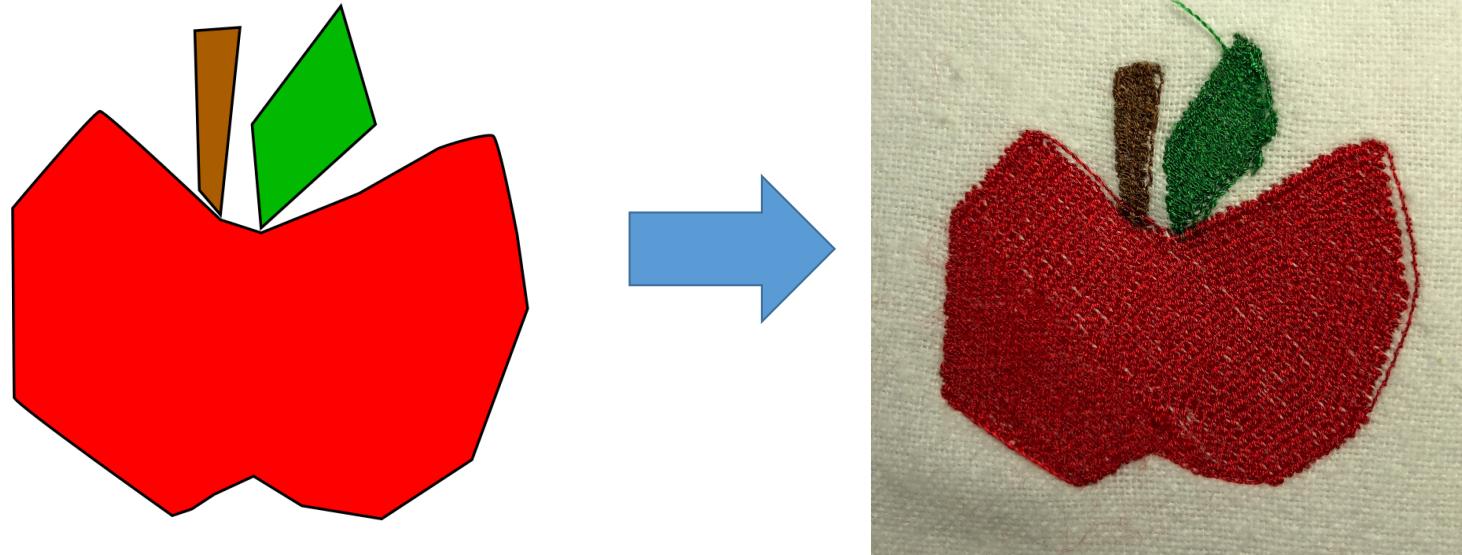


# SVG to PES for Home Embroidery Machines

Austyn Larkin







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US \$514    **\$439**

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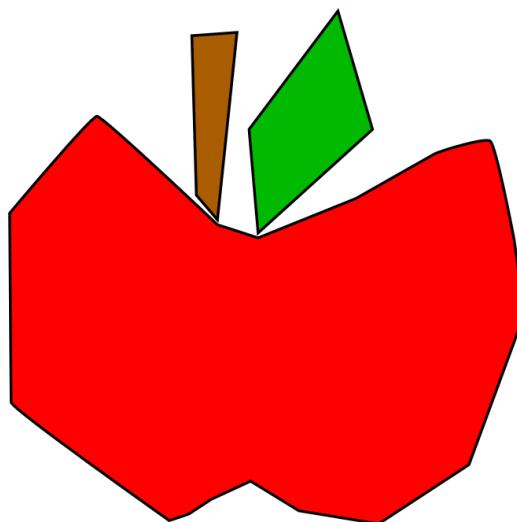
Embroidery Software 2018 basic program + Iconizer + Cross Stitch  
US \$294    **\$254**

 To Cart

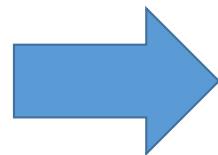
Embroidery Software 2018 basic program + Digitizing Tools + Sfumato Stitch  
US \$439    **\$369**

 To Cart

# Solution

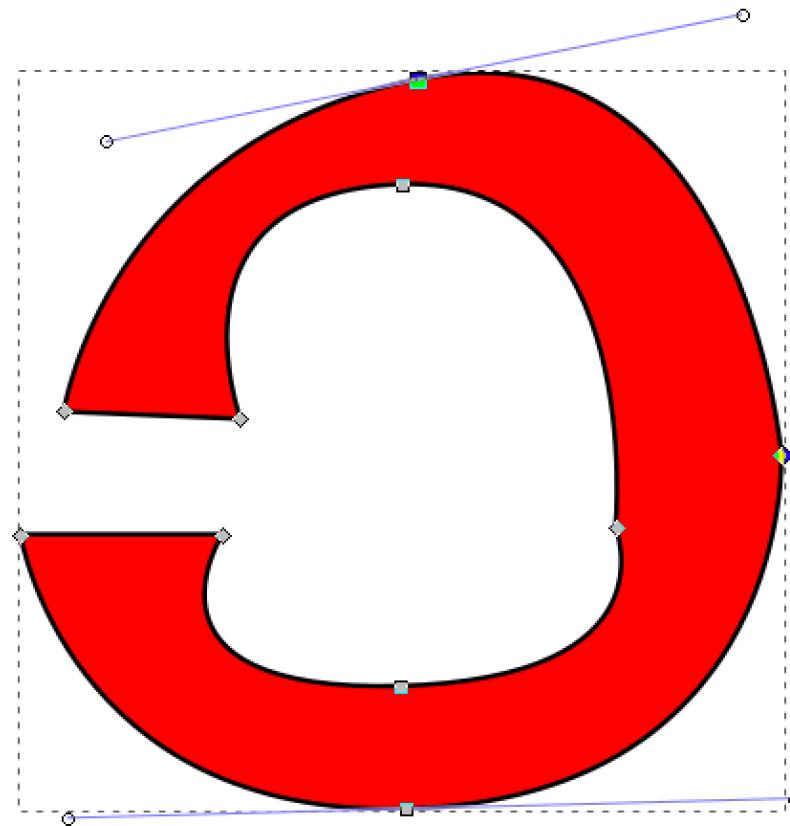


.SVG Vector Graphic

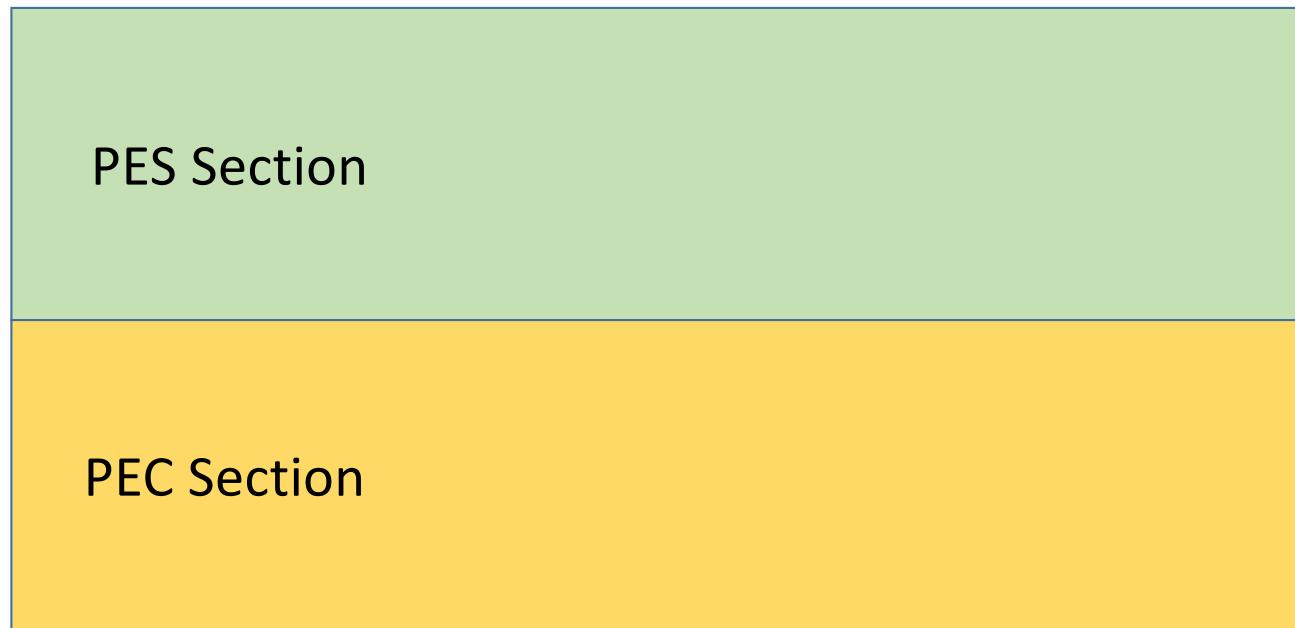


.PES Embroidery File

# What is an .SVG File?



# What is a .PES Embroidery File?



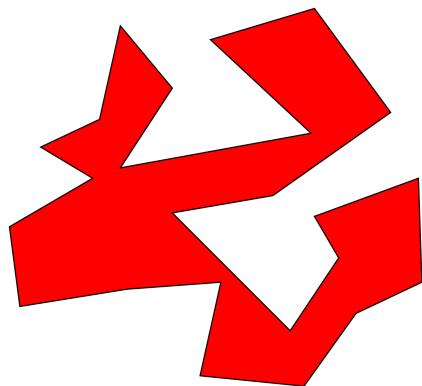
## PEC Section (Details)

- Header section
- Command section
  - Short stitches
  - Long stitches
  - Jumps
  - Color changes

# My Software

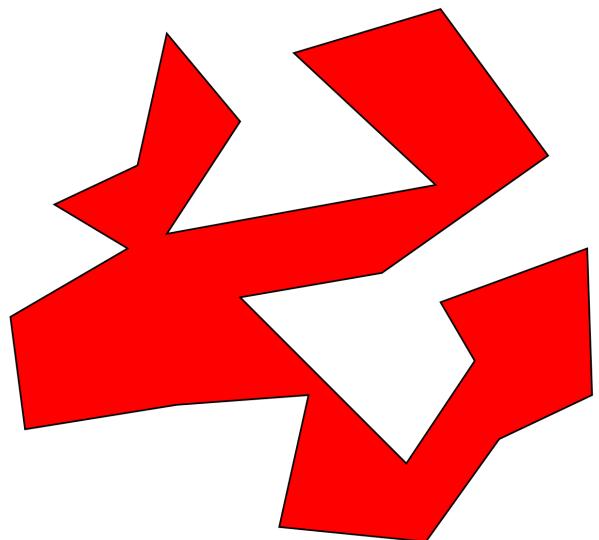
- Command line tool
- Python
- Libraries
  - Numpy
  - svgPathTools
  - pyGlet
  - pyEmbroideryTools (for debug images)

# Step by Step Example



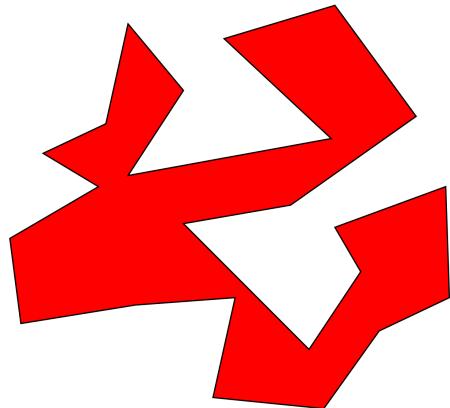
# Loading the SVG

- Single call in `svgPathTools` library
  - SVG Paths
  - SVG Attributes (such as fill color)

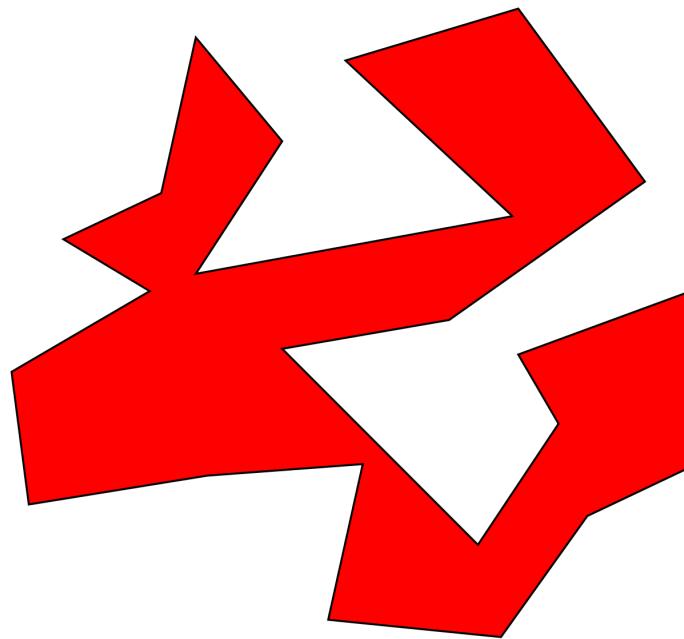


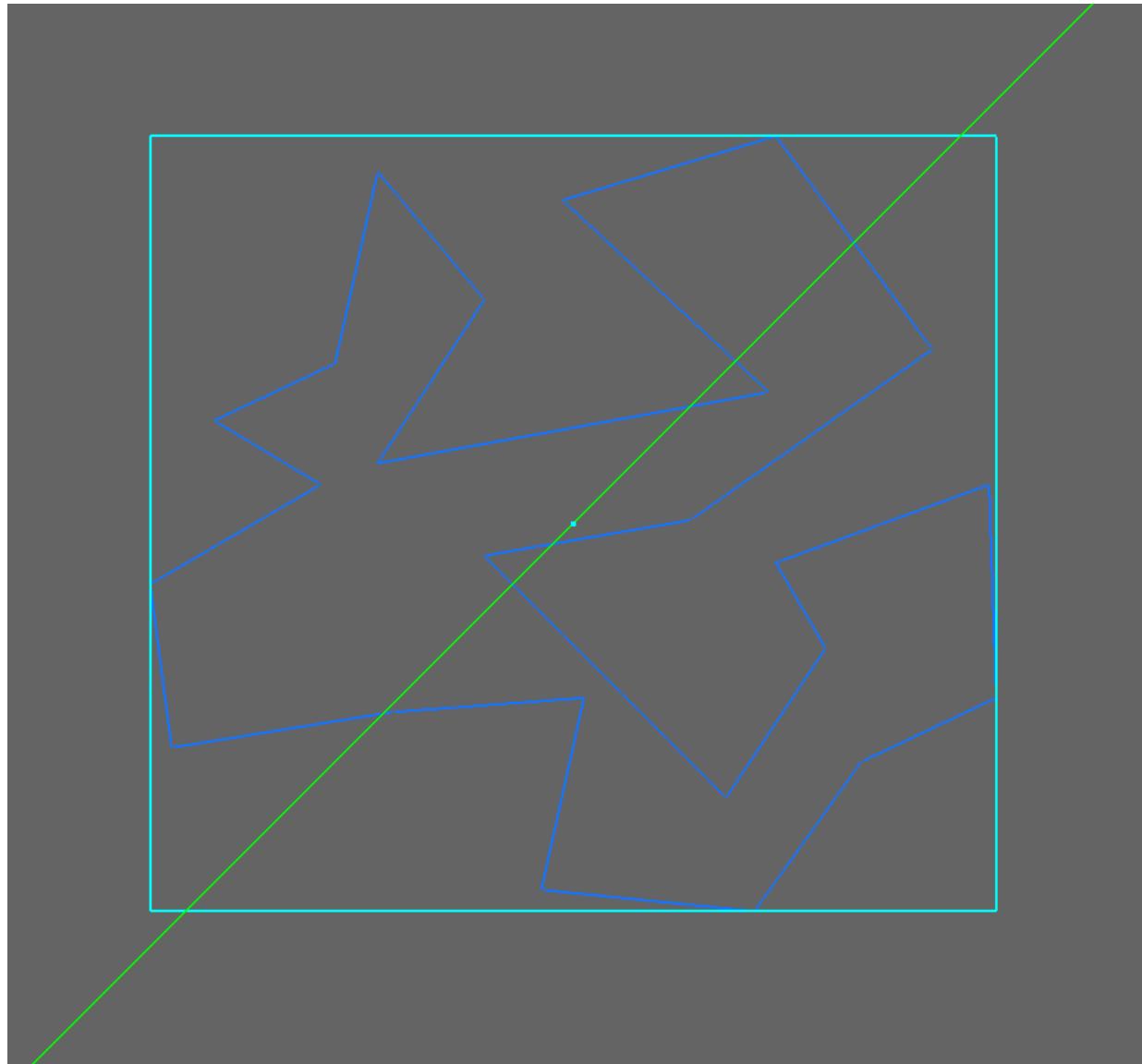
# Finding Thread Colors

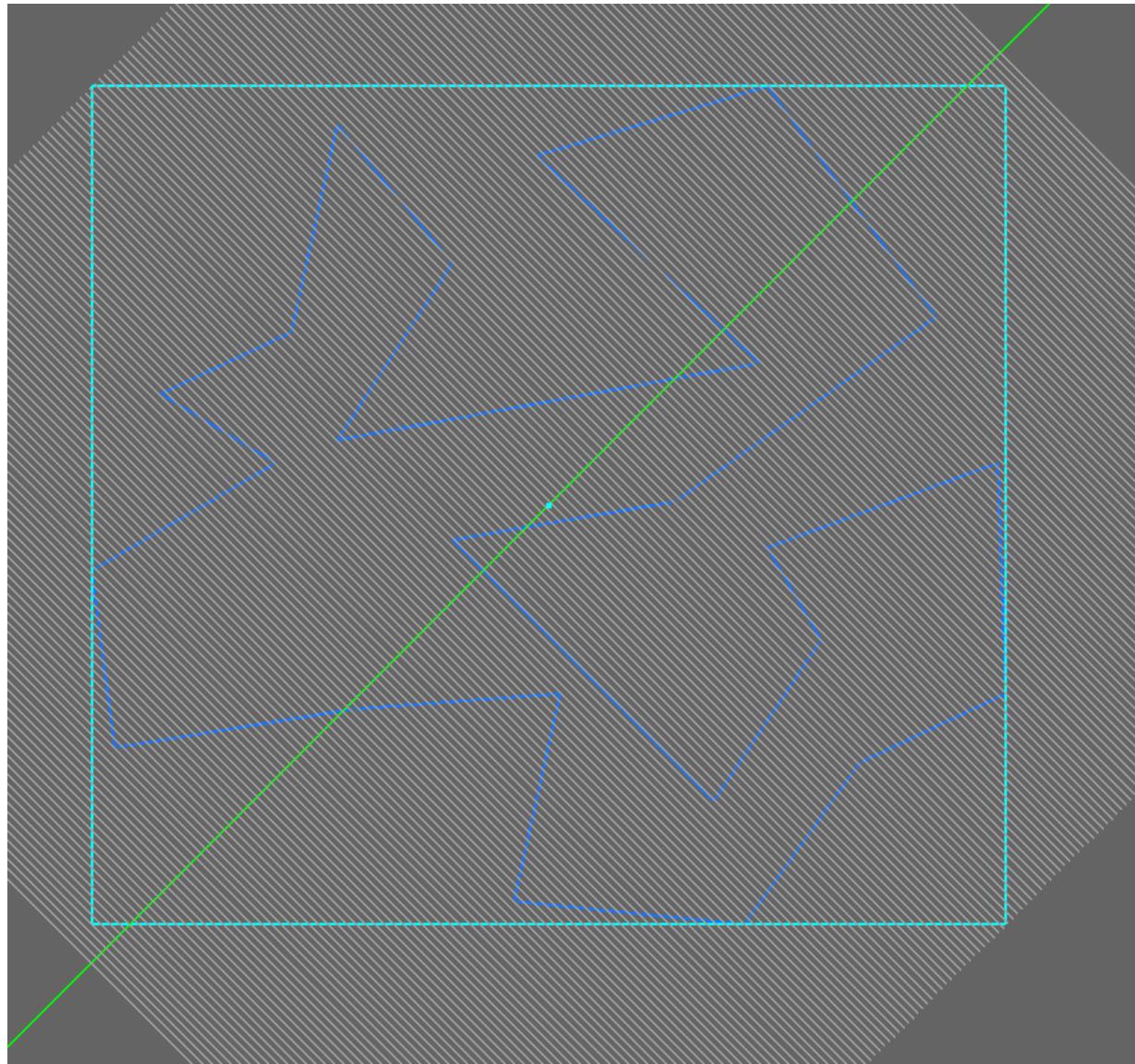
- For each shape
  - Get the fill color
  - Find the closest thread color
  - Save thread color index

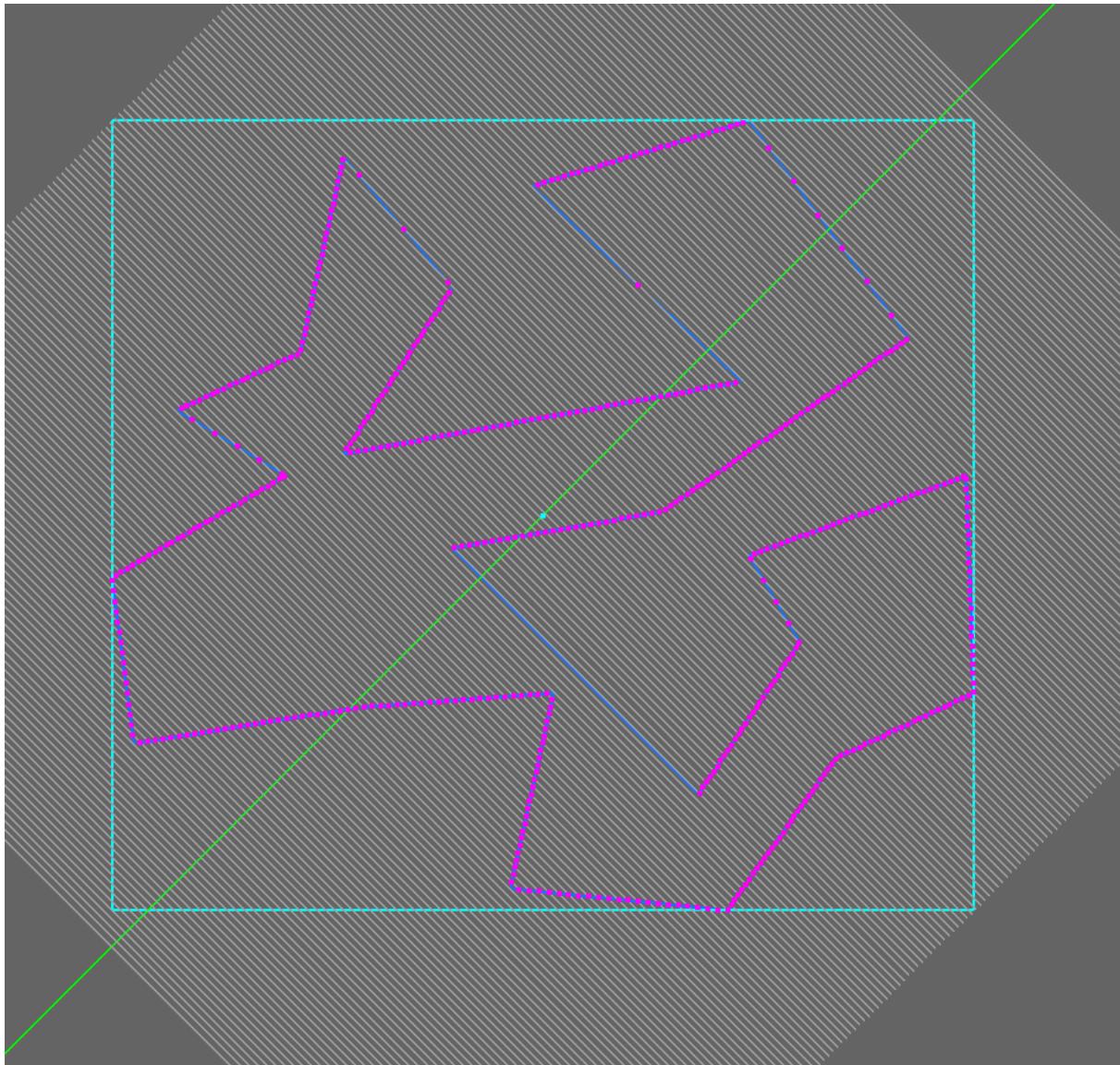


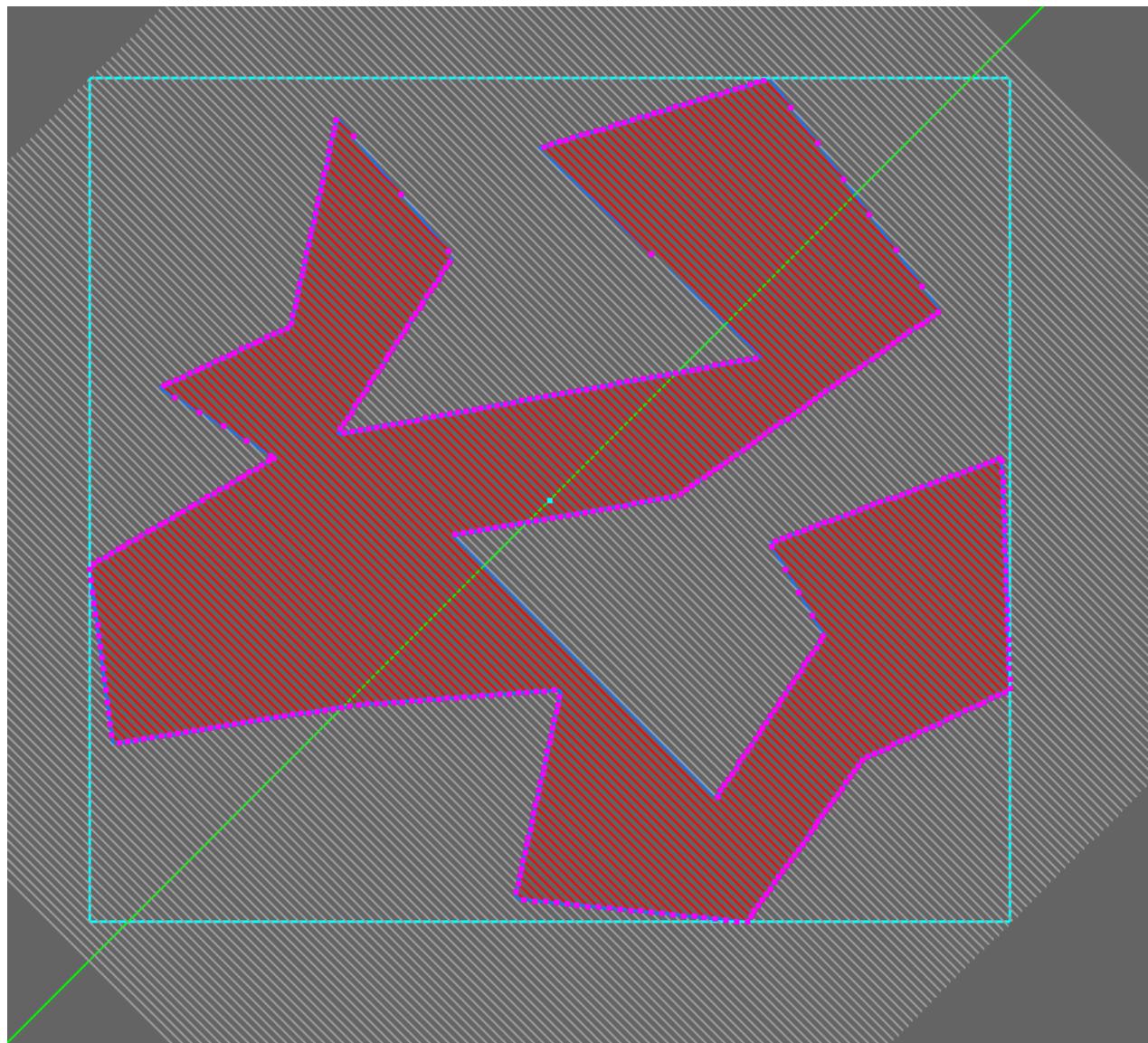
# Creating Stitches

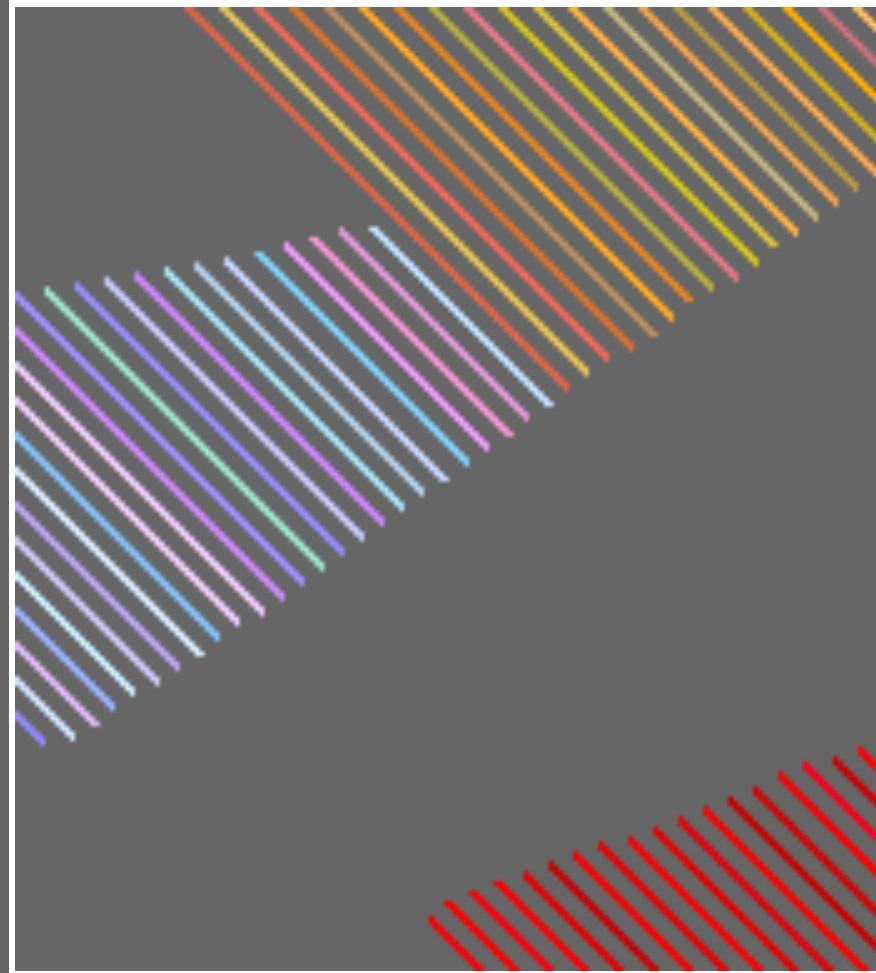
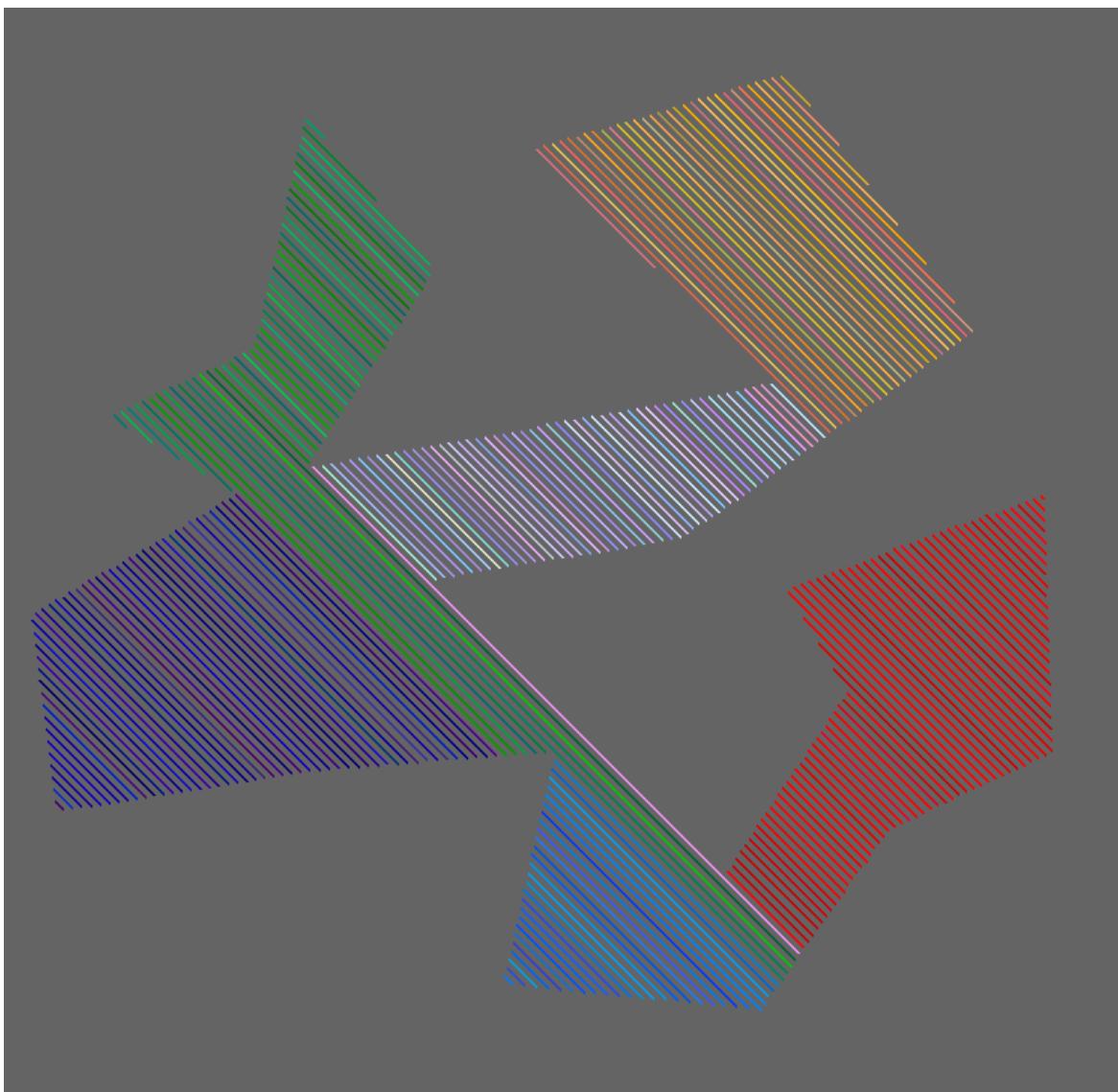


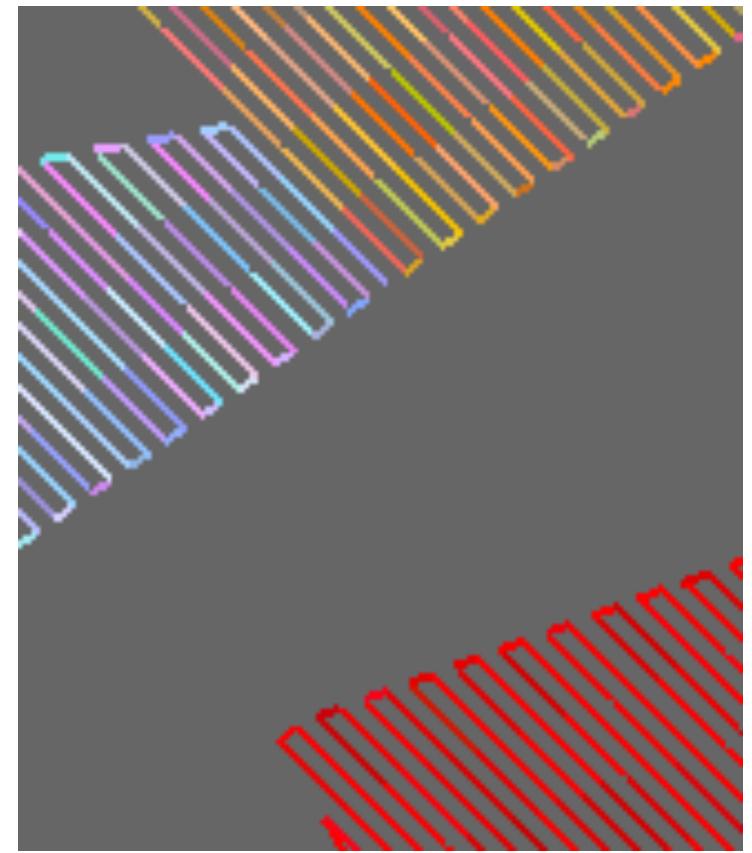
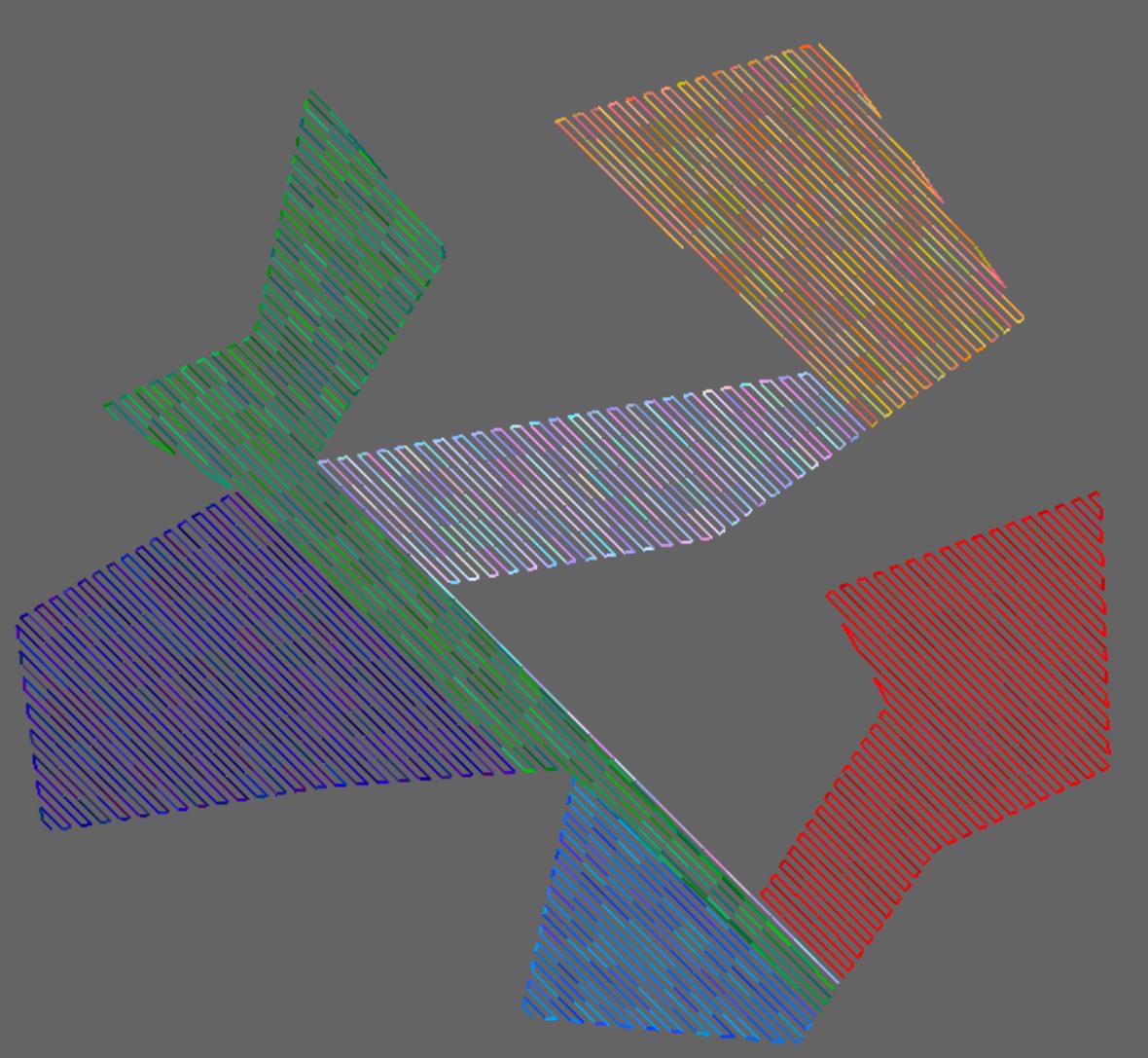


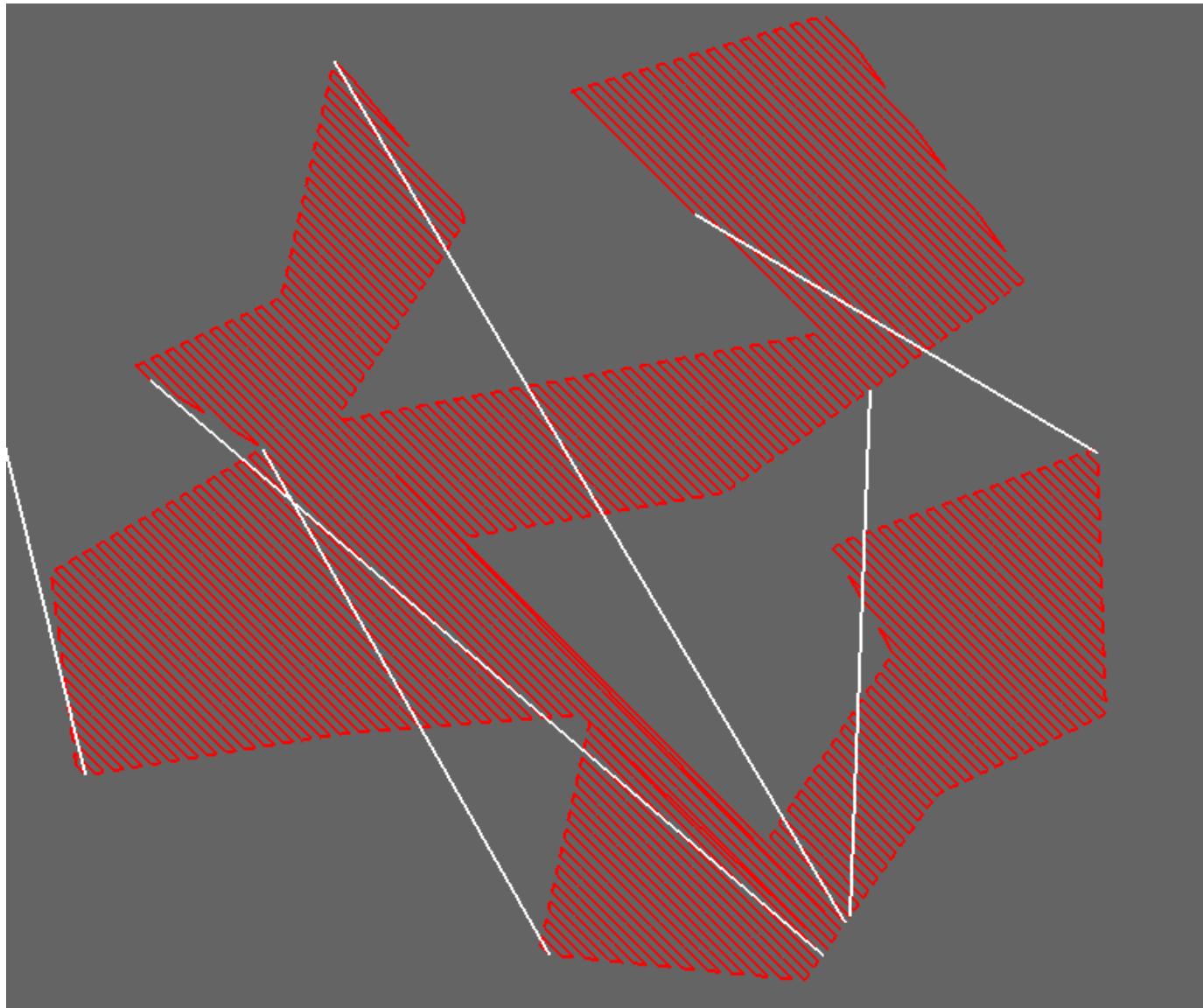


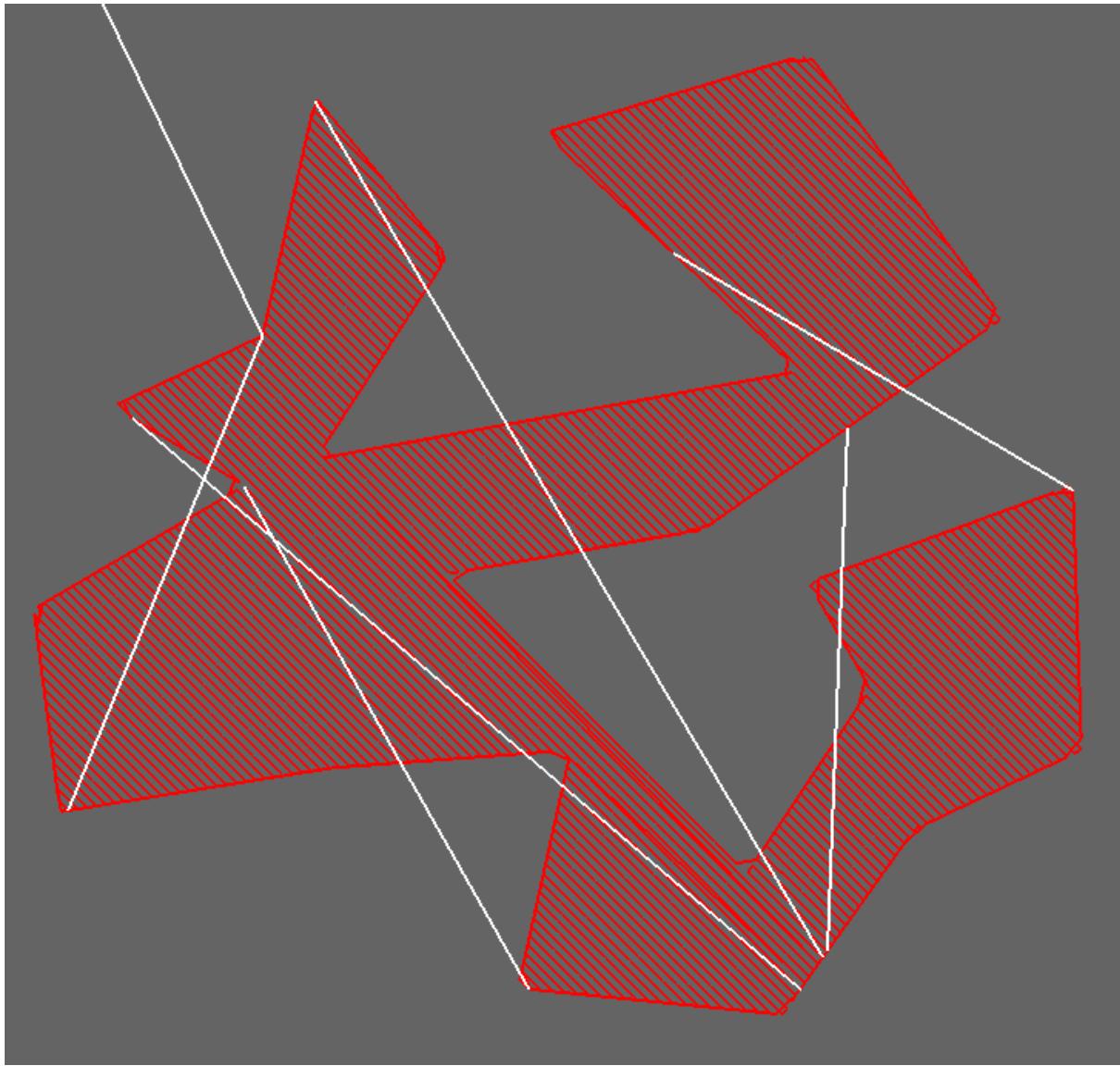




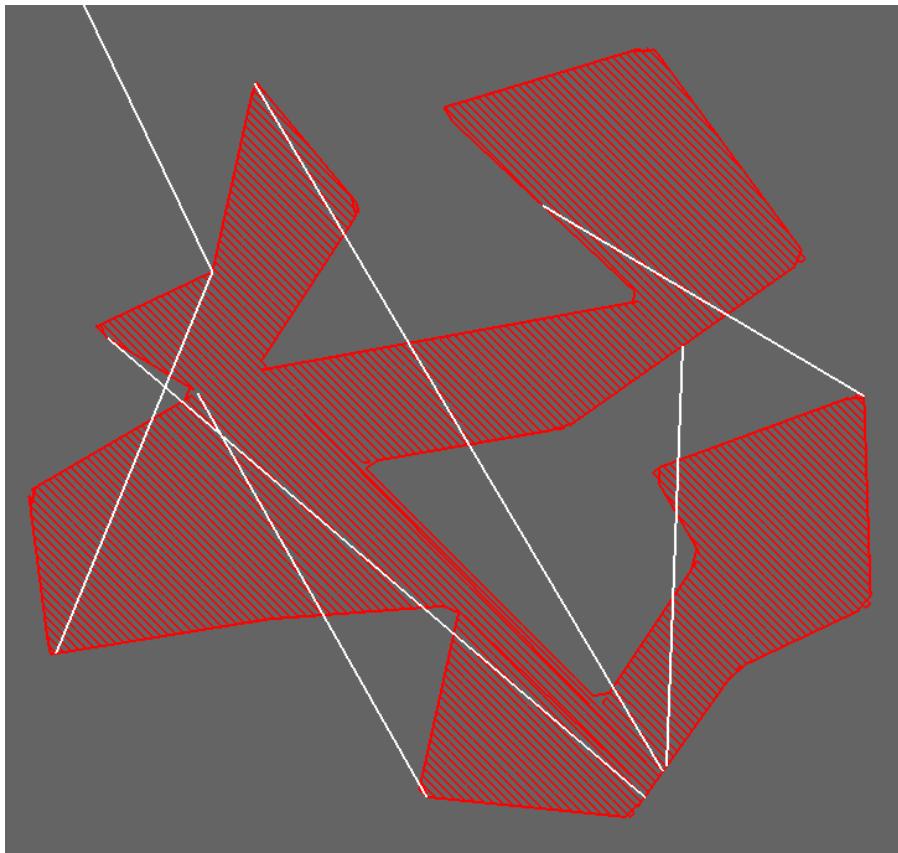








# Results



# ¿Questions?

(I'm also going to pass around my test designs.)