

# STANDARD OPERATING PROCEDURES: 3D PRINTERS

<b>PROCESS</b>	Computer aided manufacturing process that builds three-dimensional models out of custom materials, typically plastics.
<b>EQUIPMENT</b>	Fused Filament Fabrication (FFF) Printers, Resin Printers
<b>PERSONAL PROTECTIVE EQUIPMENT</b>	<ul style="list-style-type: none"><li>• Safety Glasses</li><li>• Gloves</li></ul>
<b>REQUIRED TRAINING</b>	<ul style="list-style-type: none"><li>• Review and Observe ICL safety practices and general guidelines</li><li>• Lab supervisor led training specific to 3D printing process</li><li>• Review manufacturers operating manual</li></ul>
<b>INSPECTION BEFORE USE</b>	<ul style="list-style-type: none"><li>• Ensure machine is on a level surface</li><li>• Make sure mechanical parts are un-obstructed</li><li>• Make sure ventilation is turned on and functioning correctly</li></ul>
<b>HAZARDS</b>	<ul style="list-style-type: none"><li>• Burns</li><li>• Chemical Vapors</li><li>• Electric Shock</li><li>• Ultra Violet Light</li></ul>
<b>SAFE OPERATING PROCEDURES</b>	<ul style="list-style-type: none"><li>• Keep Hands away from heated extruder tip and build plate</li><li>• Use only in a well-ventilated area</li><li>• Make sure equipment is unplugged before performing any mechanical inspections or repairs</li><li>• No eating or drinking around the equipment</li><li>• Clean all work surfaces using a wet method</li><li>• Avoid prolonged exposure to UV light</li><li>• Use tongs when placing or removing items from corrosive bath</li><li>• Wash hands thoroughly after use</li></ul>