



Job Hazard Analysis Worksheet

Code: RM	Task/Equipment Location: Building 220, SpaceShop	
Task/Equipment Description: Universal Laser Cutter		
<u>Sequence of Steps or Activities</u>	<u>Hazards or Potential for Mishaps</u> (Examples include physical and chemical hazards, fire, falls, radiation, electric shock, noise, heat and ergonomic)	<u>Preventive Measures</u> (Include personal protective equipment and training)
Prepare computer and cutter for use	Pinch points on doors, table Snag points on laser carriage, hinges, etc.	Attend the Universal Laser Cutter tutorial qualification training. Use care when opening and closing doors Remove all lanyards and any loose fitting jewelry
Conduct laser operation	Emission of hazardous fumes Creation of arcing or controlled flame Uncontrolled flame	Use only approved materials in laser cutter Ensure ventilation system is activated If small flame present, stop cutting operation by partially lifting lid. In case of fire, do not open Laser Cutter door, notify a SpaceShop staff member immediately
Remove material from device	Lacerations Hazardous fumes	Use Leather gloves for sharp material Wait for approximately 1-2 minutes for laser ventilation to remove all fumes from device volume
Before cutting and engraving process	CO2 laser beam activates Red Diode Pointer activates	<ol style="list-style-type: none"> 1. The laser cutter door(s) are opened, and as long as they stay opened, the CO2 laser beam will never activate. 2. The Red Diode Pointer activates when the machine doors are open, allowing one to be exact in setting the position of the material.

During cutting and engraving process	Ignition of combustible materials	<ol style="list-style-type: none"> 1. Properly maintained fire extinguisher should be kept on hand at all times. 2. Watch the machine during operation. 3. Remove scrap material from the tray below or above the honeycomb grid, or any material stuck in the honeycomb grid.
After cutting and engraving process	Toxic and corrosive fumes	<ol style="list-style-type: none"> 1. Obtain Material Safety Data Sheet(MSDS) from the manufacturer of every material you intend to process in the laser system. 2. Discontinue processing any material that causes chemical deterioration of the laser system such as rust, metal etching or pitting, peeling paint.

Copy 1 – Forward to the Safety Office

Copy 2 – Post on Equipment or in Area

Copy 3 – File for your records