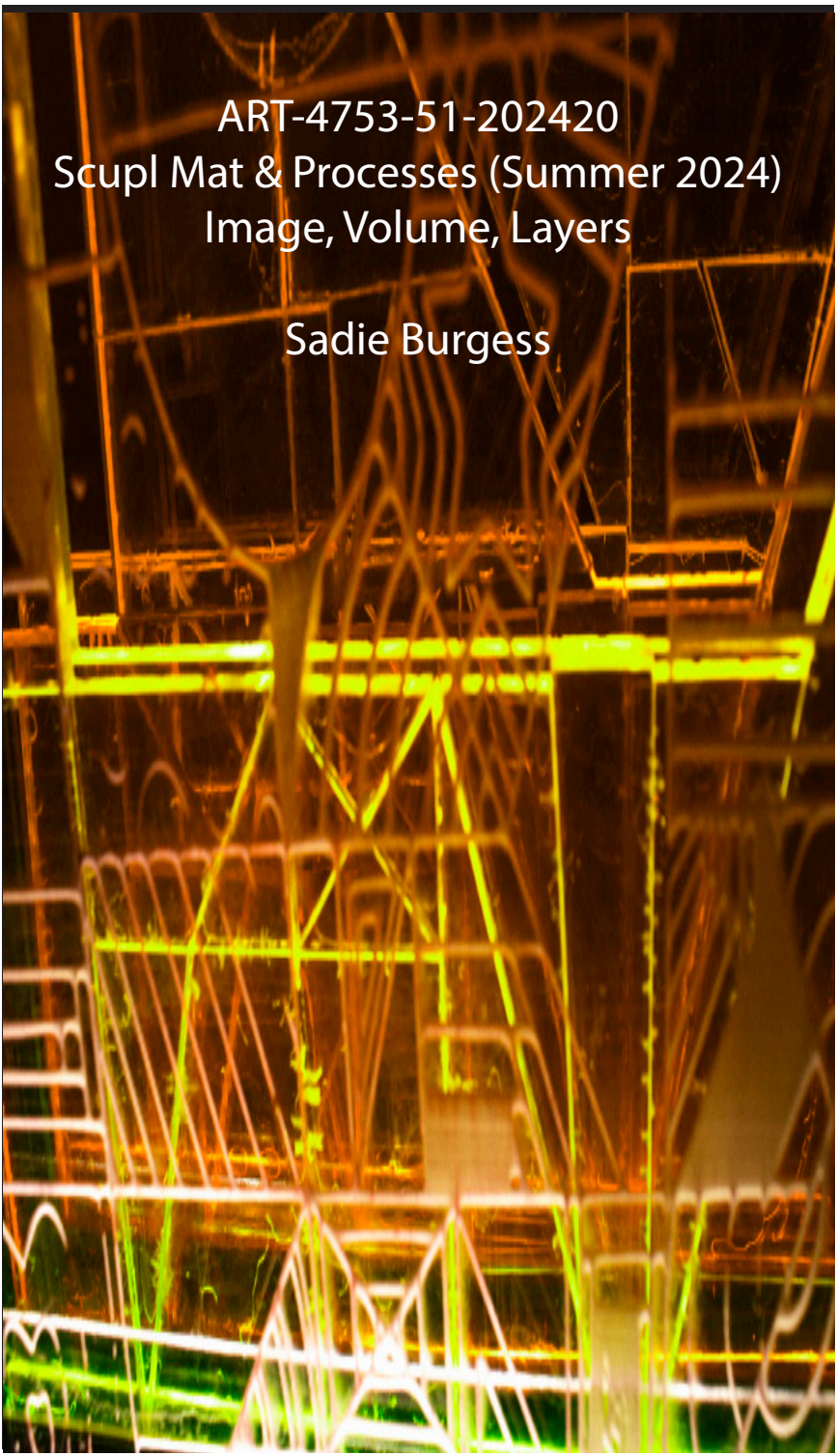

ART-4753-51-202420
Scupl Mat & Processes (Summer 2024)
Image, Volume, Layers

Sadie Burgess

ART-4753 Scupl Mat & Processes
(Summer 2024)

Image, Volume, Layers

Sadie Burgess

08.06.2024

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INTRODUCTION

Digital Fabrication is the process of translating a design from the digital realm into fabricated material. However, this is not just a question of digital to material, but also of design and concept. This process in-volves intense research, experimenta-tion, patience, care, and lots of trial and error.

PROJECT BRIEF:
Image, Volume, Layers is a decentralized project, in which the main object/design output is present-ed alongside content related to its conception, process of production, and intent.

Each project should utilize the combina-tion of image, volume, layers in its design process, as well as conceptually - as we consider that language in relationship to histories.

RESEARCH TOPIC/ INITIAL RESEARCH

This research explores the history of the artist Mary Blair. Exploring her use of color, shape, and composition in relation to cel animation to show the relationship between 2d and 3d compositions.

Mary Blair being my favorite artist, I wanted to explore her work while applying digital fabrication methods. I am attracted to color and the effects of reflected light. I wanted to take a deep dive into color layering and how to use a basic color palate to create an interesting and diverse series of color.

By exploring layering of color and how different colors relate to one another I hope to create a geometric piece inspired by Mary Blair concepts art while being illuminated to show deferent effects of color.

I plan to utilize Image by creating an abstract composition utilizing the contrast in geometric shapes inspired by Mary Blair's concept art. Wanting to experiment with color layering.

I plan to utilize Volume by creating a physical space for an 2D image to be transformed to 3D and using a light source to illuminate and increase a volume of color.

RESEARCH REFERENCE 1
Mary Blair concept art

Mary Blair was a design artist for Disney in the 1940's and 50's creating the concept and color designs for classics like: Cinderella, Alice in Wonderland, and Peter Pan.

Mary Blair's inspiration came from South American influences, using bight colors and bold shapes in each of her designs.

"Walt Disney Museum Exhibit Focuses on Bold Colorful World of Mary Blair." Saratogian, Saratogian, 22 July 2021, www.saratogian.com/2014/03/20/walt-disney-museum-exhibit-focuses-on-bold-colorful-world-of-mary-blair/.

“Women in Animation.” Duke & Duck, 27 Jan. 2023, dukeduck.com/women-in-animation/.

“How Mary Blair Transformed Walt Disney’s Alice in Wonderland.” BanterFlix, 3 Aug. 2021, banterflix.com/how-mary-blair-transformed-walt-disneys-alice-in-wonderland/.

RESEARCH REFERENCE 2

Mary Blair “Its A Small World”

The design of “Its A Small World” uses bold colors with the use of geometric shapes making hight contrast.

The Disney ride creates a sharp contrast with light from an unseen source

Jmcmullen. “Disney Parks Fans Need to See This Gallery of It’s a Small World Concept Art from Disney Legend Mary Blair.” D23, 28 May 2020, d23.com/disney-parks-fans-need-to-see-this-gallery-of-its-a-small-world-concept-art-from-disney-legend-mary-blair/.

R/Maryblair on Reddit: “It’s a Small World” Castle Facade Concept Painting (Walt Disney, 1964), www.reddit.com/r/MaryBlair/comments/16ise2e/its_a_small_world_castle_facade_concept_painting/. Accessed 6 Aug. 2024.

“Disney’s It’s a Small World: Via.” AAA, mwg.aaa.com/via/places-visit/disneyland-its-a-small-world. Accessed 6 Aug. 2024.

“It’s a Small World: Small World, Mary Blair Art, Mary Blair.” Pinterest, 24 Mar. 2019, www.pinterest.com/pin/its-a-small-world--123215739792958906/.

Tak, Perry. “It’s a Small World - Disneyland Park (France).” Flickr, Yahoo!, 6 Aug. 2024, www.flickr.com/photos/meteorry/51824213546.

Staff. “Disneyland Hotel Small World Concept Artwork Print - Id: Mardisneyland22109.” Van Eaton Galleries, 30 July 2023, vegalleries.com/art/disneyana/4282/disneyland-theme-parks/disneyland-hotel-small-world-concept-artwork-print-id.

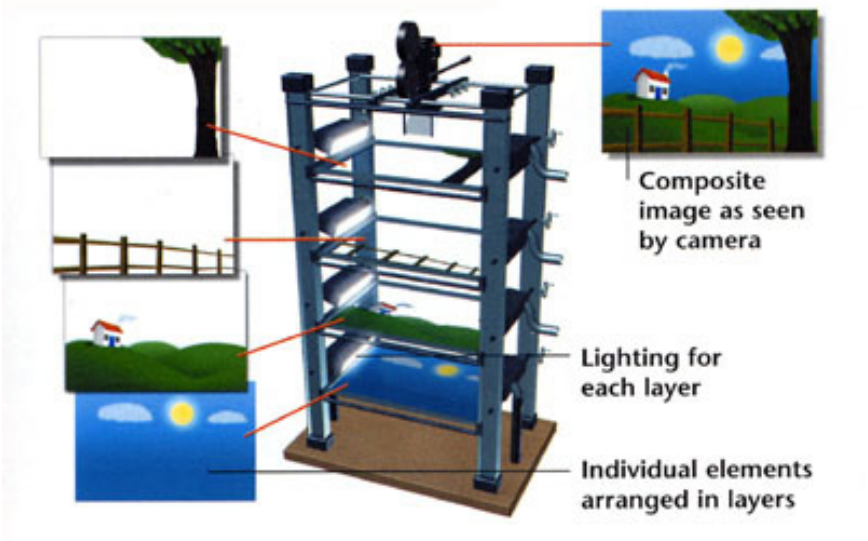
RESEARCH REFERENCE 3
Cel Animation

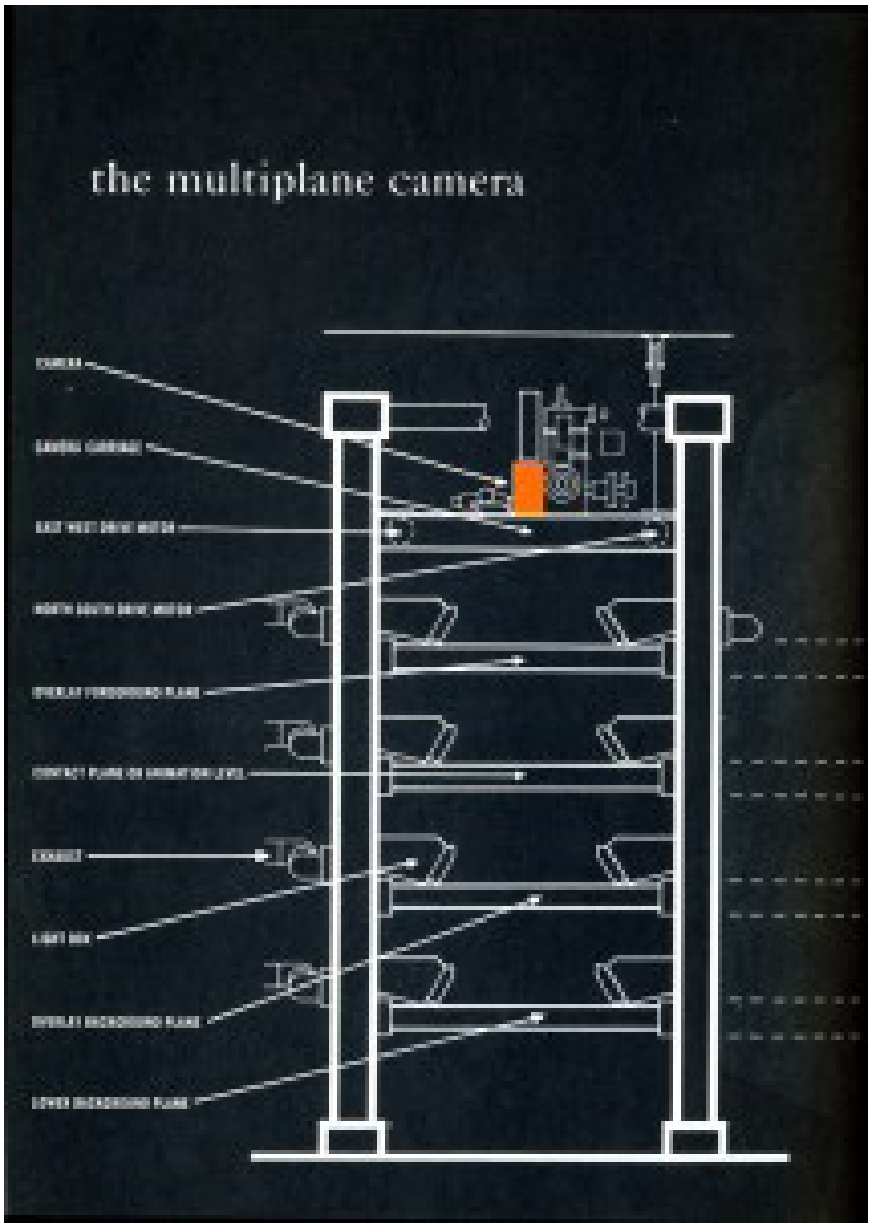
The Layering aspect of cel animation has inspired me to create a layered composition to create a multi-plane camera effect.

Pearce, Michael, et al. “Auctions, Exhibitions & Analysis for 750K+ Artists.” MutualArt, MutualArt, 1 Jan. 1970, www.mutualart.com/.

Bariscale, Floyd B. “Walt Disney’s Multiplane Camera.” Flickr, Yahoo!, 6 Aug. 2024, www.flickr.com/photos/7294653@N07/2691956278.

Prince, Andrew. “Awesome Facts You Can Learn from Studying Walt Disney’s Multiplane Camera.” WDW Radio, 30 Jan. 2016, www.wdwradio.com/2016/02/awesome-facts-can-learn-studying-walt-disneys-multiplane-camera/.





Prince, Andrew. “Awesome Facts You Can Learn from Studying Walt Disney’s Multiplane Camera.” WDW Radio, 30 Jan. 2016, www.wdwradio.com/2016/02/awesome-facts-can-learn-studying-walt-disneys-multiplane-camera/.

FOCUSED RESEARCH

IMAGE, VOLUME, LAYERS

After conducting my research I found that interesting shapes and lines would be essential in creating an interesting composition. I found that when working with light and contrast, it is best to hide your light source.

IMAGE

Studying the geometric shapes used in the concept art, I researched bold patterns and shapes to reflect in my work.

VOLUME

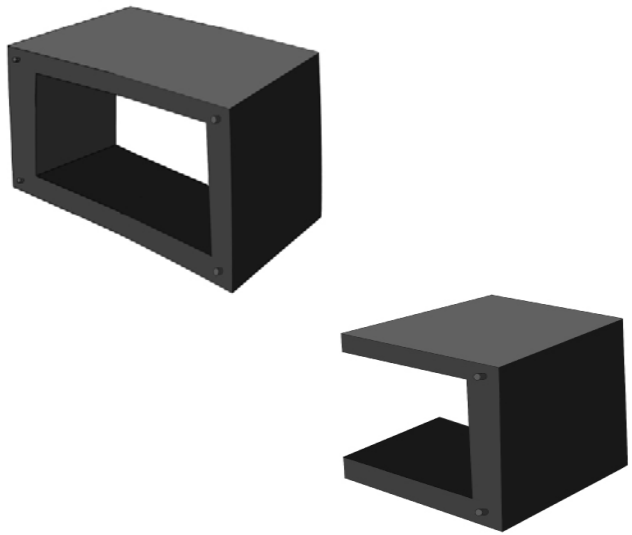
Researching into contrast of color and light in “Its A Small World” allowed me to decide to hide my light in an enclosed space. Exploring Light and how it shines through different material.

LAYERS

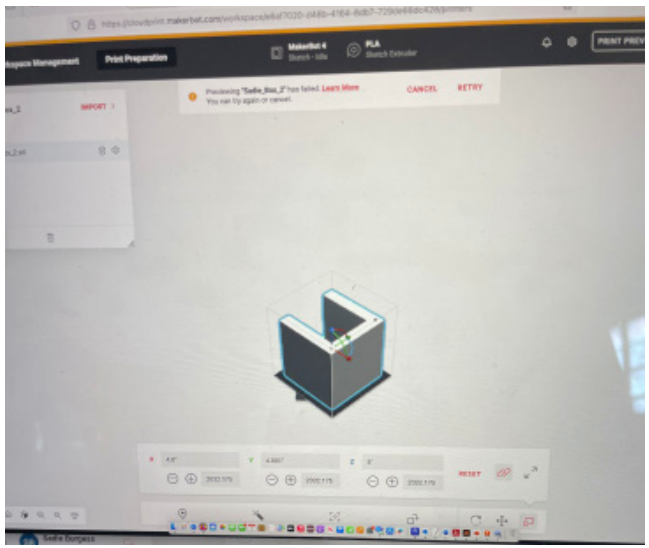
Exploring the History of cel animation and the use of the multi-plane camera, and overlapping of bold compositions.

PROCESS & PRODUCTION

Box/Bas Structure
Sketches

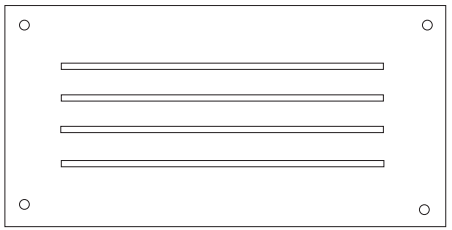


Goal: To create an 9x4 inch rectangle box with designated areas to contain pieces of an composition and light source.



Execution: To use Fusion to develop two 3x4 inch rectangle boxes to then print out on the 3d printer then adhere together.

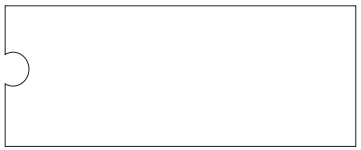
Box/Bas Structure Materials



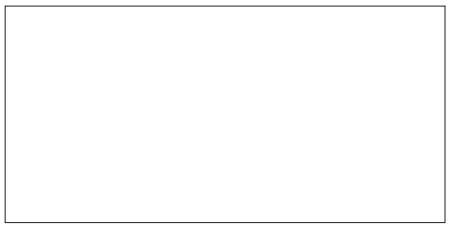
9x4 inch black acrylic rectangle

4 6x.125 inch slots for image material

4 .25x.25 inch studs for secure placement

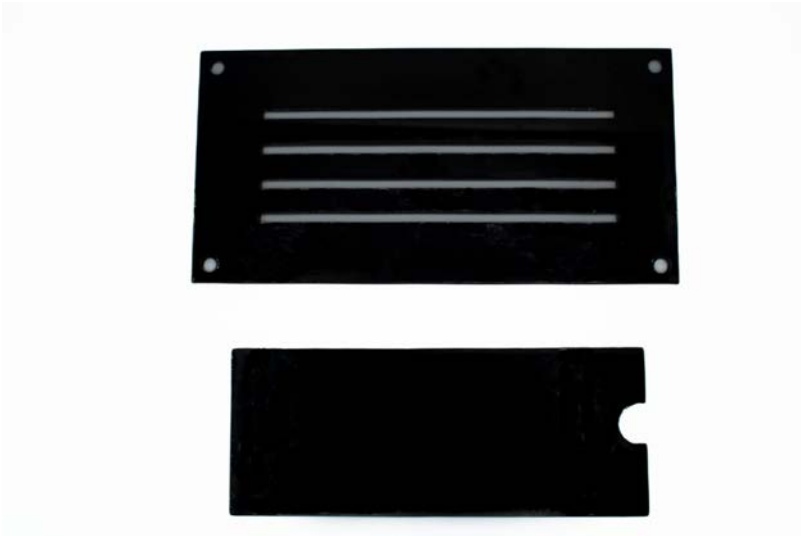


1 8x3 inch black acrylic rectangle to enclose bottom



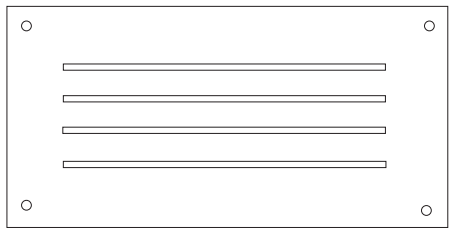
9x4 inch clear blue acylic rectangle for seamless siding

Final Result



PROCESS & PRODUCTION

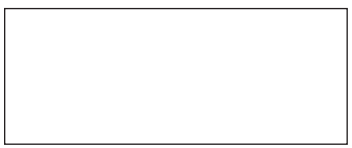
Light Source Structure
Materials



Execution: Using previously made rectangle grid to allow light to shine through 6x.125 inch slots.

Goal: To utilize the volume of light my adhering a string of LED lights to the inside of the box to allow the acrylic pieces above to glow.

Then by adhering LED light to the bottom of 8x3 inch clear acrylic rectangle

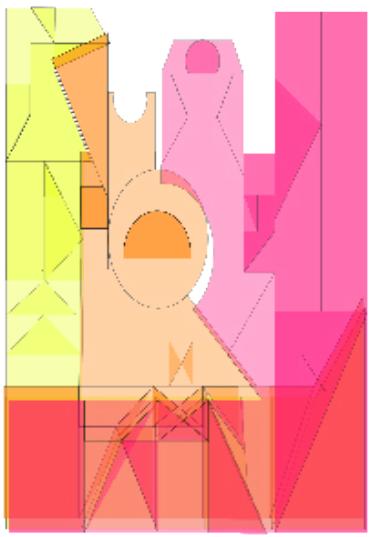


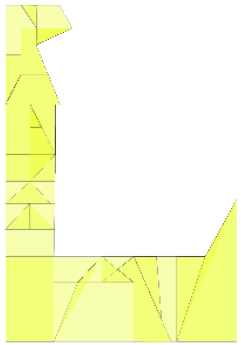
Final Result

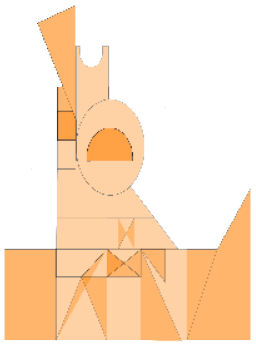
PROCESS & PRODUCTION

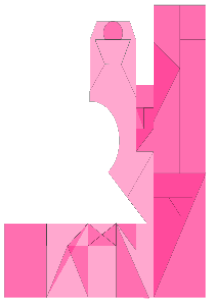
Composition

Goal: To create an overlapping composition using geometric shapes utilizing the laser cutter on translucent pieces of acrylic.

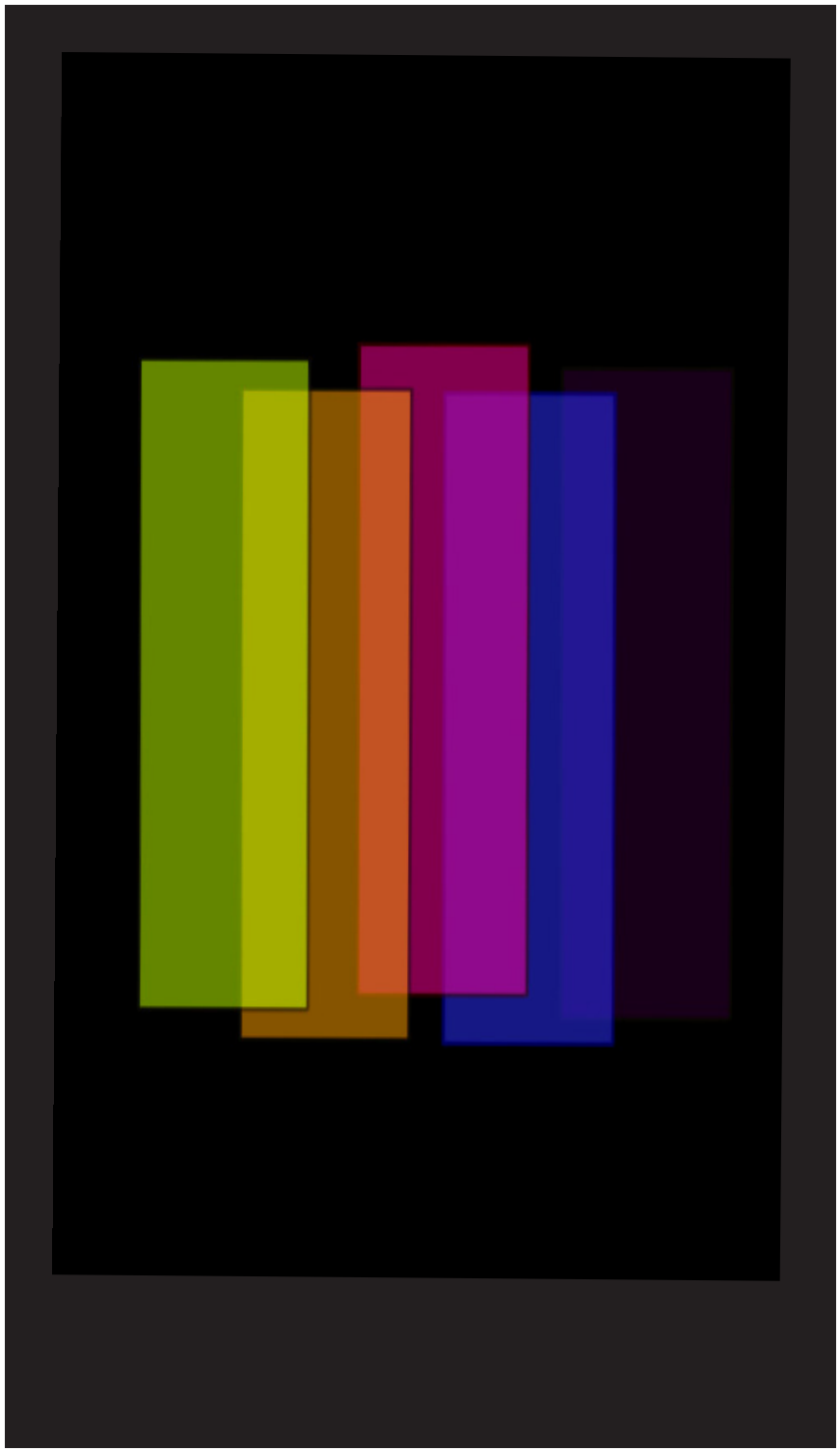




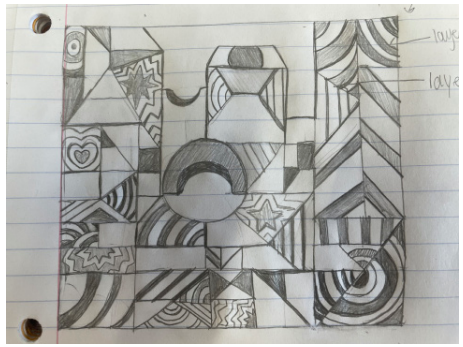


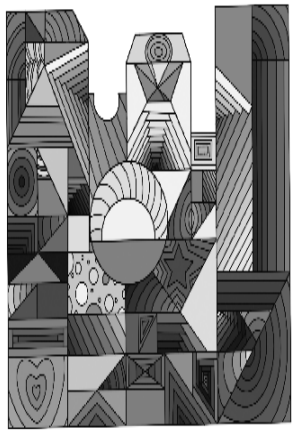


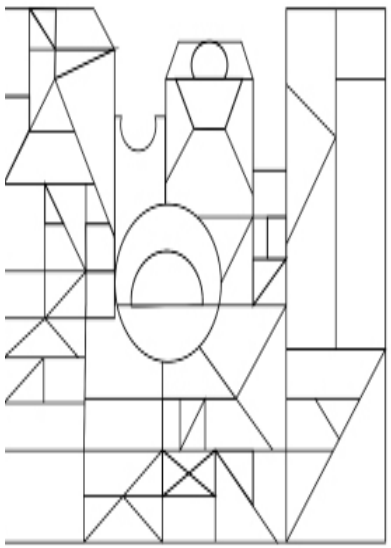
Color Platte

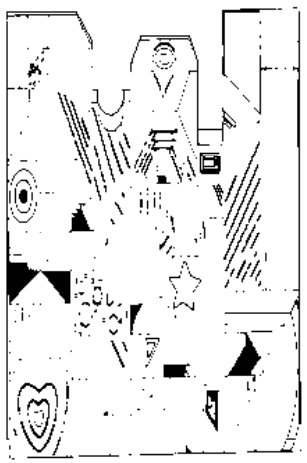


Early Sketches

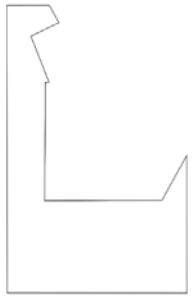


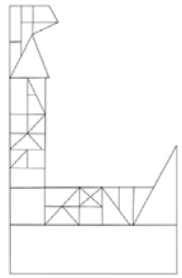


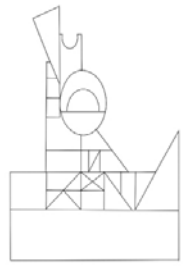


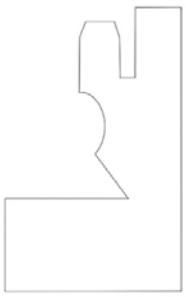


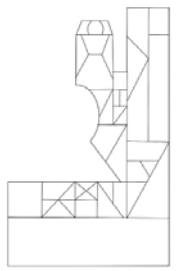
Final Sketches and Concepts



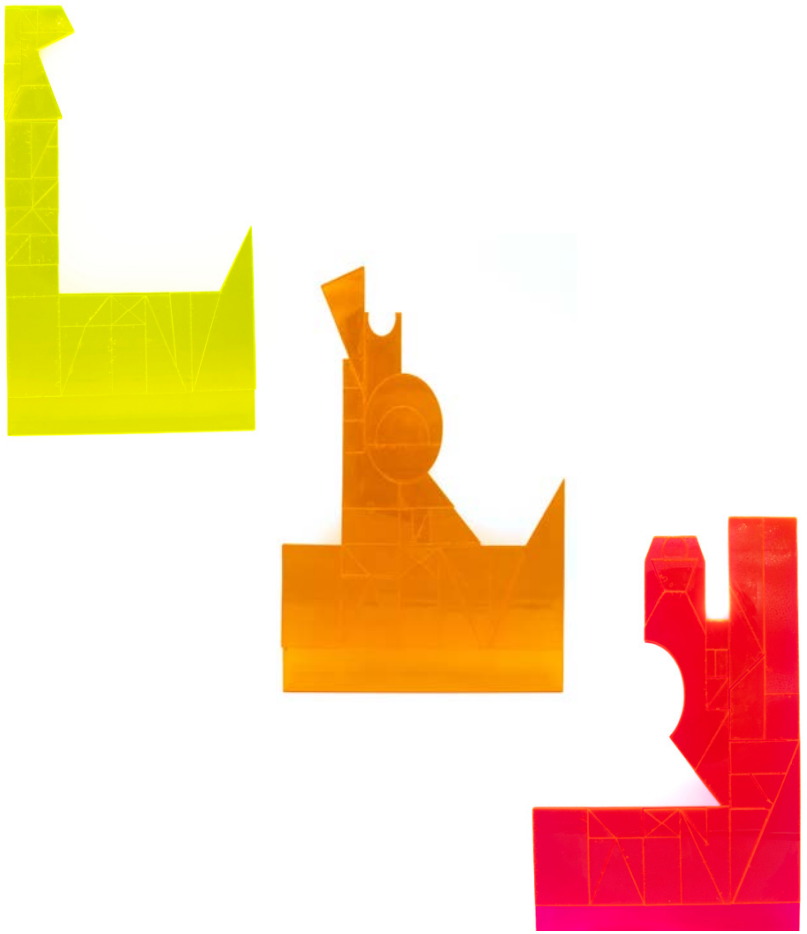








Final Result



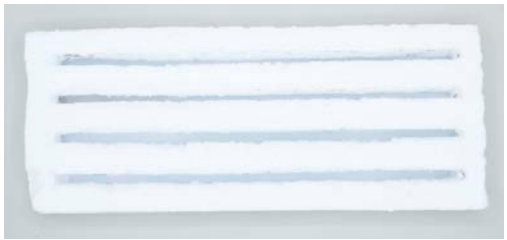
Test material with Plywood

Test compositions

Test cuts

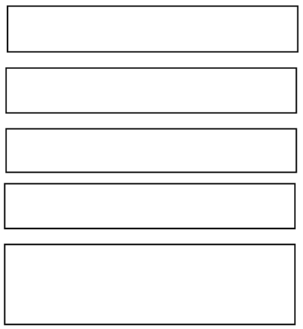
Issue:
Images were failing to stand upright without falling.

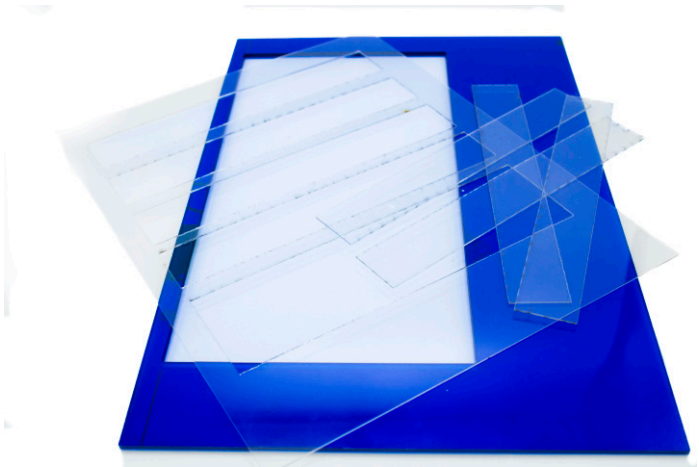
Solution 1:
To add thick material to the box with 1/8th inch slots to ensure stability



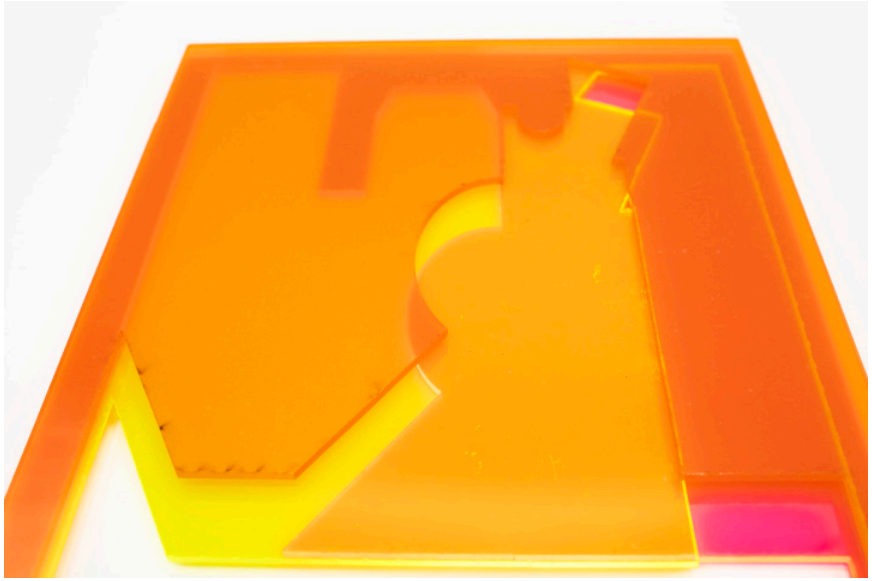
Solution 2:
To add an extra inch to each acrylic piece

Solution 3:
To print out an extra 1/2 to 1 inch piece of acrylic to act as a buffer piece for each slot in the box.





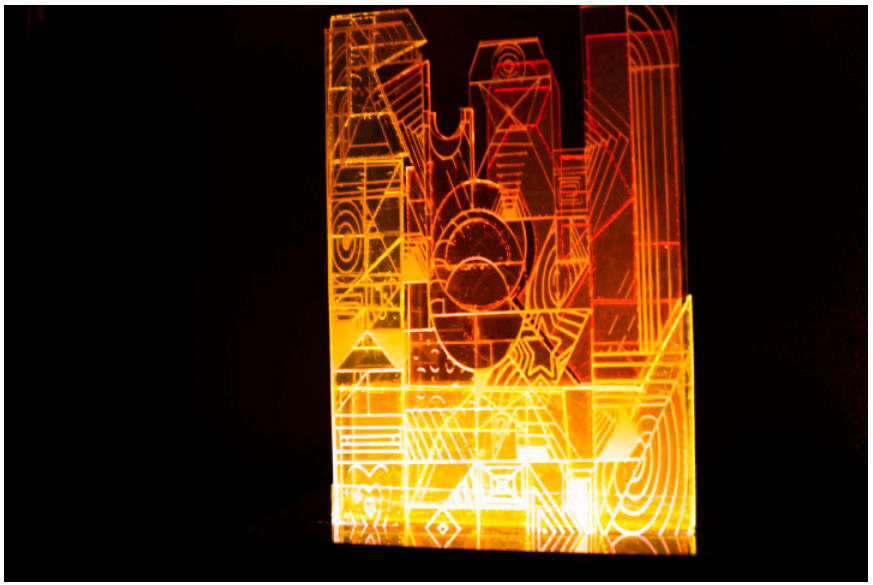
OBSERVATIONS & OUTPUTS

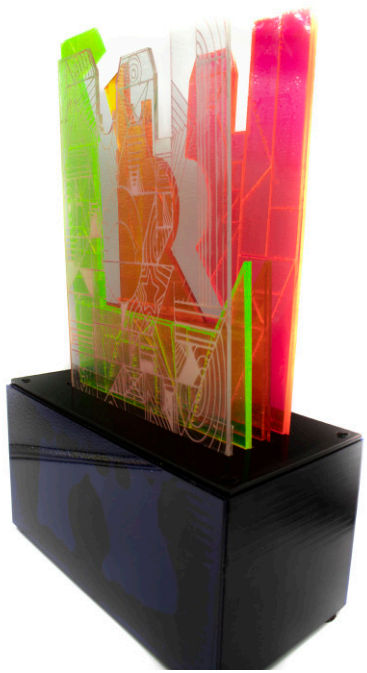


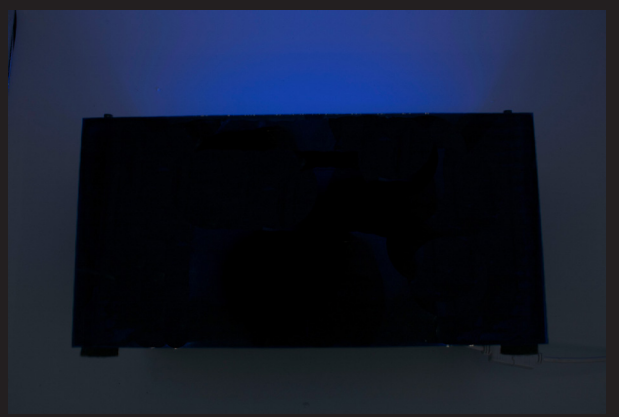
This process allowed me to sharpen my problem solving abilities. To take every mistake and issue as a chance to think further and push myself to go back and review my research.

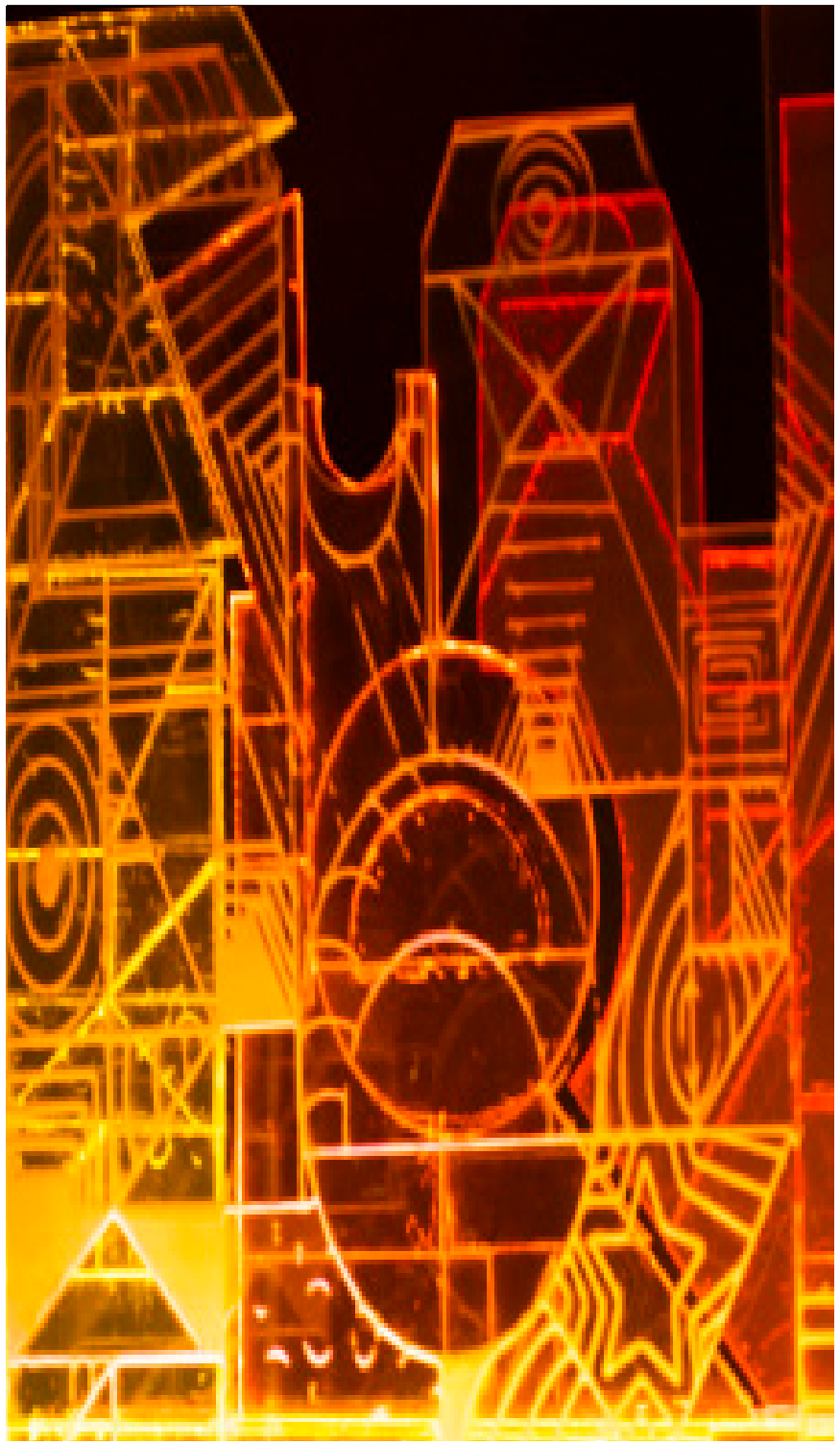
The research helped me to decide which processes would yield the best results within my project.

Image, Volume, and Layers came together in a literal sense. Image being the research and the out put of my laser cut composition. Volume being the experiment with light and the access with the box. Layers are the compositional piece used to create the final output.

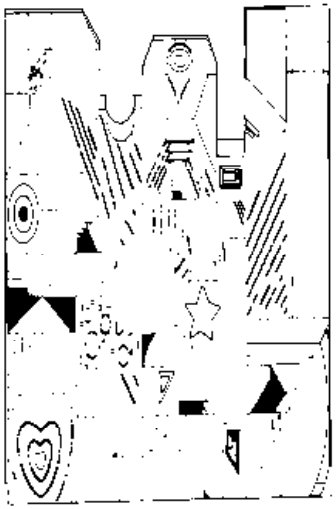








Further Experiments and Documentation



Using a detail sketch from my composition I made a series of prints experimenting with color ans layering.

"Mary Blair." Encyclopædia Britannica, Encyclopædia Britannica, inc., 22 July 2024, www.britannica.com/biography/Mary-Blair.

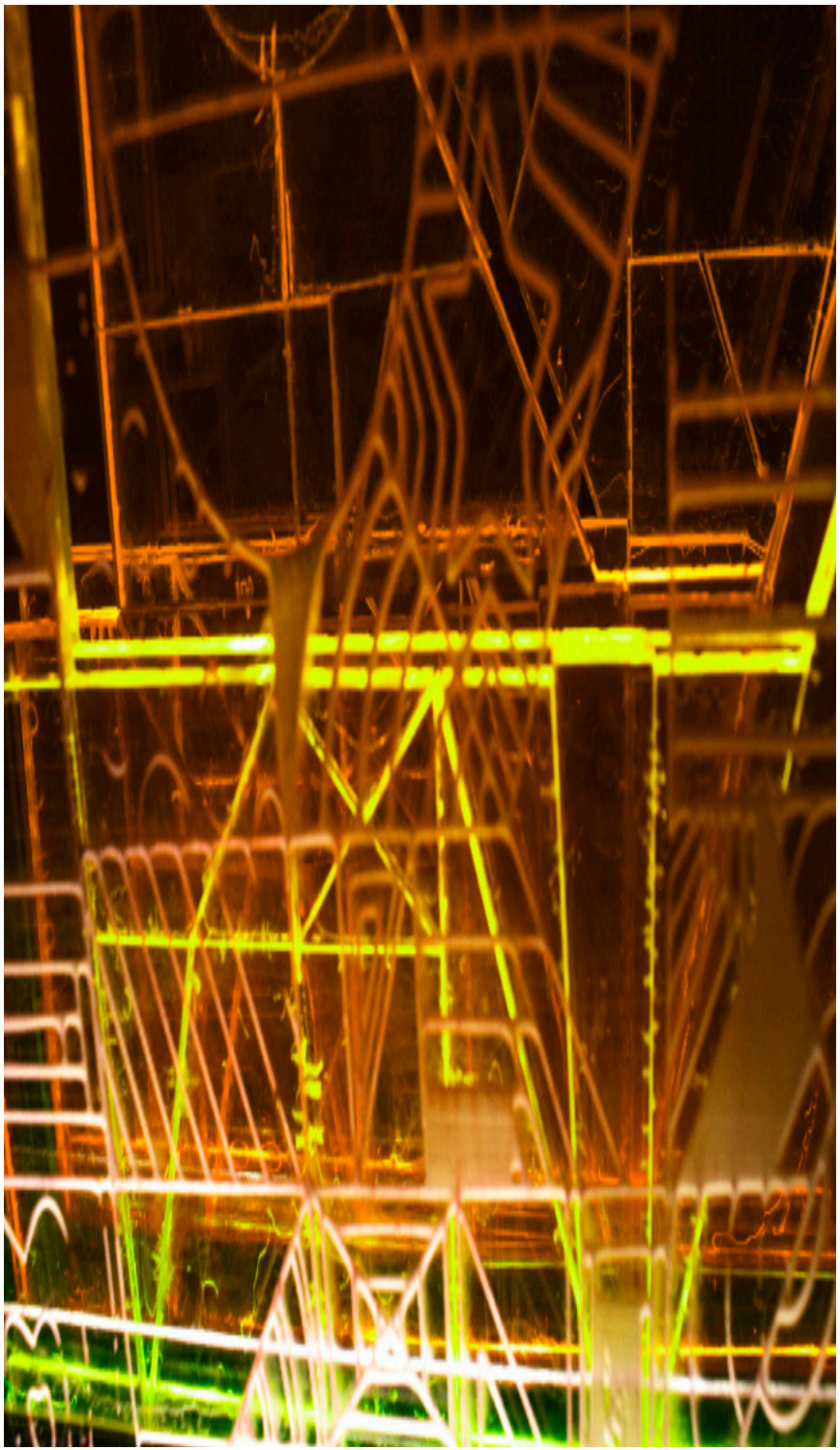
Testing different print outcomes using the laser cutter and ink press.

Using rubber material to create two different outcomes.

Using bitmap image

Using vector image

THANK YOU - SB



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