

Triangular Pyramid

Baixue Zhou, Dalian Polytechnic University, China

Li Zhao, Indiana University, USA

Key words: LED light up costume, Draping, Design

Inspiration/Design Purpose:

Inspiration for this piece came from the triangular pyramid in geometric space. The triangular pyramid is one of the basic elements in geometry. This project combined various structures of clothing and triangular pyramid shapes to explore the relationship between clothing and geometry. In addition, the project was intended to enrich diverse forms of the clothing silhouette.

Design Process:

This project applied a new concept of clothing structure--clothing+, which used a new draping method called “divide rather than cut” to accomplish side docking by means of the split technique. First, according to the length and width of clothing, the fabric was treated appropriately. However, do not cut through. Then draping and fitting were used to split the triangular pyramid sides and to further form the triangular pyramid structure of the pants. Touch-sensitive LED lights were placed in the corner of the triangular space. The inclusion of LED lights was intended to increase the artistic quality and enhance the functionality of the clothing. This design could help increase visibility of the wearer when engaged in outdoor recreational activities at night. Additionally, the black color was used to show the cool shape and silent geometry. The black color and thin fabric were the most suitable design to enhance the luminosity of the LED lights. Figure 1 shows the pattern design for pants. Figure 2 shows the patter design for top.

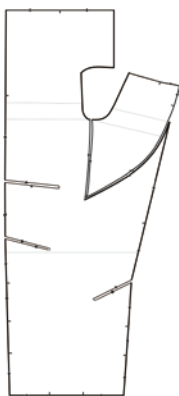


Figure 1

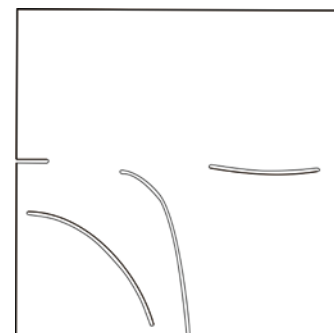
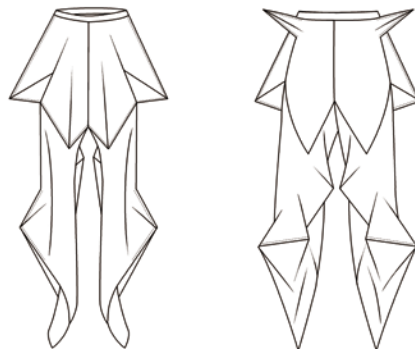


Figure 2

Contribution and Innovation.:

This project demonstrated a new concept of Clothing + (Clothing plus). This piece combined functionality with aesthetics. From the aesthetic side, this project made use of a new cutting method -- a creative draping design using a whole piece of cloth. It gives wearers more options according to their personal styles. From the functional side, touch-sensitive and waterproof LED lights were added to enhance visibility in the dark. This addition could benefit users practicing outdoor activities. Moreover, the no-cutting concept demonstrated respect for natural resources, which could meet the sustainability demands of society and industry. Figure 3 and 4 show full front view and back view.



Figure 3: Front View



Figure 4: Back View