



**solid**scape  
BY PROOWAYS

**LIVE!**

# Preparing Models for Resin Printing:

# Steps For File Preparation



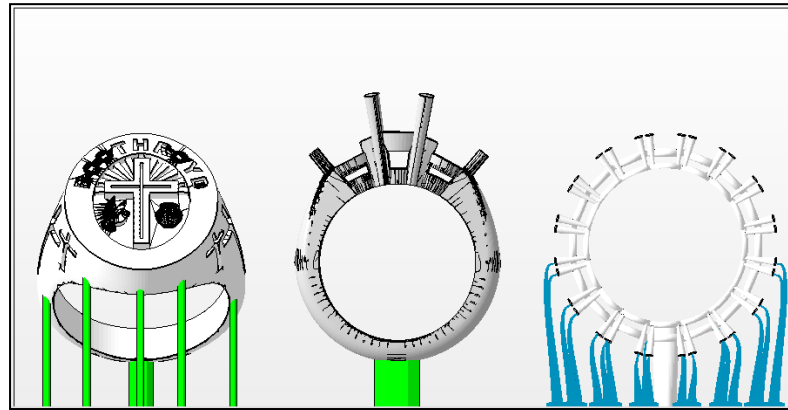
- Load the file into the Cad Software
- Check file for errors and correct if necessary
- Add support structures
- Save and load file to the printer

# Model Orientation



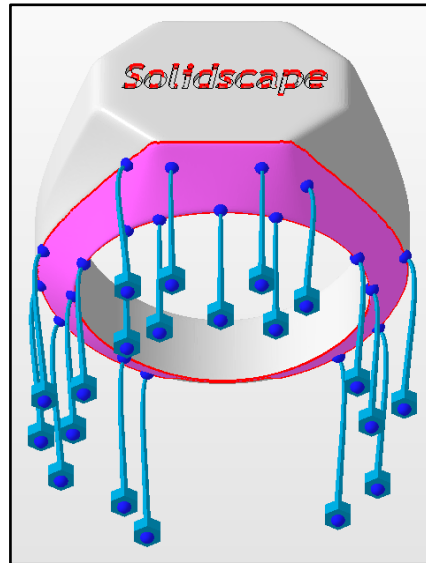
- Model Orientation – Maximum quality with minimal supports
- Build Area Placement - The model must fit within the build area in the X,Y andZ directions

- Try a 15 degree part rotation
- Keep prongs between 9 and 3 o'clock
- Parts with CAD-created supports can be imported and arranged without further processing.
- Minimize the X/Y cross section
- Different materials have different needs.



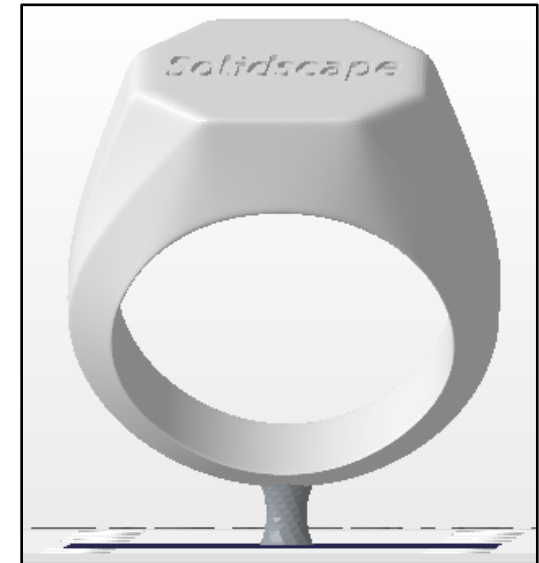
# Part Orientation and Auto Support

- Use the Auto Support function (if your software has it process. ) to find out which orientation requires the least amount of supports
- Consider the entire manufacturing process when adding anchors or supports and reduce supports where feasible.



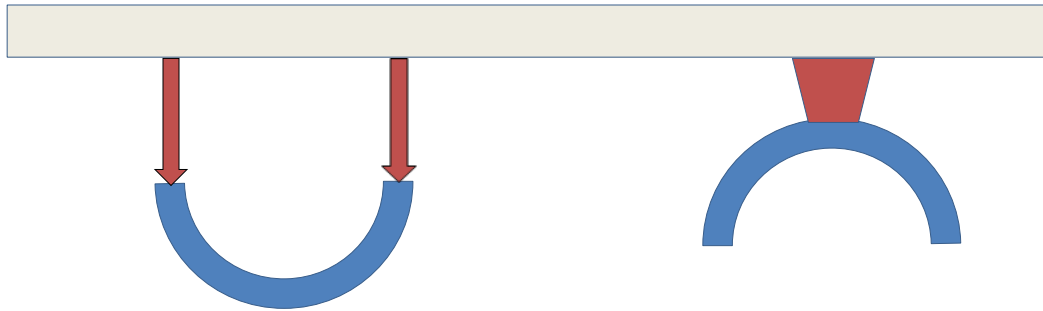
<<< - Many supports and harder to post process

Only the anchor is used here - >>>



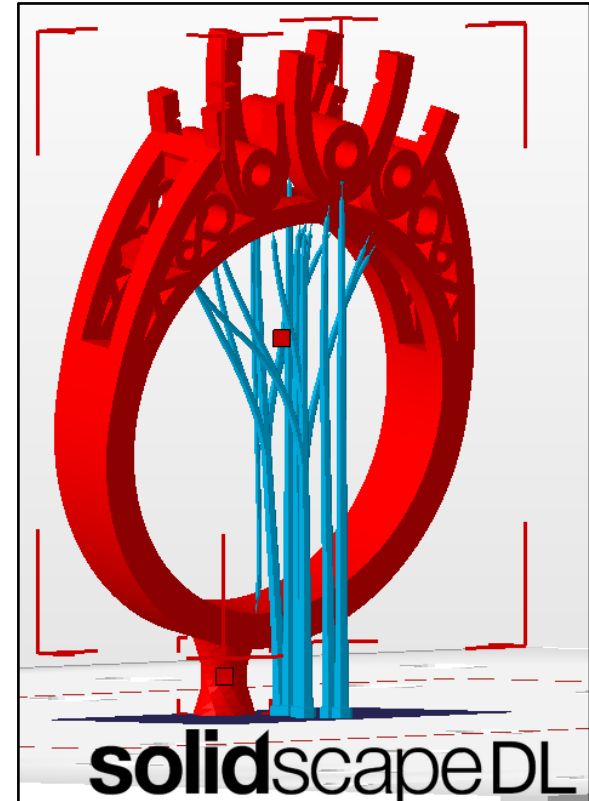
# Supporting Basics – Reduce Required Supports

- The model on the left required two supports.
- The model on the right just needs the anchor.

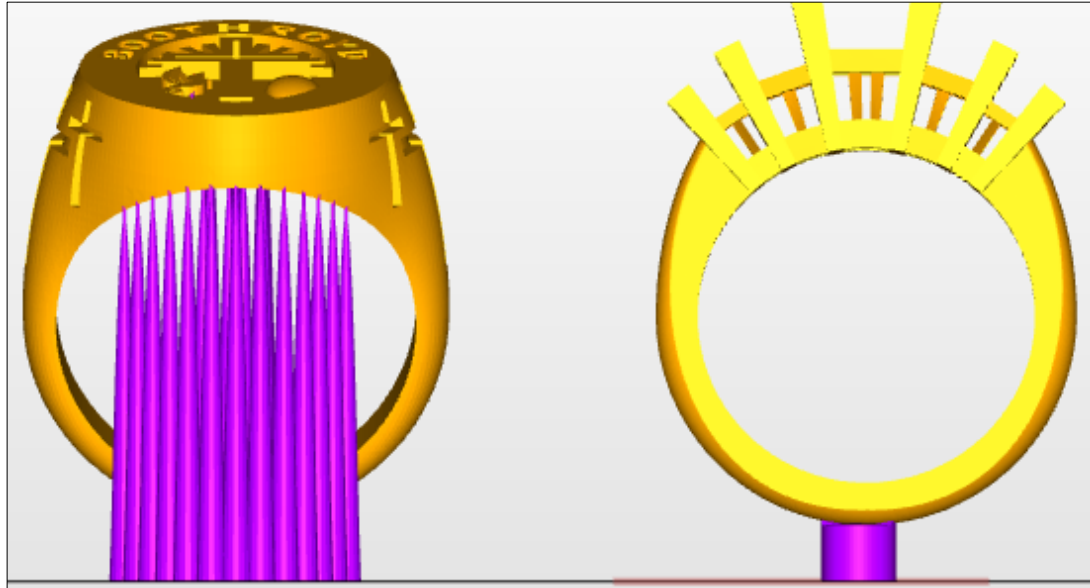


# Supporting Basic Guidelines

- Long supports can be connected, grouped or crossed to increase their strength.
- This can be done using the “Bouquet structure” in some Cad software.



# Parts That Need Extra Supports



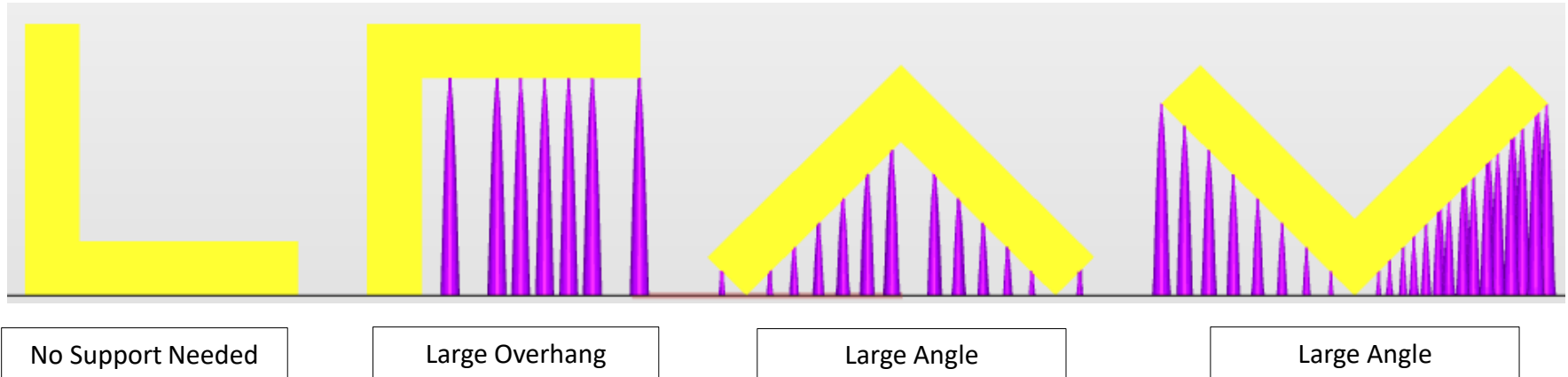
The part on the left is more massive and would need more supports

The part on the right should grow correctly with just an anchor.



# Parts That Need Extra Supports

- Support Overhangs
- Orient models to minimize overhangs
- Horizontal or near horizontal parts need support

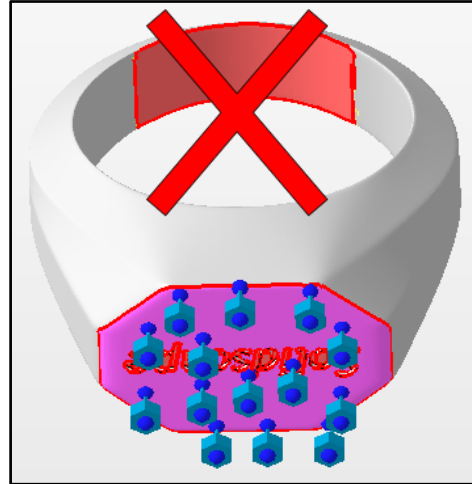


# Supporting Basics – Minimize Horizontal Flat Surfaces

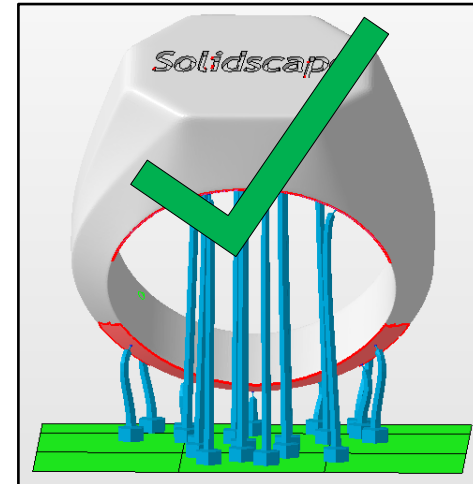
Orient the model to reduce the number of horizontal surfaces.



Bottom surface is horizontal.

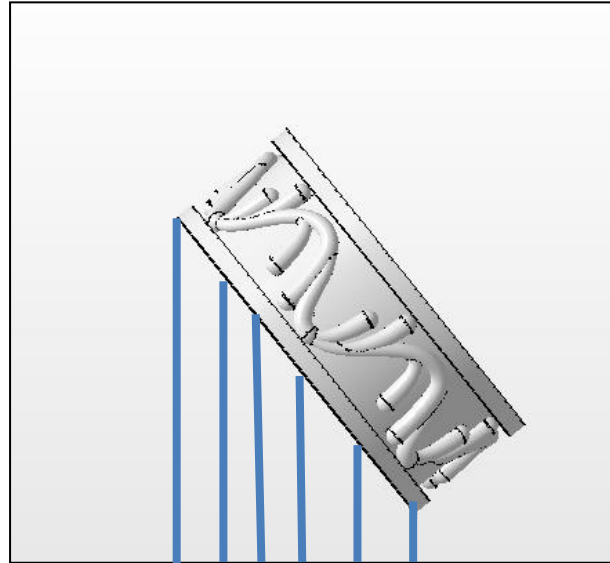


There are supports affecting the detail of the surface.



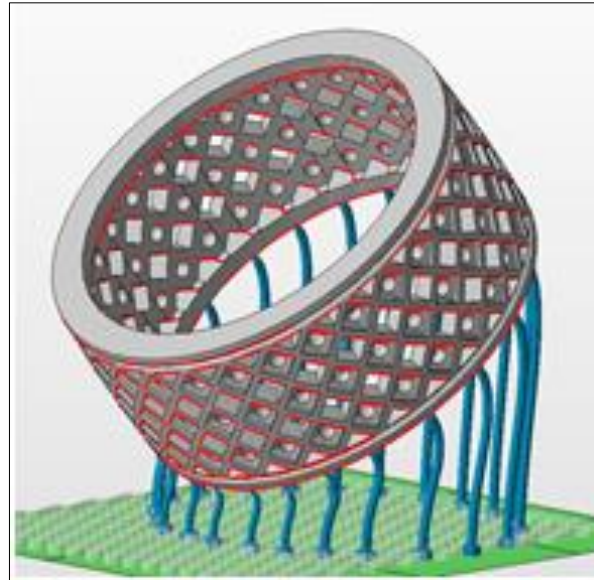
This is the better option

Preserve the detail of the model.



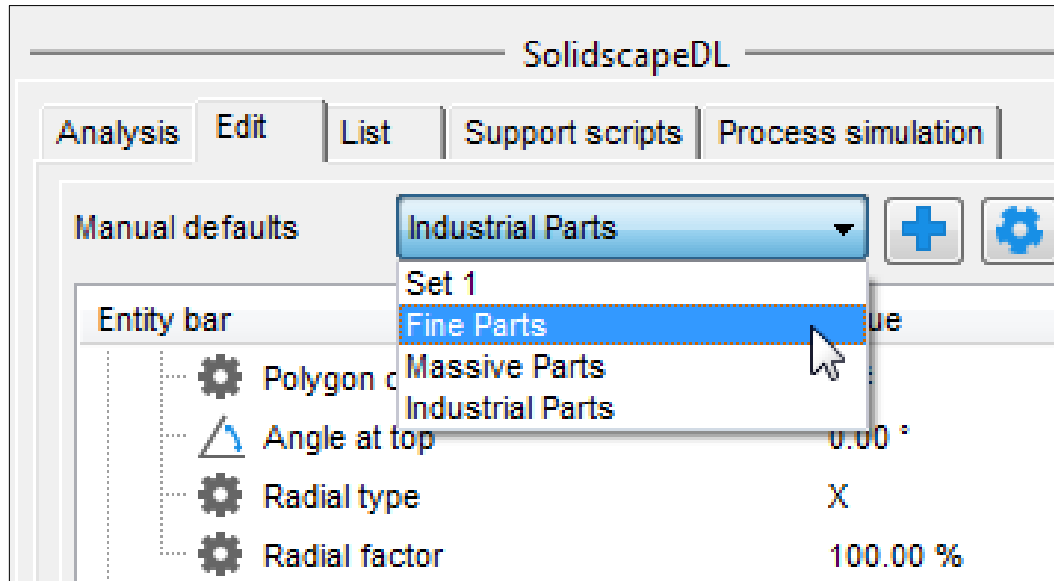
# Supporting Basics – Support the Perimeter

- Support the perimeter of the model.
- Supports should be no more than 1 mm apart.
- Make sure to support the lowest part of the model.

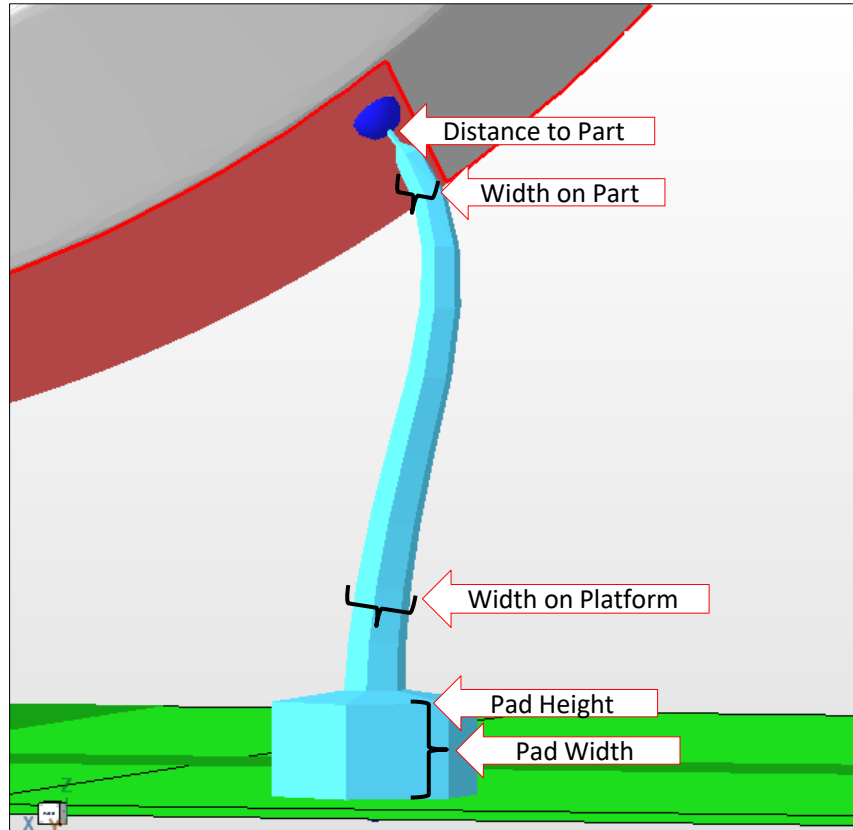


# Creating Support Structures

- You can manually create different Support settings and save them.
  - Large Supports
  - Fine Supports



# Parts of the Support Structure



# Parts of the Support Structure

