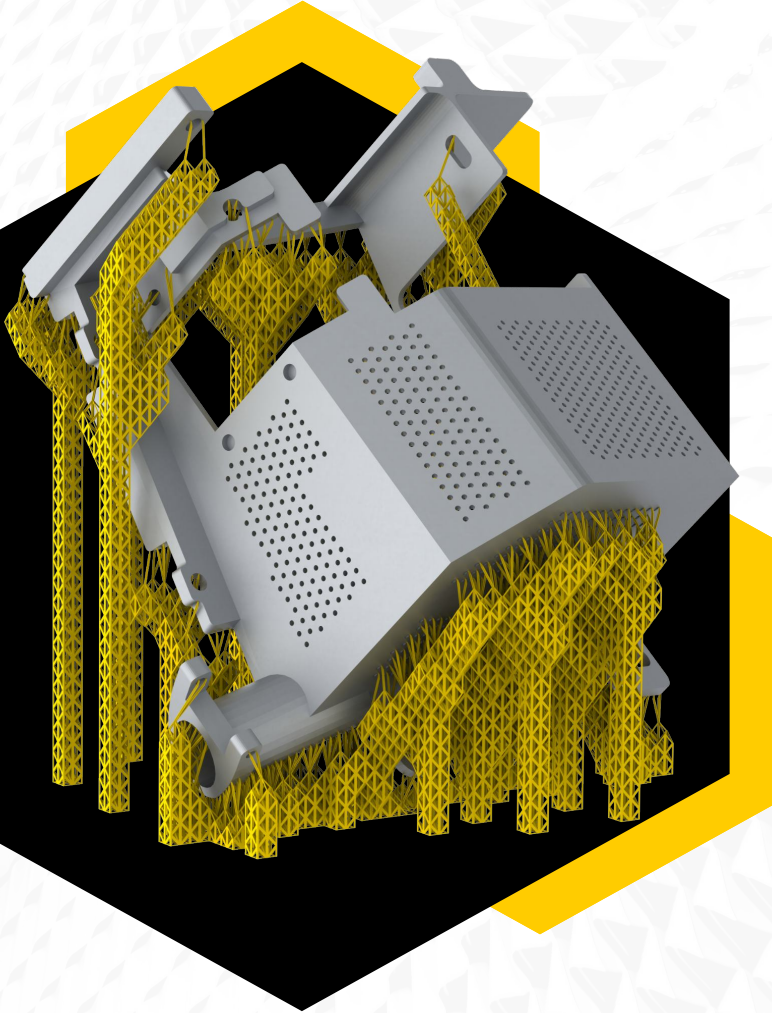# MIRA 3D

WE MAKE 3D PRINTING EASIER

About

MIRA3D

Cutting-edge build preparation software for Additive Manufacturing.

Capabilities:

- CAD File Import
- Diagnostics & Repair
- Advanced Editing Tools
- Boolean
- Thickness Map
- Lattice Infill
- DLP Supports
- OPF Supports
- Setter Supports
- Packing
- Slicing
- Quote Generation

ROBUST & AFFORDABLE SOFTWARE

Workflow:

Edit & Repair

Support

Pack

Slice

Analysis & Costing

Print
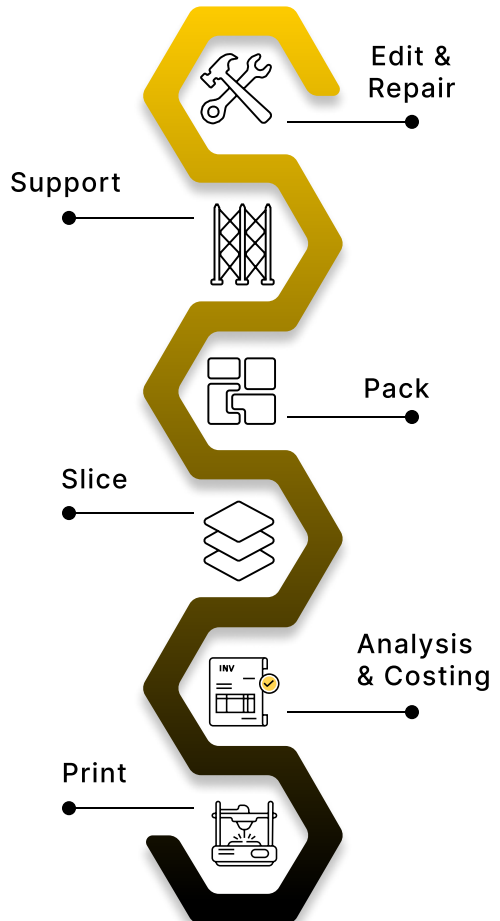
ONE STOP SOLUTION FOR AM

File Import

Import a variety of 3D file formats including STL, OBJ, 3MF, STEP, IGES, SLC, VRML and PLY.

Large STL data (upto 1.5GB) can be loaded with ease. Slice data (SLC) can also be converted back to STL for support addition.

OBJ

IGES   VRML

3MF   PLY

STL   SLC

STEP

Best in class

Diagnostics & Repair

Check any mesh for holes, non-manifold/ naked edges, noise shells and self-intersections using our shell repair console.

Automatically repair mesh with a single click or use manual repair to fix inversions, fill holes, unify, extrude surfaces and stitch shells.

Reduce the number of triangles in a mesh using the Fast/ Accurate Triangle Reduction tool or improve the surface using Smoothen and Remesh Tools.

Advanced Editing Tools

Planar Cut
Cut your model into multiple sections along the cartesian plane.

Polyline Cut
Define custom cutting paths for easier joining post-printing.

Lasso Split
Isolate and separate specific parts in a multi-shell mesh file using Lasso selection.

Boolean

Subtract, Unify & Intersect

Our Boolean tool can unify, subtract or compute intersection regions between any two or multiple STL files with minimal clicks. It is highly robust and is designed to handle complex files of large size without any crashes.

Best in class
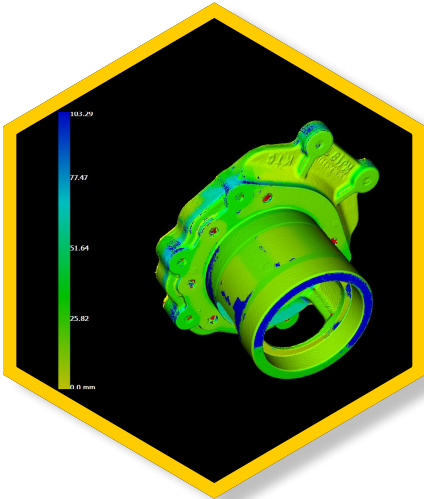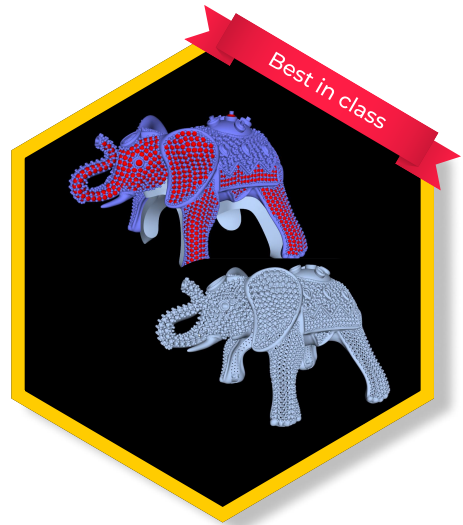
Thickness Map

The thickness map employs a color gradient (red to blue) to depict thickness variations across the part.
It effectively highlights conformal and internal channels within a part.
It also aids in identifying regions of low wall thickness and evaluating printability.
The thickness at a given region gets displayed in real-time while hovering the cursor over the part.
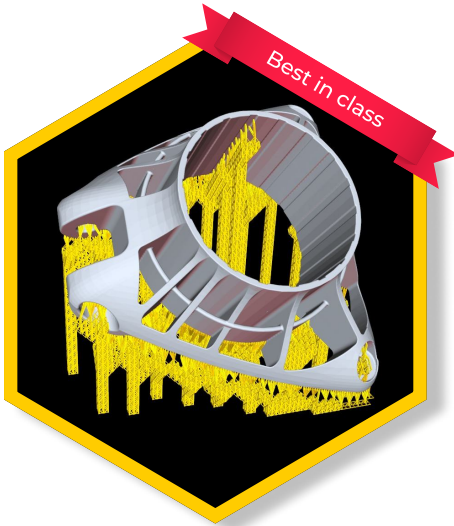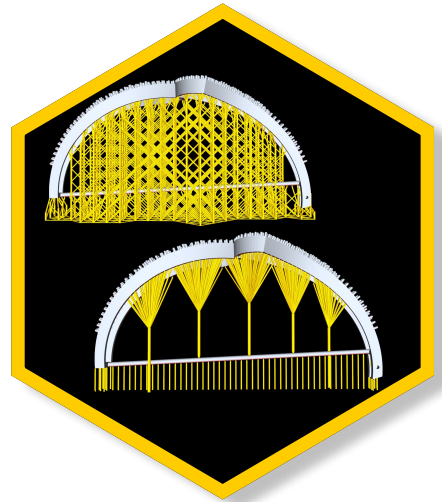
Lattice Infill

Lattice infill is a popular approach for light-weighting (minimizing mass while maximizing stiffness) of 3D Printed parts.
Our tool allows users to change the wall thickness, grid spacing and grid thickness. It has been designed to be fast and robust for complicated geometries. The generated lattice is also self supporting.
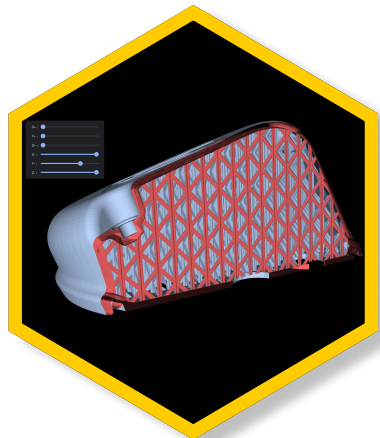
DLP Supports

DLP supports are ideal for desktop resin printers (DLP/ LCD/ SLA). Our supports are generated automatically based on over 20+ user-specified parameters for touchpoints and support structures such as FCC/ tree/ beam. Supports are fully draggable and editable.

Best in class

OPF Supports

OPF (Optimized Path Finding) Supports are a breakthrough for industrial SLA (Stereolithography) and Metal Powder-Bed 3D Printers. Our one of a kind column-based lattice structure leads to huge material savings. A bonus is our proprietary path-finding algorithm that significantly eases the post-processing.
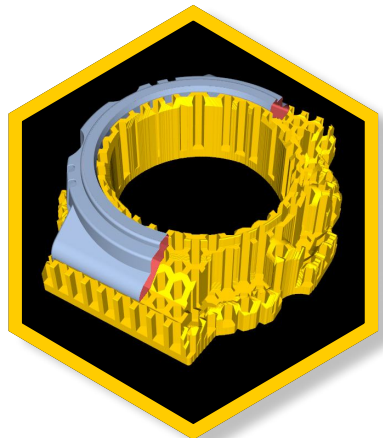
Setter Supports

Setter supports are a one-click solution for Metal Binder Jetting. Setters are designed to be easily detached vertically without causing any damage to the printed part. The offset between part and support is user-editable. A margin around the boundary can also be added to preserve shape while sintering.

Packing

Our 2D Nesting tool can be used for densely packing multiple parts in a short span of time. Packing can be done along 9 different positions of the build platform. It is essentially useful to avoid placing parts in regions where print failure is likely (due to a damaged film/ inadequate light intensity/ poor recoating).

Best in class

Slicing

Our slicer is the fastest CPU-based slicing engine in the market! It allows export in SLC, CWS and PNG upto 32K resolution making it compatible with a wide variety of industrial SLA and desktop DLP/ LCD printers.

Quote Generation

Make professional quotations with just a few clicks. Drag & drop files of interest from Part List for quotation. Define the technology, material, color and unit price. Create custom profiles with special discount rates defined for each customer. Make the quotation more personalized by adding your company logo, tax rate, shipping/ additional charges, other terms and conditions.

Samisan Tech Pvt. Ltd.

Our company, Samisan Tech Private Limited, is a Mumbai-based software development firm. Our core product, the MIRA3D Build Processing Software suite, includes MIRApro (for jewellery/ dental industry), MIRAmax (for manufacturing sector), and MIRAanalyze (for part inspection). We specialize in Digital Manufacturing and Machine Vision applications. We are a team of mathematicians and software developers who can also build custom software for your specific use case.
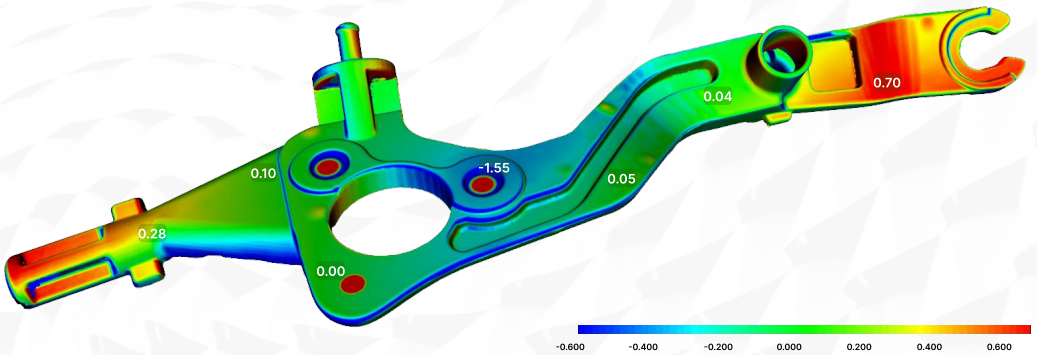
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MIRAanalyze

| -0.600 | -0.400 | -0.200 | 0.000 | 0.200 | 0.400 | 0.600 |

Easy to use 3D inspection software

Deviation map report generation

Automatic surface detection for quick tolerance checks