



T-Shirt Printing From Concept to Creation

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Introduction



- The **TAGA 2025** logo is a visual representation of the conference's unique location and the institution hosting it.
- Fonts were selected to display a western motif.



Flatiron Mountains – A Boulder Icon

The Flatirons, Boulder's most recognizable geological formations, are prominently featured in the logo.



The RIT Tiger – Strength & Innovation

The inclusion of the RIT Tiger pays homage to Rochester Institute of Technology (RIT).

Tie Dye preparation

Tie-dyeing is a process that involves folding, twisting, or crumpling fabric and applying dye to create vibrant, unique patterns. Below is a step-by-step preparation that we did to ensure proper results.

Materials we used

- 100% Cotton T-Shirts of different sizes
- Fiber-reactive dyes
- Soda Ash (Sodium Carbonate) which fixes the dye to fabric
- Rubber Bands or Strings for pattern making
- Plastic Squeeze Bottles or Buckets for dye application
- Gloves to protect hands and clothing
- Plastic Bags or Wraps for keeping fabric moist while dye sets

Step one: Soda Ash Soak (Fixative Preparation)

- Mix 1 cup of soda ash per gallon of warm water in a bucket.
- Soak the T-shirts in the soda ash solution for 20-30 minutes.
- Wring out excess liquid (do not rinse), then proceed to folding/twisting.



Step two: Folding & Tying

The way the fabric is folded and tied determines the final pattern.



Step Three: Dye Mixing & Application

We mixed the fiber-reactive dyes (Blue, Red and Yellow) with warm water according to instructions.



Step 4: Rinsing & Final Wash of the t-shirts

In the following morning, we rinsed the t-shirts in cold water until excess dye ran clear.



T Shirt Printing

Step 1 Artwork Preparation

Design was created using Adobe Illustrator in a high-resolution vector format. Film positives were printed using opaque black ink to ensure proper UV blocking during screen exposure.

Step 2 Screen Preparation

Screen Mesh Count: 230 (for fine details).
Capillary Film: 20mm thickness was applied using a wet application method.
Exposure Time: Screens were exposed for 75 seconds using a 5000W metal halide lamp in a controlled lighting room.

Step 3 Ink & color Matching

Inks Used: Plastisol ink for durability and opacity.
Color Matching: Spot colors were mixed to match the Colorado branding.



Step 4 Screen Mounting

This ensures accurate registration of the design, preventing misprints. The screen is positioned, adjusted for proper alignment, and then clamped or mounted securely to the press.

Step 5 Printing

Squeegee Angle & Pressure: Maintained at 45° with medium pressure for consistent ink deposit.

Flash Curing: Between color layers (Red+Yellow) and black at for 10 seconds. This was made because we realized that the black ink was not giving the desired sharpness along the edges of black and yellow, and after flash curing and printing the third color which is black, we achieved a good quality print.

Step 6 Curing

It was done at 320°F (160°C) for 60 seconds using a conveyor dryer. The first prints that went through the curing process came out somehow scorched.

Care was taken to eliminate scorching.



Introduction of the Package



Introducing the Hinged Triangle Box for “*Essentiq Sandalwood*”, a luxury fragrance that combines elegance and functionality. Inspired by the premium perfume packaging segment, this innovative design offers a unique unboxing experience with its triangular shape and hinged lid. The design, crafted using ArtiosCAD and Adobe Illustrator, features warm yellow tones and delicate flower graphics to reflect the sandalwood fragrance. This packaging not only ensures protection but also elevates the brand's aesthetic, while magnets are added for secure closure and enhanced product safety.

Step one: Concept Development



Step two: Structural Design (ArtiosCAD)

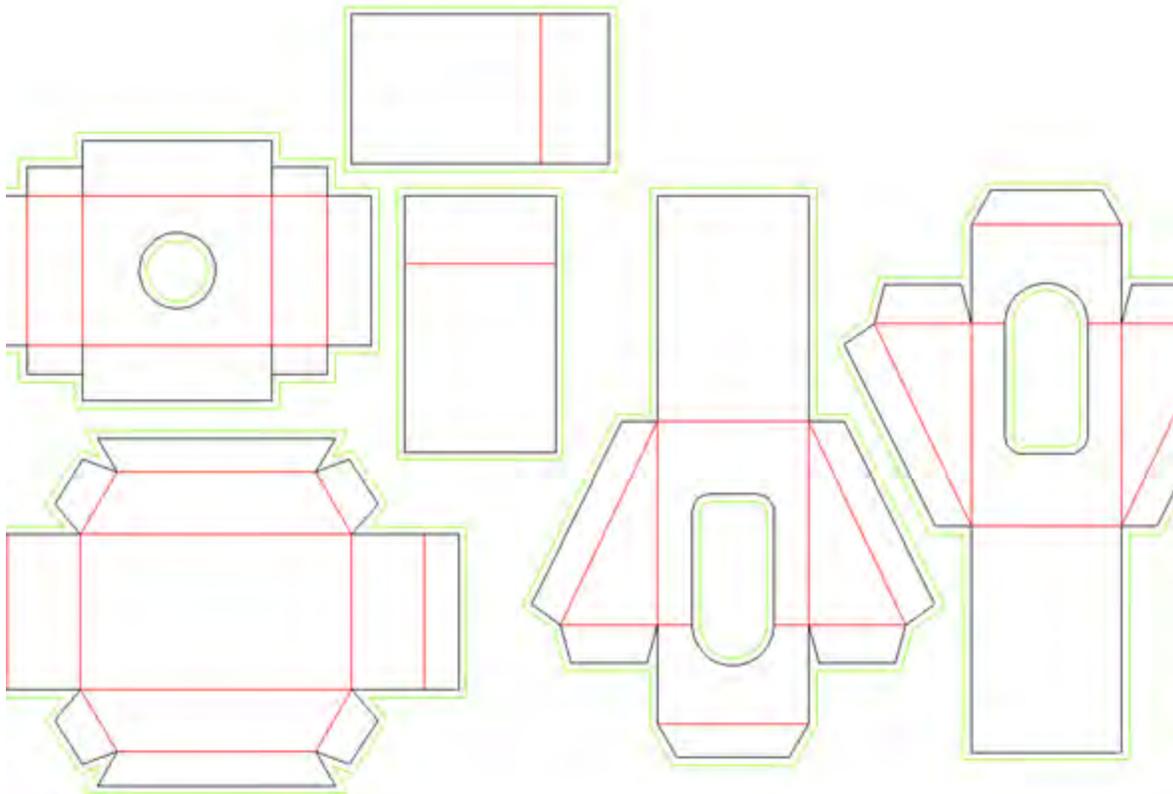


Step Three: Graphic Design (Adobe Illustrator)



Step Four: Printing, Cutting and Assembly

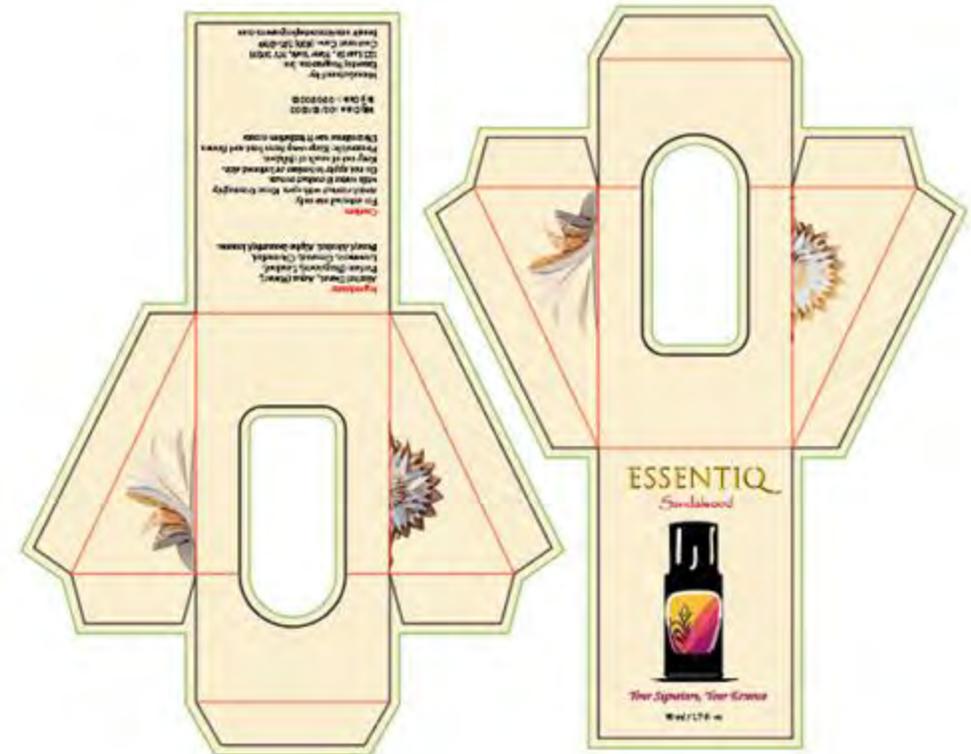
Structural Design (ArtiosCAD)



In this step, the packaging's structural design was created using ArtiosCAD, a leading software for packaging engineering. The triangular shaped hinged box were carefully designed to enhance the unboxing experience while ensuring protection for the product. The dieline included precise folding lines, cutting lines and creasing lines to facilitate smooth assembly. Custom inserts were incorporated to securely hold the fragrance bottle in place.

Graphic Design (Adobe Illustrator)

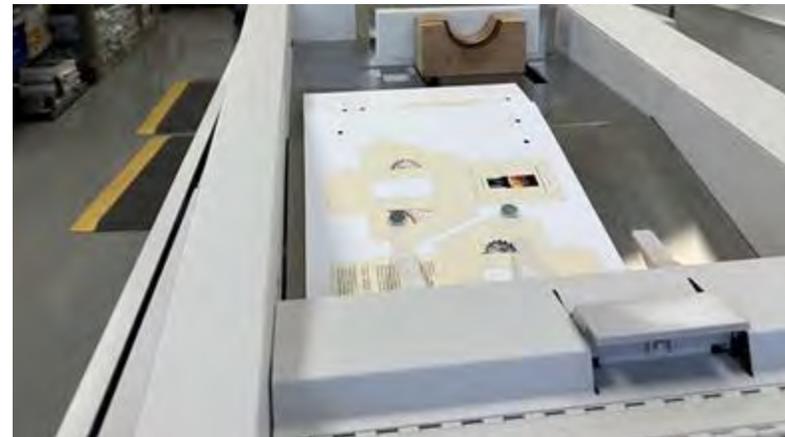
The graphic design was created using Adobe Illustrator. Colors were carefully selected to reflect the sandalwood fragrance, with warm yellow tones and flower graphics to enhance the aesthetic. Typography was aligned with the brand's identity, ensuring a cohesive and premium look. The final design was prepared in high resolution to ensure print-quality standards



Printing Process (Xerox igen 5 Digital Printer)



The design was printed using the Xerox Igen 5 digital printer, which ensures high-quality, vibrant color reproduction. The printer offers excellent print resolution and color accuracy, ensuring that the details of the packaging design were perfectly captured on the high-quality SBS paperboard. The print process was carefully monitored to ensure consistency and premium results.



Cutting Process (Zünd machine)

The printed sheets were cut using the **Zünd** cutting machine, which allowed for precise cutting and shaping of the packaging components. The Zund machine ensures accuracy in following the dielines, creating clean cuts for folding and assembling the packaging. The machine's high precision allows for intricate shapes, such as the triangular design and folding tabs, to be accurately produced.



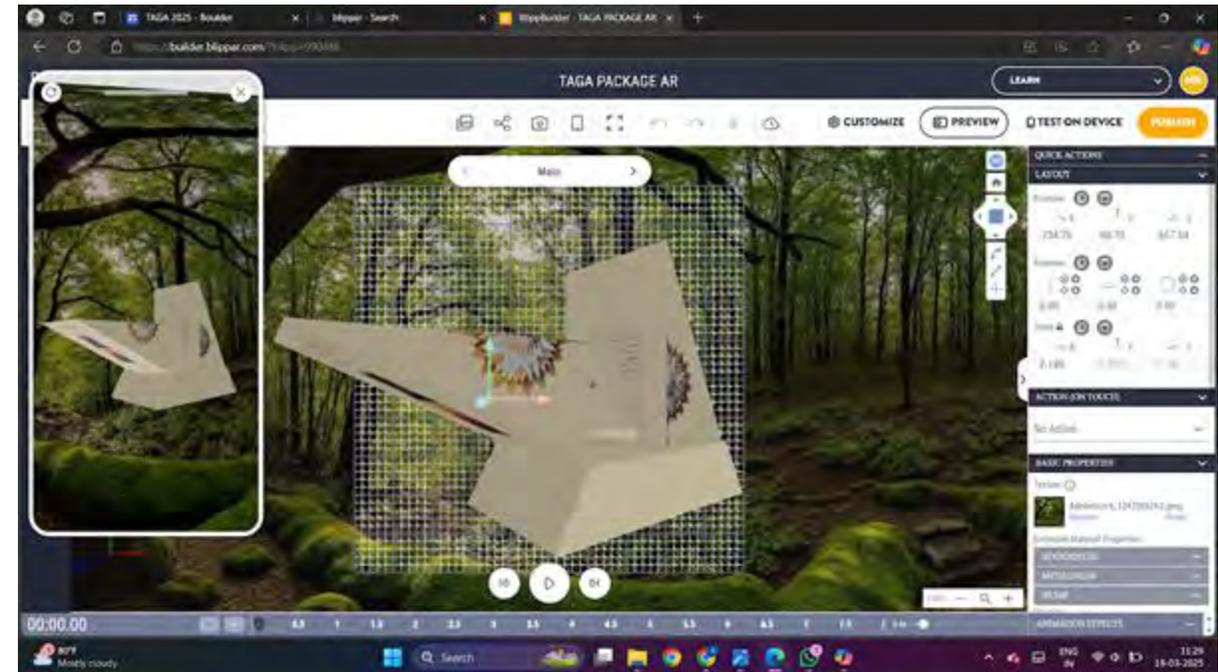
Assembling the Package



The final step involved assembling the packaging. The cut components were folded and glued according to the structural design. Magnets were embedded for secure closure, ensuring a premium opening experience. The fragrance bottle was securely placed using custom inserts, and the packaging was carefully checked for quality and functionality. The final product provides both aesthetic appeal and robust protection for the luxury fragrance.

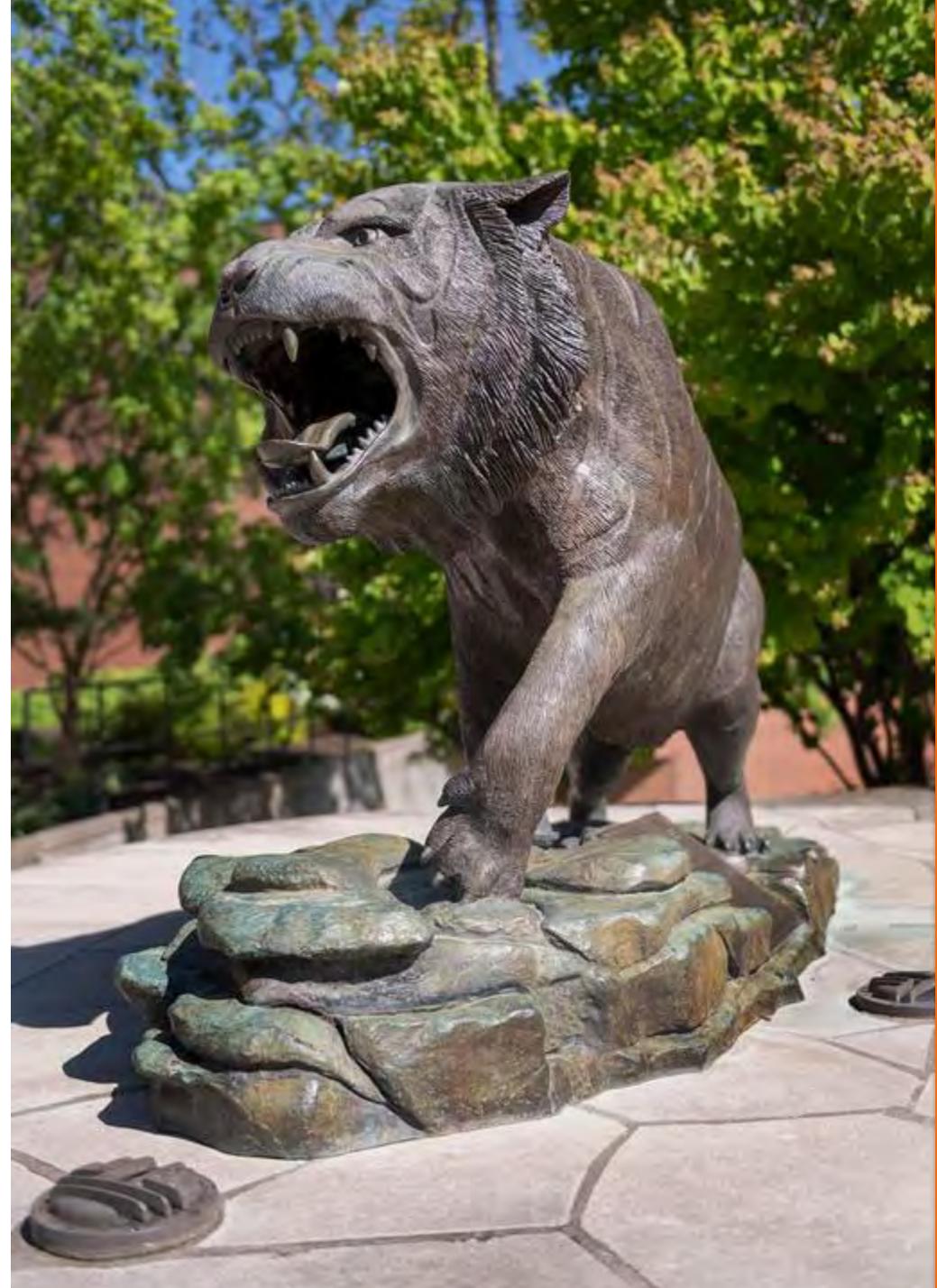
Augmented Reality (AR) for Packaging Design

Explore the *Essentiq Sandalwood* packaging in augmented reality using BlippAR. This AR experience allows you to visualize the packaging in real-world environments through your mobile phone camera, without needing to download any external apps. Simply scan the QR code to interact with the design, rotate, scale, and explore the details from various angles for a more immersive experience.





Click or Scan the QR code
to discover more



The Website

The website for TAGA 2025 - Boulder outlines student-led initiatives under the Technical Association of the Graphic Arts (TAGA), focusing on package and T-shirt design projects aimed at enhancing classroom and experiential learning. Mission of the Project The primary goal is to support student engagement through practical design projects that bridge theoretical knowledge with hands-on experience.



Thank you!

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TAGA

NextGen Conference

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