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4.500 Introduction to Design Computing  
Fall 2008

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4.500

## Digital Fabrication



# Design Tools

## Design by Physical Reasoning

### Description

Rapid Prototyping



Generative  
Methods  
(Design Tools)

### Description

CNC Fabrication

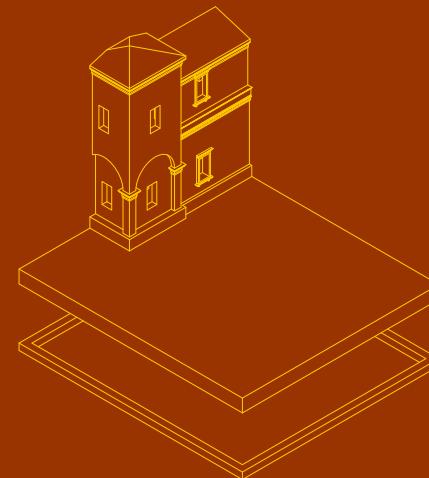
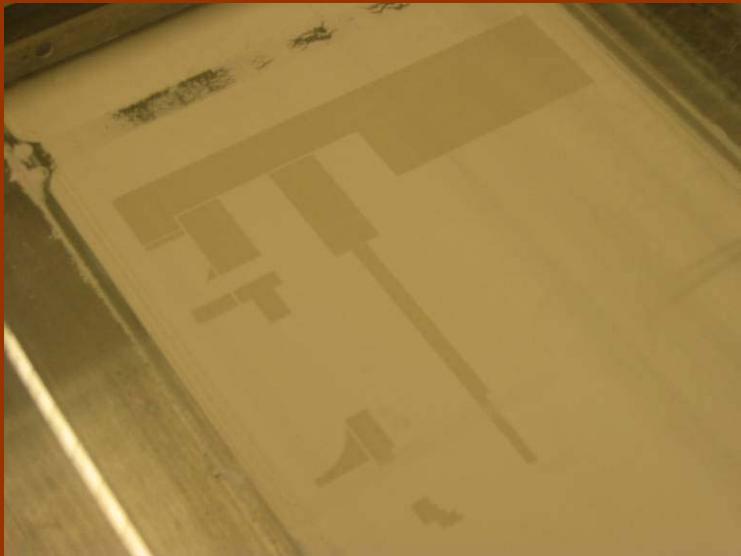


# Digital Printing = Digital Fabrication

- Flexibility
- Precision
- Repetition

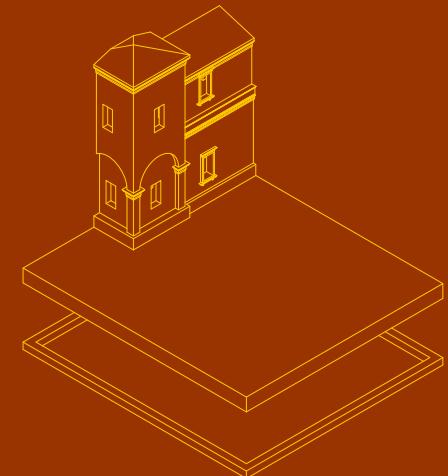
# Rapid Prototyping

## 3D Printing



# Rapid Prototyping

## 3D Printing



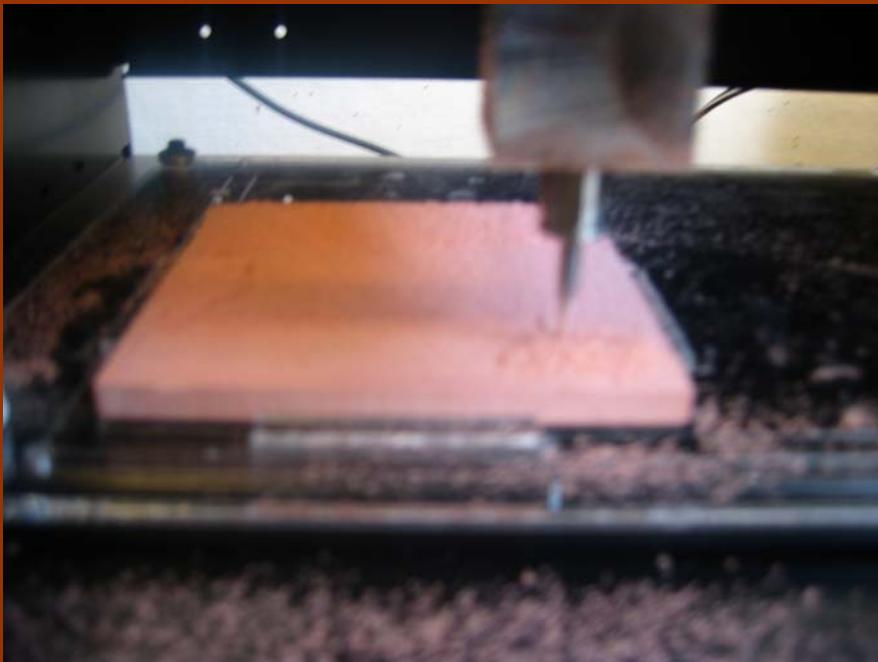
# Rapid Prototyping

## Laser Cutting



# Milling

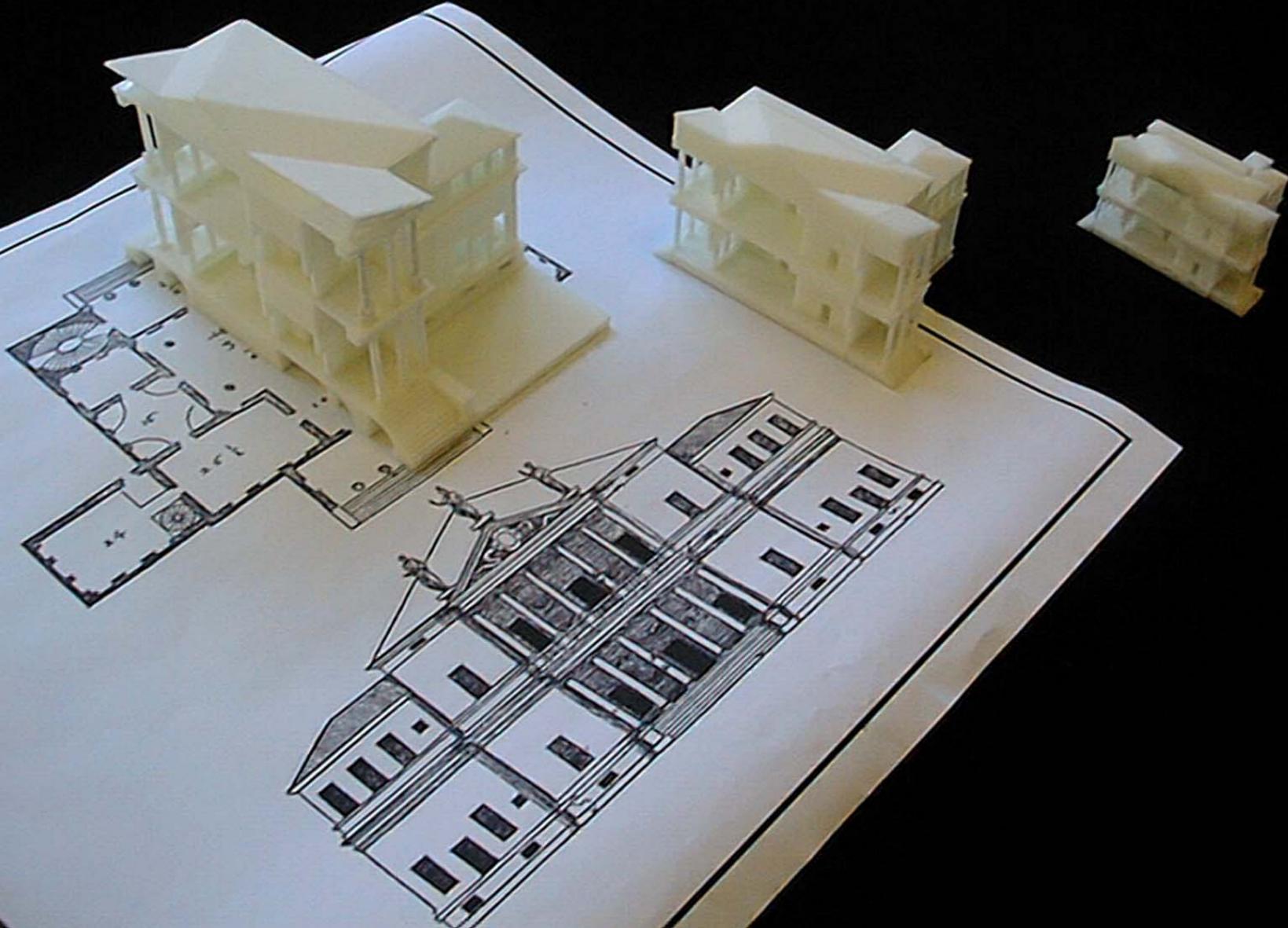
## Dense Foam Routing

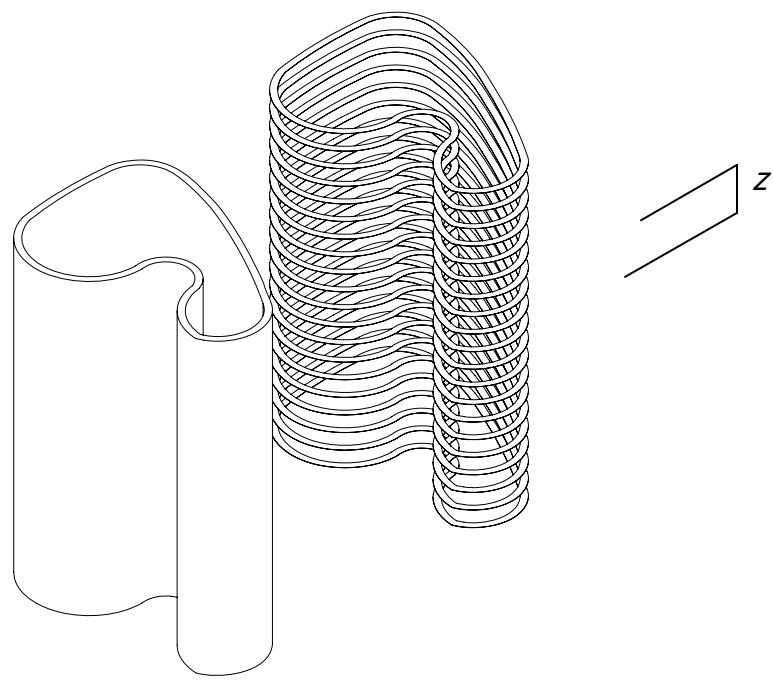


# CNC Fabrication

## Wood Routing







A) 3D Printer

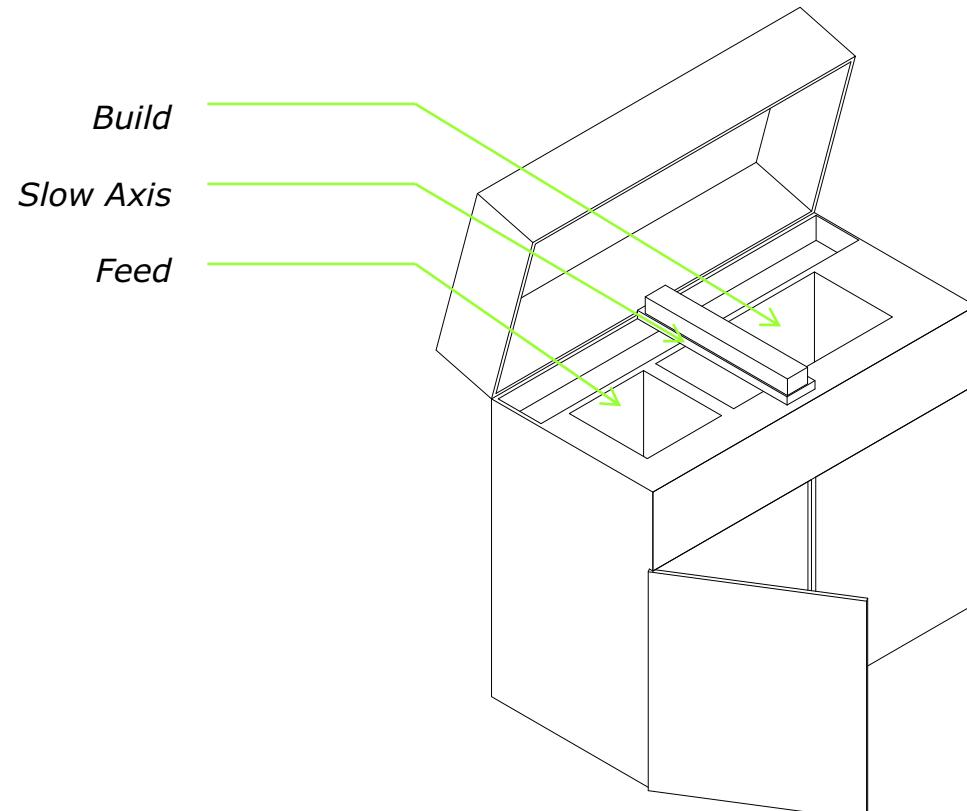
- Metal
- Plaster
- Cornstarch
- Ceramics

B) FDM

- ABS Plastic
- Rubber
- Wax

C) Stereo Lithography

- Resin



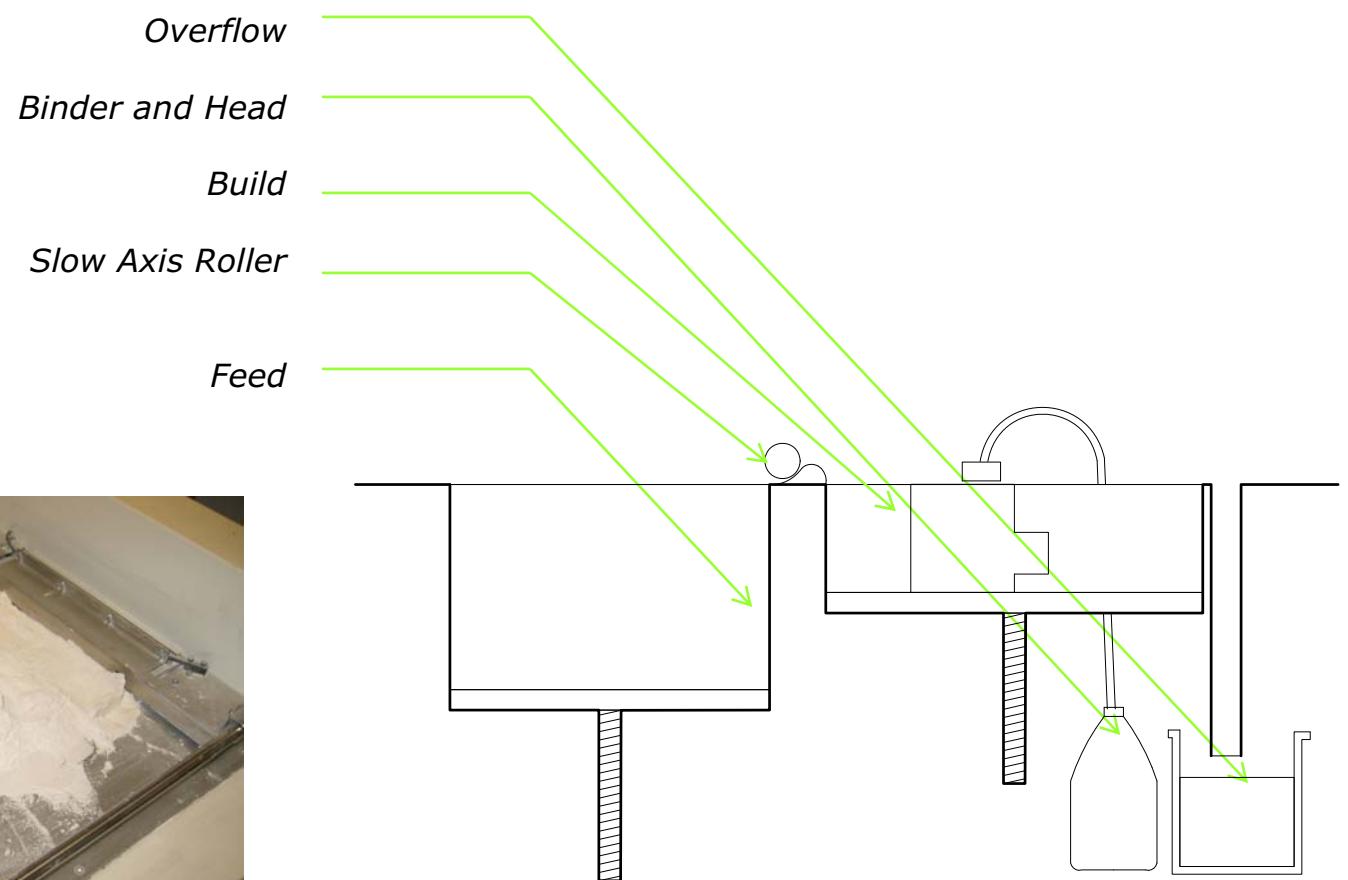
-3D Printer

- Metal
- Cornstarch

-Plaster

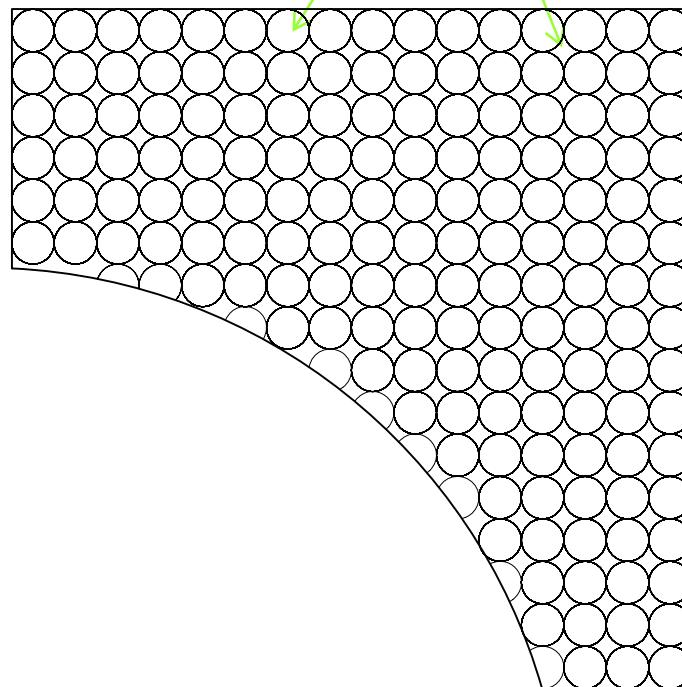
- Ceramics



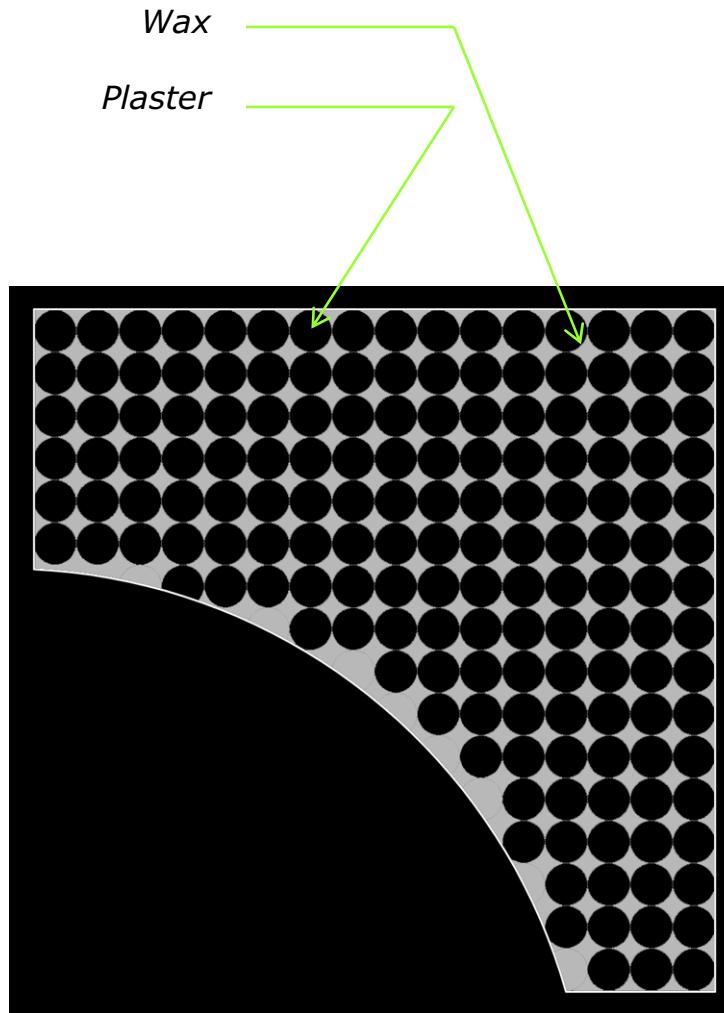


*Open Spaces*

*Plaster*



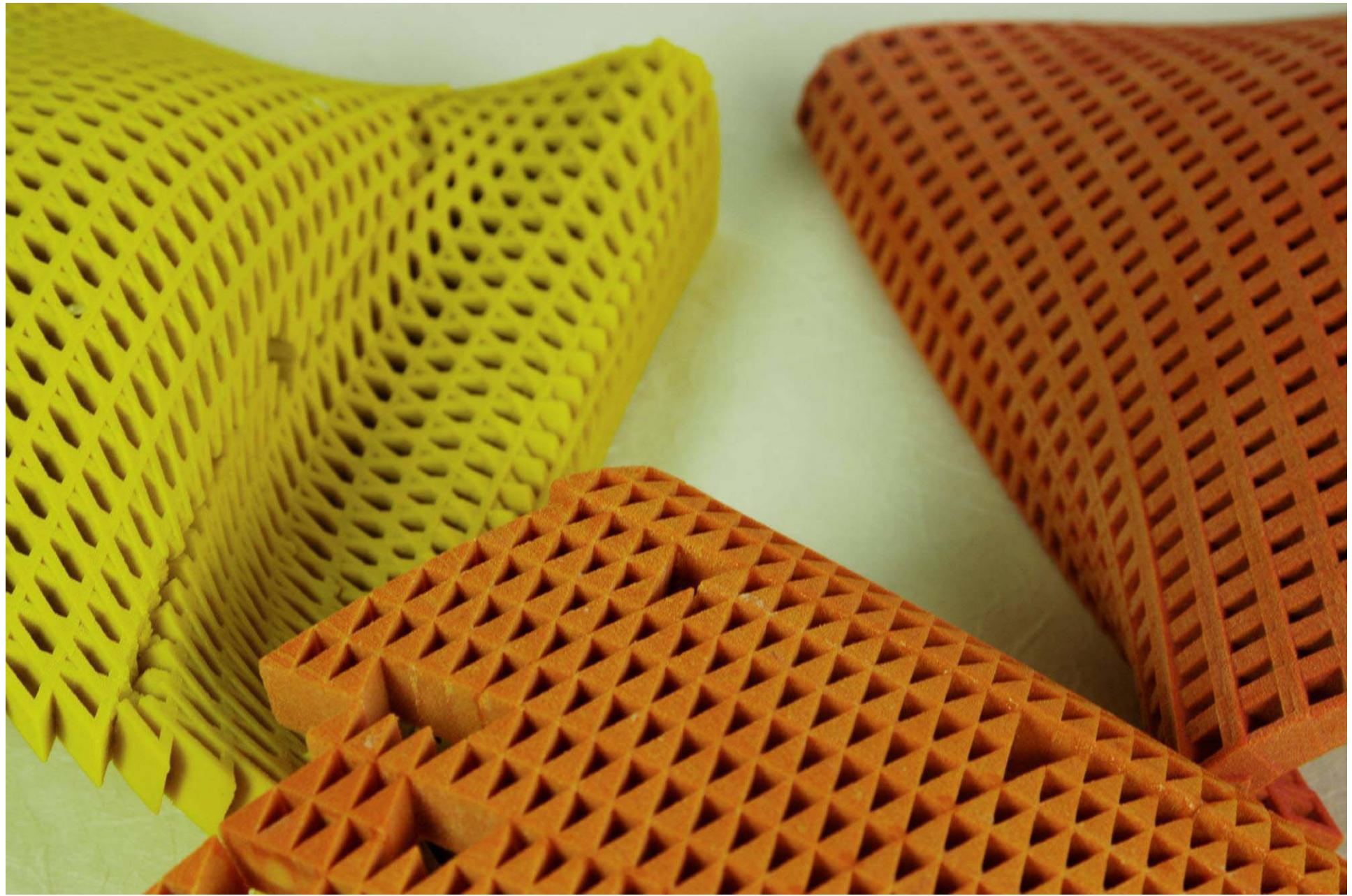
- *Advantages*
  - *Speed*
  - *Self Supporting*
  - *Low Cost*
- *Disadvantages*
  - *Low Strength*
  - *Required Post Processing*

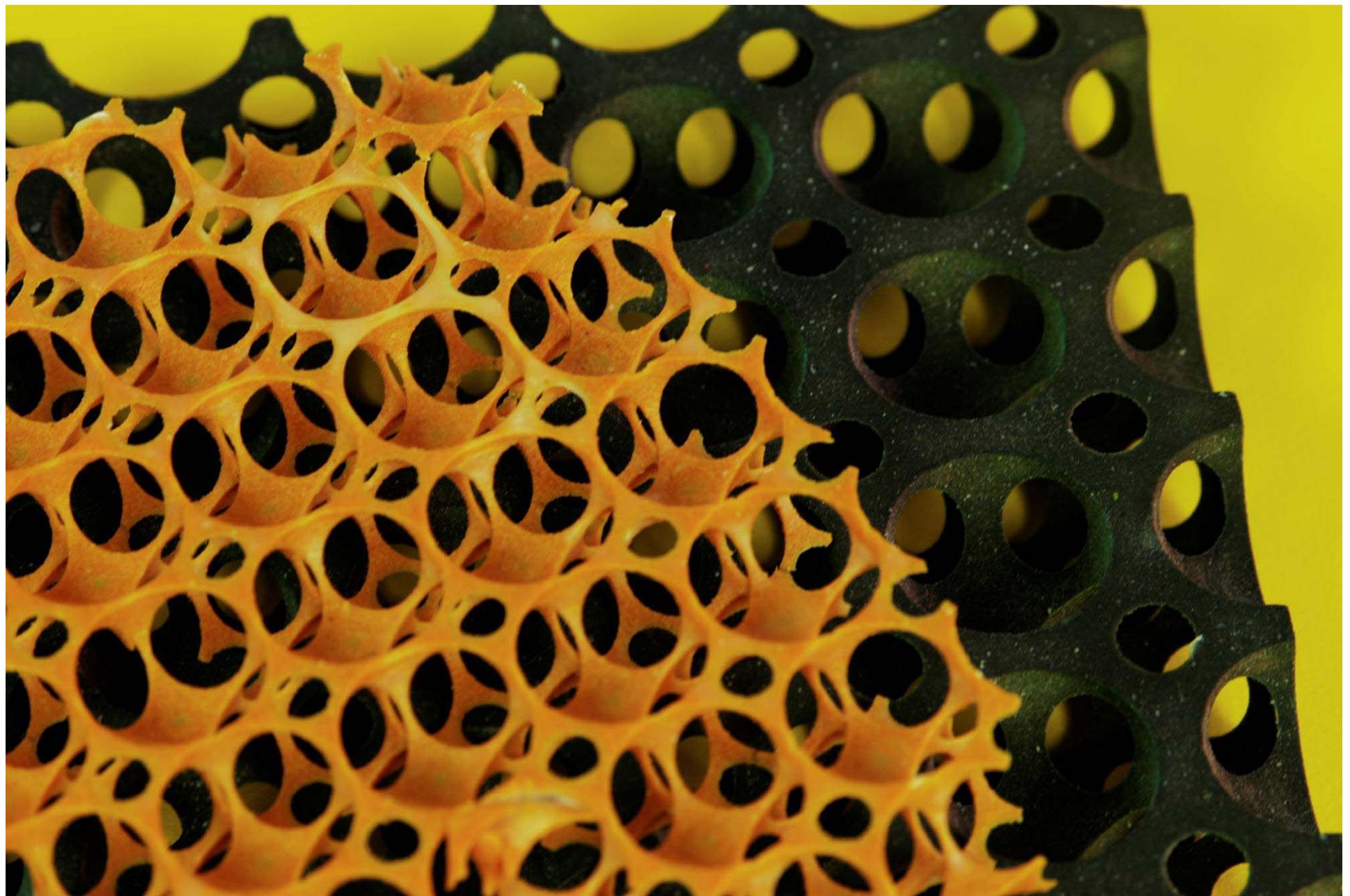


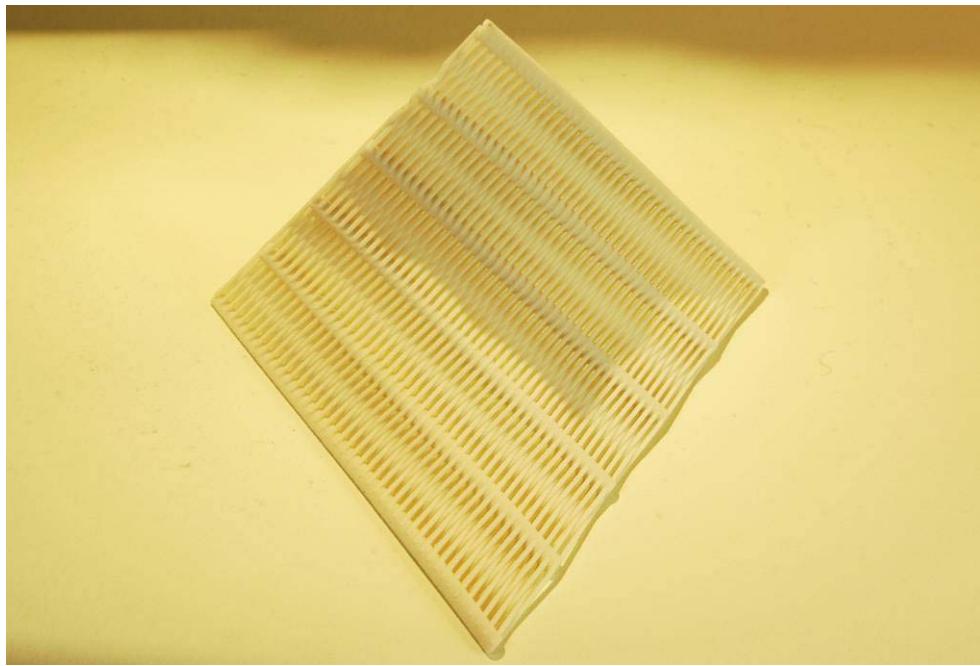
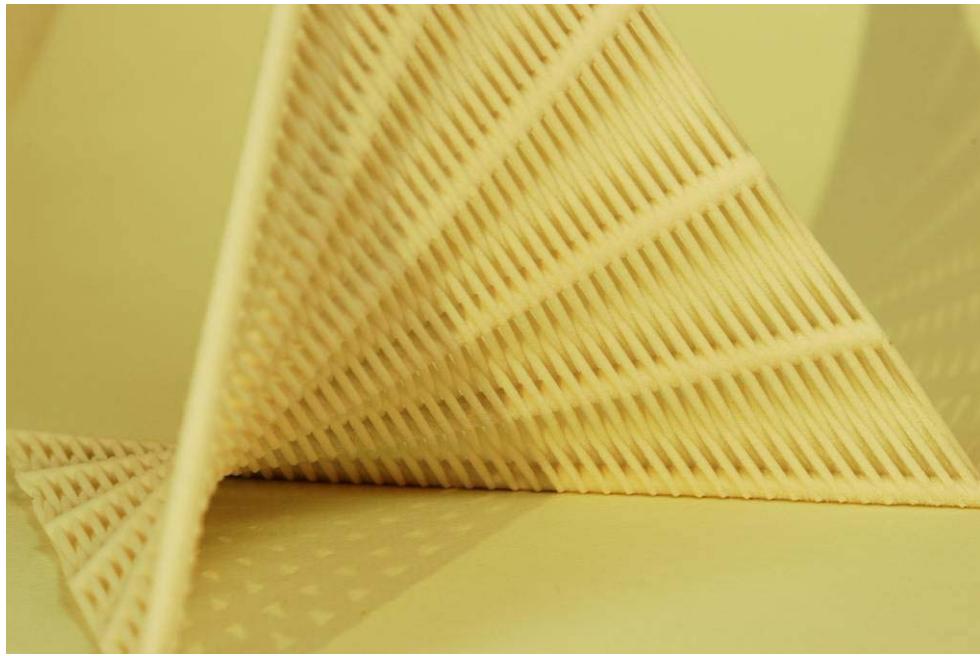


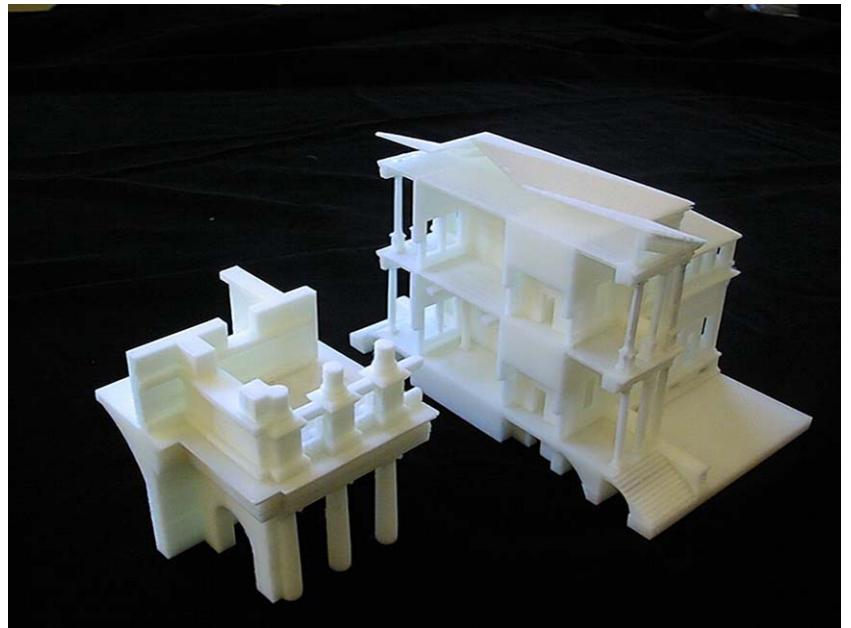






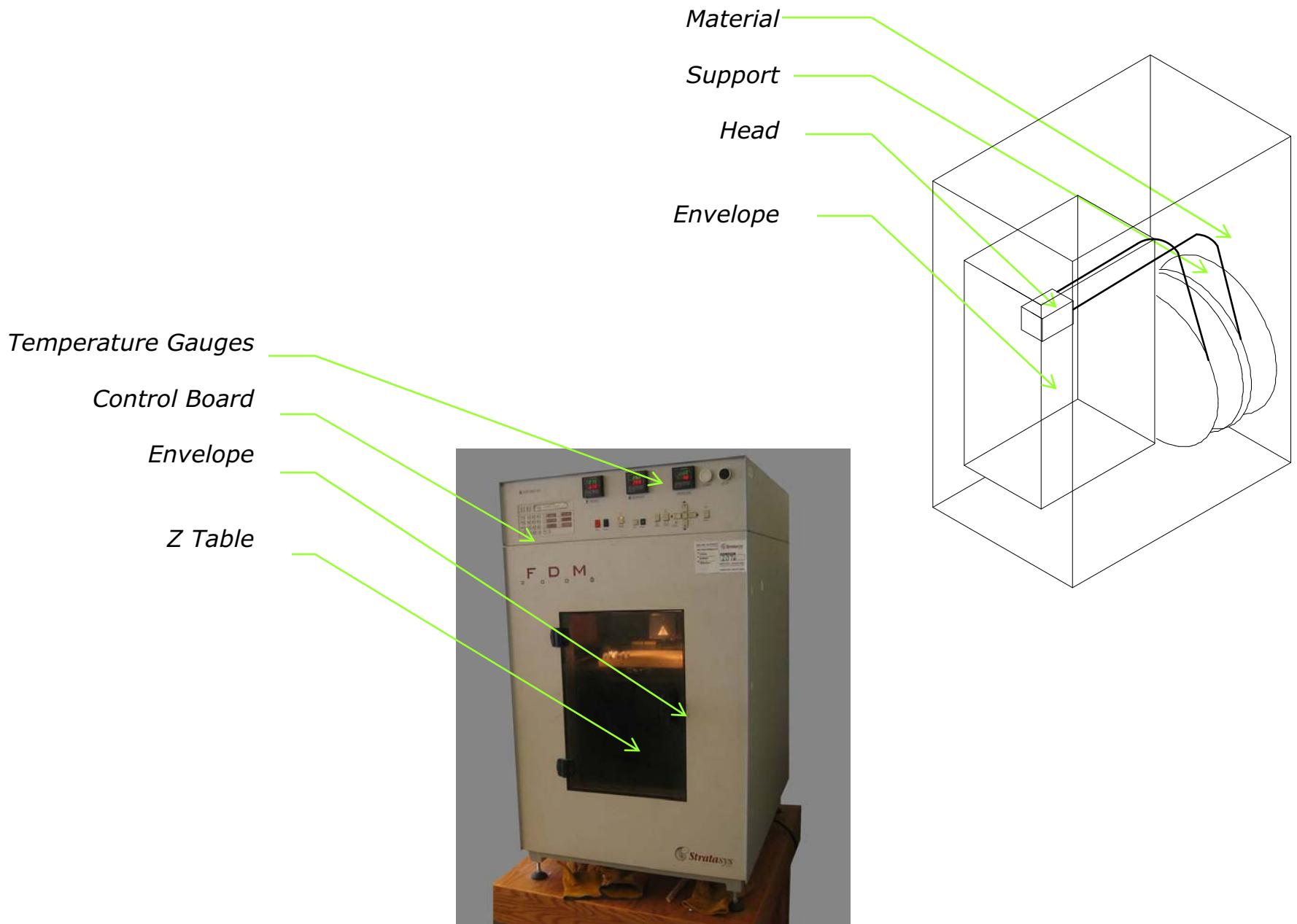


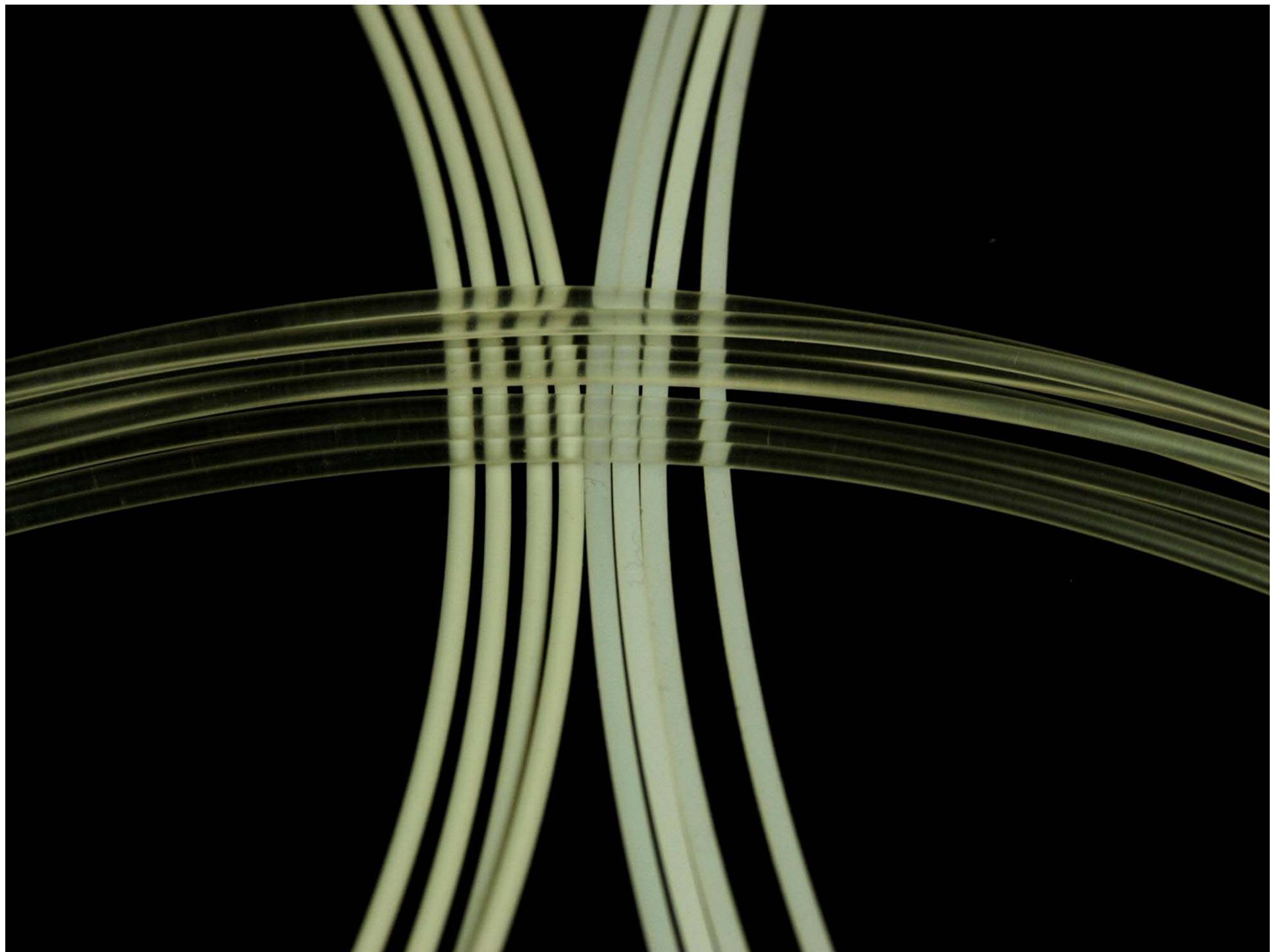


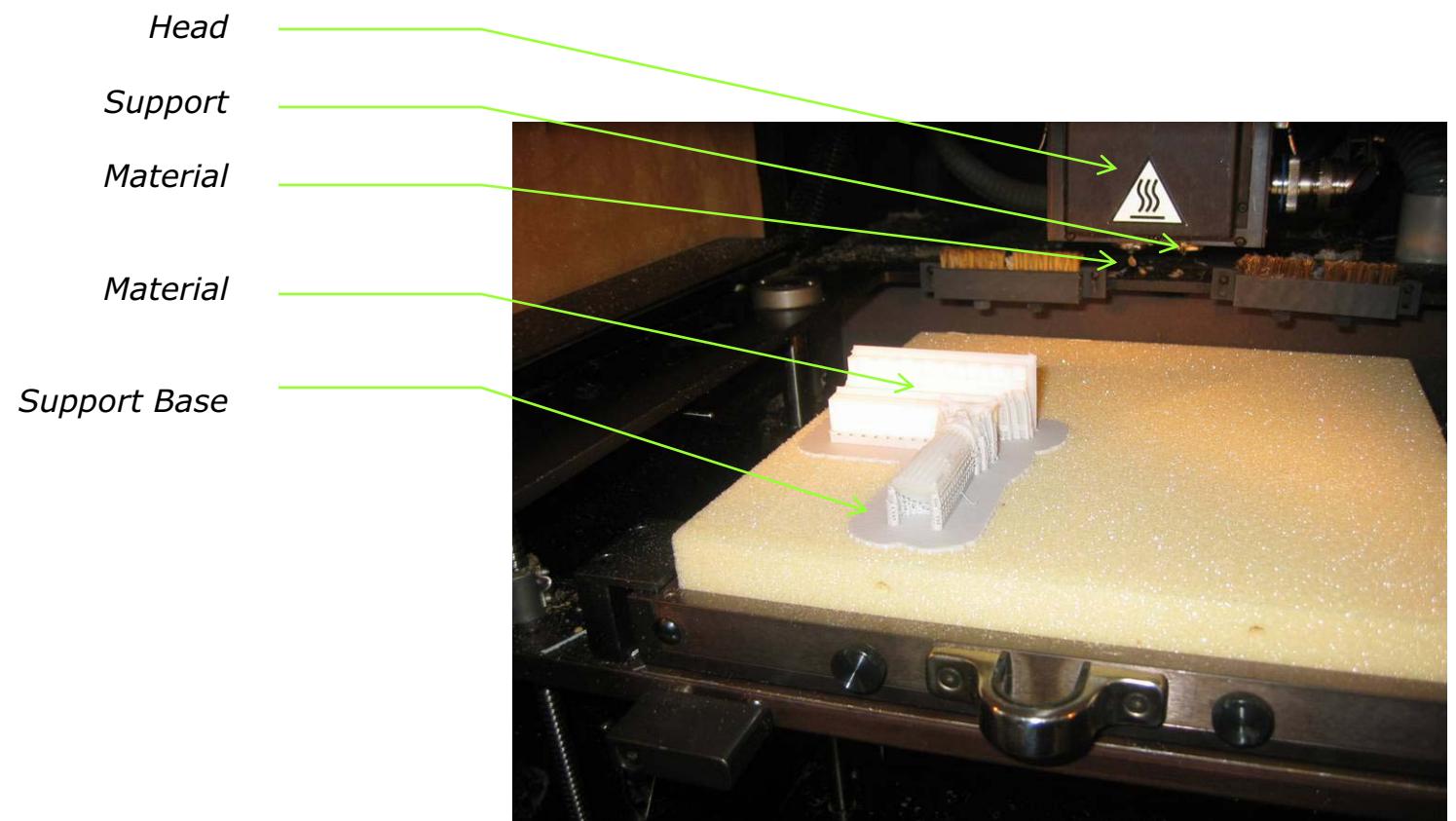


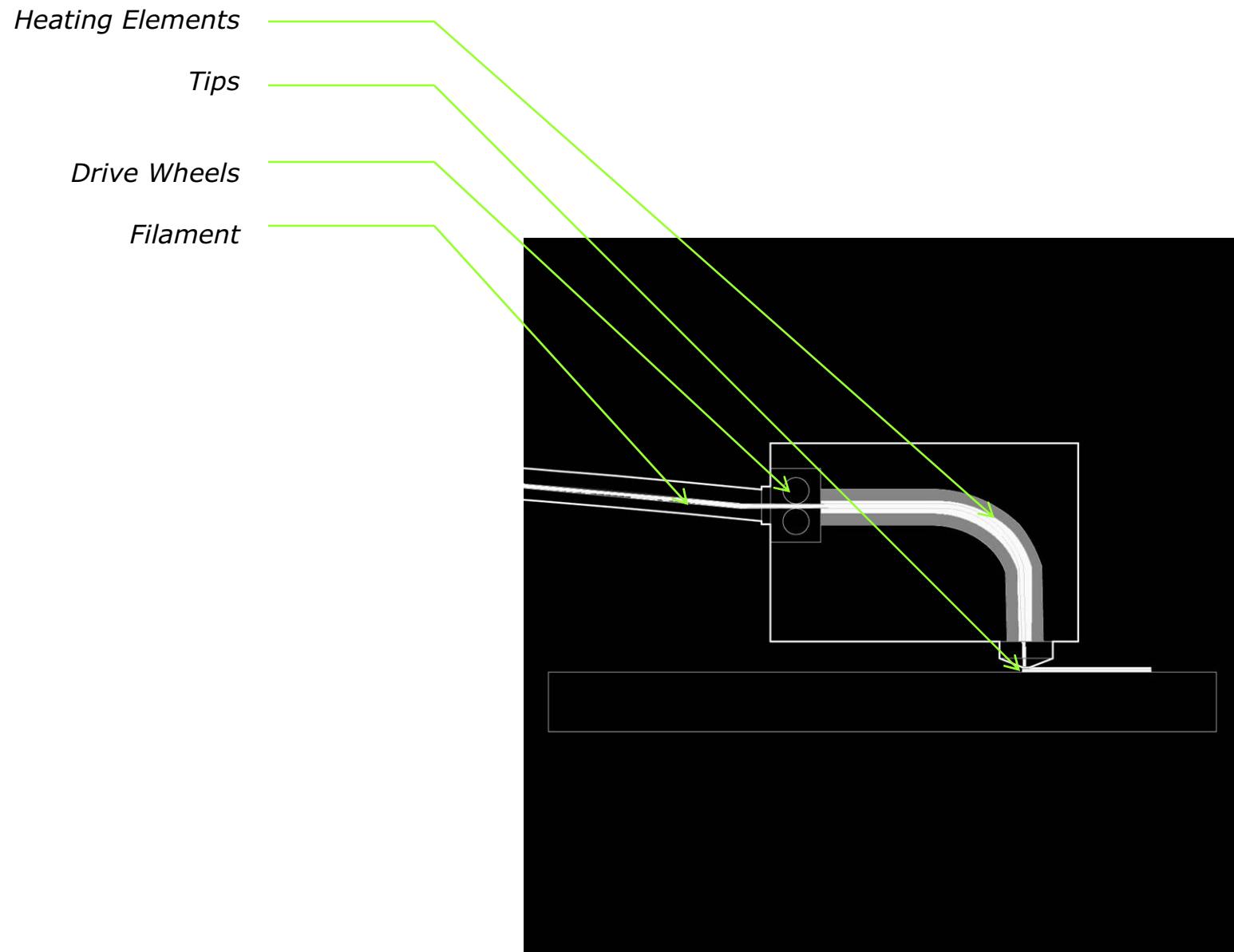
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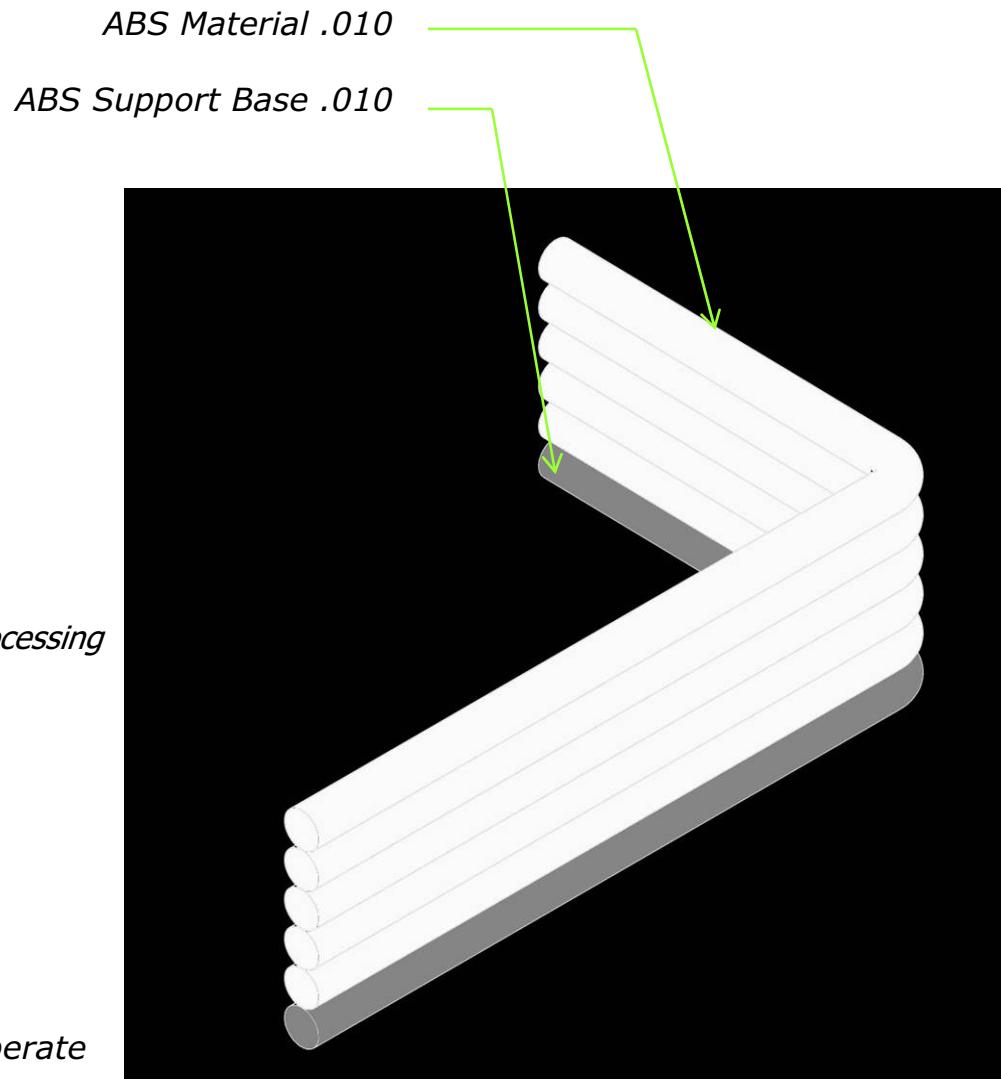
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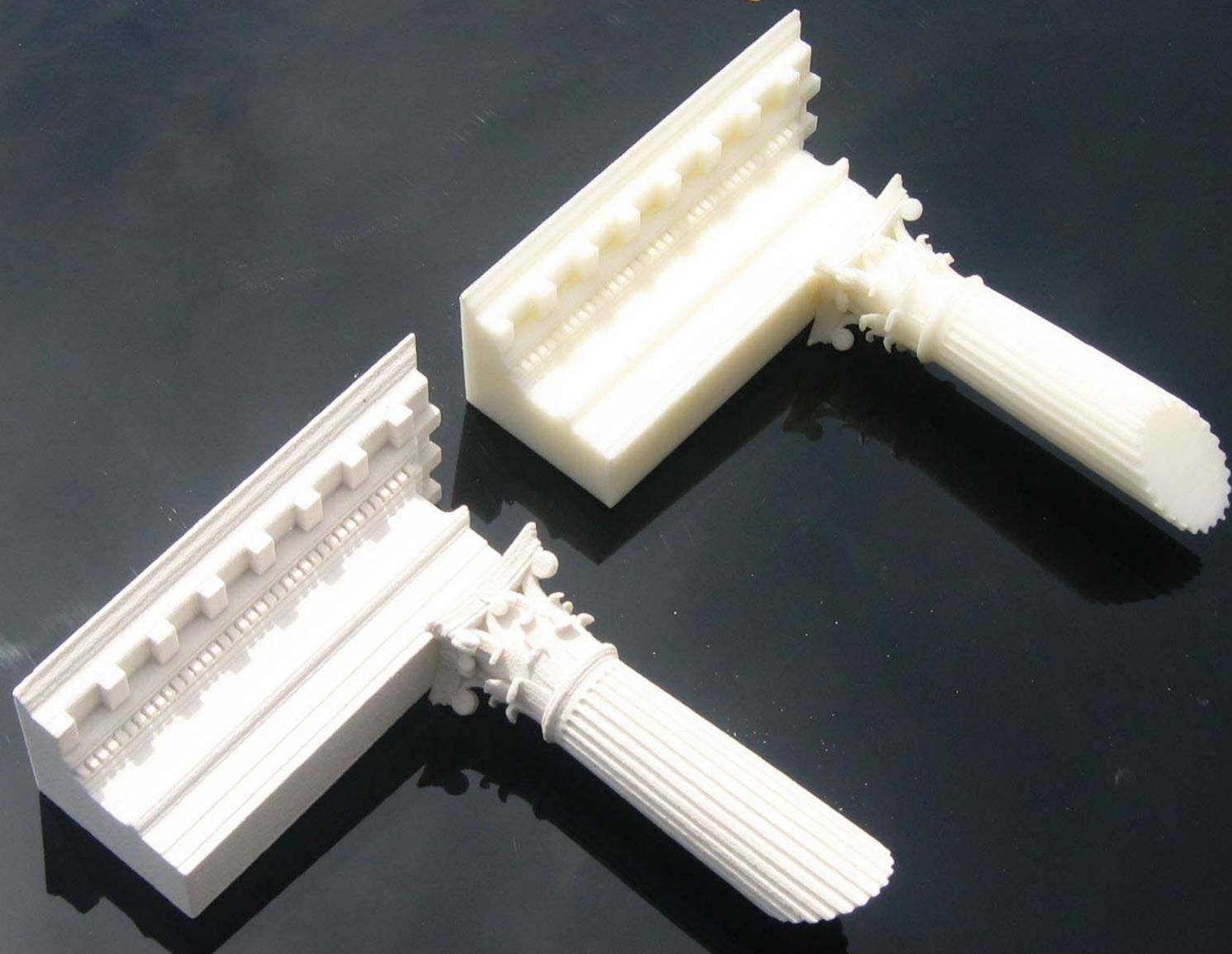


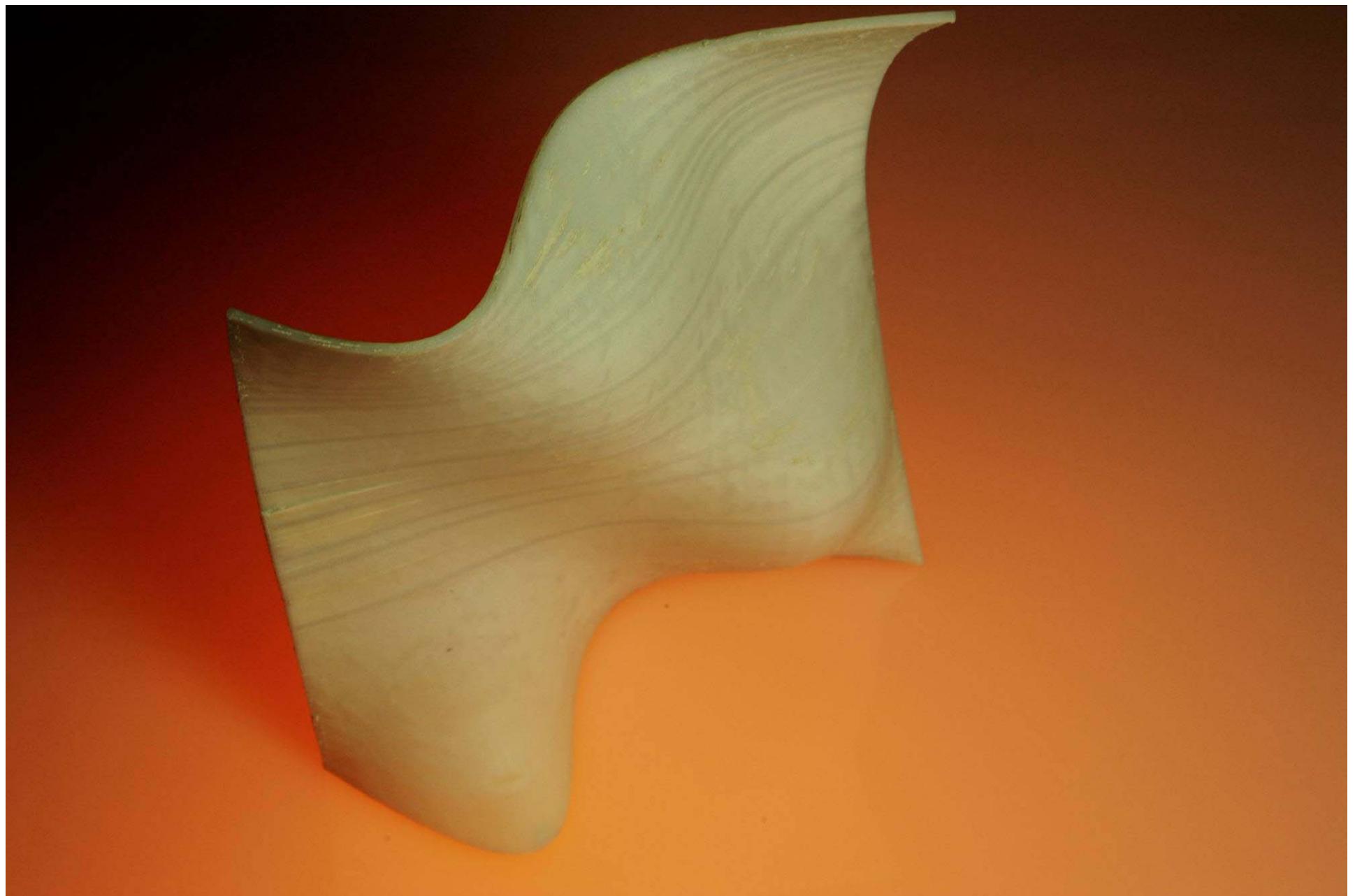


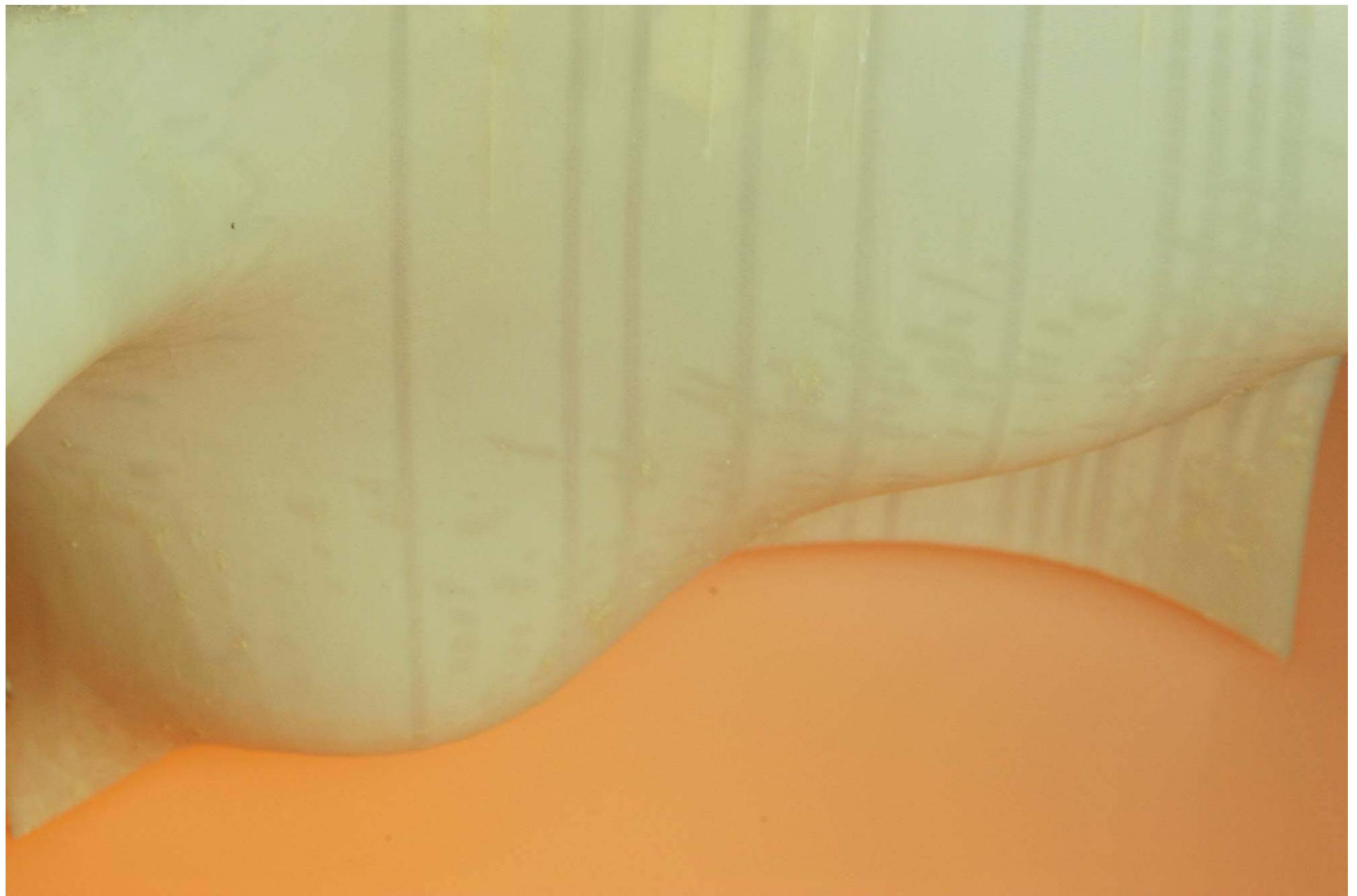














[c]

Stereolithography

