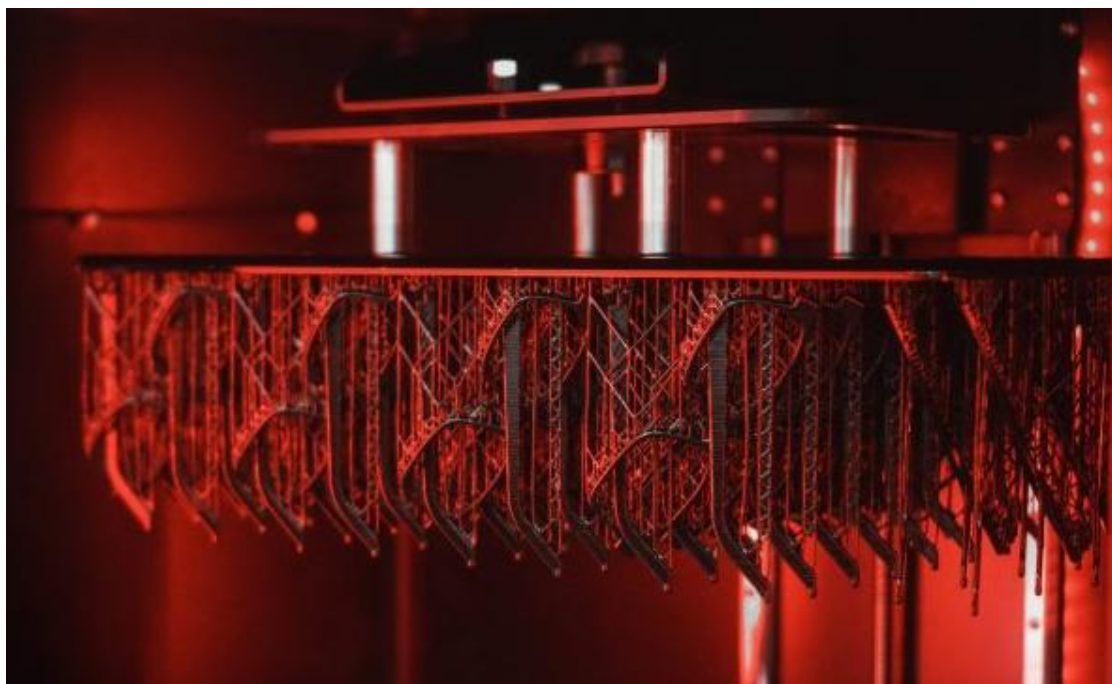




Remote workshop for additive manufacturing



Practice 1 - Orientation and arrangement of a piece in the
Slicer of LCD technology additive manufacturing
equipment.

Glossary of terms

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Student Name:

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- **DLP (Digital Light Processing):** LCD-like technology that uses a digital projector to cure resin, standing out for its high resolution in small parts.
- **Dimensional accuracy:** Printer's ability to produce parts with exact dimensions according to the digital model.
- **Exposure time:** Duration during which UV light acts on the resin to solidify each layer. Affects print speed and quality.
- **Initial adhesion:** Process where the first layer adheres to the build platform. It is crucial to avoid printing failures.
- **LCD (Liquid Crystal Display) Technology:** 3D printing technology that uses a liquid crystal display to solidify layers of photocurable resin using ultraviolet (UV) light.
- **Layer Separator, Layerer or "Slicer":** Film between the build platform and the resin that allows each solidified layer to be peeled off without damaging the part.
- **Monochrome LCD screen:** Screen used in some printers to speed up the curing process due to its higher UV light intensity compared to color screens.
- **Part washing:** Cleaning of printed parts to remove residues of uncured resin. It is usually done with isopropyl alcohol.
- **Photocurable Resin:** Liquid material used in LCD printing that solidifies when exposed to UV light. It can offer different properties such as hardness, flexibility or transparency.
- **Platform Leveling:** Initial adjustment of the build platform to ensure that the part adheres correctly and prints accurately.
- **Platform or Build Tray:** Surface where the piece adheres during the printing process. It is adjustable and essential for the precision of the layers.
- **Post-Curing:** Post-printing process where the part is exposed to additional UV light to complete its hardening and improve its mechanical properties.
- **Print settings:** Set of parameters such as speed, layer thickness, and exposure time, which are adjusted according to the type of resin and the geometry of the part.
- **Resin tank:** Container where the resin is stored during printing. It is usually designed with UV light resistant materials.
- **Resin Viscosity:** Characteristic that affects the fluidity of the resin. A low viscosity facilitates leveling and rapid curing.
- **Supports:** Structures added during printing to maintain the stability of the part and prevent deformations during the solidification process.

- **Thickness or layer height:** Height of each layer of material solidified in the printing process. Determines the resolution and detail of the printed piece.
- **Ultraviolet (UV) Light:** Energy source used in LCD printing to harden the resin layer by layer.
- **Warping:** Deformation of the parts during printing due to internal stresses or insufficient adhesion.
- **XY Resolution:** Resolution in the horizontal plane determined by the number of pixels on the LCD screen. It affects the level of detail of the parts.