number, age range and source of participants. Please provide a justification of your proposed sample size. Please provide a justification for selecting a specific gender, age, or any other group if this is done in your project.

Participants will be adults who are computer literate in order to operate the web interface that controls the system, adults are the proposed main users of our project and will provide the most relevant feedback. There is also scope for the system to be used for elderly/mobility-impaired users that may like to keep house plants but aren't necessarily able to.

2.4(a) PARTICIPANT VULNERABILITY

Are some or all of participants vulnerable in any way? (e.g by virtue of the group they belong to, people who have undergone traumatic or adverse emotional events, people with diminished cognitive ability, power relations between researchers and participants etc.)? If they are, state what this vulnerability (or vulnerabilities) is and justify why this research is being done with such participants.

User Acceptance test groups will not be vulnerable. They will be gathered from peers and we will not be approaching anyone from a risk environment to participate in our testing.

2.4(b) CHILD PARTICIPANTS (anyone under 18 years old)

*If your participants include children, you **must** confirm that you are in compliance with the research specific guidelines as detailed in "Keeping Children Safe - Policies and Procedures supporting Child Protection at DCU" - available at: https://www4.dcu.ie/sites/default/files/policy/157%20-%20child_protection_handbook_rev1%282%29%281%29.pdf*

Please indicate your compliance with the following guidelines:	**Mark here**
We confirm that we have read and agree to act in accordance with the DCU Child Protection policy and procedures	N/A
We confirm that we have put in place safeguards for the children participating in the research	N/A
We confirm that we have supports in place for children who may disclose current or historical abuse (whether or not this is the focus of the research)	N/A

2.5 EXPLAIN HOW PARTICIPANTS ARE TO BE RECRUITED

Please provide specific details as to how you will be recruiting participants. How will people be informed that you are doing this research? How will they be approached and asked if they are willing to participate? If you are mailing or phoning people, please explain how you have obtained their names and contact details. If a recruitment advertisement is to be used, please ensure you attach a copy to this application.

Participants will be gathered mainly from individuals known to the investigators. We will be verbally contacting them and asking them to participate in using the Web UI and give feedback.

2.6 PLEASE EXPLAIN WHEN, HOW, WHERE, AND TO WHOM RESULTS WILL BE DISSEMINATED, INCLUDING WHETHER PARTICIPANTS WILL BE PROVIDED WITH ANY INFORMATION AS TO THE FINDINGS OR OUTCOMES OF THE PROJECT*?*

Results will be accessed by the investigators named in this document. On request, the raw data can be made available to anyone with the necessary privileges as set down in the DCU policies and procedures pertaining to examinable materials.

2.7 ARE OTHER APPROVALS REQUIRED TO GAIN ACCESS TO ANOTHER LOCATION, ORGANISATION ETC.? (e.g. a School or company)

YES or NO
NO

(If YES, please specify from whom and attach a copy of the approval documentation. If this is not yet available, please explain when this will be obtained.)

3. RISK AND RISK MANAGEMENT

3.1 JUSTIFICATION OF STATED LEVEL OF RISK TO RESEARCH PARTICIPANTS

You must provide a justification for the stated level of risk, as indicated on the cover page of your application. Note that the level of risk may be influenced by the vulnerability of the research group, the methods employed and the nature of the research itself. For further information on risk levels, please refer to the Levels of Review information on the website: https://www.dcu.ie/researchsupport/researchethics.shtml

Due to the nature of anonymising and securely retaining our results, and our research group having no vulnerability. The stated level of risk will be low.

3.2 DOES THE RESEARCH INVOLVE:

	YES or NO
• use of a questionnaire? (attach copy)?	YES
• interviews (attach interview questions)?	YES
• observation of participants without their knowledge?	NO
• participant observation (provide details in section 2)?	NO
• audio- or video-taping interviewees or events?	NO
• access to personal and/or confidential data (including student, patient or client data) without the participant's specific consent?	NO
• administration of any stimuli, tasks, investigations or procedures which may be experienced by participants as physically or mentally painful, stressful or unpleasant during or after the research process?	NO
• performance of any acts which might diminish the self-esteem of participants or cause them to experience embarrassment, regret or depression?	NO
• investigation of participants involved in illegal activities?	NO
• procedures that involve deception of participants?	NO
• administration of any substance or agent?	NO
• use of non-treatment of placebo control conditions?	NO
• collection of body tissues or fluid samples?	NO
• collection and/or testing of DNA samples?	NO
• participation in a clinical trial?	NO
• administration of ionising radiation to participants?	NO

3.3 POTENTIAL RISKS TO PARTICIPANTS AND RISK MANAGEMENT PROCEDURES

Identify, as far as possible, all potential risks to participants (physical, psychological, social, legal, economic, etc.), associated with the proposed research. Please explain what risk management procedures will be put in place to minimise these risks.

No risks above and beyond those associated with normal use of computer equipment is expected.

3.4 ARE THERE LIKELY TO BE ANY BENEFITS (DIRECT OR INDIRECT) TO PARTICIPANTS FROM THIS RESEARCH?

YES or NO
NO

(If YES, provide details.)

3.5 ARE THERE ANY SPECIFIC RISKS TO RESEARCHERS?

Examples include use of dangerous materials, asking certain types of questions, research being undertaken in certain locations, researchers working alone in isolated areas, etc.

YES or NO
NO

(If YES, please describe and explain what risk management procedures will be put in place to minimise these risks.)

3.6 DEALING WITH ADVERSE/UNEXPECTED OUTCOMES

Please describe what measures/protocols you have put in place in the event that there are any unexpected outcomes or adverse effects to participants arising from involvement in the project.

Should any issues arise the necessary DCU related policies and procedures will be adhered to at all times.

3.7 HOW WILL THE CONDUCT OF THE PROJECT BE MONITORED?

Please explain how the supervisor will monitor the conduct of the project (especially where several people are involved in recruiting or interviewing, administering procedures, etc.) to ensure that it conforms with the procedures set out in this application

The supervisor has verified the methodology and all instruments used in this study. Furthermore, he will be available and on hand during the period when the study is being conducted.

3.8 SUPPORT FOR PARTICIPANTS

Depending on risks to participants you may need to consider having additional support for participants during/after the study. Consider whether your project would require additional support, e.g., external counselling available to participants. Please advise what support will be available.

N/A

3.9 DO YOU PROPOSE TO OFFER PAYMENTS OR INCENTIVES TO PARTICIPANTS?

YES or NO
NO

(If YES, please provide further details.)

3.10 DO ANY OF THE RESEARCHERS ON THIS PROJECT HAVE A PERSONAL, PHILOSOPHICAL, FINANCIAL OR COMMERCIAL INTEREST IN ITS OUTCOME THAT MIGHT INFLUENCE THE INTEGRITY OF THE RESEARCH, OR BIAS THE CONDUCT OR REPORTING OF THE RESEARCH, OR UNDULY DELAY OR OTHERWISE AFFECT THEIR PUBLICATION?

YES or NO
NO

(If YES, please specify how this conflict of interest will be addressed.)

4. CONFIDENTIALITY/ANONYMITY

4.1 WILL THE IDENTITY OF THE PARTICIPANTS BE PROTECTED?

YES or NO
YES

(If NO, please explain why.)

IF YOU ANSWERED YES TO 4.1, PLEASE ANSWER THE FOLLOWING QUESTIONS:

4.2 HOW WILL THE ANONYMITY OF THE PARTICIPANTS BE RESPECTED?

Please bear in mind that where the sample size is very small, it may be impossible to guarantee anonymity/confidentiality of participant identity. Participants involved in such projects need to be advised of this limitation in the Plain Language Statement/Information Sheet. If you intend to fully anonymize the data, please provide details

We will not record any personal information from participants.

4.3 LEGAL LIMITATIONS TO DATA CONFIDENTIALITY

Participants need to be made aware that confidentiality of information provided cannot always be guaranteed by researchers and can only be protected within the limitations of the law - i.e., it is possible for data to be subject to subpoena, freedom of information claim or mandated reporting by some professions. This information should be included in your Plain Language Statement and Informed Consent Form. Depending on the research proposal and academic discipline, you may need to state additional specific limitations.

State how and where participants will be informed of these limitations

These limitations will be made clear in the consent form.

5. PERSONAL DATA - COMPLIANCE WITH THE GENERAL DATA PROTECTION REGULATION

Personal data is data relating to a living individual (i.e. the 'Data Subject') who is, or can be, identified either from the data itself or from the data in conjunction with other information that is in, or is likely to come into, the possession of the 'Data Controller' (i.e. DCU and its constituent units e.g. research teams etc.). ***Further information on personal data is available from the DCU Data Protection Unit at https://www.dcu.ie/ocoo/dp/guides.shtml***

5.1 IS PERSONAL DATA BEING PROCESSED AS PART OF THIS PROJECT?

YES or NO
NO

If YES, Please indicate your compliance with the following guidelines:	**Mark here**
We confirm that we have read and agree to act in accordance with DCU Data Protection Unit guidance and procedures regarding personal data	
We confirm that we have put in place a Personal Data Security Schedule (PDSS) for the project and have attached it to this application	

Please see the GDPR and the Research Ethics Process section of the SCEC main webpage for guidance

IF YOU ANSWERED YES TO 5.1, PLEASE ANSWER THE FOLLOWING QUESTIONS:

5.2 WHAT KIND OF PERSONAL DATA IS BEING PROCESSED?

Note special categories of personal data include health data, genetic data and/or data relating to ethnicity/race of participants, their sex lives and/or sexual orientation

5.3 WILL ANONYMISATION/PSEUDONYMISATION OF THE PERSONAL DATA BE UNDERTAKEN?

YES or NO

(If NO, please explain why.)

6. DATA/SAMPLE STORAGE, SECURITY AND DISPOSAL

For the purpose of this section, "Data" includes that in a raw or processed state (e.g. interview audiotape, transcript or analysis). "Samples" include body fluids or tissue samples.

6.1 HOW AND WHERE WILL THE DATA/SAMPLES BE STORED?

Note that the SCEC recommends that all data be stored on campus – please justify any off-site storage.

Any results from surveys will be stored on a DCU owned Google Drive. Consent forms will be scanned and uploaded to Google Drive and physical copies will be given to the supervisor at the earliest opportunity for safe and secure storage.

6.2 WHO WILL HAVE ACCESS TO DATA/SAMPLES?

If people other than the main researchers have access, please name who they are and explain for what purpose.

Physical copies will be given to the supervisor at the earliest opportunity for safe and secure storage.

6.3 HOW LONG IS THE DATA TO BE HELD/RETAINED FOR?

*Note that with very few exceptions **personal data** may not be retained indefinitely. It is up to the unit or research team to establish an upper retention limit for each category of personal data under its control.*

Data will be disposed of, in accordance with the DCU policy on retention of all examinable material. It will be retained until a date no earlier than the date of promulgation of results.

6.4 IF DATA/SAMPLES ARE TO BE DISPOSED OF, PLEASE EXPLAIN HOW, WHEN AND BY WHOM THIS WILL BE DONE?

*Note that simply deleting files is not sufficiently secure. The additional steps to be taken to maintain data security should be given. **Personal data** must be disposed of in a safe and secure manner at the end of its retention period. If the data is stored in a: a) paper based format then shredding or disposal via a secure bin is recommended; or b) if it is stored in an electronic based format then deletion of the record or full anonymization of the data is recommended.If data/samples are NOT being disposed of, please justify this decision.*

All user tests will be removed from Google Drive by principal investigators.

7. PLAIN LANGUAGE STATEMENT *(Attach to this document. Approx. 400 words)*

A Plain Language Statement (PLS) should be used in all cases. This is written information in plain language that you will be providing to participants, outlining the nature of their involvement in the project and inviting their participation. The PLS should specifically describe what will be expected of participants, the risks and inconveniences for them, and other information relevant to their involvement. Please note that the language used must reflect the participant age group and corresponding comprehension level – if your participants have different comprehension levels (e.g. both adults and children) then separate forms should be prepared for each group. The PLS can be embedded in an email to which an online survey is attached, or handed/sent to individuals in advance of their consent being sought. See link to sample templates on the website: ***https://www.dcu.ie/researchsupport/ethicsapproval.shtml***

PLEASE CONFIRM WHETHER THE FOLLOWING ISSUES HAVE BEEN ADDRESSED IN YOUR PLAIN LANGUAGE STATEMENT/ INFORMATION SHEET FOR PARTICIPANTS:

	YES or NO
Introductory Statement (Supervisor and student names, school, title of the research)	YES
What is this research about?	YES

Why is this research being conducted?	YES
What will happen if the person decides to participate in the research study?	YES
How will their privacy be protected?	YES
How will the data be used and subsequently disposed of?	YES
What are the legal limitations to data confidentiality?	YES
What are the benefits of taking part in the research study (if any)?	YES
What are the risks of taking part in the research study?	YES
Confirmation that participants can change their mind at any stage and withdraw from the study	YES
How will participants find out what happens with the project?	YES
Contact details for further information (including SCEC contact details)	YES
Details relating to GDPR Compliance if Personal Data is being sought	NO

If any of these issues are marked NO, please justify their exclusion:

No personal data being sought from participants

8. INFORMED CONSENT FORM *(Attach to this document. Approx. 300 words)*

In most cases where interviews or focus groups are taking place, an Informed Consent Form is required. This is an important document requiring participants to indicate their consent to participate in the study, and give their signature. If your participants are minors (under 18), it is best practice to provide them with an assent form, while their parents/guardians will be given the Informed Consent Form. In cases where an anonymous questionnaire is being used, it is enough to include a tick box in the questionnaire (underneath the information section for participant), where participants can indicate their consent.
See link to sample templates on the website: ***https://www.dcu.ie/researchsupport/ethicsapproval.shtml***

NB – IF AN INFORMED CONSENT FORM IS NOT BEING USED, THE REASON FOR THIS MUST BE JUSTIFIED HERE.

Dublin City University

School of Computing

Informed Consent Form

Research Purpose

We are carrying out this research in order to gain an insight into the ease of use of our system. The goal of the project is to monitor and change the environment of a house plant through a user-friendly web interface. We will ask you a series of questions to do with the interfaces functionality to help improve the app as a whole.

Confirmation of Requirements

Participant, please complete the following by circling Yes/No for each question.

I have read the plain language Statement.	Yes	No
I understand the information provided.	Yes	No
I understand my information is not being recorded	Yes	No
I have had an opportunity to ask questions.	Yes	No

Confirmation of voluntary involvement

Participants, please circle Yes/No for the following question.

I understand I may withdraw at any time.	Yes	No

Signature

I have read and understood the information on this form. My questions and concerns have been answered by the researchers and I have a copy of this consent form. Therefore, I consent to take part in this survey.

Participant Signature: _____

Name (printed): _____

Witness: ________________________________

Date: ________________________________

Dublin City University

School of Computing

Plain Language Statement - IOT Garden

Introduction

Our Final Year Project allows users to monitor and manipulate a plants environment through an interactive Web Dashboard. The dashboard will be accessible from anywhere so that users will be able to check on their plant when they are away from home and water it if necessary.

Details of what involvement will require

Participation will encompass User Acceptance Testing, this will require users to use our system. We will then prompt them to provide feedback through our questionnaire.

Potential Risks & Use of Data

There is no risk to participants, we will also not be recording any data on participants. Any feedback recorded will be anonymous.

Benefits to Participants

Users will have the opportunity to contribute to the improvement of the end User Experience for our project.

Voluntary Involvements

involvement in our testing is purely voluntary and participants are free to withdraw at any time from testing/providing feedback.

If participants wish to speak with project members about the project they can contact the investigators:

Jacob Byrne - jacob.byrne233@mail.dcu.ie

Daniel Pereira - daniel.pereira2@mail.dcu.ie

If participants have concerns about the research and with to contact an independent person please contact:

Dr. Donal Fitzpatrick,

Dublin City University,

School of Computing,

Dublin 9.

Email: donal.fitzpatrick@dcu.ie

User Acceptance Test - IOT Garden

Have you ever used a system such as this before?

Do you find the interface easy to navigate?

Would you be interested in a system like this?

Do you have any ideas for improvements?

Any other comments?