

Outlaw Dreams, Vivid Seams
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Mentor Statement: The purpose of this mentorship relationship was to assist Apparel Design and Manufacturing seniors explore and attain the high-level design and construction skills required to become successful professionals in the apparel industry. A studio-based class was offered where each student designed and constructed a 5-look collection of clothing centered around their selected theme or problem. The department encourages students to push their design skills beyond their previous experience and create engaging, marketable designs. Students were able to choose their customer base, clothing category, materials, and construction method. The student designer in this study chose to focus their collection on the use of EL wires. This student did not have previous experience with incorporating wearable technology, hence the goal to push themselves outside of their previous experience was met. This design was chosen to be sponsored based on its high quality of construction and the exemplary problem-solving skills the student displayed throughout the design and construction process. This student successfully incorporated wearable technology into a functional and marketable ensemble.

Design Statement: This ensemble was inspired by the cyberpunk aesthetic--where lawlessness and technology reign over humanity. Within the world of the Cyberpunk video game franchise exists vivid neon imagery with Japanese manga and anime influences in a sort of urban jungle (Batylda, 2020). Neomilitarism is the subcategory that caught my eye, with its elegant lines, asymmetry, and requisite functionality lending to the overall sleek domineering effect. Reflected in this ensemble are the principles of the Cyberpunk aesthetic while expressing the overlap into modern society.

In alignment with the vivid neon colors known to cyberpunk, I included EL wires in bright pink and blue in this ensemble. The popularity of EL wire garments has been growing in the industry (El Wire Clothing, 2012) and the incorporation of this technology created a strong visual impact. Additionally, the use of translucent vinyl brought up strong imagery from the Cyberpunk 2077 artbook ("Cyberpunk 2077"). The tube top below the jacket leaves a large portion of the wearer's skin visible through the vinyl and framed with the bright neon wire. That to me resembles the cybernetic enhancements and meshing of organic matter and technology embodied by the cyberpunk aesthetic (Gamespot, 2020).

I purchased electroluminescent wire with a 3/8" welt for sewing. This tape is super flexible and can be machine sewn. It is powered by a battery pack, where each pack has 3 separate speed settings: steady, slow flash, and fast flash. One battery pack can power up to 14 feet of wire.



The jacket was constructed with a custom length of EL wire in bright pink. These custom lengths came pre-finished, with one edge sealed with glue to prevent damage. The other end was finished with a 3 or 4 inch length of black wire and a connector. The 5 custom lengths I used are as follows: 152", 41", 41", 14", 13". In conjunction with these lengths, I also used three 38" extension cables and a 5 way splitter. The pants were created with two fixed length cuts of 78", one in bright pink and one in electric blue. The body of the jacket is 100% thermoplastic polyurethane transparent vinyl. The pocket and tube top are constructed from 94% polyester and 6% spandex black pleather with four-way stretch, lined with a heavyweight interfacing. The jogger pants are a 100% cotton sweatshirt fleece, while the cuff and waistband are black pleather.



I planned the layout of the wire ahead of time by draping the wire around the jacket. The five separate pieces all connect to two battery packs concealed within the pocket. One battery pack is capable of powering the entire jacket, but I chose to divide it between two battery packs for display purposes. This way, each pack could run for a longer period of time without needing the batteries replaced.

Next, I began constructing the final garment, sandwiching the IE wire between pattern pieces, where inserted into the design. It was crucial to hand crank the machine when I got to a cross section of the wire, so as not to puncture the phosphorous edge. Construction of the final garment was done twice, as I learned what techniques worked best to apply the wires and create connections between intersecting IE wire seams.

After sewing the wire into the jacket, I connected the extension cords and splitter to the battery. The wires are concealed within bias tape, to give the jacket a cleaner look and ensure ease of wearability. The 14" and 13" pieces are each connected to an extension cord, which feed up the underarm seam, then down the side seam of the jacket. The wires feed up through a gap in the bottom of the pocket, which houses the battery pack.

For the jogger pants, I serged a fixed length wire of 78" between the two front panels of each leg. At the cuff, I clipped off the excess length and sealed the edge of the wire with superglue. At the waistband of the pants, I plugged the connector into the battery pack. I sewed a hanging pocket into the waistband seam to conceal the battery pack on each side. I hand sewed the loose portion of wiring to the inside of the waistband.

References

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