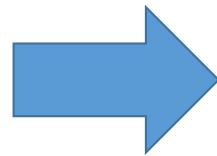
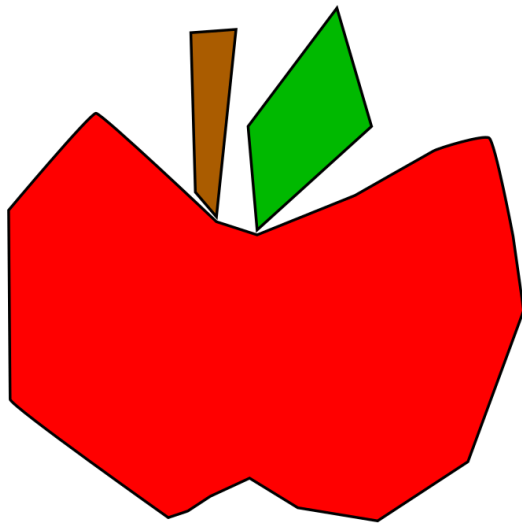


# SVG to PES for Home Embroidery Machines

Austyn Larkin







# Embroid Online Shop

## Worldwide e-Mail Delivery


Prices are in US\$. You can pay in other currency as well, the choice is available later during the check-out.

Don't miss our limited time bundle discount! 



Embroid 2018 basic program + Digitizing Tools

US \$349 **\$299**

 To Cart



Embroid 2018 basic program + Font Engine


US \$344 **\$295**

 To Cart



Embroid 2018 basic program + Iconizer + Digitizing Tools + Font Engine


US \$514 **\$439**

 To Cart



Embroid 2018 basic program + Iconizer + Cross Stitch


US \$294 **\$254**

 To Cart

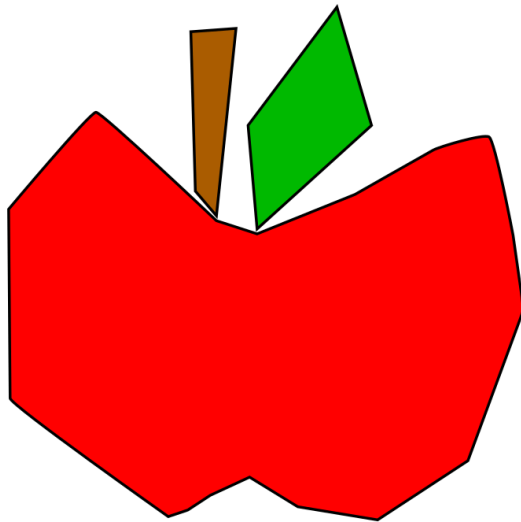


Embroid 2018 basic program + Digitizing Tools + Sfumato Stitch

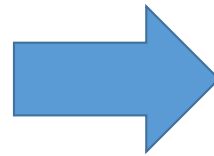
US \$439 **\$369**

 To Cart

# Solution

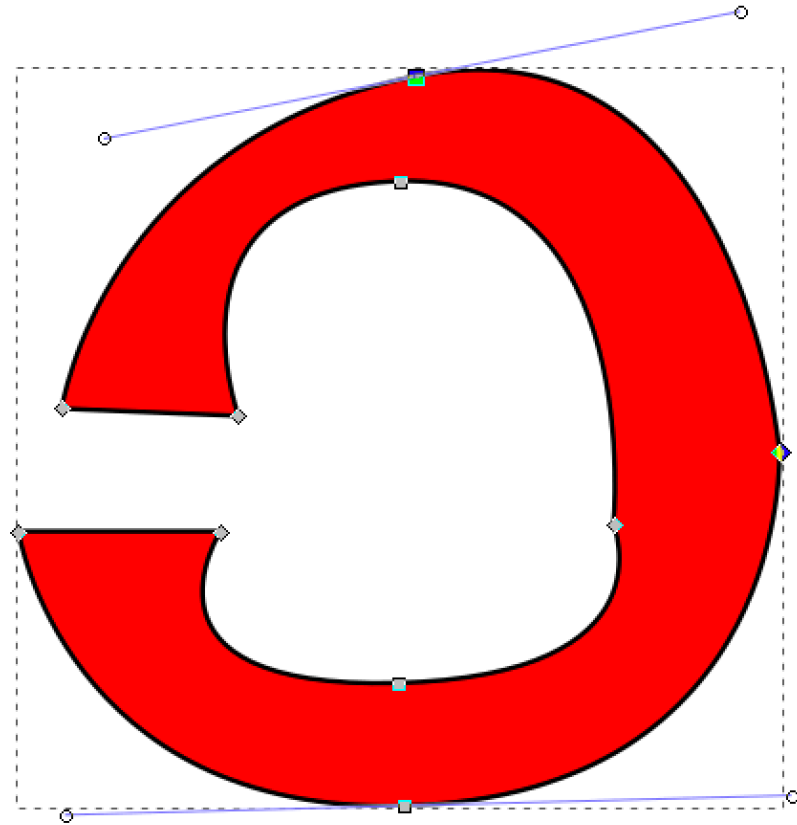


.SVG Vector Graphic

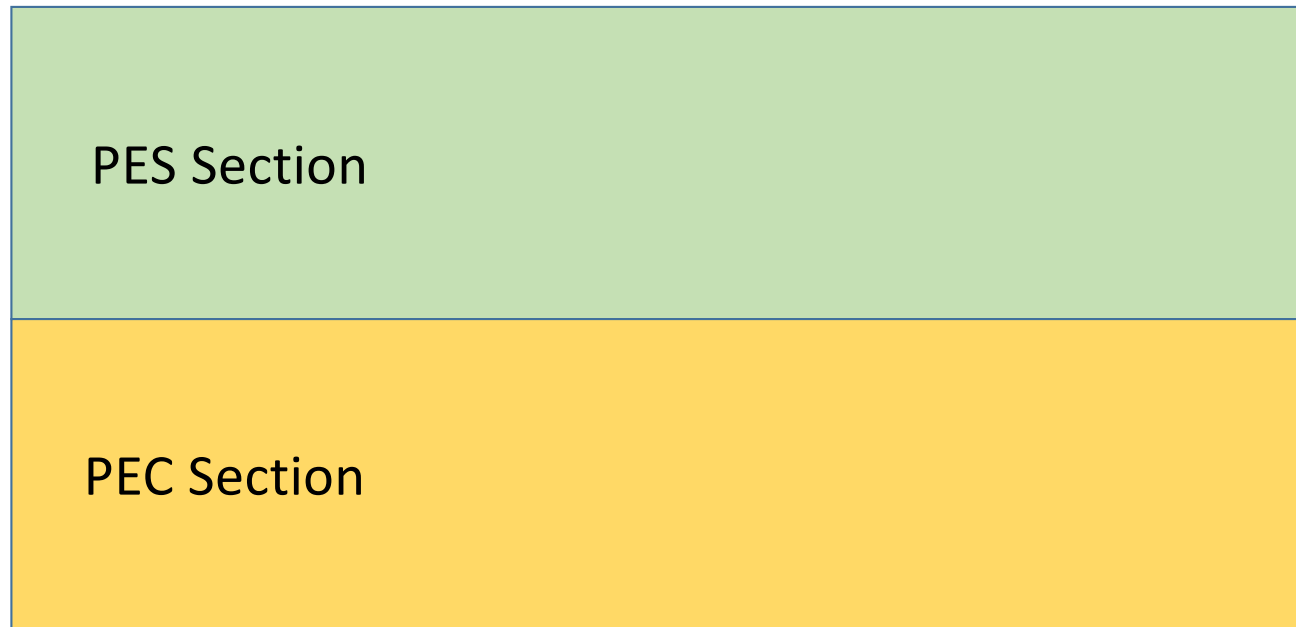


.PES Embroidery File

What is an .SVG File?



# What is a .PES Embroidery File?



## PEC Section (Details)

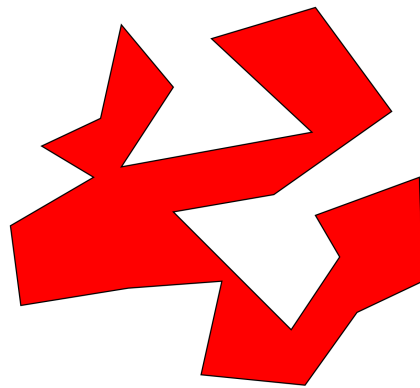
- Header section
- Command section
  - Short stitches
  - Long stitches
  - Jumps
  - Color changes



# My Software

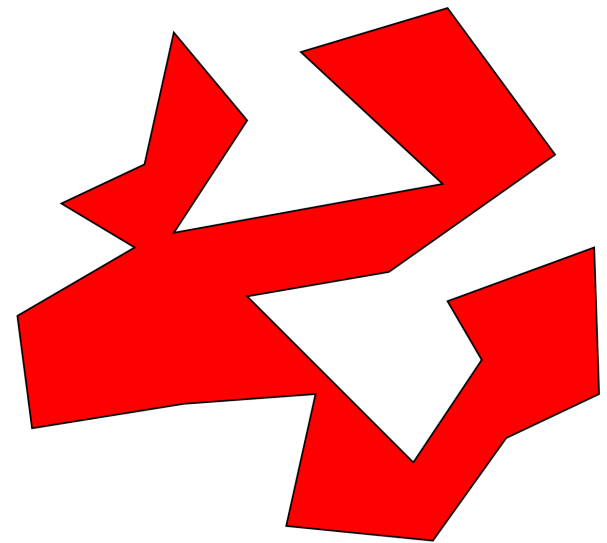
- Command line tool
- Python
- Libraries
  - Numpy
  - svgPathTools
  - pyGlet
  - pyEmbroideryTools (for debug images)

# Step by Step Example



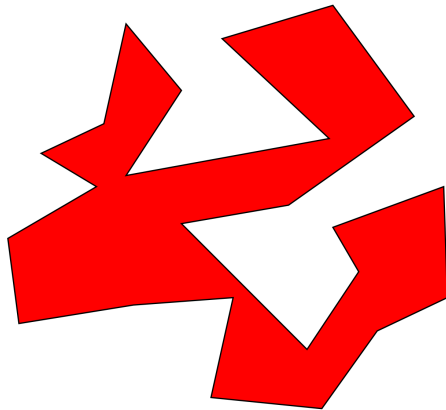
# Loading the SVG

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

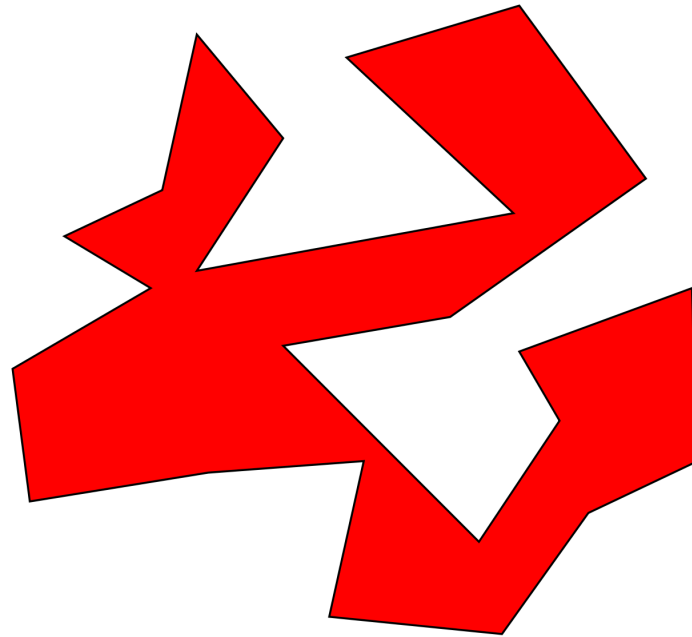


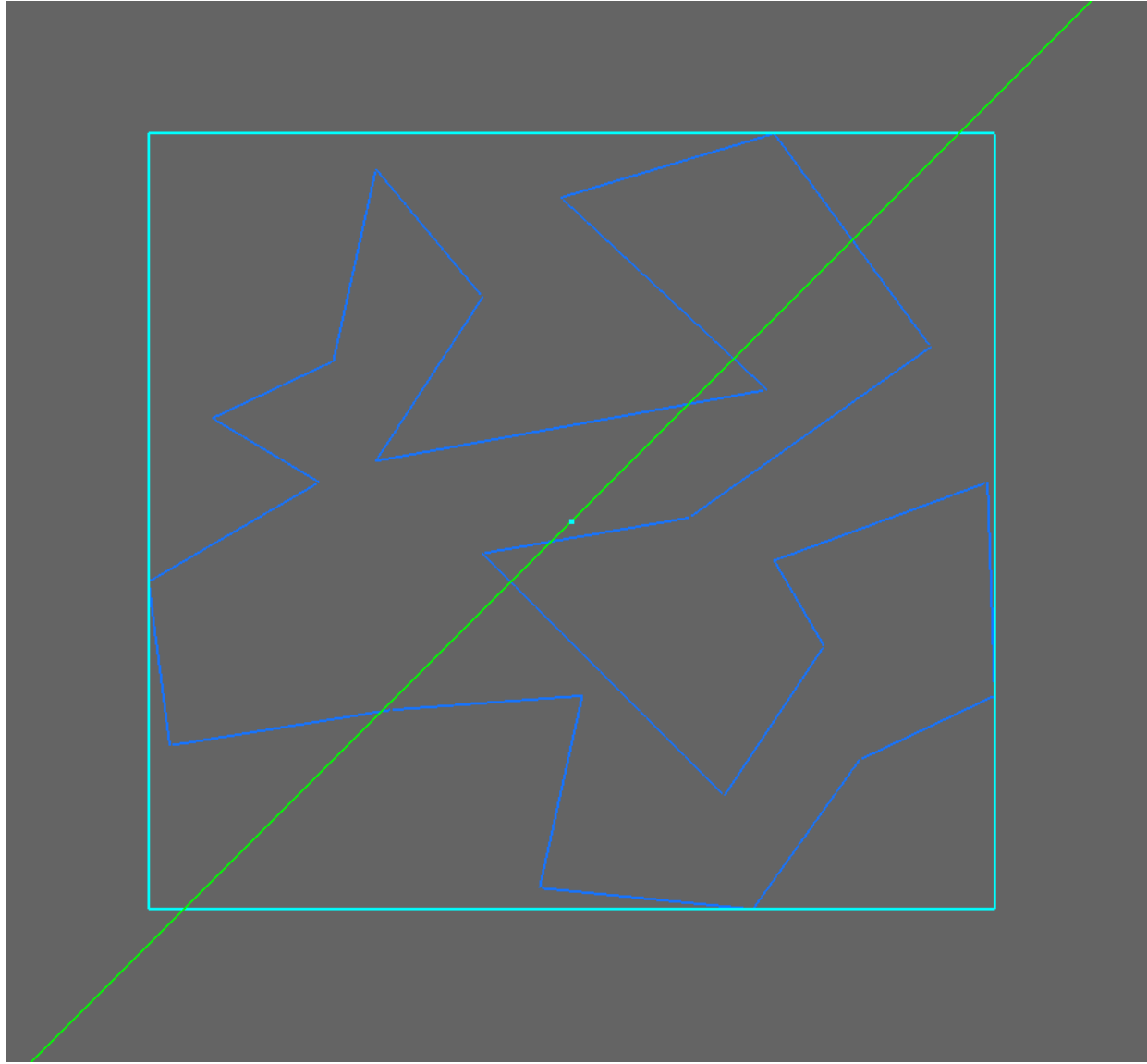
# Finding Thread Colors

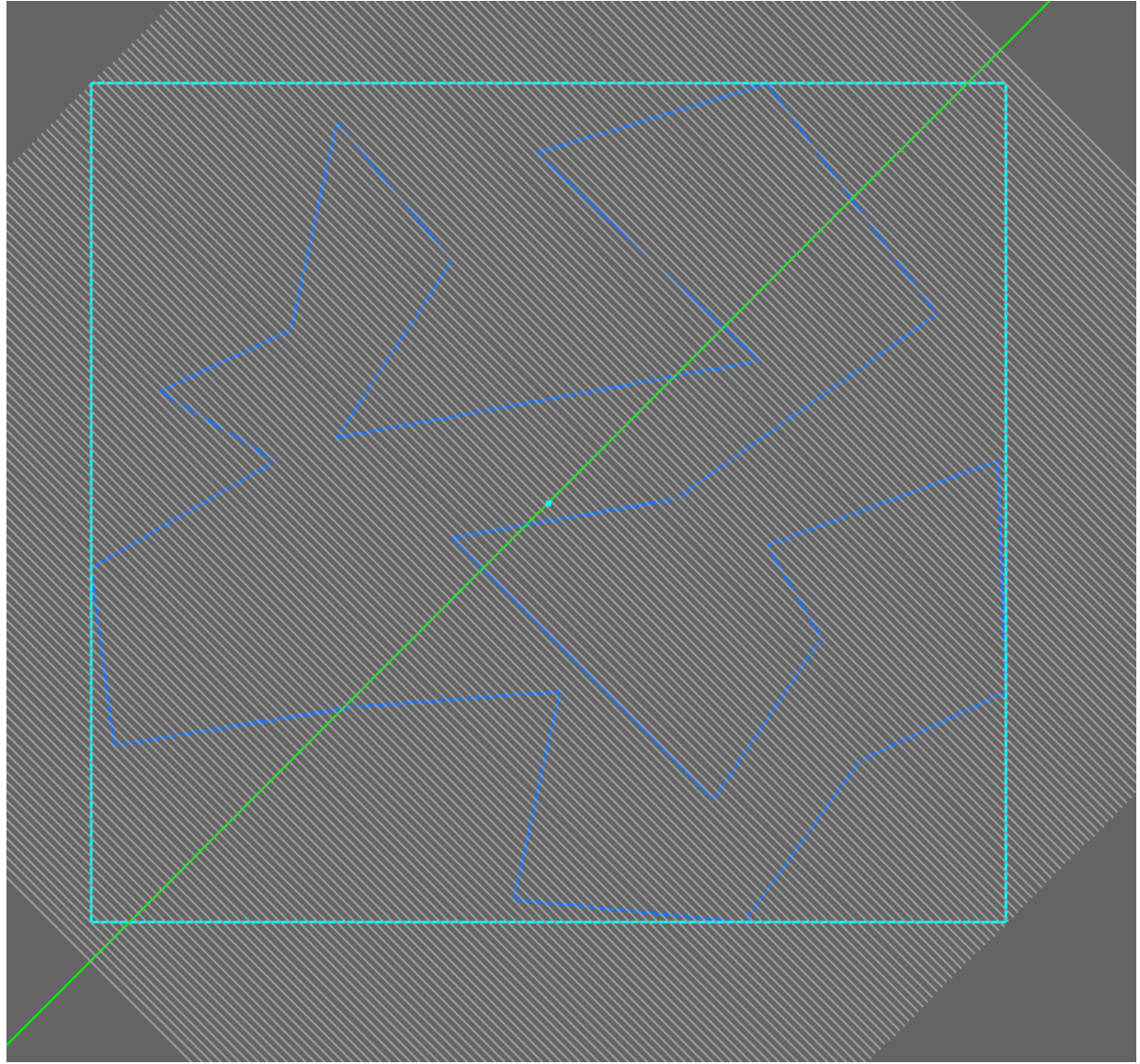
- For each shape
  - Get the fill color
  - Find the closest thread color
  - Save thread color index

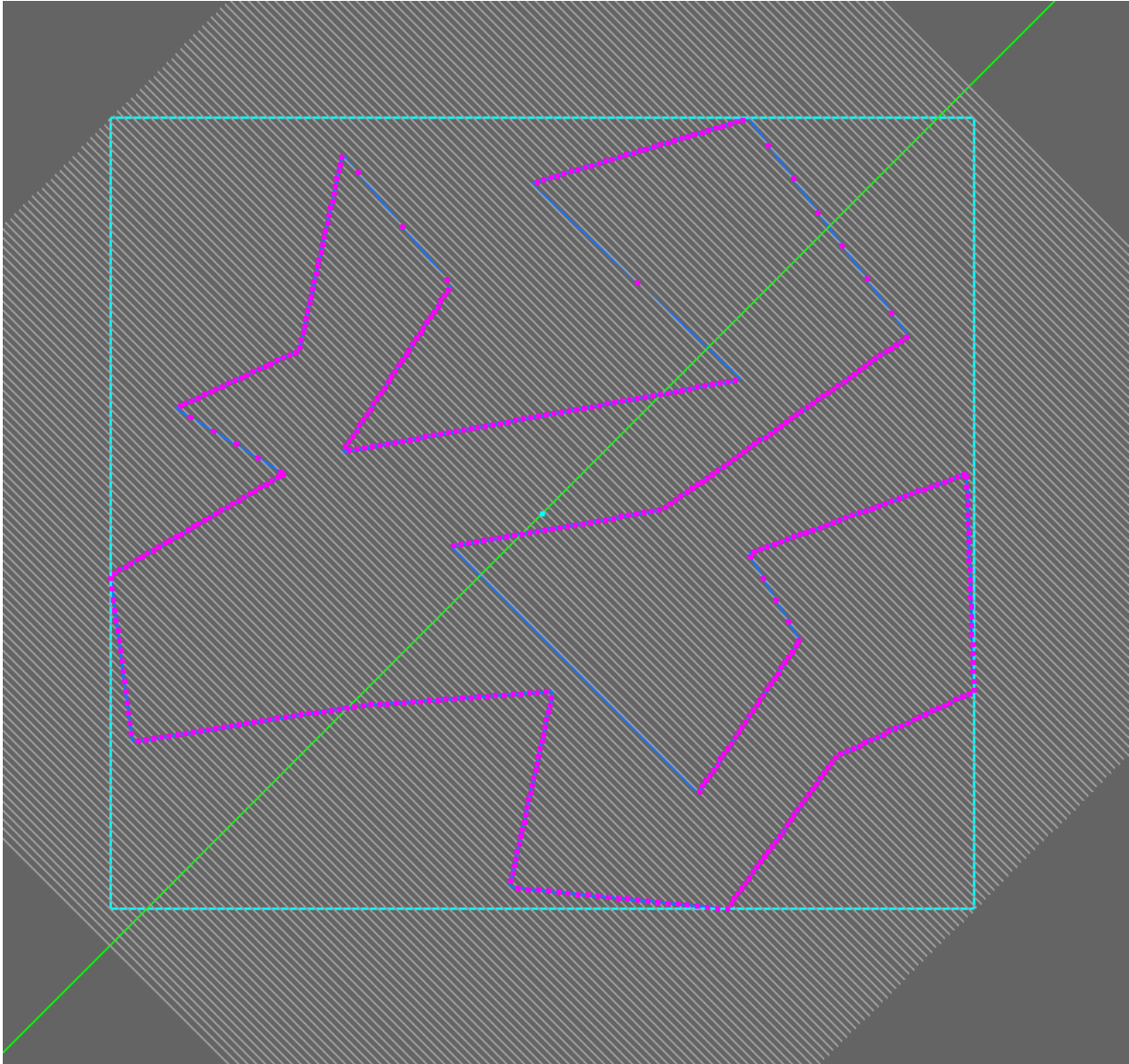


# Creating Stitches

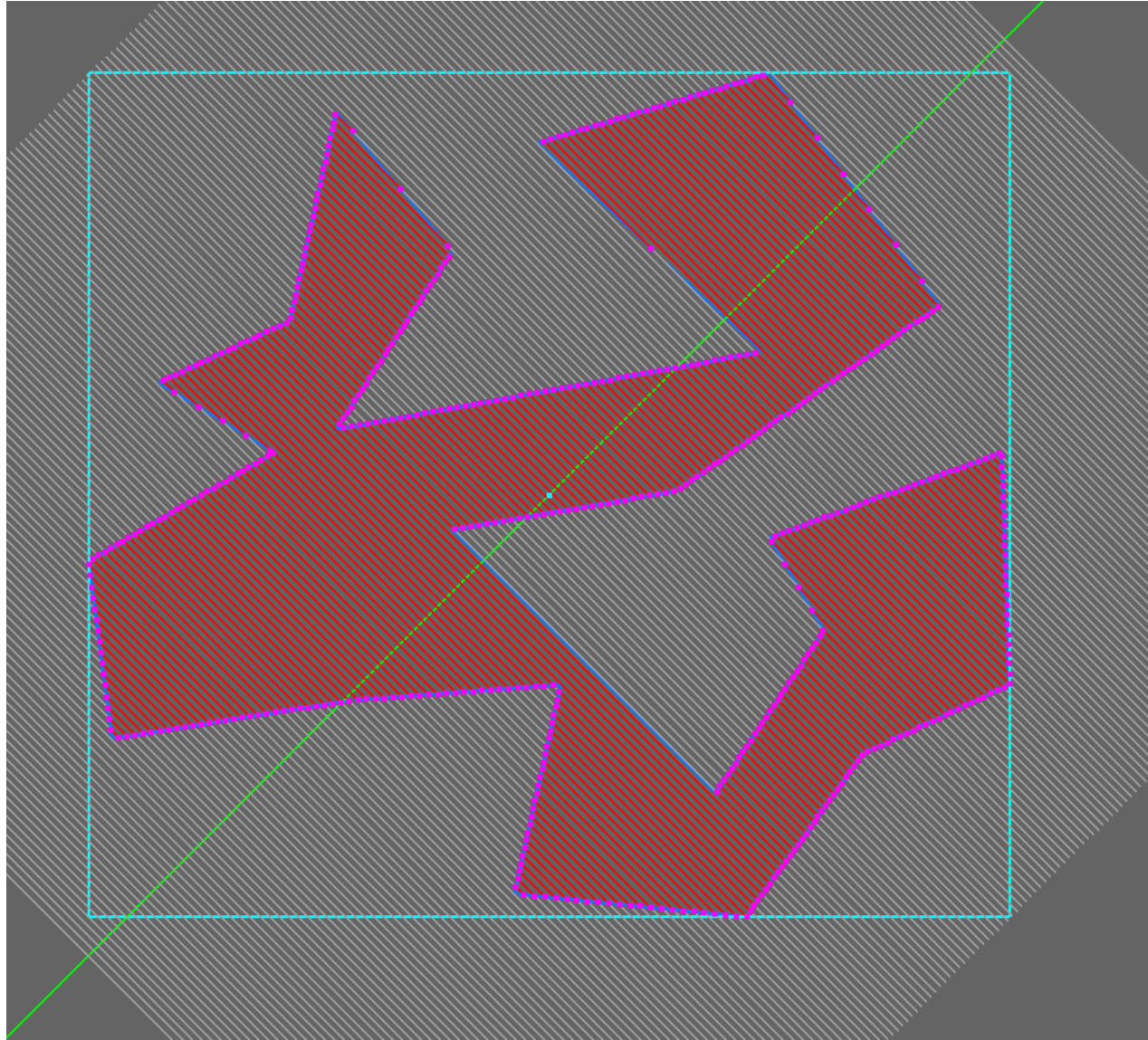


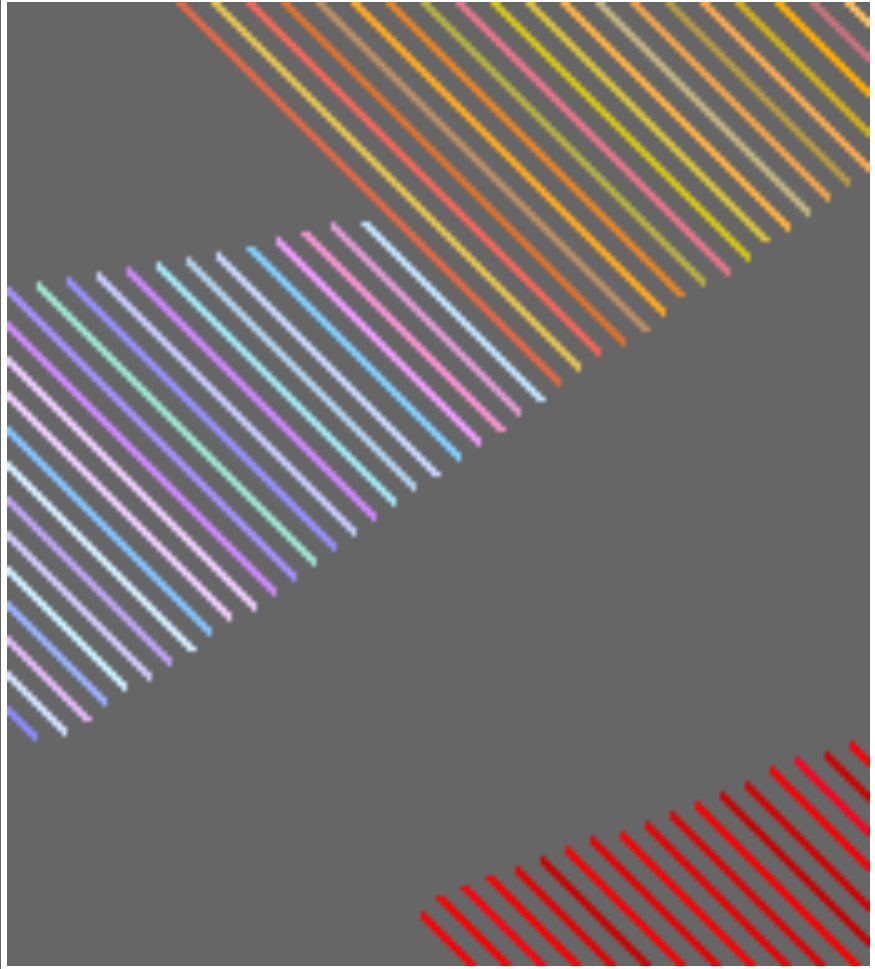
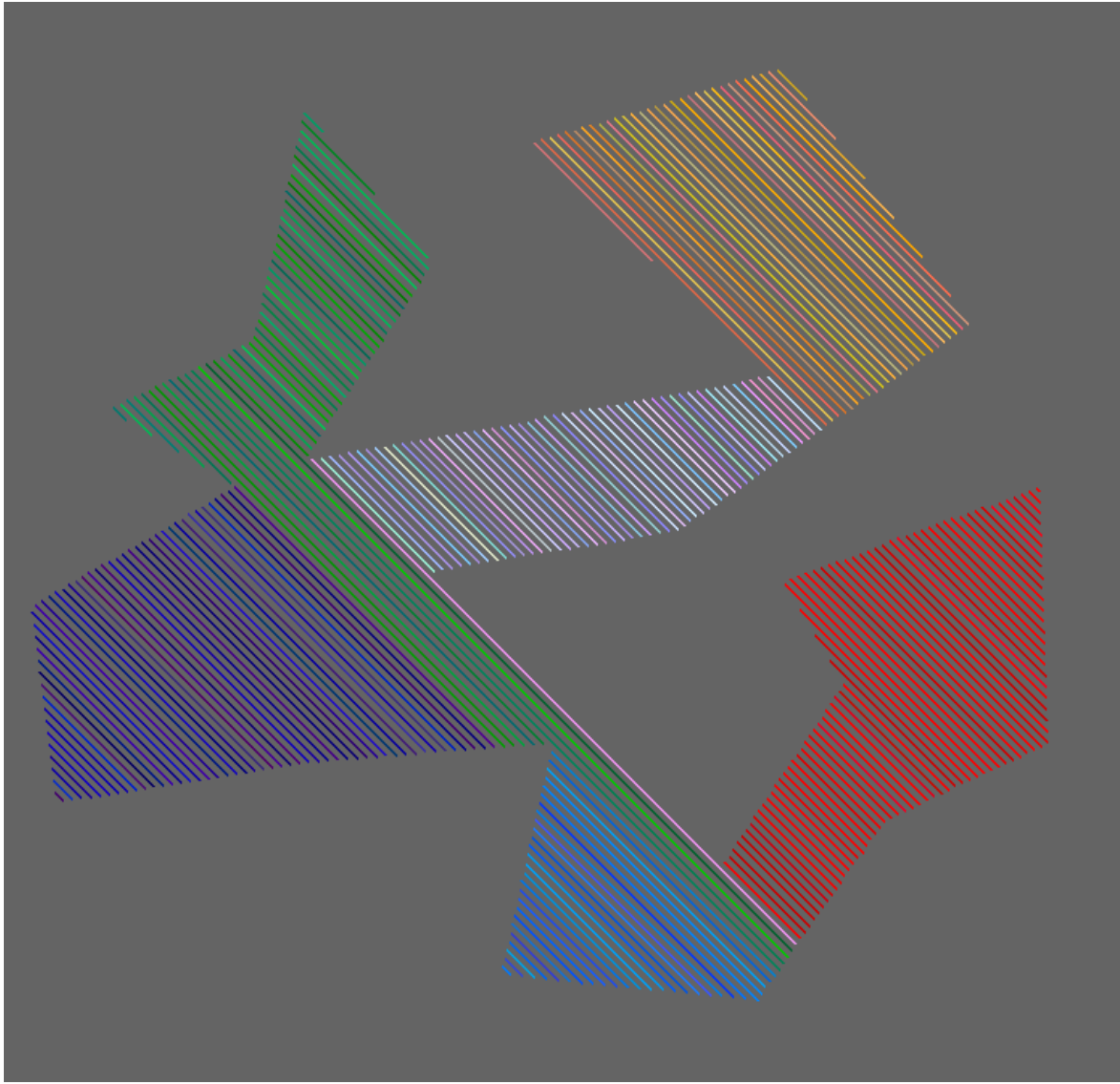


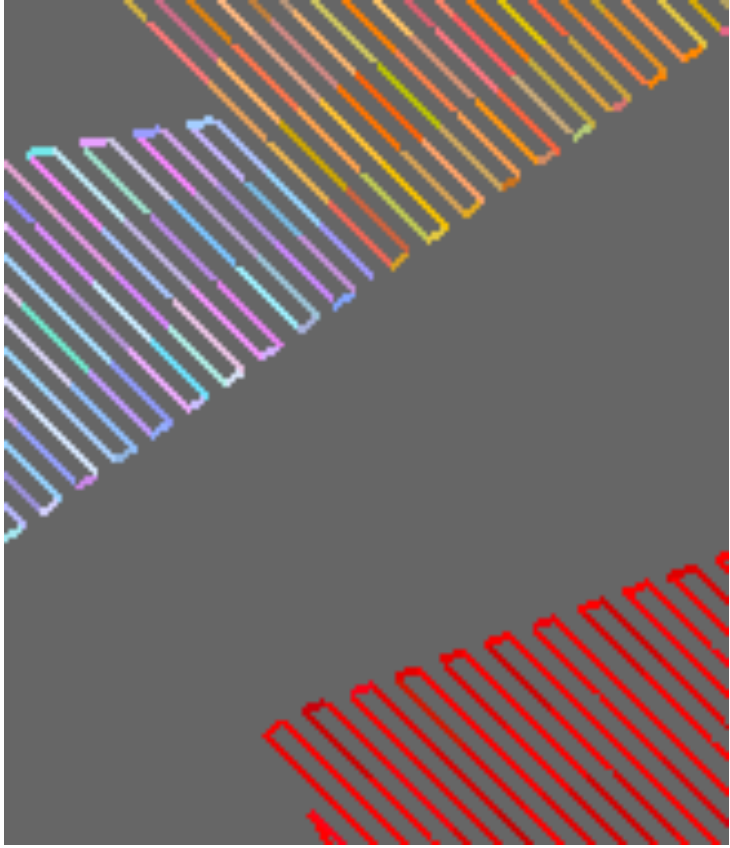
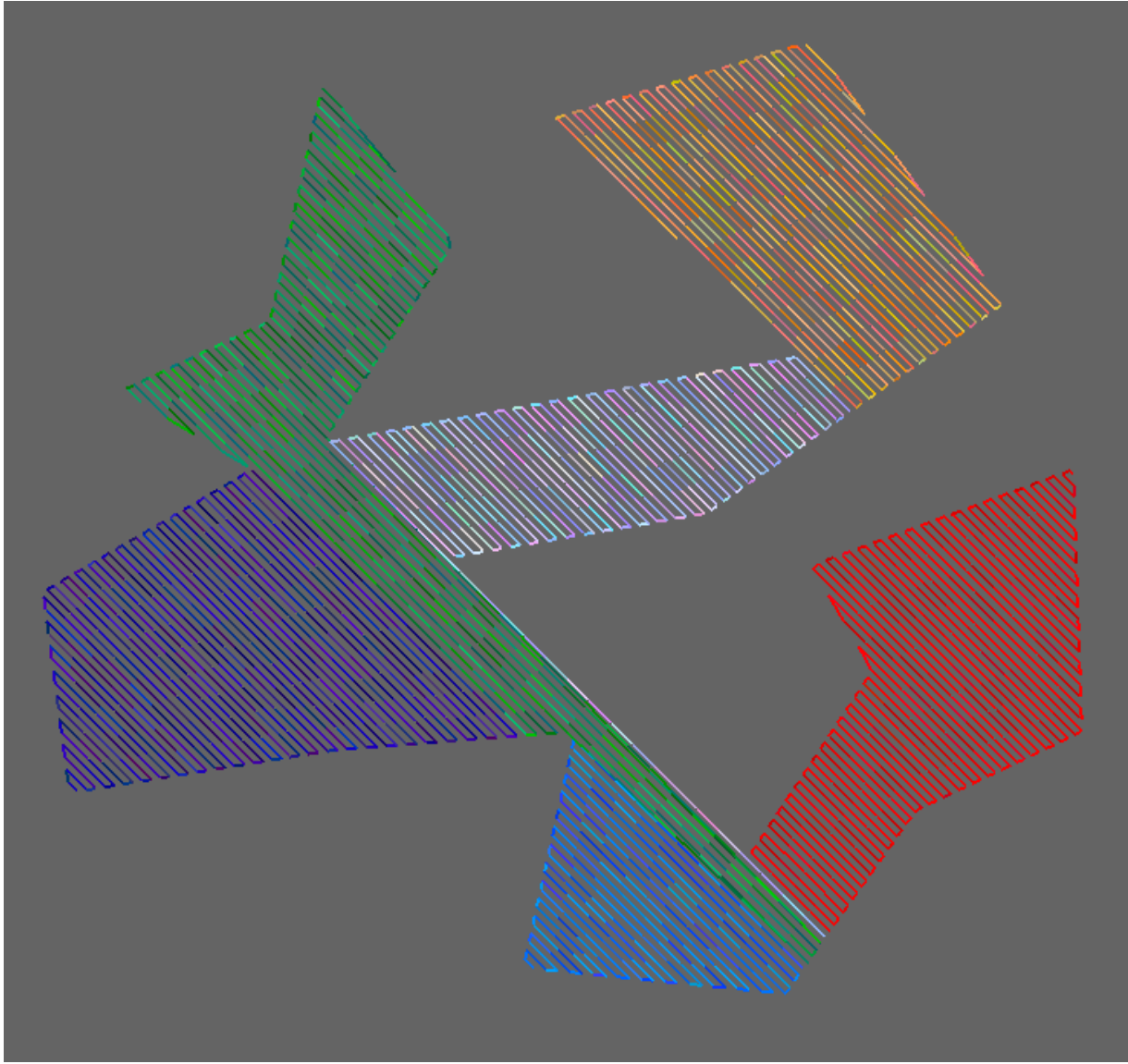


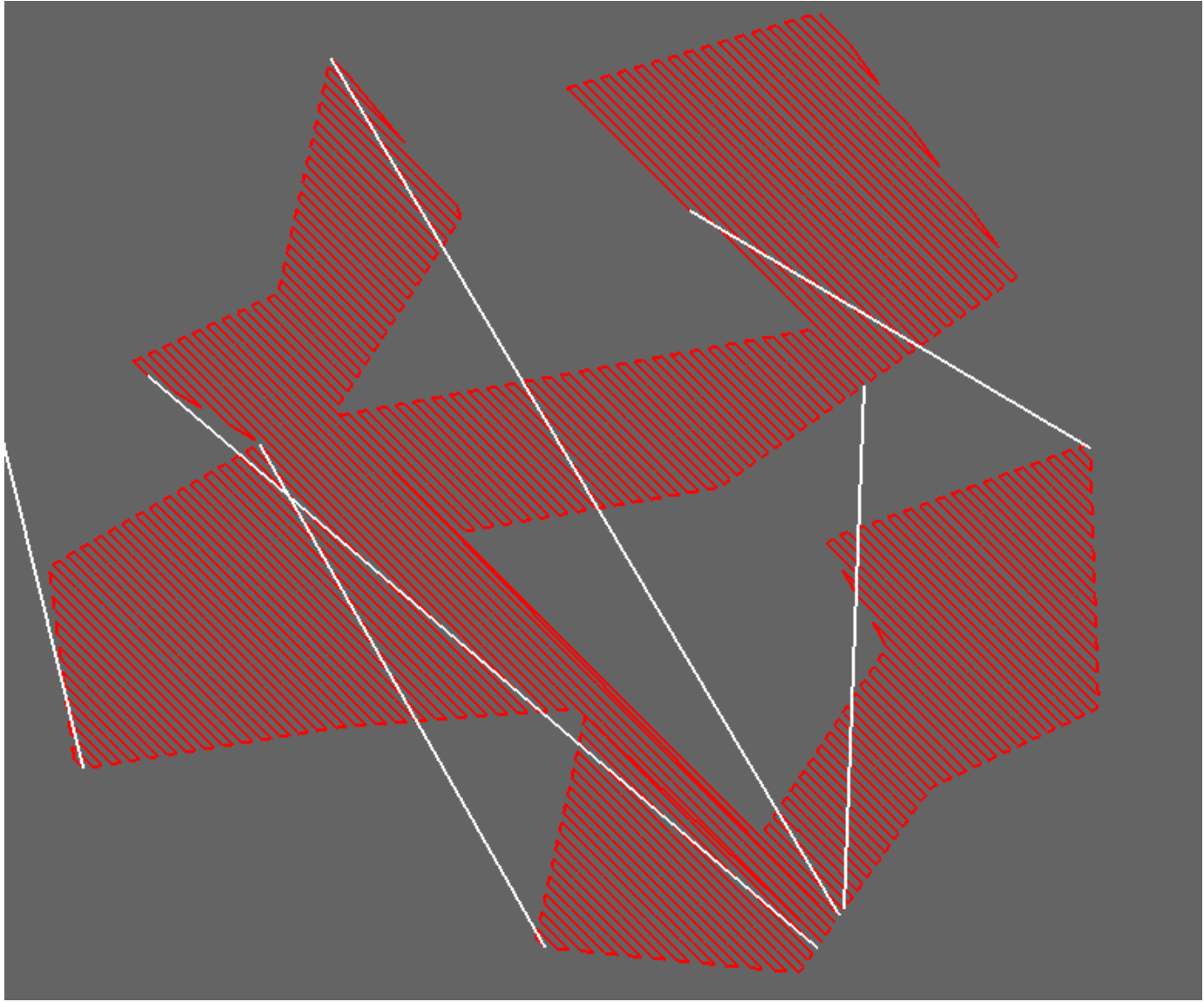


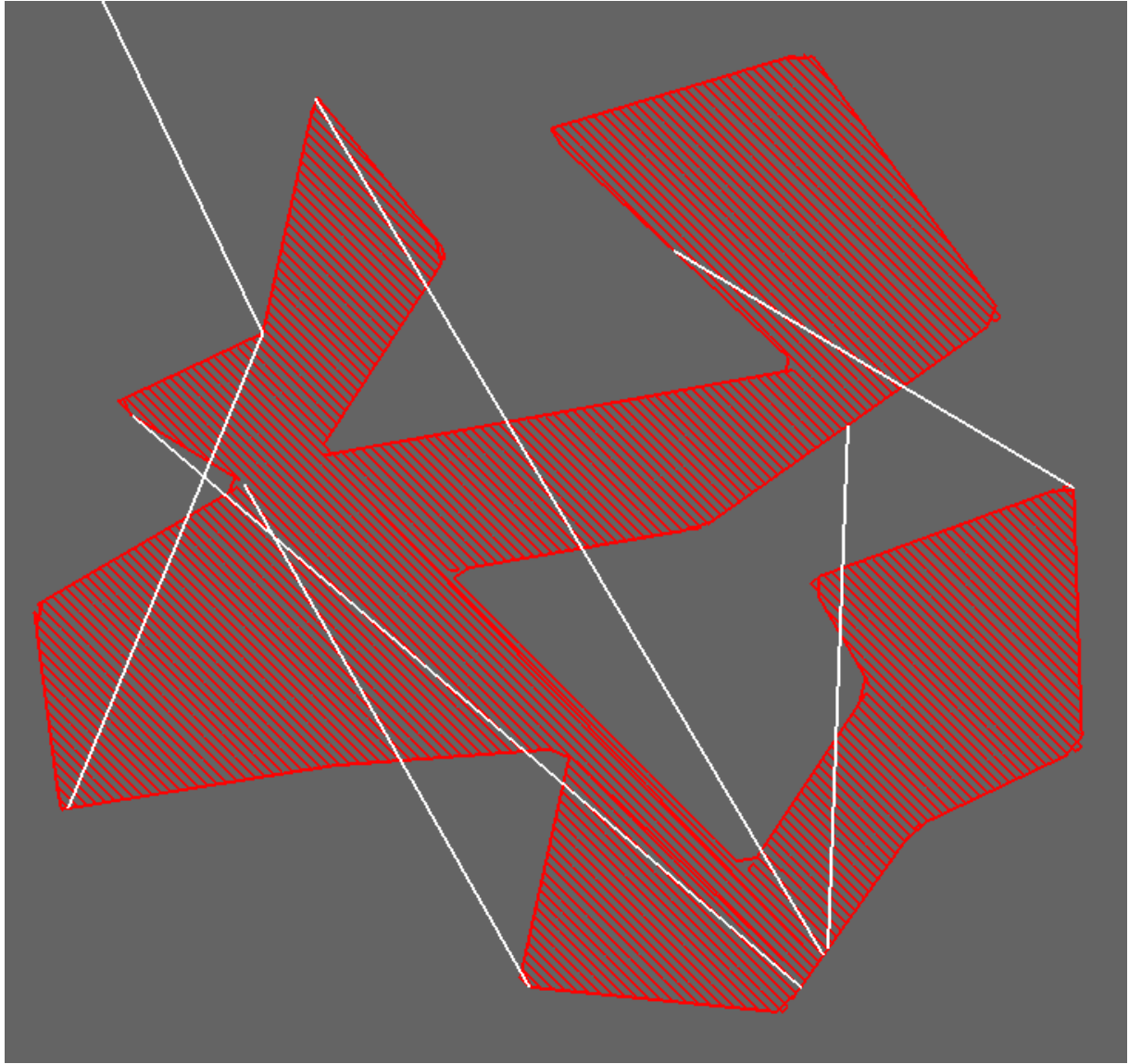




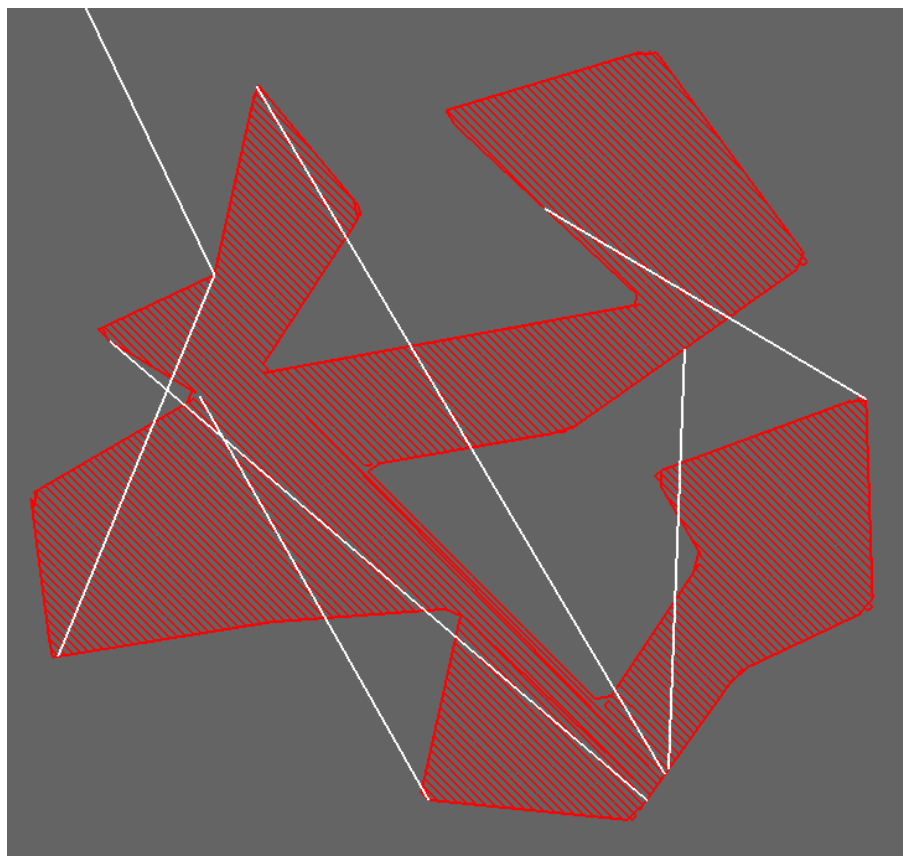








# Results



# ¿Questions?

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