

**Accessibility Beverage Container**  
**February 4, 2024**  
**48hr RePack: Student Packaging Competition**  
**Team: MetroPak**  
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### **Introduction:**

My grandmother always struggles with opening milk cartons in her day-to-day life. Typical milk cartons are heavy, do not have natural places to grip for small hands, and take dexterity and motor skills to open the gable top. This struggle is not unique to just her; these challenges are present for many people in their daily endeavours.

### **Design Rationale for Nu-Karton Packaging**

In a world where inclusivity and accessibility are becoming increasingly important, traditional packaging solutions often fall short of meeting the needs of all consumers (like my grandma). Nu-Karton represents a thoughtful step forward in the design of carton packaging for beverages, specifically milk. Engineered to increase usability, Nu-Karton reimagines the traditional shape, size, structure, spout, and closure mechanism to offer ease of use.

### **Structural Design Concept**

The concept behind Nu-Karton was sparked by a desire to address the accessibility issues prevalent in traditional beverage packaging. Our design eliminates the challenges associated with twist-off plastic caps and gable-top cartons that require strength and dexterity to open. Inspired by the principles of inclusivity, Nu-Karton introduces an effortless "squeeze and push" spout and closure system, making the act of pouring a beverage accessible to anyone and everyone.

### **Functionality and User Experience**

Nu-Karton introduces several notable features to enhance user experience:

- A wide and stable base to prevent spills and accidental tipping.
- Easy-grip sides with UV-printed tactile grips for enhanced handling.
- An innovative "squeeze and push" closure system for simple opening and secure closing.
- Packaging space dedicated to braille to assist those with visual impairments.
- A reduced volume of 900mL to accommodate users with strength limitations.
- The inclusion of braille to aid those with visual impairments ensures they can identify and choose their desired product confidently.

### **Visual Design**

Opting for clear text and bright colours, the visual design of Nu-Karton can be as accessible as its functionality. This approach ensures that all information is easily readable, with

the flexibility to adapt to various applications, enhancing brand visibility and consumer engagement.

### **Innovation and Differentiation**

Nu-Karton disrupts the conventional packaging landscape with its unique structural shape and features. The origami-inspired spout mechanism exemplifies our commitment to innovation, offering a product that seamlessly integrates into the user's routine with superior ergonomics and functionality.

### **Iterative Development Process**

We refined Nu-Karton to its final design through numerous iterations and prototypes, ensuring optimal size, dimensions, and user-friendly characteristics. This meticulous development process underscores our dedication to delivering a packaging solution that not only meets but exceeds the expectations of our diverse user base.

### **Conclusion**

In conclusion, Nu-Karton is not just a packaging solution; it's a statement of inclusivity and sustainability. By redefining the way beverages are packaged and accessed, we aim to make a tangible difference in the lives of those who have been marginalized by traditional packaging designs, ensuring that everyone, regardless of ability, can enjoy the simple pleasure of a refreshing drink without barriers.