PERSONAL RISK ASSESSMENT FOR STUDENT PROJECTS

Please read this first

Each student who undertakes a large or significant project such as a final year project is required to complete this Risk Assessment form. The nature of some projects is such that students could be required to make use of specialised laboratory spaces, specialised equipment, or even hazardous materials; and these need to be considered in terms of risk and safety. The nature of these risks is likely to be Discipline-specific. However, all project students must identify and assess any such risks involved in their project **BEFORE** commencing with the activities where risk is involved. It is recognised that circumstances can sometimes change during a project, and this may influence the outcome of the Risk Assessment. Regardless, a Risk Assessment must be completed at the beginning of the project, and this should be done based on what is known or can be reasonably anticipated at that moment in time. If the project circumstances change later, the risks can be reassessed, and a revised Risk Assessment can be submitted at that time. In all cases, students should ensure that they liaise with their project supervisor / advisor to discuss their Risk Assessment. The project supervisor / advisor will be required to review and (electronically) sign the Risk Assessment form too. Project work is not particularly dangerous, but it is important to realise that, in your future, professional career you may have a legal obligation to think carefully about any hazards which may be encountered. This awareness encourages careful working, and it makes sure that everyone will be sure that the necessary precautions have been identified and are being applied. The first stage of safe working is that you think carefully about what you are planning to do.

What you need to do

Please review and complete all sections below which are relevant to your Discipline and to the needs of your project. Please liaise with your project supervisor / advisor in doing so. Both you and your supervisor / advisor should (electronically) sign this form prior to submitting it.

# Section 1 – Your Details

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| --- | --- |
| YOUR NAME | Gerardo Blanco Bernal |
| STUDENT ID | 180000301 |
| NAME OF SUPERVISOR | Jacky Visser |
| TITLE OF PROJECT | AC40001 Individual Project  <Automated Greenhouse> |

# Section 2 – Emergency Procedures

This section is primarily for information only. Please make sure that you are familiar with the following information which relates to emergency procedures, personnel, or resources within your primary location of work on campus, i.e., the Queen Mother Building.

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| --- | --- |
| ITEM | Details |
| Nearest Telephone for Emergency Help and Number to Ring | **Emergency Phone Number: …4141……….**  **Phone locations:**  Ground Floor of QMB:   * Phone situated in Room G21 (User Centre, off QMB Street Area).   First Floor of QMB:   * Phone situated within Room 1.13 (Lab 5 – Honours/MSc Lab).   Second Floor of QMB:   * Phone situated in Room 2.08 (User Experience Lab) * Phone situated in Room 2.01 (staff room and kitchen area). |
| Trained First Aiders | Iain Murray |
| Fire Assembly Point | Campus green outside the front entrance of the QMB |
| Nearest First Aid Equipment | QMB Ground Floor:   * First Aid Kit available on top of white plinth(s) opposite Room G.03 (Lab 0)   QMB First Floor:   * First Aid Kit available on red mailbox cabinet opposite meeting room 1.06   QMB Second Floor:   * First Aid Kit available within Room 2.01 (staff room and kitchen area). |

# Section 3 – Your Specific Location(s) for Project Work

Please specify the location(s) where you will be undertaking work on your project. In some cases, you may be working from home. In other cases, you may be working in the Queen Mother Building, utilising specific lab spaces such as the main labs, the Arduino lab, and lab areas provided by research groups. In the table below, several common work locations have been prefilled to give you an example to start with. You can delete any that do not apply to you and/or or add more as appropriate. For each location, please specify any special safety facility which you need to use, e.g., an isolated electrical supply, a ‘fume’ cupboard, etc. The nature of these is likely to be Discipline-specific and may not be relevant to you. For example, if you are simply working on a PC or laptop in a lab area or at home, there are likely to be no special facilities required, other than you making safe use of the equipment and to be aware of relevant health- or fire-safety procedures.

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| LOCATION OF WORK | Date(s) /Period Utilised | Special Facility Required |
| Online / at home | 01/12/2021- 01/04/2022 | Soldering Station. Basic electrical tools and machines with isolated electrical supply. |
| Queen Mother Building Labs (any of Labs 0, 1, and 2 on the ground floor, or Labs 4 and 5 on the first floor). | Project duration | None |
| Arduino Lab, Ground Floor, Queen Mother Building | Project duration | None |
| UX Lab, Second Floor, Queen Mother Building | Project duration | None |
| Other. *Please specify or leave blank if not applicable.* |  |  |

# Section 3 – Risk Categories

Please review the categories of risk below. Please note once again that these are likely to be Discipline-specific. Whilst these are not often applicable to students within the Discipline of Computing, please seek advice from your project advisor if you are unsure. For example, where it states Electrical Risks, this is likely to be primarily relevant for students in Electrical and Electronic Engineering degrees. However, those doing Arduino-style projects should check with their project advisor in case any special requirements apply. Mechanical risks are likely to be primarily relevant for students in Engineering degrees, working with larger equipment. However, if you are working with specialised equipment and not sure, please check with your project adviser once again. One area to consider for Computing could be for students developing wearable products or making use of Virtual Reality. In such cases, you may wish to consider the safety of the working environment. For example, in the case of VR, making sure that the VR kit is set up in an area with plenty of space for moving, with no sharp objects that people could bump into, or cables that they could trip over. Having reviewed the risk categories in the table below, there is a separate box / table underneath into which you can list any risks you have identified. You should stipulate the dates/duration for which this risk could present itself during your project. You should also describe how the risk will be managed / mitigated. For example, in the case of using VR equipment, making sure that sufficient space around the kit is made available, being aware of people developing motion sickness using the kit, making sure that any cables are safely placed around the boundary of the area and not trailing elsewhere.

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| 3.0 ELECTRICAL RISKS. Identify electrical risks and indicate the precautions to be taken in the boxes further below. | | |
| 4.0 MECHANICAL RISKS. List any mechanical risks which you will encounter. Include the lifting of heavy weights, the use of hand or power tools and the use of pressurised systems. | | |
| 5.0 THERMAL RISKS. Identify risks from equipment or substances which will be at high or low temperatures. | | |
| 6.0 RISK from DUST and POWDER. Identify risks of fire, explosion, or injury by contact/breathing from dust or powder. | | |
| 7.0 RISK from CHEMICALS or GASES. List each chemical substance you use which you consider to offer a significant risk, the date when you first knew you would use it, the risks associated with it and the precautions to be used. Risks are listed on containers, in manufacturer’s data sheets and catalogues, and are usually known to research workers and members of staff. Please also ensure COSHH forms are completed if required. | | |
| 8.0 RISK from BIOLOGICAL Hazards. List biological substances which you use and consider to offer a significant risk, the date when you first knew you would use it, the risks associated with it and the precautions to be used. Risks may be listed on containers, in manufacturer’s data sheets and catalogues, and are usually known to research workers and members of staff. Please also ensure COSHH forms are completed if required. | | |
| **If you have identified any risks from the categories above which are relevant to your project, you can list these below along with precautions that will be taken.** | | |
| RISK | Date | Details and Precautions |
| 3.0 ------------------------------------------  4.0 ------------------------------------------  5.0 ------------------------------------------  7.0 & 8.0 ---------------------------------- | SEM 1&2  SEM 1&2  SEM 1&2  SEM 1&2 | Ensure all electrical machinery are in excellent working order before using them to avoid any possible injuries. Wear appropriate protective gear. Use of electrical equipment must be at a safe distance to any conducting liquids (water/ fertilizer) and always used with insulating gloves to avoid possible electrocution risks.  Ensure power tools are in excellent working order before using them to avoid any possible injuries. Wear appropriate protective gear. Containers of up to 120kg for water and fertilizer will need to be secured correctly. To avoid risk of detachment from the greenhouse structure, metal clamps and brackets will be fitted to hold everything in place. On top of this, the whole structure will be ground level so that if any components become detached they will not roll away.  Possible use of heat gun. Use all appropriate protective gear. Will always be used at a safe distance from any explosive compounds or materials.  Use of ecological fertilizers includes risk of spillage. Will be stored in appropriate metal crossbow container, which achieves an airtight space, and opaque colour to protect the interior from UV rays. Suitable for food use. To avoid risk of contamination of soil, will only use ecological fertilizers/ organic compost which are rated as environmentally friendly so that this risk is completely mitigated |

# Section 4 – General Health and Safety, including Display Screen Equipment

This section is applicable to all students, notably those in the Discipline of Computing who will make heavier use of Display Screen Equipment for the purposes of their project, e.g., computers, monitors, laptops, and similar devices. All students should ensure that they comply with the following:

1. Please read “[A Student’s Guide to Health and Safety at Dundee University](https://www.dundee.ac.uk/media/dundeewebsite/safetyservices/documents/handbook/Student%20Handbookv3%202010.pdf)”[[1]](#footnote-1).
2. Please be aware of the risks of using Display Screen Equipment for prolonged periods of time and the importance of having an ergonomic workspace to prevent repetitive strain or injury. See brief guides for this at [Science Daily](https://www.sciencedaily.com/releases/2020/07/200728150637.htm)[[2]](#footnote-2) and the [BBC](https://www.bbc.com/worklife/article/20200508-how-to-work-from-home-comfortably-ergonomic-tips-covid-19)[[3]](#footnote-3) but please seek further information where required.
3. In general, please be mindful of your health, both physical and mental. Please seek further information on these where required. Some examples:
   1. [Guidance for the public on the mental health and wellbeing aspects of coronavirus (COVID-19)](https://www.gov.uk/government/publications/covid-19-guidance-for-the-public-on-mental-health-and-wellbeing/guidance-for-the-public-on-the-mental-health-and-wellbeing-aspects-of-coronavirus-covid-19)[[4]](#footnote-4).
   2. [Live Smart pages from the University of Dundee](https://libguides.dundee.ac.uk/c.php?g=664589&p=4702841)[[5]](#footnote-5).

# Section 5 – Declaration and Signatures

Please complete the following section before you submit your Risk Assessment form. Please note that electronic signatures are OK. You do not need to print out the form to sign it.

|  |  |
| --- | --- |
| DECLARATION | Your Signature and Date |
| I have given careful consideration to the work that I am planning to do, and I believe that I have identified the significant risks to which I will be exposed. I have consulted my project supervisor / advisor where I have been uncertain about safe working practices during my project.  I confirm that I have read “A Student’s Guide to Health and Safety and Dundee University”.  I confirm that I am aware of the risks associated with the use of Display Screen Equipment and the importance of having an ergonomic workspace for preventing repetitive strain or injury.  I confirm that the above is to the best of my knowledge and relevant at the date of signature. | **Student Signature: Gerardo Blanco Bernal**  **Date: 19/11/2021** |
| I have read this document and agree that the risks associated with this project have been identified and appropriate measures are in place. This is to the best of my knowledge and relevant at the date of signature. | **A picture containing light  Description automatically generated**  **Supervisor / advisor signature:**  **Date: 24 Nov 2021** |

1. <https://www.dundee.ac.uk/media/dundeewebsite/safetyservices/documents/handbook/Student%20Handbookv3%202010.pdf> [↑](#footnote-ref-1)
2. <https://www.sciencedaily.com/releases/2020/07/200728150637.htm> [↑](#footnote-ref-2)
3. <https://www.bbc.com/worklife/article/20200508-how-to-work-from-home-comfortably-ergonomic-tips-covid-19> [↑](#footnote-ref-3)
4. <https://www.gov.uk/government/publications/covid-19-guidance-for-the-public-on-mental-health-and-wellbeing/guidance-for-the-public-on-the-mental-health-and-wellbeing-aspects-of-coronavirus-covid-19> [↑](#footnote-ref-4)
5. <https://libguides.dundee.ac.uk/c.php?g=664589&p=4702841> [↑](#footnote-ref-5)