**Standard Operating Procedure for Laser Cutter in [Department/Shop/Maker Space]**

***Instructions****: Update this template with details specific to laser cutter use in your department/shop/maker space.*

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| **TOPIC** | **PROCEDURES** |
| **1. Process** | Cuts materials using a laser. |
| **2. Equipment** | Laser cutter {add specifics}. |
| **3. Personal Protective Equipment (PPE)** | Safety glasses, hearing protection, heat resistant gloves, plus any other PPE that may be required based on the [**Shop PPE Hazard Assessment**](https://www.ehs.washington.edu/resource/shop-personal-protective-equipment-ppe-hazard-assessment-guide-1334)**.** |
| **4. Environmental /**  **Ventilation controls** | Ensure equipment is secure so it doesn’t move when in use.  A dust collection system should be attached near the cutting area. |
| **5. Required training or approval** | * All users are required to complete [**Fire Extinguisher Training**](https://www.ehs.washington.edu/training/fire-extinguisher-training-online) prior to using any laser cutter. * Get approval from the Safety Coordinator before use. * Review and observe [general safety practices](https://www.ehs.washington.edu/system/files/resources/staying-safe-shops-poster.pdf). * Refer to the manufacturer’s operating manual for all operating procedures. * Refer to the operating manual for appropriate engraving, cutting, power and speed settings for varied materials. |
| **6. Inspection requirements before use** | * Safety shields and guards are in place prior to turning the machine on. * Ensure air compressor and air filter are on. * Beware of FLAMMABLE materials while using the laser cutter. Certain materials are ***not*** allowed in the laser cutter, including: Foam core, any PVC material and reflective materials. * Ensure there is a Class B fire extinguisher nearby. * Ensure that all body parts, loose clothing, jewelry, hair and other objects are clear of the cutting area prior to turning the laser on. |
| **7. Safe operating procedures or precautions** | * The laser cutter will generally not cut anything greater than 0.25” (6mm), anything thicker will require several passes. * To engrave glass, put a masking on top before engraving. * Turn off the laser cutter after every 4 to 5 projects (for the laser to recharge.) * **Always** make sure the lines are hairline for vector cutting. * **Never leave the laser cutter** when it is on. * Never reach into the cutting area prior to the laser coming to a complete stop. * Disconnect the laser from power source and follow Lockout/Tagout (LOTO) procedures or manufacturer’s instructions if making repairs, adjustments, or servicing. More information on LOTO can be found at [www.ehs.washington.edu/workplace/hazardous-energy-control-lockouttagout](http://www.ehs.washington.edu/workplace/hazardous-energy-control-lockouttagout). * When an operator has finished working on the laser cutter, and before leaving the laser for any reason, the power must be shut off and the machine must come to a complete stop. |
| **8. Waste cleanup** | Avoid waste material build up; clean as you go to prevent a potential dust explosion. Check the dust collection system and make sure it is properly maintained and material is removed frequently. |
| **9. Emergency response and accident reporting** | In case of fire or emergency, dial 9-1-1.  Report any accidents, injuries, or near miss events using [UW’s Online Accident Reporting System (OARS) at](https://oars.ehs.washington.edu/)oars.ehs.washington.edu. |

**Name**:       **Title**:

**Signature**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Date**: