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| **Vinyl Plotting Machine (working with)** |
| **Description of activity**  Typical use involves moving a very small cutting blade across the surface to a vinyl sheet or other material with the intention of cutting a chosen design. Other tools / attachments can be used, such as a pen, engraving tool or an embossing tool. |

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| **Hazards & consequences** |
| * **Changing the tool –** exposes the sharp blade, this could cause the operator a minor stab wound or a cut if handled improperly. * **Flying particles (material)** - can cause serious eye damage & blindness if eye protection is not worn. Cuts & piercings through contact with skin. * **Exposed conductors** from broken or faulty electrical controls or insulation - electric shock being transmitted to operatives causing a range of symptoms depending on the length and severity of the shock. * **Movement of tool –** movement within in the machine could trap fingers. * **Workpiece –** could move quickly out of the machine and hit the operative. * **Slips, trips and falls –** cables could cause operatives to fall and injure themselves, i.e. broken limbs. |

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| **Tools & equipment used** |
| Vinyl plotting machine and various attachments used in the trade. |

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| **Persons likely to be exposed to the risk** |
| * Operators using equipment. * All operatives and personnel in workshop within 1 metre. |

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| **Initial risk** | **Without controls and precautions in place** | | | | | | |
| Likelihood | 1 | | 2 | | 3  **X** | 4 | 5 |
| Severity | 1 | | 2 | | 3  **X** | 4 | 5 |
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| **Initial risk rating** | | 9 | **Medium** | |  | | |
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| **Acceptable** | | No |  | | | | |

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| **Control measures** |
| * Operatives are instructed in the safe use of machines during skills and job training. * Training may be carried out but only under close personal supervision of a competent person. * Operatives must inspect equipment for defects at the beginning of each working day and report all defects to their supervisor, e.g. broken guards. They must also carry out the required pre-start checks and of safety devices to ensure that they are set correctly and working. Operatives must not use defective equipment until repaired by a competent person and declared fit for use. * Operatives are instructed not to misuse or interfere with equipment to render it unsafe in use. * Machines are inspected by the supervisor in the normal course of supervision and at regular formal safety inspections. Safety devices are checked periodically in accordance with Provision & Use of Work Equipment (PUWER) Regulations. Adjustments / maintenance to machines may not be carried out with the parts moving and must be done using a safe system of work i.e. switched off and isolated to prevent unintentional starting. * Correct attachments only to be fitted to equipment. * Cables will be routed and secured to ensure there is insufficient slack to provide a risk. * Operatives using the machine will always refer to the manufacturer’s guidance where possible.   The operator may require the use of appropriate personal protective equipment, such as;   * Impact resistant safety goggles (following EN 166). * Hearing protectors, ear plugs or ear muffs (following EN 352). * Gloves (following EN 420). * Protective footwear (following EN 346). |

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| **Comments** |
| There are inherent risks in the activity itself that cannot be reduced by physical controls. Much is left to the sense and responsibility of the operatives in conducting the activity in a safe manner by following instruction and direction given in training.  Horseplay and misuse of tools where this may give rise to injury to them or any other person or to property damage will be regarded as gross misconduct and will subject to the strictest disciplinary action. |

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| **Residual risk** | | **With controls and precautions in place** | | | | |
| Likelihood | | 1 | 2  **X** | 3 | 4 | 5 |
| Severity | | 1 | 2 | 3  **X** | 4 | 5 |
|  | |  | | | | |
| **Residual risk rating** | | 6 | **Low** |  |  | |
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| **Acceptable** | | Yes |  | | | |
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| **Assessor** | Anthony Rose | **Signed** |  | | **Date** | 4/1/23 |