THE UNIVERSITY OF WARWICK

SCHOOL OF ENGINEERING
DISPLAY SCREEN EQUIPMENT RISK ASSESSMENT

In order to ensure that students within the School of Engineering understand the concept of risk assessment, this form has been generated to give those students who are not carrying out a practical based project some awareness of risks. This form is not otherwise required by law to be completed by staff or students at the University.

The idea of risk assessment is to break the activity into several tasks and then identify any hazards appertaining to each task, evaluate what risks these pose to yourself and others and then put into place control measures to remove or reduce the risk of coming into contact with those hazards or prevent the likelihood of the risks arising. If you are working at a pc for the majority of your project, then ensuring that you set up your workstation is critical to prevent you from experiencing discomfort. This will apply wherever you generally work. Your hazards in this context are essentially the tools that you are working with and the environment in which you are working and each of these may introduce risks being experienced (generally discomfort). This checklist will guide you on how to identify the hazards or as it is termed in this document, 'risk factors' and will give you some indication on what things you should consider (or your control measures). It is suggested that you complete this checklist at a workstation that you will generally use throughout your project. As you work your way through the checklist, you will need to identify what action you should take to mitigate the risks wherever you answer 'no' in the form.

Employees and students who are employed to carry out research or are on work experience at the University of Warwick are required to complete a separate form which can be found with other DSE training material on http://www2.warwick.ac.uk/fac/sci/eng/local/hands/dse/. Reference to these pages may also be helpful to students completing this form.

Name of student completing the checklist:

Date of assessment:

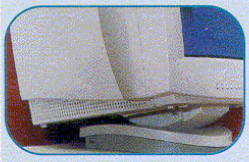
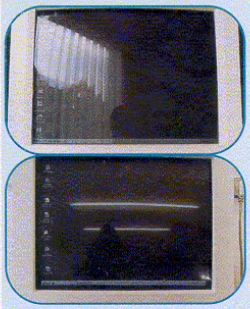
Location of main workstation to be used (if possible):

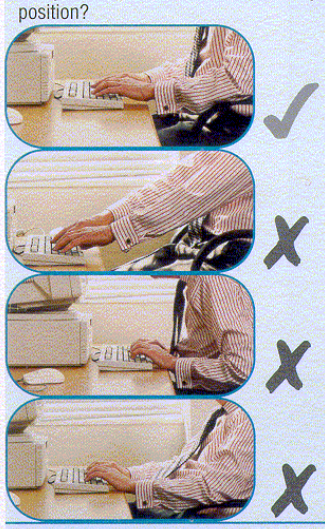
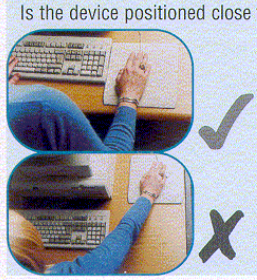
Further action needed: YES/NO

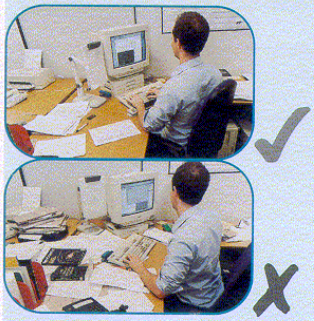
As stated, work through the checklist, ticking the `yes' or `no' column against each risk factor:

- `Yes' answers require no further action.
- `No' answers will require further investigation and/or remedial action. This is where hazards have been identified that could potentially introduce risks to you, the user of the workstation. You should record your decisions in the `Action to take' column. If there are any particular issues that you are unable to resolve yourself, additional support can be provided by a DSE assessor or H&S Advisor, which should be indicated on the form. This is particularly relevant if you need specialist support to enable you to complete your project.

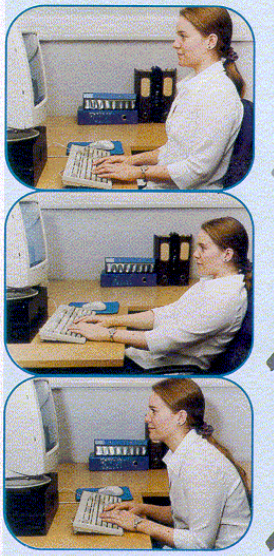
VDU workstation checklist

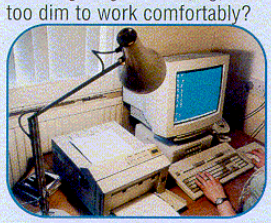
RISK FACTORS	Tick answer YES	Tick answer NO	THINGS TO CONSIDER	ACTION TO TAKE
1 Display screens				
Are the characters clear and readable? 			Make sure the screen is clean and cleaning materials are made available. Check that text and background colours work well together.	
Is the text size comfortable to read?			Software settings may need adjusting to change text size.	
Is the image stable, ie free of flicker and jitter?			Try using different screen colours to reduce flicker, eg darker background and lighter text. If problems still exist, get the set-up checked, eg by the equipment supplier.	
Is the screen's specification suitable for its intended use?			For example, intensive graphic work or work requiring fine attention to small details may require large display screens.	
Are the brightness and/or contrast adjustable?			Separate adjustment controls are not essential, provided the user can read the screen easily at all times.	
Does the screen swivel and tilt? 			Swivel and tilt need not be built in; you can add a swivel and tilt mechanism. However, you may need to replace the screen if: • swivel/tilt is absent or unsatisfactory; • work is intensive; and/or • the user has problems getting the screen to a comfortable position.	
Is the screen free from glare and reflections? 			Use a mirror placed in front of the screen to check where reflections are coming from. You might need to move the screen or even the desk and/or shield the screen from the source of reflections. Screens that use dark characters on a light background are less prone to glare and reflections.	
Are adjustable window coverings provided and in adequate condition?			Check that blinds work. Blinds with vertical slats can be more suitable than horizontal ones. If these measures do not work, consider anti-glare screen filters as a last resort and seek specialist help.	

RISK FACTORS	Tick answer		THINGS TO CONSIDER	ACTION TO TAKE
	YES	NO		
2 Keyboards				
Is the keyboard separate from the screen?			This is a requirement, unless the task makes it impracticable (eg where there is a need to use a portable).	
Does the keyboard tilt?			Tilt need not be built in.	
Is it possible to find a comfortable keying position? 			Try pushing the display screen further back to create more room for the keyboard, hands and wrists. Users of thick, raised keyboards may need a wrist rest.	
Does the user have good keyboard technique?			Training can be used to prevent: • hands bent up at wrist; • hitting the keys too hard; • overstretching the fingers.	
Are the characters on the keys easily readable?			Keyboards should be kept clean. If characters still can't be read, the keyboard may need modifying or replacing. Use a keyboard with a matt finish to reduce glare and/or reflection.	
3 Mouse, trackball etc				
Is the device suitable for the tasks it is used for?			If the user is having problems, try a different device. The mouse and trackball are general-purpose devices suitable for many tasks, and available in a variety of shapes and sizes. Alternative devices like touch screens may be better for some tasks (but can be worse for others).	
Is the device positioned close to the user? 			Most devices are best placed as close as possible, eg right beside the keyboard. Training may be needed to: • prevent arm overreaching; • tell users not to leave their hand on the device when it is not being used; • encourage a relaxed arm and straight wrist.	

RISK FACTORS	Tick answer		THINGS TO CONSIDER	ACTION TO TAKE
	YES	NO		
Is there support for the device user's wrist and forearm?			Support can be gained from, for example, the desk surface or arm of a chair. If not, a separate supporting device may help. The user should be able to find a comfortable working position with the device.	
Does the device work smoothly at a speed that suits the user?			See if cleaning is required (eg of mouse ball and rollers). Check the work surface is suitable. A mouse mat may be needed.	
Can the user easily adjust software settings for speed and accuracy of pointer?			Users may need training in how to adjust device settings.	
4 Software				
Is the software suitable for the task?			Software should help the user carry out the task, minimise stress and be user-friendly. Check users have had appropriate training in using the software. Software should respond quickly and clearly to user input, with adequate feedback, such as clear help messages.	
5 Furniture				
Is the work surface large enough for all the necessary equipment, papers etc? 			Create more room by moving printers, reference materials etc elsewhere. If necessary, consider providing new power and telecoms sockets, so equipment can be moved. There should be some scope for flexible rearrangement.	
Can the user comfortably reach all the equipment and papers they need to use?			Rearrange equipment, papers etc to bring frequently used things within easy reach. A document holder may be needed, positioned to minimise uncomfortable head and eye movements.	
Are surfaces free from glare and reflection?			Consider mats or blotters to reduce reflections and glare.	

VDU workstation checklist

RISK FACTORS	Tick answer YES	Tick answer NO	THINGS TO CONSIDER	ACTION TO TAKE
Is the chair suitable? Is the chair stable? Does the chair have a working: • seat back height and tilt adjustment? • seat height adjustment? • swivel mechanism? • castors or glides?			The chair may need repairing or replacing if the user is uncomfortable, or cannot use the adjustment mechanisms.	
Is the chair adjusted correctly? 			The user should be able to carry out their work sitting comfortably. Consider training the user in how to adopt suitable postures while working. The arms of chairs can stop the user getting close enough to use the equipment comfortably. Move any obstructions from under the desk.	
Is the small of the back supported by the chair's backrest?			The user should have a straight back, supported by the chair, with relaxed shoulders.	
Are forearms horizontal and eyes at roughly the same height as the top of the VDU?			Adjust the chair height to get the user's arms in the right position, then adjust the VDU height, if necessary.	
Are feet flat on the floor, without too much pressure from the seat on the backs of the legs?			If not, a foot rest may be needed.	

RISK FACTORS	Tick answer YES	Tick answer NO	THINGS TO CONSIDER	ACTION TO TAKE
6 Environment				
Is there enough room to change position and vary movement?			Space is needed to move, stretch and fidget. Consider reorganising the office layout and check for obstructions. Cables should be tidy and not a trip or snag hazard.	
Is the lighting suitable, eg, not too bright or too dim to work comfortably? 			Users should be able to control light levels, eg by adjusting window blinds or light switches. Consider shading or repositioning light sources or providing local lighting, eg desk lamps (but make sure lights don't cause glare by reflecting off walls or other surfaces).	
Does the air feel comfortable?			VDUs and other equipment may dry the air. Circulate fresh air if possible. Plants may help. Consider a humidifier if discomfort is severe.	
Are levels of heat comfortable?			Can heating be better controlled? More ventilation or air-conditioning may be required if there is a lot of electronic equipment in the room. Or, can users be moved away from the heat source?	
Are levels of noise comfortable?			Consider moving sources of noise, eg printers, away from the user. If not, consider soundproofing.	

7 Final questions to users...

Insert any further details:

- **Have you already experienced discomfort whilst working at your display screen? YES/NO** If 'yes' make the required adjustments and monitor whether these have made a difference.
- **Do you take regular breaks away from your display screen? YES/NO** If 'no' ensure that you take a break of at least 5 minutes in each half hour.
- **Do you know that you should not work for long periods of time on a laptop without use of a docking station, separate keyboard and mouse? YES/NO** If you need to use a laptop, then ensure that you don't make this your preferred workstation choice, or consider purchasing your own docking station, separate keyboard and mouse as these provide you with greater flexibility to achieve a comfortable working posture.
- **Were you aware that you will need to make adjustments at each different workstation before you start work? YES/NO** If 'no', then follow the same principle as when you sit in a car to drive after someone else has driven it – you adjust the car to suit you – the same principles apply to setting up your workstation. Make the adjustments and then start working.

Write further details and any problems here: