

The Beauty of Technology
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Abstract

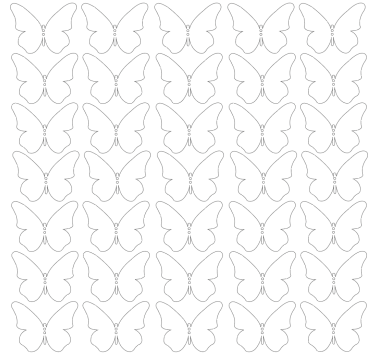
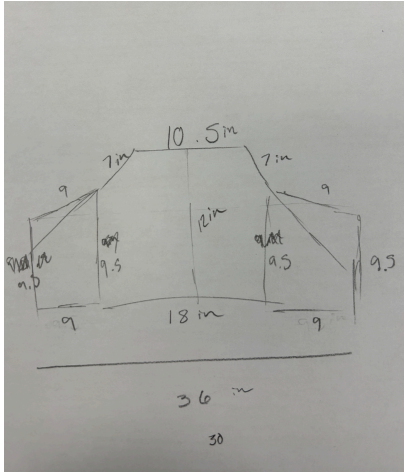
Fashion and technology are at an ever-present intersection when it comes to current design processes. When thinking of the incorporation of technology into fashion there is often thought to be a futuristic and streamlined style. With the evolving nature of technology, specifically artificial intelligence, a discussion of whether creative humans will be replaced by technology is more frequent. A large purpose of technology is to create efficiency and simplify the production process. Aesthetics, embellishments, and an overall creative mindset don't often go hand-in-hand with that goal. However, there have been numerous instances where technological advances are used to enhance the ability to create beautiful, intricate designs, rather than replace humans and their creativity. Through this project, *The Beauty of Technology*, I wanted to demonstrate that you can implement the efficiency, sustainability, and innovation of technology while still creating something aesthetic and beautiful. With the subtheme of Communities in mind, this project seeks to re-assess, re-analyze, and re-evaluate how technology is present in fashion and emphasize the need for human creativity and vision.

Introduction

Throughout my semester in the TechStyleLAB course, I have been fascinated by the different intersections of fashion and technology but found the most interest in the concept of using laser-cut elements in designing clothing. I began my final project titled *The Beauty of Technology* with the idea of creating pattern pieces with lace detail all through utilizing a laser cutter. When thinking of the incorporation of technology into fashion there is often thought to be a futuristic and streamlined style. Through my project, I wanted to demonstrate that you can implement the efficiency, sustainability, and innovation of technology while still creating something aesthetic and beautiful.

The project began with a variety of sketches for both design and logistical purposes. The initial idea was to create a dress, but after evaluation, I decided a dress would be too big for the laser cutter. After gathering ideas I began the process of designing the file to be laser cut on Adobe Illustrator. I first designed the lace elements separately and then strategically combined them to create a lace pattern on full-scale garment pieces. After completing the design I transferred it to Light Burn so it could be sent to the laser cutter and cut on paper and then on fabric. I used a 100% cotton fabric on a DL-80-1390 laser cutter. After the pieces were cut, the lining was added and the corset top was sewn with a sewing machine. Apart from the fabric, the garment also features plastic boning inside for structure, acrylic buttons that were also laser cut for embellishment, and grommets and ribbons up the back to serve as the closure. This garment itself, based on the methods I used to produce it, is not mass-market ready. Certain elements of the garment, specifically, the laser-cut lace are scaleable and have already entered the mass market.

Sketches and Process





Final Design



Budget

Fabric: Navy Blue 100% Cotton Fabric for approximately \$15.00

Acrylic for Buttons: \$10.00

Boning: \$8.00

Grommets: \$4.00

Ribbon: \$2.00

Total: \$38.00

Precedents

Lace has been a staple in the fashion industry for centuries and with the development of laser-cut lace in the last twenty years has allowed intricate and beautiful designs to be created in a sustainable and more efficient way. Numerous household designers have utilized both laser cutting and 3D printing to begin the new era of lace.

Azzedine Alaïa

Alaïa has showcased laser-cut lace in an abundance of collections.

[Link to article](#)

Azzedine Alaïa, Couture 2017, Detail Ph. Sylvie Delpech



Azzedine Alaïa Dress, S/S 2014 Ph. Andrea&Valentina



Azzedine Alaïa Dress, Couture Winter 2011 Ph. Robert Kot



Chanel

While Chanel is known mostly for tweed, the fashion house has also produced numerous garments with lace detailing many of which were laser-cut.

[Link to Article](#)

[Link to Design](#)

Chanel Laser-Cut Lace Sneaker, Mid 2000's



Louis Vuitton

Louis Vuitton has used multiple laser-cut designs and techniques in recent collections.

[Link to Article](#)

[Link to Design](#)

Louis Vuitton Patent Calf Leather Laser-Cut Bag, S/S 2022



Iris Van Herpen

Iris Van Herpen is one of the most notable names when it comes to utilizing a laser cutter for fashion design. Many of her pieces are considered works of art.

[Link to Article](#)

[Link to Designs](#)



Prada

[Link to Article](#)

[Link to Design](#)

Prada Large Perforated Leather Tote Bag, S/S 2024



Conclusion

In conclusion, as shown in the precedents above laser-cut lace is prevalent in the fashion industry and emphasizes how technology can be used in conjunction with the creative human mind to create beautiful designs. The Beauty of Technology delves into the creative and technical process that many of the designers shown above have gone through to create their designs. Ultimately, this project can serve as an example of technology and creativity going hand in hand and make the statement that we cannot allow human design and creativity to be replaced by technology.