

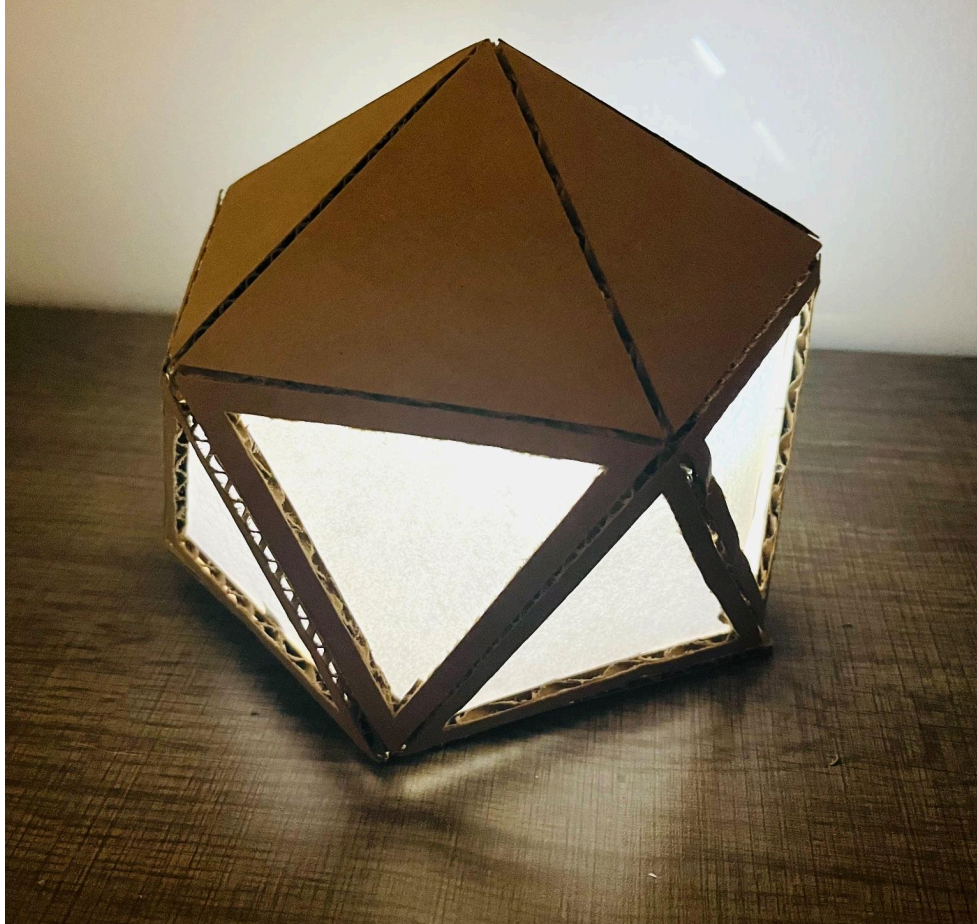
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DES INV 22 and 23

Professor Myers and Professor Garanganao Almeda

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Project 1: Fiat Lux LED Illumination Object Write-Up



Description:

Illuminate your room with the mesmerizing beauty of geometry. Featuring a deltahedron shape and contemporary design, Matrix is a unique table light that provides a touch of elegance to any space. Its sleek lines and triangle apertures create a harmonious interplay of light and shadow to invoke a sense of wonder.

Process/Design Decisions:

The inspiration for this project came from the starry night lights for children. I hoped to explore the projection of light from the light's negative space to create a feeling of grace and wonder.

During the period of time we were given to construct a low fidelity prototype, I brainstormed different geometric lights and was interested in the smooth and simple look of the triangles. I did not have a defined plan for the light's structure but began creating different dome-like compositions with the cardboard triangles. I eventually decided on a deltahedron shape to provide support and develop a playful appearance similar to a house or a carnival tent. I then created a refined prototype with triangular windows in some of the panels. My original plan was to construct a platform under the light to hide the battery, but I thought it took away from the main light fixture. Despite enjoying the open structure of the light, I disliked how visible the LED light was to the viewer. So, I later cut triangles in all of the bottom panels and added white paper to diffuse the light. (Please see below for photos of sketches and prototype process.)

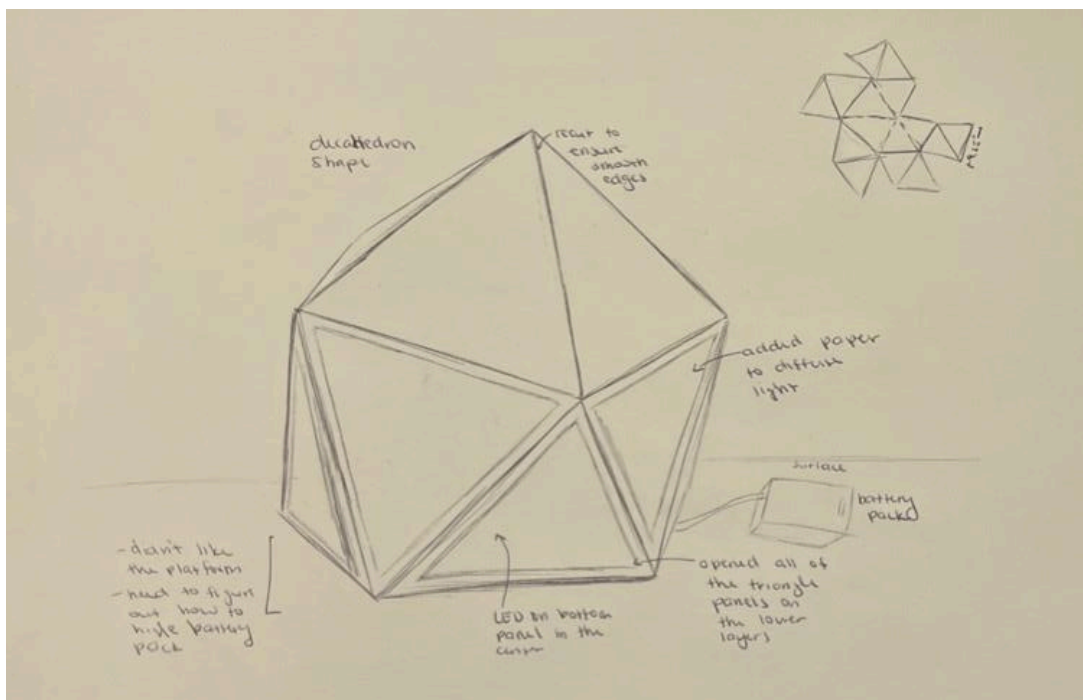
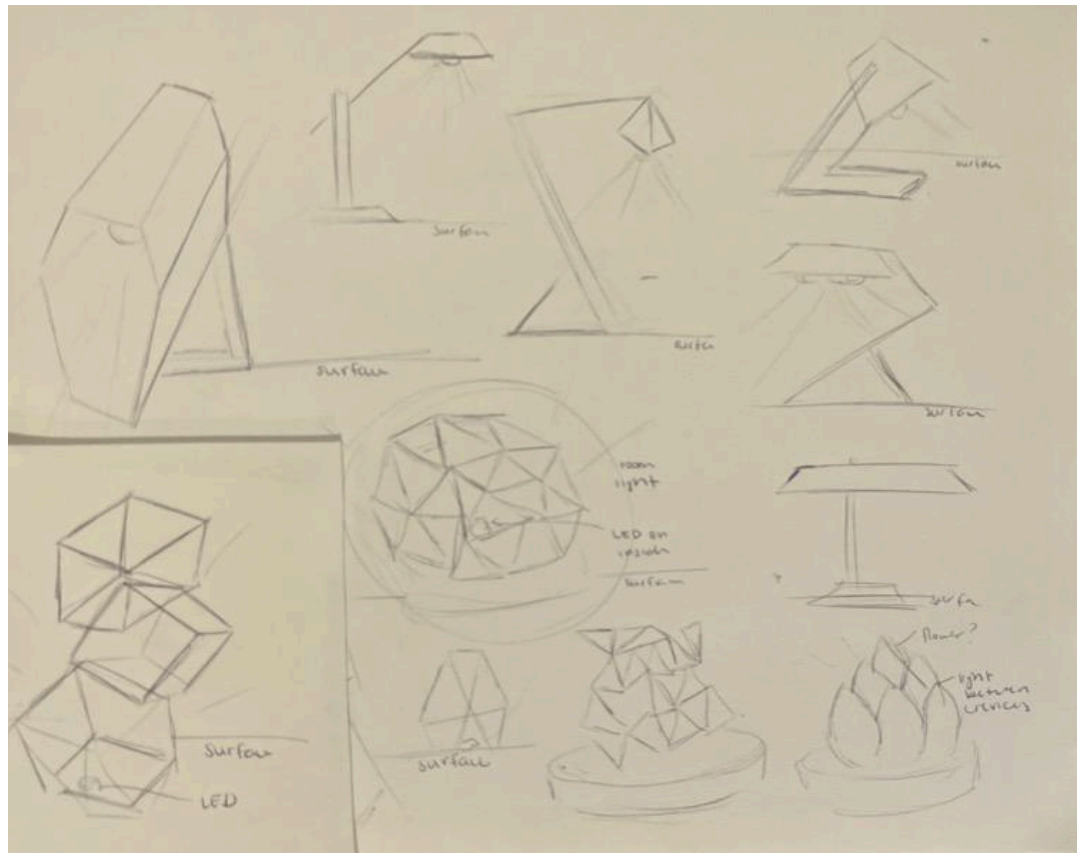
Difficulties:

Since I had rarely used an X-Acto knife, maintaining control of the knife and making concentric triangular cuts and corners in the cardboard was especially challenging. I also realized that I was using the dull edge of the blade during the low-fidelity construction period in class which left jagged edges and made cutting extremely time consuming.

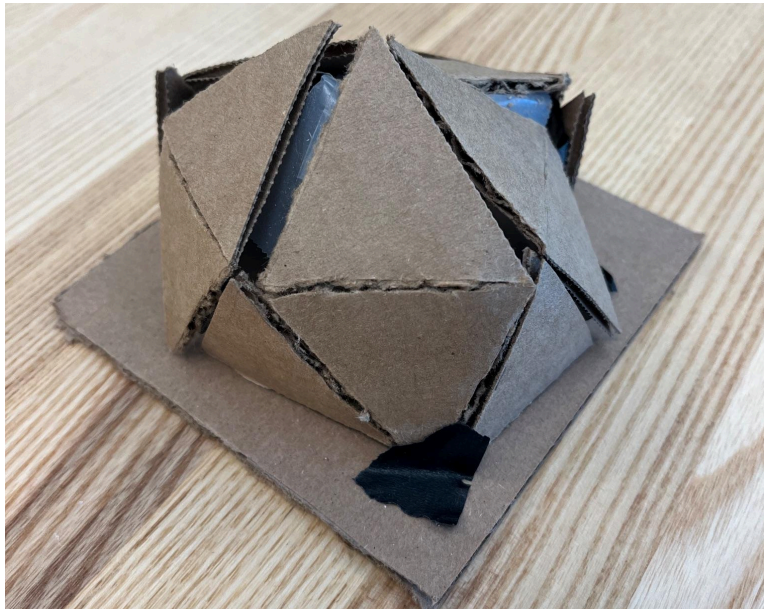
Additionally, I had difficulties with the time constraint for creating a low fidelity prototype. I sketched some geometric designs but not certain on the light's overall structure or how I would attach the triangles together. I should have created a more defined plan instead of jumping into the project. The geometry of the refined prototype was also challenging to plan, and despite careful measurements, the cardboard edges did not fully line up and left gaps. The paper in the triangle openings continued to detach and it was challenging to reconnect the paper without bending the rest of the light.

[Video](#)

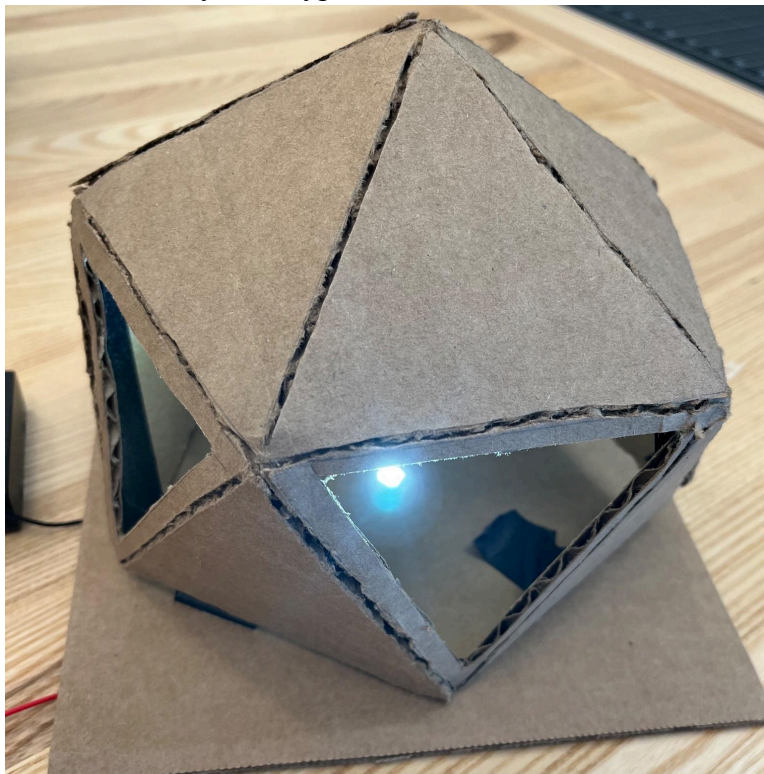
Brainstorming/Ideation:



Low Fidelity Prototype:



Medium Fidelity Prototype:



High Fidelity Construction Process:

