

INTERNATIONAL STUDENT DESIGN COMPETITION 2026

HAPTICA AND DIGITAL

ARCHITECTURE

SYNAPSE 2026

PERÚ - MILAGROS VILCAS - FASHION DESIGN STUDENT

MILAGROS VILCAS

My name is Milagros Vilcas Urcia, and I am a Fashion Design and Management student from Peru with a passion for innovation, sustainability, and experimental design. My work explores the intersection of fashion, technology, and craftsmanship, transforming conceptual ideas into functional garments with a strong narrative. Inspired by digital innovation and human creativity, I seek to create designs that not only express aesthetics but also propose meaningful solutions for the future of fashion.



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PROJECT SUMMARY

This project explores a future where **artificial intelligence** and **humanity coexist** through collaboration rather than replacement. Inspired by digital haptics and computational architecture, the jacket translates this relationship into a wearable form that combines precision, craftsmanship, and material longevity.

Leather was selected as the primary material because of its durability, repairability, and long life cycle, promoting a **more sustainable alternative** to fast-fashion consumption. Instead of treating technology and craftsmanship as opposites, the project merges laser-cut manufacturing with hand-painted artisanal finishes, demonstrating that innovation can preserve and elevate traditional making techniques.

The result is a garment that embodies the **dialogue** between **human creativity and digital intelligence** while encouraging conscious, long-lasting design.



DESIGN STORY

The project is inspired by **Digital Haptics**, a field that explores how technology creates meaningful physical interactions between humans and digital systems. Rather than imagining a future where machines replace people, the design envisions one where artificial intelligence enhances human creativity, allowing both to evolve together.

This dialogue is reflected in every stage of the garment.

The laser-cut leather panels express the accuracy, logic, and computational language of artificial intelligence. Their geometric forms are inspired by digital architecture, parametric structures, and interconnected networks that symbolize the constant exchange of information between humans and intelligent systems.

In contrast, the hand-painted details represent the emotional, intuitive, and imperfect qualities that only human craftsmanship can provide. Each brushstroke becomes evidence of human presence, creating a visual conversation between machine precision and artisanal expression.

Leather becomes the element that unites these worlds. Its strength and longevity symbolize sustainability through permanence rather than disposability. Instead of designing a garment for a single season, the project celebrates leather as a material capable of aging with dignity, extending product life while reducing waste. The final piece demonstrates that the future of fashion is not defined solely by advanced technology, but by the collaboration between innovation, craftsmanship, and responsible material choices.

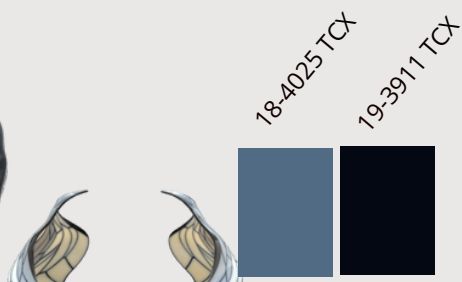
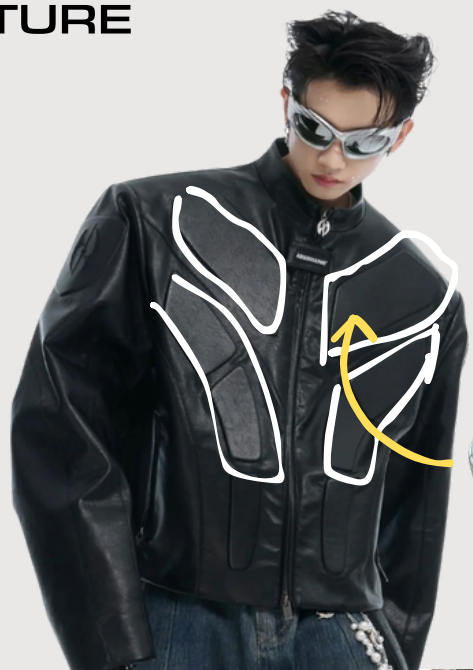
WHY IT STANDS OUT

Sustainable: Crafted from durable leather to extend the garment's lifespan, reducing waste through long-term use while combining traditional craftsmanship with precise laser-cut manufacturing.

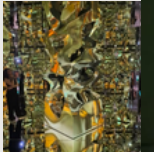
Market Viable: Blends premium materials, contemporary aesthetics, and innovative production techniques, appealing to consumers seeking high-quality, timeless, and technology-inspired fashion.

Original: Reinterprets the relationship between artificial intelligence and human creativity by merging digital haptic-inspired design, computational architecture, laser cutting, and hand-painted artisanal details into a single concept.

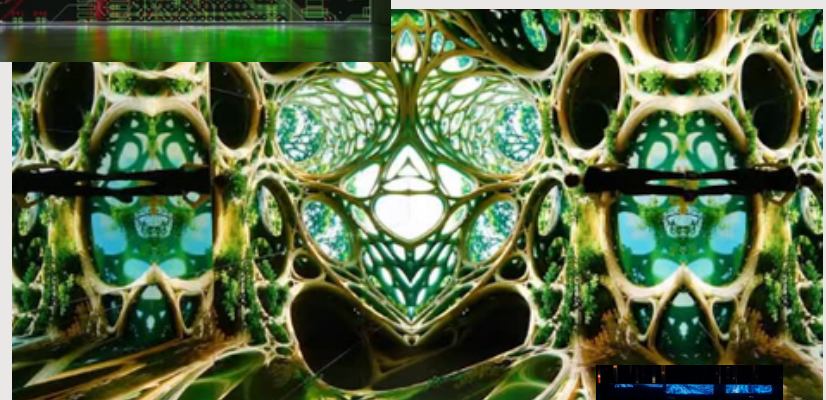
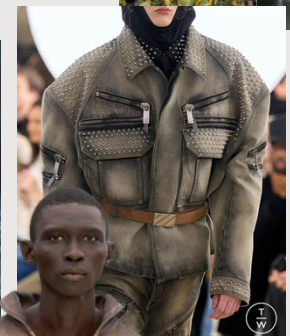
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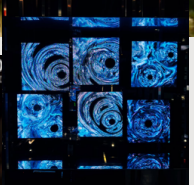
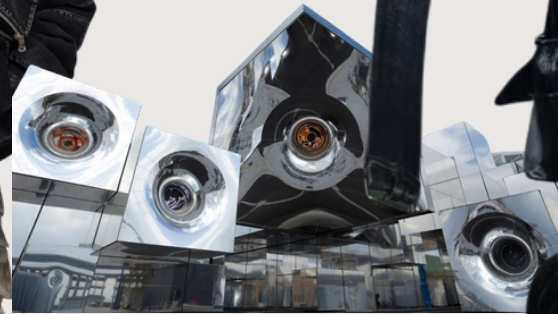
ARCHITECTURAL
SILHOUETTE WITH
GEOMETRIC
PANELING AND
LAYERED
CONSTRUCTION



STRUCTURED
OVERSIZED JACKET



HAND-PAINTED
LEATHER FINISHING



FUNCTIONAL FRONT
ZIPPER CLOSURE

HAPTICA AND DIGITAL
ARCHITECTURE

COLOR PALETTE

16-6340 TCX

16-5412 TCX

14-0627 TCX

19-6350 TCX

17-0340 TCX



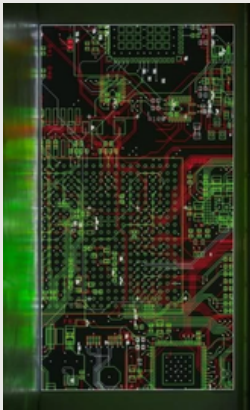
LASER CUTTING ON
LEATHER

MANUFACTURING
TECHNIQUES

- Precision laser cutting
- Traditional garment construction
- Hand-painted leather finishing
- Mixed-material assembly

DESIGN FEATURES

- Parametric geometric panels
- Layered haptic-inspired surfaces
- Architectural panel construction
- Hand-painted gradients emphasizing human intervention
- Modular composition inspired by digital systems



ITERATIONS



AI-GENERATED
REFERENCE DESIGN

FINAL DESIGN



Garment: Structured leather jacket

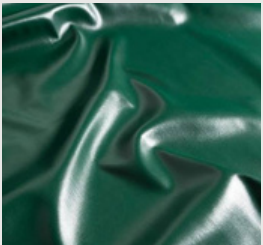
Concept: Human × Artificial Intelligence × Digital Haptics

Silhouette: Architectural oversized silhouette with layered volumes inspired by computational structures.

ZOOM



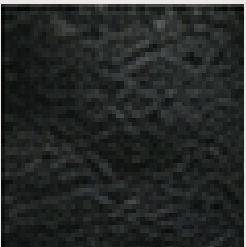
MATERIALS



GREEN LEATHER FOR
HAND PAINTING



POPLIN



BLACK TEXTURIZED
LEATHER