School of Physics Undergraduate Project Risk Assessment

Name of Students		
Marius van Laar, Kyle Hall		
Project Title		
Modelling Light-Driven Micro-Machines		
Location		
2.20, HH Wills Physics Laboratory, University of Bristol, Tyndall Avenue, Bristol, BS8 1TL		
Names / Type of Persons at Risk		
Project Participants		
Hazards		
Activities, substances, machines, tools, etc.	**Hazards identified**	**Estimated risk** (low/medium/high)
1. *Prolonged use of a Computer Keyboard*	*Light personal injury can occur during the improper prolonged use of a keyboard, such as repetitive strain injury.*	*Low*
2. *Prolonged use of a Computer Pointing Device (i.e. Mouse or Trackpad)*	*Light personal injury can occur during the improper prolonged use of a pointing device (i.e. Mouse or Trackpad), such as repetitive strain injury.*	*Low*
3. *Prolonged use of a Visual Display Unit (i.e. Computer Monitor)*	*Eye strain can occur after prolonged usage of a Visual Display Unit, especially if not optimally configured for the user. (i.e. improper colours, flickers and jitters, clear characters, suitable contrast and brightness)*	*Low*
4. *Prolonged period seated in one position*	*Personal injury can occur from poor blood circulation caused by being seated for a prolonged period.*	*Medium*
5. *Prolonged use of a desk chair*	*Personal injury can occur while using an improperly adjusted desk chair*	*Medium*
6. *Environmental factors affecting the use of a PC workstations.*	*Glare from surfaces; Personal injury caused by a cluttered and untidy workspace; Uncomfortable heat levels; Uncomfortable room brightness; Uncomfortable noise levels*	*Low*

Precautions required to mitigate risk (relate to numbers above):	Estimated risk after precautions (low/medium/high)
1. *Any keyboards, must be in good working order (If not this shall be reported to the Laboratory Technician – Tom Kennedy). They shall be positioned at a comfortable distance and angle for use by the user. Users will ensure that they follow good typing practices to avoid injury.*	*Low*
2. *Any pointing devices, must be in good working order (If not this shall be reported to the Laboratory Technician – Tom Kennedy). They shall be positioned at a comfortable distance and angle for use by the user. Users will ensure that they follow good practices to avoid injury.*	*Low*
3. *Users will ensure to report any defects such as improper colours, flickers and jitters, clear characters, suitable contrast and brightness. Users will also ensure that they wear appropriate corrective lenses and take regular breaks.*	*Low*
4. *Users will ensure to take regular breaks away from work, at approximately a rate of 5 minutes for every 1 hour of seated work.*	*Low*
5. *Users will ensure that any desk chairs are in good working order (If not this shall be reported to the Laboratory Technician – Tom Kennedy). They shall be adjusted so that the user is comfortable working for the 1 hour periods stated above.*	*Low*
6. *Users will report any uncomfortable environmental concerns to the Laboratory Technician – Tom Kennedy. These should be addressed in a reasonable time frame so that work continue.*	*Low*

Emergency Procedures and Contacts

*In the event of a medical emergency requiring the attendance of the emergency services, the emergency services must be contacted in the first instance by dialling **999**, then informing security services (Internal Line: **112233** External Line: **0117 331 1223**), then contact the foyer lodge (**0117 928 7463**). First Aider details are made available within the laboratory.*

*In the event of a fire, evacuate the area by the nearest, safe emergency exit, avoiding the use of any lifts and convene at the closest Evacuation Meeting Zone. If safe to do so activate the Fire Alarm by breaking the glass on a red alarm point, and once clear of the building contact the emergency services by dialling **999**.*

Training Requirements

Project participants must review Health and Safety Executive, Display screen equipment (DSE) workstation checklist, when changing workstation. Any concerns should be raised to the Laboratory Technician (Tom Kennedy).

Access Restrictions / Signage

UCard access agreed with Rhys Morris and Tom Kennedy

Storage		
Not required		
Waste Disposal		
Paper waste will be recycled in general recycling. Any sensitive material will be shredded before recycling.		
Student/s	**Signature/s**	**Date**
Mr. Marius van Laar		12/10/2017
Mr. Kyle Hall		12/10/2017
Supervisor	**Signature**	**Date**
Dr. Simon Hanna		12/10/2017

Risk Scoring

The assessment of risk is based on an **estimation** of the potential consequence of a risk, in terms of injury and the likelihood that it will occur.

		Consequence		
		Minor injury or no apparent injury	Injury requiring first aid	Injury requiring medical treatment, or with possible long term negative health effects
Likelihood	Will probably not occur in most circumstances	**Low**	**Low**	**Medium**
	May occur in some circumstances	**Low**	**Medium**	**High**
	Likely to occur in most circumstances	**Medium**	**High**	**High**

Notes

- If a box has no information associated with it, write ‘none’ or ’not required’ so that it is obvious that it does not apply and has not been overlooked.
- Where the risk scoring is **medium** or **high** after precautions have been implemented further consideration must be given to additional precautions in an attempt to reduce the risk to as **low** as reasonably practicable. Work which is **high** risk after precautions have been implemented is not permitted under any circumstance.
- The completed risk assessment should be forwarded by email as a Word document or PDF to Dan Uren, School Safety Manager, at dan.uren@bristol.ac.uk. It will be reviewed and either acknowledged as suitable or feedback provided for its improvement.
- Project work must not commence until the risk assessment has been acknowledged by the School Safety Manager as being suitable and all required control measures have been implemented.
- If the scope of the project changes as the project progresses, e.g. through new objectives, processes, equipment, chemicals, etc, then the risk assessment must be updated to take account of these new factors. This should also be signed by your supervisor and a copy provided to the School Safety Manager.
- The signed risk assessment must be retained in the lab alongside the project and be readily available for reference at all times.
- Any work not supported by a valid risk assessment will be stopped.