The Glasgow School of Art

GSA Guide to the Safe Use of Projectors within an Art Installation

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Policy Control

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GSA Guide to the Safe Use of Projectors within an Art Installation

Introduction

This guide should be used by staff and students to plan any use of projectors in a way which minimises the risks they can introduce.

Please consider the following when planning the use of a projector within any art installation:

1.   Selecting the right equipment

It is important to select the correct type of projector, ensuring is it suitable for its intended use. Many of the more modern type of projectors use more efficient LED bulbs which produce an intense light but much less heat and are also much smaller in size. Where possible this type should be used as the reduction in heat generated greatly reduces the risk of fire from over heating equipment.

Where an older 'bulb' type projector is used additional care must be taken to maintain appropriate ventilation around the device. If the projector is being used in a small or enclosed space (as is often the case) care must be taken to ensure that excess heat does not build up. Remember that heat rises, so warm air must be able to escape at the top and cool air enter to replace it. If you are building a room within a room, be it with partition panels or a 'tent' type structure, remember to allow for this heat circulation in your build plan.

Where a projector or other AV equipment is being used in close proximity to other materials particular care must be taken with fabrics, paper and materials such as foam which may ignite on exposure to heat. When creating any work care should be taken to prevent any dust or debris entering heat sources where they may become a source of fuel and particular care should be taken with flammable aerosols and foams which may ignite on contact with electrical components and/or hot bulbs etc..

Remember, at Glasgow School of Art, aerosols **must not** be used in school premises except in a designated spray booth.

2.   Location

When planning your work with a projector it is important that you consider the environment in which your work will be displayed, the impact of your work on others (and vice-versa), and consider how those viewing your work may impact on the suitability of any chosen layout.

3.   Turning off/on of equipment

Whichever equipment is used, it is vital that AV equipment is turned off at the end of each day (or at the end of its use) and it should not be left unattended for long periods.

When turning off projectors and other equipment it should be by the switch on the machine itself, rather than by just pulling the plug, as they often have integral cooling systems which run on to allow them to cool correctly, and these may not function if they are turned off incorrectly.

The accessibility of such switches should be considered at the time of installation, and instruction given to those responsible for turning them off/on as to the correct procedures, particularly during evenings and weekends (e.g. degree show invigilators if this is part of their role)

4. Portable Appliance Testing

As with all electrical equipment used within GSA, AV equipment should be subject to annual PAT checks, and have an in-date sticker confirming this.

If you require items to be tested you should firstly speak to your tutor/Programme Leader who can advise on the arrangements in relation to P.A.T testing.

5. Stability

Projectors, like many other works within GSA, are often positioned on top of plinths or shelves. When this is the case, consideration should be given to the location of the structure and the possibility and potential consequence of it being knocked and the projector falling.

Where this is an issue the projector should be secured either to the plinth/shelf or some other object to prevent fall impacting on the safety of building users.

If you are having a plinth made to a specific size for your project it may also be possible to fit the upper surface in such a way that a small lip is left around it to prevent the projector becoming unstable (such a lip may even be able to disguise the presence of the projector if this is beneficial)

Plinths must be of sufficient size to accommodate the chosen equipment. The taller the plinth, the wider it needs to be, or additional support measures put in place, to ensure its stability.

6. Tripping hazards

Projectors are often used in dark spaces, for obvious reasons. This dark environment can result in a higher risk of trips for the simple reason that people don't see the power cable in the dark.

To avoid this, where possible cables should be positioned in such a way that people won't walk over them – you could locate the projector close to a power socket on the wall so the cable can be secured along the wall instead of across the floor where visitors could potentially trip over the cable. Where the layout of the work is such that the cable must run along the floor it must be protected by a 'cable protector" and not simply taped down – see example pictures below.

Regular checks should be made to ensure that the measures in place remain effective throughout the duration of the installation of the work.

7.   Impact of light on eyes

Sometimes with this work the height of the projector is such that for the vast majority of people the light from the projector can be close to eye level and may present a risk of injury to the eye. Given the intensity of the light and the dark nature of the space it can also be disorientating within the room and could cause temporary vision problems for visitors.

Projectors should be positioned and angled so that the projector is above eye level for the majority of people. This will reduce the impact on visitor's eyes whilst not detracting significantly from the work. Lowering projectors can present problems due to the possibility of visitors with lower eye level (such as children)

If work is of a particularly bright nature which contracts with a dark room setting , a sign can be placed on the outside of the room to pre-warn visitors of the projection so they could avert their eyes on entering to prevent any dazzling and discomfort.

8.   Flashing images.

Where flashing imagery is present within a work a clear notice should be posted outside the space and/or at the start of the performance highlighting this to alert anyone who may be adversely affected.

The warning should be clear, legible and prominently positioned and contain wording along the lines of:

'Please be aware that this film / artwork / performance contains flashing lights / imagery.'

9.   Examples of projector use within GSA art installations :