

Sculpt0K Training – Creating Bas-Reliefs and 3D Models with Artificial Intelligence

Module 1 – Introduction to Sculpt0K and 3D Relief Fundamentals

- Overview of Sculpt0K and its main features.
- Exploring the interface and workspace.
- Understanding depth maps, grayscale values, reliefs, and bas-reliefs.
- Understanding how a 2D image can be transformed into a 3D surface.
- Exploring key applications such as engraving, sculpting, CNC machining, and 3D printing.
- Understanding the generation and credit system.

Module 2 – Preparing Images for Relief Generation

- Select an image suitable for relief creation.
- Understand the impact of contrast, shadows, and lighting.
- Prepare photographs, illustrations, and line drawings.
- Prepare portraits to obtain better volume and depth.
- Identify elements that may cause depth-generation errors.
- Improve image readability and composition before generation.

Module 3 – Generating Depth Maps with AI

- Convert an image into a depth map.
- Understand how grayscale values represent depth.
- Generate depth maps from photographs.
- Create depth maps from portraits.
- Work with drawings, illustrations, and line art.
- Compare multiple generations and select the best result.
- Identify and correct common depth-related issues.

Module 4 – AI Image Generation and Enhancement

- Explore Sculpt0K's integrated AI image generation tools.
- Create an image from a text description.
- Write prompts suitable for sculpting and relief creation.
- Create images with volumes and details suitable for 3D generation.
- Adapt the image style according to the desired result.
- Prepare an AI-generated image for conversion into a depth map.

Module 5 – Enhancing and Editing Depth Maps

- Use enhancement and HD restoration tools.

- Improve the sharpness and detail of low-resolution images.
- Adjust brightness and contrast.
- Control light and dark areas that determine depth.
- Reduce noise and visual imperfections.
- Correct areas with inaccurate depth.
- Prepare a clean depth map for 3D model generation.

Module 6 – Creating and Previewing the 3D Relief

- Convert a depth map into a 3D relief.
- Preview the result in a 3D environment.
- Adjust relief intensity and depth.
- Control the thickness of the model.
- Invert depth when required.
- Evaluate details, volumes, and transitions.
- Identify corrections to make before final production.

Module 7 – Preparing Models for Manufacturing

- Define the dimensions of the model.
- Adjust minimum and maximum thickness.
- Create a suitable back surface for the project.
- Prepare a model for CNC engraving or machining.
- Prepare a relief for laser engraving.
- Prepare a model for 3D printing.
- Understand constraints related to resolution and level of detail.

Module 8 – Exporting and Integration

- Understand the main file formats used in a 3D production workflow.
- Export models in STL or OBJ format according to project requirements.
- Prepare files for 3D modeling or manufacturing software.
- Explore integration with Blender.
- Explore integration with ZBrush.
- Verify the model before using it in slicing, engraving, machining, or 3D printing software.