

ARTOS PACKAGING DESIGN

A PROJECT REPORT

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE AWARD OF THE DEGREE
OF

MASTER OF DESIGN
IN
PRODUCT DESIGN

Submitted by

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I, **SARIKONDA SAI ARUN**, Roll No - **2K21/MDPD/13**, student of M.Des (**Department of Design**), hereby declare that the project Dissertation titled "**Artos packaging design**" which is submitted by me to the **Department of Design**, Delhi Technological University, Delhi in partial fulfillment of the requirement for the award of the degree of Master of Design is original and not copied from any source without proper citation. This work has not previously formed the basis for awarding any Degree, Diploma Associateship, Fellowship, or other similar title or recognition.

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Certificate

I hereby certify that the Project Dissertation titled “**Artos packaging design**” which is submitted by **Sarikonda Sai Arun**, Roll No - **2K21/MDPD/13**, **Department of Design**, Delhi Technological University, Delhi in partial fulfillment of the requirement for the award of the degree of Master of Design, is a record of the project work carried out by the students under my supervision. To the best of my knowledge, this work has not been submitted in part or full for any Degree or Diploma to this University or elsewhere.

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Acknowledgment

I wish to express my sincerest gratitude to Dr Ravindra Singh, assistant professor department of design dtu and Divya ponuru, designer at Design.in studio for their continuous guidance and mentorship provided to me during the project. They showed me the path to achieve my targets by explaining all the tasks to be done and the importance of this project as well as its industrial relevance. They were always ready to help me and clear my doubts regarding any hurdles in this project. This project would not have been successful without their constant support and motivation during the last few months.

Lastly, I would like to thank my family, friends, and well-wishers for being supportive throughout.

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Abstract

The design of a product's packaging plays a critical role in influencing a customer's decision to purchase a product. The objective of this thesis is to explore how the design of the packaging for Artos soft drink containers impacts customer purchasing decisions, with a specific focus on ergonomics as the major research issue. This investigation will be conducted with the goal of developing a recommendation for future research. The purpose of the research is to investigate how several aspects of package design, such as shape, size, composition, and colour, influence a consumer's impression of a product and, as a result, their choice to buy that product.

Ergonomics is an essential component of product design that entails the process of making goods that are user-friendly, pleasant, and safe for people to use in their daily lives. The purpose of this study is to investigate how ergonomic design principles may be implemented into the design of product packaging in order to enhance the overall experience that a consumer has with a certain product. This involves the development of packaging that is simple to open and handle, that is more resilient, and that is more kind to the environment.

In this research, we will explore how the shape, dimension, nature of the material, and colour of a product influence a customer's perception of that product. The product's mobility and convenience of use are both impacted by the dimensions of the packaging it comes in. It is possible for the customer's view of the product and whether or not it is current, fashionable, or out of date to be affected by the style and design of the packaging. In addition, the material that is utilized in the packaging may have an effect on the customer's opinion of the quality and value of the product being purchased. A customer's reaction to a product's colour may be strongly influenced by how it makes them feel, which, in turn, affects their propensity to make a purchase. Colour is thus a vital component.

The purpose of this study is to propose several strategies for the design of packaging in the hopes of enhancing the overall satisfaction a client derives from using the product. Product designers and manufacturers are able to develop and produce goods that are not only visually

pleasing but also simple to use and pleasant for consumers by first gaining a grasp of the elements that impact customer perceptions of product packaging and then learning how ergonomic design ideas may be included into the design of product packaging. This has the potential to result in improved revenue for the firm as well as better consumer happiness and loyalty.

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CHAPTER 1

1.1 INTRODUCTION

Artos is a regional carbonated beverage that bears the distinction of being the first soft drink of its sort to be produced in the state of Andhra Pradesh. Artos was first introduced in the year 1960. In the beginning, the firm that produced soft drinks was known as “Ramachandra Raju Soft Drinks.” However, it went through a process of rebranding and was eventually called “A.R. Raju Tonics,” before finally being rechristened “Artos.” The first office of the organization was opened at Ramachandrapuram, which is an area that is located in the East Godavari region of the Indian state of Andhra Pradesh. In the beginning, Ramachandra Raju obtained a soda vending machine from a British administrative division. Despite his lack of experience with the machine, he was able to successfully operate it. As soon as the native populace saw British forces drinking the refreshing beverage, they got over their initial reservations about the gaseous component of the water and other urban legends and began drinking the beverage for themselves. In 1919, the production of this beverage commenced as an authorised drink, and subsequently, the essential components such as sugars, gas, and flavours have been imported from Europe. The prohibition of imports during the Second World War resulted in a considerable number of Indian enterprises ceasing operations. Notwithstanding this, Artos persisted in its production by utilising the flavour derived from alternative fruits. Numerous multinational corporations offer franchise opportunities; however, Artos has remained persistent in this regard. Artos has been in existence for a century, and in 2019 (*fig 1*), it continues to expand its presence in Andhra Pradesh. This product offers a variety of flavours including Grape, Lemon, Orange, Ginger, Lemon Salt Soda, Zibb Gluco, and Soda (*fig 2*).

THE EVOLUTION
SINCE 1919



Fig 1



Fig 2

1.2 PURPOSE

The objective of this thesis is to investigate the influence of package design on consumer buying behavior for Artos soft drink containers, with a specific emphasis on the significance of ergonomics in package design. This study aims to examine the impact of various elements of package design, such as shape, dimensions, composition, and hue, on the way consumers perceive a product and their inclination to buy it. The objective of the study is to determine

the distinct design components that are attractive to customers and their influence on their buying patterns.

This thesis seeks to explore the impact of package design on consumer purchasing behavior, as well as analyses the significance of ergonomics in package design. The objective of ergonomic design principles is to develop products that provide comfort, efficiency, and safety during usage. The study endeavors to enhance the overall customer experience with the product by integrating ergonomic design concepts into package design. The evaluation process encompasses an analysis of various factors, including the product's manageability, pourability, and storage capabilities.

The study will employ a combination of qualitative and quantitative methodologies to collect information on consumer preferences and buying patterns. The proposed approach involves conducting surveys and focus groups to obtain customer insights on their perceptions and attitudes towards Artos soft drink containers. Additionally, sales data will be analyzed to identify purchasing behavior patterns.

The primary objective of this thesis is to propose package design techniques that enhance the Artos soft drink containers' customer experience. The study's objective is to enhance customer satisfaction and boost product sales by utilizing ergonomic design principles and identifying the most attractive package design elements.

1.3 METHOD DESCRIPTION

The Double Diamond process is a method of design thinking that may be used in the process of developing efficient solutions to difficult situations. This method may be broken down into four

stages: discovering, defining, developing, and delivering the product. The Double Diamond (*fig 3*) approach may be used in the context of designing soft drink bottles and other types of packaging in order to produce a design that offers the best possible experience to the end user.

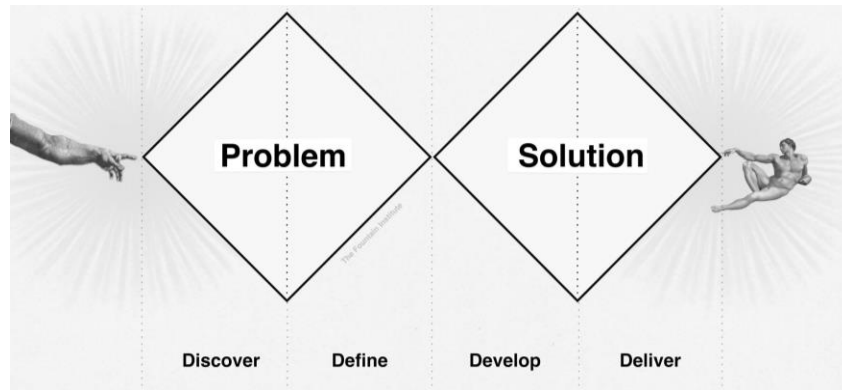


Fig 3

1.3.1 PHASE 1 DISCOVER

During the Discover stage of the Double Diamond process (*fig 3*), I will do research and collect information on the issue at hand. In this particular scenario, the challenge consists of designing an efficient bottle for soft drinks as well as packaging that offers the best possible experience to the end user. During this stage, you should be doing research on the preferences of consumers, the trends in the industry, and the most effective package design practices.

1.3.2 PHASE 2 DEFINE

The information that was acquired in the Discover phase is then synthesized during the Define phase, and the issue is specified in more detail at this point. During this stage of the process, the team should determine the demography of the target consumers, the important product qualities, and the intended customer experience.

1.3.3 PHASE 3 DEVELOP

During the Develop phase, this will engage in creative thinking activities such as brainstorming and idea generation for the design of the soft drink bottle and packaging. During this phase, a variety of ideas should be developed and assessed based on their capability of providing the intended experience for the target audience of the product. During this phase, the design, marketing, and product development teams should collaborate and provide feedback from across their respective functional areas.

1.3.4 PHASE 4 DELIVER

In the last stage, known as “Deliver,” I will be responsible for developing and testing the design of the soft drink bottle and packaging. During this stage of the process, prototypes of the design should be developed and evaluated by being put through a series of tests with the target consumer demographic. The goal of these tests is to determine how well the prototypes give the experience that is sought by the customer.

1.4 DELIMITATIONS

This master thesis primarily concerns the design of soft drink packaging with a focus on ergonomics, branding, and customer experience. However, it is crucial to take certain delimitations into account.

The primary emphasis of this thesis will be on the design of beverage bottles and cans.

CHAPTER 2

2.LITERATURE STUDY

2.1 PACKAGING DEFINITION

While it may seem to serve a wide variety of purposes, the term “packaging” has a plethora of various meanings that may be derived from a variety of sources. *Olson and Jacoby (1972)* have classified packaging as an extrinsic element of a product. As a consequence, packaging has a link with the actual product, despite the fact that it does not directly reflect any aspect of the product’s physical appearance. It is also believed, contrary to the previously held opinion, that the meaning of packaging is not associated with the product itself but rather with the five aspects of the brand, which include the name, the logo and visual symbols, the personality, and the slogans (*Keller, 1998*). This notion is in contrast to the previously held belief that the meaning of packaging is associated with the product. In addition, *S. Chudy and M. Pietraszewski* define packaging as the material structure of a product that serves the functions of providing the product with protection and transportation while also providing information about the product and attractively presenting it to the consumer. The last one, presentation, is intimately connected to the business of marketing and the promotional capabilities that it has.

The Many Roles Played by Packaging.

According to *Cervera (1998)*, the many functions associated with packaging may be broken down into one of three distinct levels. Beginning at the bottom of the hierarchy is the main packing, often known as “consumer packaging.” The purpose of this kind of packaging is to safeguard the item being sold and, in most cases, to be in physical touch with the item. The second function is referred to as “transport packaging,” and what this entails is that it brings together and includes several main packages. The third and last role of packaging is to put together primary and secondary

packaging into a pallet or some other kind of load unit. This involves both the design of packaging for a product is an important component, as it can have a significant impact on consumer purchasing behavior. It is the initial point of contact between the customer and the product, and the design of the packaging is what can entice or discourage the customer to purchase the product.

Packaging design plays a very important role in influencing consumer actions. A package that is thoughtfully designed has the potential to create brand identity, affect how consumers evaluate a product's performance and utility, evoke favorable emotions, contribute to increased environmental consciousness on the part of consumers, and promote perceived product value. affect value. Because of this, businesses need to invest in efficient package design to attract and retain customers and increase their overall sales.

A consumer's experience with a soft drink bottle can be significantly influenced by the design of the product's packaging. A bottle that is thoughtfully designed can increase a product's desirability, increase customer happiness, and drive more sales.

To begin with, the consumer's experience with a soft drink bottle can be influenced by the size and shape of the bottle. For example, a customer who prefers a contemporary and on-going look may be attracted to a slim and sleek bottle, while a customer who prefers a more traditional and robust design may be attracted to a larger and sturdier bottle. The ease of handling and pouring of a bottle can also be affected by its size and shape, which in turn can affect the experience the product provides to the end user.

Second, the colors and visuals used in package design can affect the customer experience. A bottle that is vibrant and colorful can evoke feelings of excitement and joy, while a color scheme that is more subdued can evoke feelings of sophistication and elegance. Pictures on the container can also communicate essential information about the product, such as its taste and nutritional content,

which can make the shopping experience more satisfying for the consumer. Thirdly, the material that is utilized in the design of the package may have an effect on the experience that the customer has. For instance, a bottle made of glass might convey an image of luxury and sophistication, but a bottle made of plastic can convey an image that is more associated with accessibility and economy. Additionally, the material used may have an effect on the product's shelf life as well as its freshness, both of which can have an effect on how the customer perceives the quality of the product.

Finally, the design of the package might have an effect on the consumer's worries about the environment. Packaging that is favorable to the environment may pique the interest of customers who place a premium on sustainability; also, a company's dedication to sustainability may have a beneficial influence on a customer's experience with the product and their propensity to buy it.

In conclusion, the design of the packaging that is used on a bottle of soft drink may have a big influence on the experience that a customer has with the product. Companies need to make investments in efficient package design that considers the preferences of customers and elevates the overall allure of the product. A bottle with a thoughtful design has the potential to boost customer happiness and stimulate repeat purchases, which will eventually result in higher revenue and consumer commitment to the brand.

2.1.1 ELEMENTS OF PACKAGING

According to *Silayoi and Speece (2007)*, who conducted a study of the relevant literature, there are four fundamental aspects of packaging that influence a customer's choice to make a purchase. These components are split up into two distinct groups: the visual components and the informative ones. Graphics, colour, and the dimensions and contours of the package are all examples of visual aspects. The informational components on a package include details about the product itself as well as information regarding the technology that were used in its production.

2.1.2 HISTORY OF PACKAGING AS A DISCIPLINE

The development of the industry of packaging as a discipline

“Initially, the ancient containers, ranging from simple woven baskets to elaborately structured and decorated bowls, jars, bottles, and carafes, were created simply for the utilitarian purpose of holding and transporting food, beverages, and condiments. The earliest known examples of packaging date back a few thousand years. In later times, storage receptacles were developed in order to accommodate a wider range of personal items, such as wine, jewelry, and perfume. Over time, many of them had ornate decorations added to them by their owners or artists in order to be aesthetically pleasing.

Meyers and Gerstman’s study, which was done in 2005, may be found on page 8.

Clay was often used in the production of these containers; nevertheless, there were ancient cultures who also used glass and paper in the packaging of their goods. For instance, three thousand years ago in Egypt, glass was very popular and in great demand among the aristocracy. According to *Meyers and Gerstman (2005)*, the genuine commercialization of glass containers did not take place until the early seventeenth century in either Europe or North America.

However, the practice of repackaging products by manufacturers did not become widespread until 1870 (*Meyers and Gerstman, 2005*). This marked the beginning of modern packing in its current form. As time went on, more manufacturers began to follow this pattern. Between the years 1880 and 1900, mass marketing was formed in America, which led to a revolution known as the “profit through volume” revolution; this revolution was made possible by mass-produced packaging (*Twede, 2012*). The packaging companies of Gair, Norton, and Owens capitalised on new methods of production and business integration (and collusion) to profit from the trend. This enabled emerging national brands like Coca-Cola, Campbell’s Soup, and Nabisco to successfully lead a revolution in mass marketing (*Twede, 2012, p.245*).

According to *Twede (2012)*, the first stages of the packaging business might be traced back to 1927.

In the 1960s, the practise of packaging made its way to Europe through American firms. By 1995, package design had developed into a powerful instrument for the marketing of corporate brands (*Stewart, 2004*).

A little more than a century ago, the primary function of packing was simply to move goods from one location to another. The typical item was packed in large quantities so that it could be uniquely dispersed to each customer, who had unique requirements due to the variety of products they purchased. We are now living in a society that is driven by consumerism. (*Jansson-Boyd, 2010*) A variety of study studies conducted by psychologists demonstrate how consuming is a crucial component of people's lives, as well as how the design of packaging influences the decisions that we make. When compared to the early production-driven culture, the choices for how businesses may package their goods have vastly enhanced because of advancements in both technology and materials.

The production procedures moved from the use of single laborers packaging each product to the use of businesses that were capable of producing a much higher volume (*Capsule, 2008*).

2.1.3 CONTEMPORARY PACKAGING

A brand's message and values may be communicated via its packaging, which is why it is the most significant instrument in the marketing mix for point-of-purchase (POP) retailing. Not only is it possible for the product to use an infinite number of cover messages, but the design of the packaging also makes it possible for the customer to recognize certain symbolic signals that distinguish the product from those of its rivals. Customers, it has been said, "buy the package and use the product" (*Nickels and Jolson, 1977, page 14*). About one-seventeenth of a second passes from the time a product is placed on the shelf of a supermarket and the time it is spotted by a customer. It is essential for a package to attract the customer's attention in a flash and maintain their interest long enough for them to take the goods out of its packaging and place it in their

shopping basket. According to *Kotler (2008)*, a successful product packaging design will first grab the consumer's attention, then provide an accurate picture of the goods, and then close the deal. Because of this, it is simple to state that packing is more than just a container. The product's safety and the packaging's ability to be produced at a reasonable cost are the two most fundamental requirements for any kind of container. After that, the container has to be adaptive to the shelf space at the retail establishment. A package ought to be simple to manipulate, put away, and stack.

After evaluating these phases, the design team will be able to select how to develop the real package, where solutions that are both functional and visually appealing are preferable (*Lane, 2010*).

In a highly competitive and customer-driven culture, the functions of package design need to be able to sell both the brand and the product at the same time, all while creating an image and a perception in the mind of the consumer.

The old adage that "you only get one chance to make a good first impression" is particularly applicable to the market for package design. The consumer will examine the product's packaging, pick it up, and make the purchase while simultaneously reiterating in their head that the product fulfils the promises made by the brand. Subsequently, the customer will continue to purchase the product over and over again. When a product at long last satisfies the expectations of consumers, they will not only be loyal to the brand, but they will almost certainly also spread the word and generate buzz for the brand without the need for any further marketing efforts on the part of the company. According to *Mininni (2008)*, the definition of "word of month" in today's culture is "exposure" through many forms of communication, including chats, posts on blogs and message boards, and so on.

As was said at the beginning of this article, one of the most essential parts of package design is the combination of confinement and protection with a means of identification. (*Capsule, 2008*) Not just Capsule, but also other marketers consider utility, personality, and navigation to be significant features. The process of identification is the cornerstone of effective packaging. Another facet, the significance of which cannot be overstated, is the personality of the brand in and of itself. The personality of the brand is brought to life the moment a consumer takes up the goods and examines it when they are shopping for it in a store. There has to be a strong relationship between the brand and the package since the packaging could have to communicate with millions of consumers. It's not so much about having the greatest personality as it is about sticking to the personality of your brand. The customer, in the end, will decide whether or not the brand is successfully communicating its intended message and personality. According to *Capsule (2008)*, the foundation upon which strength is constructed is consistency.

Benefit Cosmetics is a good example of a successful personal brand that also comes in innovative packaging. The one-of-a-kind packaging is vivacious and personal, which brings a sense of playfulness and lightheartedness to the beauty industry, which may at times be fraught with uncertainties and fears. The customer is drawn in by the customer's unique personality and is given the impression that they are friends with the company. "They're real" is the name of one of their several mascara products. According to *Karsh (2011)*, the product's packaging lives up to its name by having an air of film noir about it and by providing the consumer with a backstory.

2.2 PACKAGING DESIGNED WITH ERGONOMICS IN MIND.

The goal of ergonomic design is to analyze and recommend changes to design characteristics in the hopes of increasing a product's usability and making it more accessible to users. In order to accomplish this goal, interface assessments are often performed with the purpose of gathering biomechanical and perceptual data. These evaluations take into account the capabilities and limitations of the users in order to provide design parameters.

In today's world, there is a significant need for work tools, but there is also a significant demand for Daily Living Activities (DLA) and the items that take place in the house of the user, including packaging. Packagings of common commodities that have interface issues have the potential to cause accidents, despite the fact that difficulties in opening or insufficient opening occur considerably more often. The vast majority of individuals like opening techniques that do not call for the use of any form of tool.

These mechanisms should make it possible to reach the product without the need to use any sharp objects, such as knives, scissors, or other implements.

In addition to the difficulties involved in locating instructions for opening processes or simply in locating tabs or seals to break, there are far more severe concerns that have gotten little or no discussion, most notably the vacuum jar packaging. Users of these sorts of packages are well aware of the opening technique, yet they often are unable to open the box simply because they are unable to provide the appropriate pressures.

There are not a lot of evaluations out there on the maximum torque forces in packing. There have only been a few studies that have looked at the torque forces required to open jars and the implications those findings have for gender and age-related groups. 235 people of varying ages took part in an assessment of vacuum jars with a diameter of 75 millimeters. There were 97 women and 138 males who took part in the evaluation. According to the findings, the average strength of women older than 75 years old was much lower than what was required to open the jar. The authors also predict that around forty percent of women their age, which is twenty-five, and ten percent of males their age, which is seventy-five, would have difficulty opening the package.

Another study's objective was to determine the amount of manual twisting force that was required for newborns to open the box of chlorine bleach. In light of the fact that such people shouldn't have access to the product for reasons related to their own safety, the research emphasized the significance of including biomechanical considerations in the design of the package. As a result, 104 individuals ranging in age from two to five years old and representing both sexes took part in an experiment including three instrumented bottles. The containers had a distinct appearance, and the lids of each one came in a variety of sizes.

According to the findings, the size of the lid had a significant impact on the amount of torque that was exerted by the individuals. Because of this, the cap that has the narrowest diameter has been suggested as the best option for preventing such people from gaining access to the goods in an actual setting. The author also notes that since this is a frequent scenario for many DLA, the characteristics that were acquired may assist to enhance the usability and safety of other designs. This is something that the author emphasizes.

2.2.1 ERGONOMIC INTERVENTION

When it comes to the design of a bottle, ergonomics plays a very important part, whether it be in terms of the bottle's form, opening hole, ridges, or kind of opening. The bottle has a hollow cylindrical design, which enables the user to hold it with one hand while drinking comfortably from it. Additionally, the bottle's plastic lid enables water storage for later use and mobility without the user having to worry about leaking. The clarity and purity of the bottle, which resembles that of drinking water itself because to the container's transparency, provides customers with a sense of aesthetic comfort. Because of its round, cylindrical shape, the plastic bottle can be used without causing any physical harm when it comes into contact with the consumer; however, there are some companies that choose a square form with edges for their plastic water bottles. The shape of the plastic bottle allows for the safety of the consumer. 7such as Fu-water: the bottle is built in such a way that the 45-degree angles where the sides touch are smoothed out to provide

for more physical comfort and to prevent injury upon contact. The ergonomics of the water bottle are as follows.

An example of surface design may be seen on bottles in the form of reinforcing rings or surface design edges. It serves both aesthetically pleasing and practically useful objectives. It makes it easier for them to grasp the bottle while they are drinking from it or picking it up, and it adds strength to the bottle so that it does not get distorted while it is being used.

Consumers confront the most frequent issue with the difficulty of opening the cap because, at times, it might be too tight to be opened. When a user wants to drink from the bottle, the top or cap has been built with small lines or bumps around the edges to make it easier for them to open the bottle. This design was based on ergonomic and anthropometric data: It aids with grip, which is especially beneficial for those of advanced age or those who suffer from arthritis.

2.2.2 OPENING HOLE

The standard practise is for the opening hole in a bottle of bottled water to have a smaller diameter. This is because a smaller aperture in the bottle gives the customer more room to place their lips over the opening. “smaller opening also regulates the optimal amount of water to pass, which prevents the consumers from choosing of waters.” The opening at the top of the bottle, through which people drink, is perfectly sized to allow water to flow out while allowing a person to drink from it without having to wrap their tongue around it. In Japanese, the phrase “8 mm opening is considered as a standard opening of bottle” translates as “the opening of a bottle is considered to be standard across the world.” Bottles adhere to an industry standard for their openings.

According to the findings of a recent survey, the vast majority of Japanese customers feel that bottle openings of 28 mm are insufficiently large, while the researchers also concluded that an aperture measuring AA mm is the most convenient size for drinking. The research was based on

the optimal drinking ease, which was defined as the amount of liquid that should be flowing into the mouth at the rate at which consumers feel the most comfortable when drinking straight from bottles. Assessment function of drinking ease was the difference between the actual amount of liquid in the mouth and the expected ideal volume, despite the fact that the study was only carried out on two university students as subjects. This was the most significant limitation of the research. They should have included participants of all ages since children may have a preference for smaller holes. Another limitation of the study was that the researchers did not take into account the kind of beverages being consumed. One cannot drink carbonated water in large gulps because the size of the bottle opening fluctuate depending on the kind of beverage being served. While liquids may be gulped down in one sitting.

2.2.3 THE FORM OF A BOTTLE

Shape differs from brand to brand, but in the end it conforms to a design that is comparable to the shape of a cylinder. The ergonomics of a bottle are significantly impacted by the shape of the container. Although the traditional bottle shape is still quite widespread, new forms such as pouches and cartons are gaining pace in the bottled water market. One of the most apparent aspects of bottled water packaging is the shape of the bottle itself.

‘In addition, the form of the conventional plastic bottle is undergoing modification so that it will include complex shapes and swirls. The grip or surface contact that keeps the bottle from slipping out of the hand is determined in large part by the diameter of the bottle. Larger bottles are more difficult to use since it is possible that the bottle may need both hands to handle it. Wider bottles are more difficult to use than smaller ones; the wider diameter of the bottle is the obvious explanation for this, since it results in less surface area being touched.

2.2.4 ADVANCEMENTS BOTTLE DESIGN

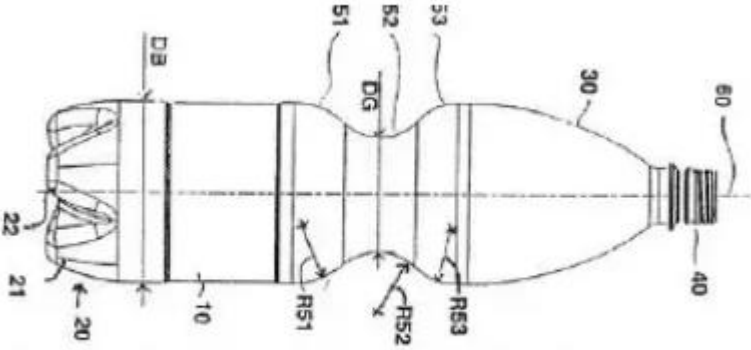
Shao-Nung Chen is responsible for its design. It makes it simple to remove the screw cap and requires less effort to open the cap. Greater friction is provided by the elongated region, which allows the cap to be rotated more readily. This has not yet reached its full commercial potential, and it is now being tested on Coca-Cola bottles. It has a smooth and ergonomic design (*fig 4*). (*The teardrop Bottle Cap*) (*Easy to Open Bottle Cap, 2011*) (*The Easy to Open Bottle Cap, 2011*) (*Easy Cap!*)

The “bottle with a feminine waist” is another moniker for it. It was developed by Tridimage in the United States of America, and Sidel was granted a patent for it in 2004 (*US Patent 6695162*). The body of the plastic bottle is cylindrical between the bottom of the bottle and the shoulder region. Additionally, the body of the bottle is equipped with reinforcing rings that are made up of a groove that is produced around the body of the bottle. rings of reinforcement that provide a firmer grip and good protection against crushing when the container is opened. The peripheral contour of the groove is characterized by a continuous simple curve.



Fig 4

The top and bottom halves each have a concavity that is turned towards the interior of the bottle, while the middle portion of the bottle has a peripheral profile with a concavity that is turned towards the outside of the bottle. It makes gripping the bottle easier, providing a better grip. Additionally, the construction ensures that the reinforcing rings and groove do not get distorted as a result of the action of the internal pressure (fig 5).



by Martin Broen from Italy.

Fig 5

2.3 CONSUMER DEMAND

Consumer scene, consumer behaviour, and consumer experience aim are the primary components that make up consumer demand. In other words, consumer demand focuses on what will be done, by whom, and under what conditions.

2.3.1. CONSUMER SCENE

Because human beings are capable of feeling a wide range of emotions, the designer of the product ought to capitalise on the emotional appeal of the human condition in order to entice customers.

There are several imaginative forms of advertising, such as “drinking Red Bull if sleepy and tired” and “drinking Wanglaoji to prevent from getting internal heat.”

This kind of advertising has been successful in producing a scene demand, and customers will generate such a product need when they are in a given setting. This will bring about the impact of brand promotion.

2.3.2 CONSUMER BEHAVIOR

The second phase in our design process involves taking into consideration the challenges that customers will face when making use of our product once we have first succeeded in luring them into engaging in purchase behaviour. The designer needs to make an advance prediction of any prospective usage difficulties in accordance with the requirements. For instance, they may determine if the way of packaging provides an adequate level of protection for the items, as well as whether the means of opening and closing are suitable for the customs of the target audience. When going through the design process, the designer should make every effort to steer clear of any usability issues. As soon as the usage barriers are introduced, the consumer’s experience, as well as their level of pleasure and likelihood to repurchase the product, will be negatively impacted, which will have a knock-on effect on the product’s economic advantages.

2.3.3 CONSUMER’S EXPERIENCE GOALS

When consumers have finished their shopping and are ready to make a psychologically genuine consumer experience, they will compare the real impact to the goal effect of their psychological expectations and then evaluate the difference. This experience is incredibly significant and will immediately influence both the customers’ perception of the brand and the subsequent sales of the goods in the future. The designers of new goods have a responsibility to promptly gather information and feedback from customers, as well as to address any deficiencies in the items themselves and make any necessary improvements. This kind of information is extremely vital for making a successful debut on the market with brand new merchandise.

2.4 PATENT SEARCH

Beverage container - US10501237B2

The disclosed beverage container may be a prepackaged hermetically sealed beverage container prefilled with a ready-to-drink beverage for retail sale and may comprise three components, namely a cap, dome, and vessel (*fig 6*). Additionally, the disclosed beverage container may be packed in a prepackaged hermetically sealed beverage container. The parts may be assembled by screwing them together. A strainer may be stored inside the dome-shaped portion. The end user may unseal the dome from the container, add ice to the beverage in order to cool it down before drinking it, and then reseal the dome to the container in order to sip the beverage straight from the opening at the top of the dome. This can be done even after the dome has been reattached to the container.

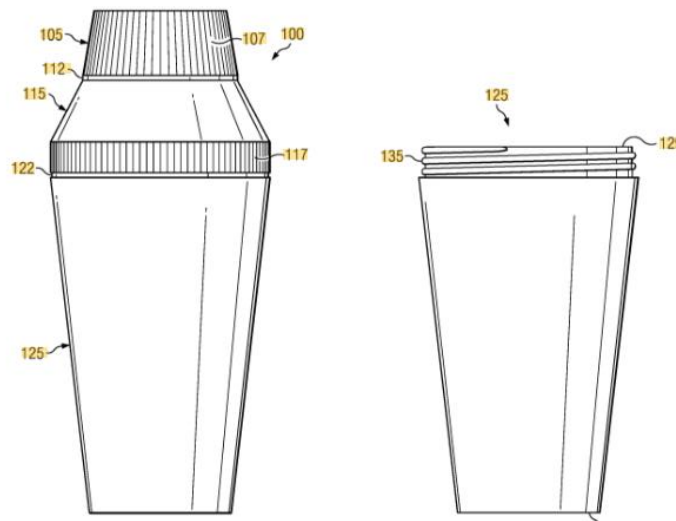


Fig 6

Bottle -US1832806AUS1832806A

bottles or other similar containers with necks or other similar limited holes, meant for pouring contents and distinguished by their form (*fig 7*).

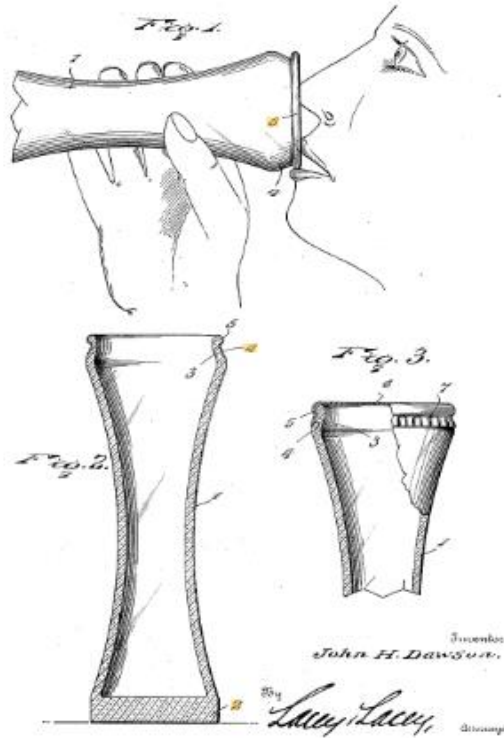


Fig 7

Beverage container - US9598211B2UUS9598211B2S9598211B2

A beverage container that contains a main body section with an open top and a closed bottom, an interior, a circular rim, and a first set of threads on an inner surface of the main body portion that are positioned next to the rim at a first height (fig 8). The main body portion also includes a circular rim and a first height. A section of the rim extends below the first set of threads and is angled in a way that causes it to rely downward. A detachable cover having a bottom, a generally cylindrical side wall, an annular flange that extends outwards from the generally cylindrical side wall, and an annular collar are also included in the container. The bottom and the typically cylindrical side wall work together to produce a cover cavity, while the collar, annular flange, and side wall combine to define a first channel that accepts the rim. The side wall has, on one of its external surfaces, a second set of threads that, when combined with the first set of threads, form a mating engagement.

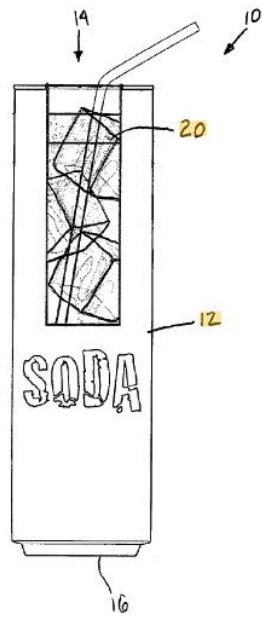


FIG. 1

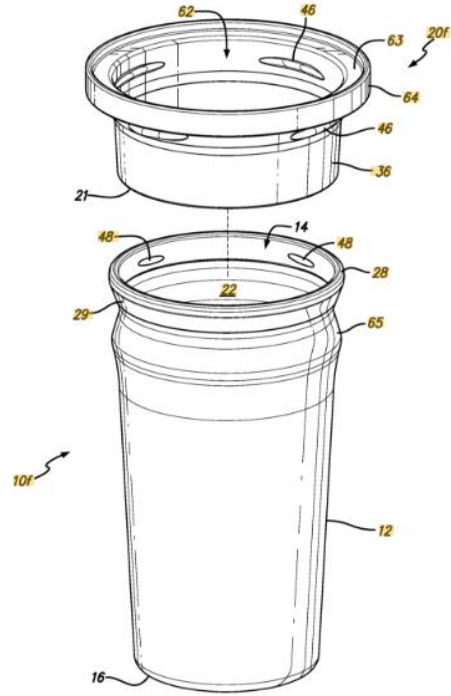


Fig 8

CHAPTER 3

3 METHODOLOGY

This chapter details the technique that was used in the management of the following areas: investigation of present solutions, user research, identification of areas of improvements, concept development, and design brief.

3.1 INVESTIGATION OF CURRENT SOLUTIONS

about 85 percent of the market is controlled by the industry's top two companies, such as Coca-Cola and PepsiCo. There are other brands as well, but these two will make up the majority of people's choices when it comes to beverages. However, the general shape and appearance of both bottles are almost identical. Only a select few new businesses are getting their start with innovative form designs.

3.1.1 1SKIN

The 1SKIN PET bottle is a one-of-a-kind design for sensitive drinks that effectively conveys both the brand's messaging and its commitment to being environmentally responsible. The 1SKIN protects the components that are housed inside it in the same way that any skin would, but it does it with a minimalist approach and a premium appeal that helps it stand out on the shelf (*fig 9*). This exceptional environmentally friendly solution is a perfect approach to make the packaging sector more sustainable. It was inspired by nature and the significance of leading a healthy lifestyle.



Fig 9

3.1.2 RAW

Raw is a fruit juice brand that has gained rapid popularity in India owing to its unique packaging and superior quality offerings (*fig 10*). The company provides a variety of fruit juices that are produced using fresh and natural fruits, and do not contain any additional preservatives or synthetic flavors. Raw distinguishes itself from other juice brands through its distinctive packaging, featuring unique shaped bottle with a vibrant label. The premium appearance and texture of this product's branding is attractive to customers seeking a luxurious item. Since its inception, Raw has experienced significant growth and is currently accessible in numerous prominent cities throughout India. The success of the brand can be attributed to the increasing demand for healthy and natural beverages in the country.



Fig 10

3.1.3 PAPER BOAT

Paper Boat is a beverage brand that was launched in India with the aim of offering consumers a range of traditional Indian drinks with a modern twist. The brand's unique packaging, which includes retro-style illustrations and resealable tetra packs (*fig 11*), quickly made it stand out in a crowded market. However, despite its initial success, Paper Boat's products failed to live up to expectations due to quality issues with the taste. Many consumers complained that the drinks were too sweet or lacked the authentic flavors they were expecting. This led to a decline in sales and a loss of brand loyalty, which ultimately forced the company to re-evaluate its product offerings and marketing strategy. While Paper Boat continues to be sold in India, its early success was dampened by these taste issues.



Fig 11

3.2 USER STUDY

user spectrum will be trained to encompass irrespective of age and gender, but the primary focus will be on the group of people aged 14 to 35 years old.

Survey Insights

Majority chose

Thumbs up, Pepsi, Coca cola.

Read to try other brands

80% people are read
10% if someone recommends

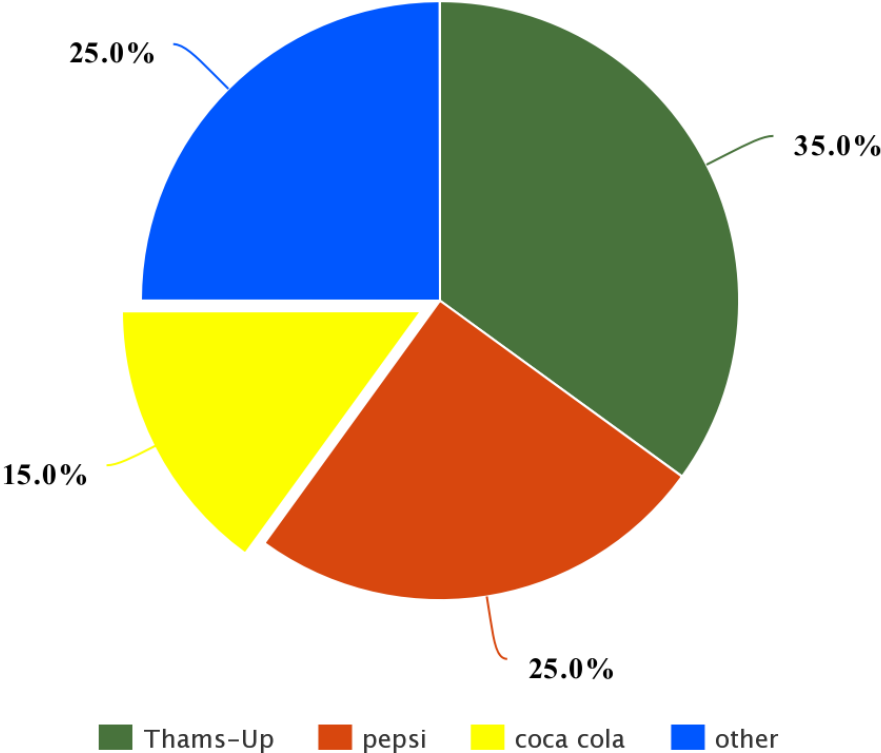
Reason for trying new brand

60% like packaging
30% like to taste

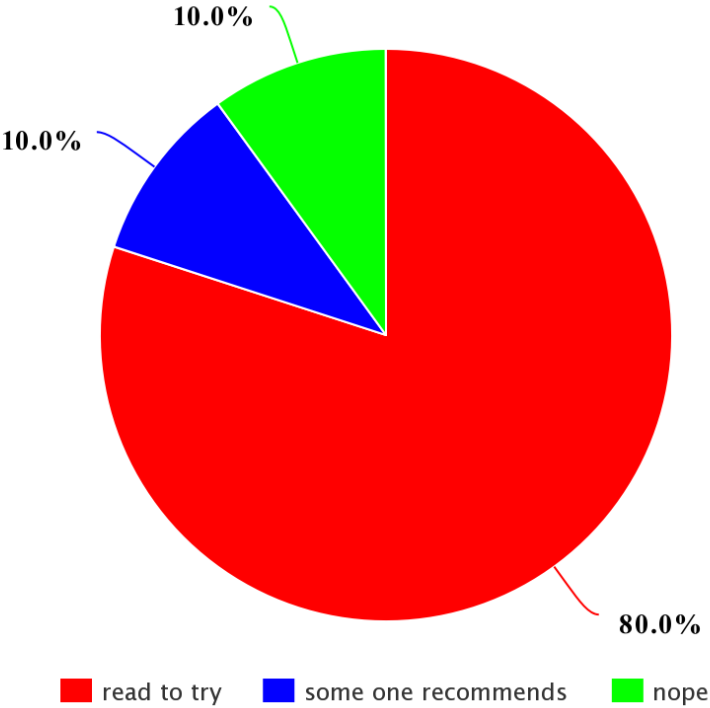
Shape of bottle/Can will have chosen to buy

70% yes if its new
30% no

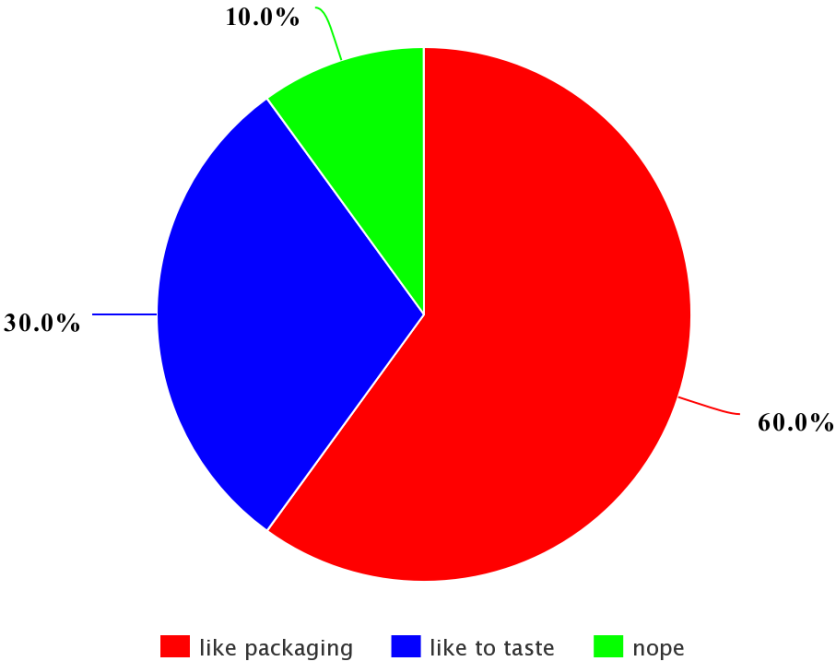
Majority chose



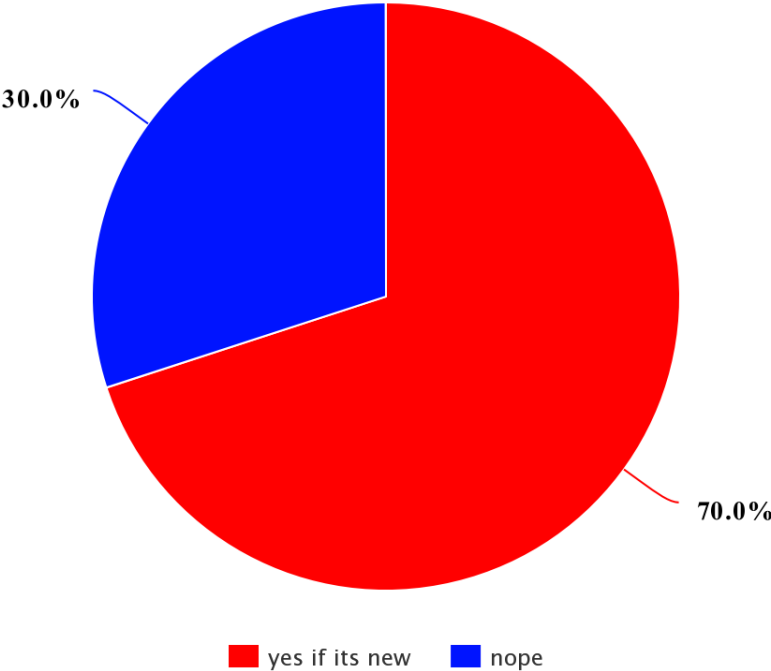
Read to try other brands



Reason for trying new brand



Shape of bottle/Can will have chosen to buy



3.3 PERSONA

Name: Preetham 16 M

Occupation: Student



Scenario:

Preetham's behavior as a soft drink consumer is reflective of the changing trends in the Indian market. The younger generation in India is increasingly willing to experiment with new products, and their purchasing decisions are influenced by a combination of taste, packaging, and branding. Preetham's willingness to try any new beverage suggests that he is open to exploring different options and is not bound by brand loyalty.

However, his preference for products that are packaged attractively indicates that he is also drawn to the visual appeal of a product. This is not uncommon, as packaging is a key factor that influences consumers' purchasing decisions. A product that is packaged in an eye-catching and innovative way is more likely to stand out on store shelves and grab the attention of potential customers.

Preetham's willingness to purchase a product again if he likes the way it tastes is also indicative of the growing importance of product quality in the Indian market. As consumers become more health-conscious, they are looking for products that are not only tasty but also healthy and natural. Brands that can offer a balance between taste and health are more likely to succeed in the market.

Overall, Preetham's behavior as a soft drink consumer highlights the need for brands to offer high-quality products that are packaged attractively and cater to the evolving preferences of the Indian consumer.

Name: Revi 35 M

Occupation: employee

Scenario:



The soft drink consumption behavior of Revi is influenced by several factors such as brand loyalty, recommendations from trusted resources, and family preferences. Revi is the main provider for his family and has the responsibility of procuring products that meet the taste preferences of all family members.

The user's tendency to prioritize established brands over lesser-known companies is indicative of a preference for brand recognition. This behavior is frequently observed among risk-averse consumers who exhibit a preference for adhering to familiar and trusted products. Revi's propensity to experiment with unfamiliar beverages based on suggestions from acquaintances or relatives suggests that he possesses an inclination to venture into uncharted territory and esteems the viewpoints of his nearest and dearest.

Revi's conduct is subject to the influence of his family's inclinations. Being a responsible family man, he comprehends the significance of accommodating the tastes and preferences of each individual. Consequently, the probability of him buying products that are favored by his family members increases.

Revi's actions as a consumer of soft drinks underscore the significance of brand awareness, reliability, and referrals from reliable sources in the Indian market. As the number of available options for consumers continues to increase, it is crucial for brands to establish themselves as trustworthy and reliable in order to differentiate themselves from their competitors. Furthermore, the influence of verbal recommendations from acquaintances and relatives remains a crucial factor in determining the buying behavior of consumers.

3.4 CMF

The selection of red and blue hues in our brand's identity is a deliberate strategy intended to establish brand recognition and association. The utilization of these hues has conventionally been linked with carbonated beverages, specifically cola drinks, which rank among the most prevalent non-alcoholic beverages worldwide.

The decision to use aluminum cans and PET bottles as packaging materials (fig 12) was based on the goal of facilitating manufacturing and establishing a dependable supply chain, in addition to color selection. The aforementioned materials are commonly employed in the beverage sector owing to their robustness, economical nature, and environmentally conscious properties.

The selection of material finish for our packaging is a critical factor in improving the aesthetic appeal of our merchandise. Glossy finishes can be utilized to achieve a high-end aesthetic and tactile experience, while matte finishes can be employed to create a subtle and refined appearance. The choice of finish will be contingent upon the intended audience and the overarching branding approach.

The selection of color, material, and finish for our packaging plays a crucial role in defining our brand's identity. Through a meticulous analysis of these variables, we can develop a brand that is visually attractive and easily identifiable, which will effectively connect with our intended audience and establish a dominant position in the fiercely competitive carbonated beverage industry.



Fig 12

3.5 MOOD BOARD



Fig 13

3.6 DESIGN BRIEF

Design modifications to the packaging of the Artos soft drink so that the brand may be identified even in the absence of the Artos logo or other corporate branding.

3.7 DESIGN CRITERIA

- form that is comfortable to grip in terms of ergonomics.
- create a fresh visual form in order to attract customers.
- establishing a fresh brand identity that can differentiate itself from other companies in order to fill out the market.

3.8 IDEA GENERATION

3.8.1 How Might We, or HMW for short.

Putting the question “How might we solve...” in front of an issue is one way that can be used to help narrow down the problems that need to be solved, turn them into solutions that are more concrete, and choose how to address them (Design Kit, 2014). This provides an opening for conversation and makes it simpler to comprehend the steps that need to be taken in order to resolve the issue.

Under the heading “Opportunity & Problem Areas,” categories 1 and 2 of the “Opportunity & Problem Areas” section included a listing of the issue areas that were the primary focus of the project. As a consequence of completing the exercise, it was determined that TWO of the issue areas might benefit from having ideas generated around them:

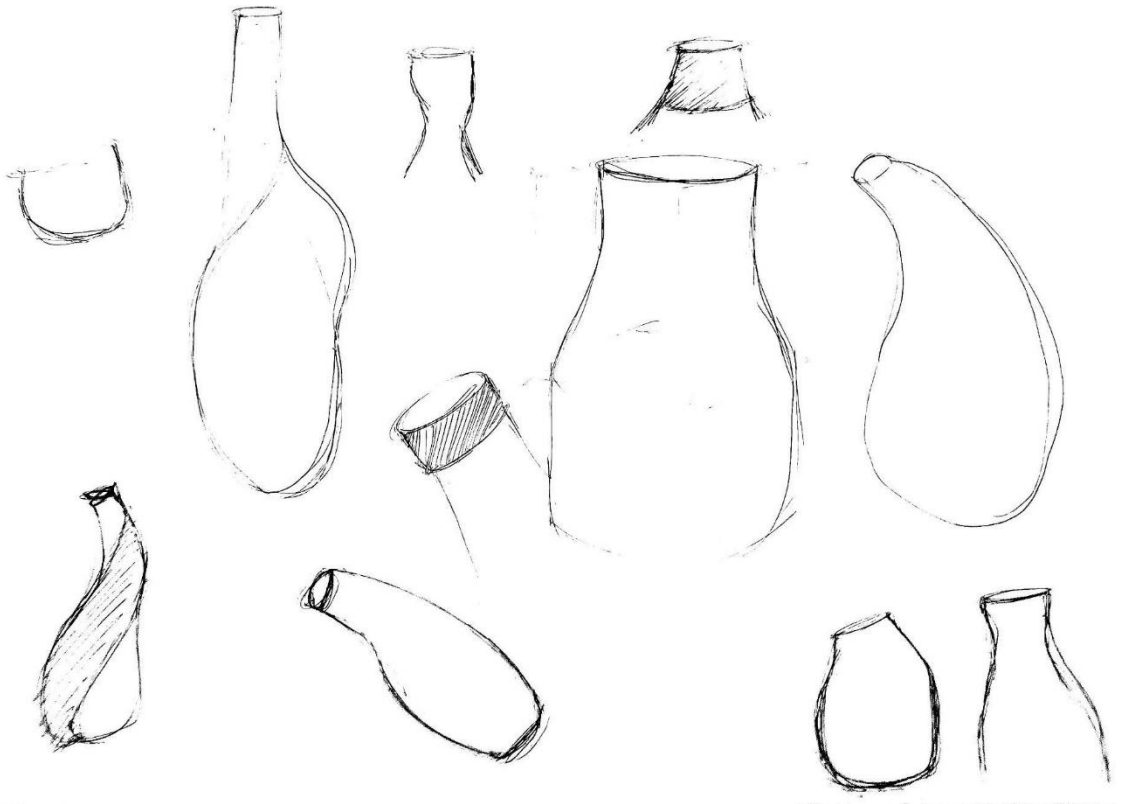
- THE FORM OF THE BOTTLE
- visual identity of bottle (physical)

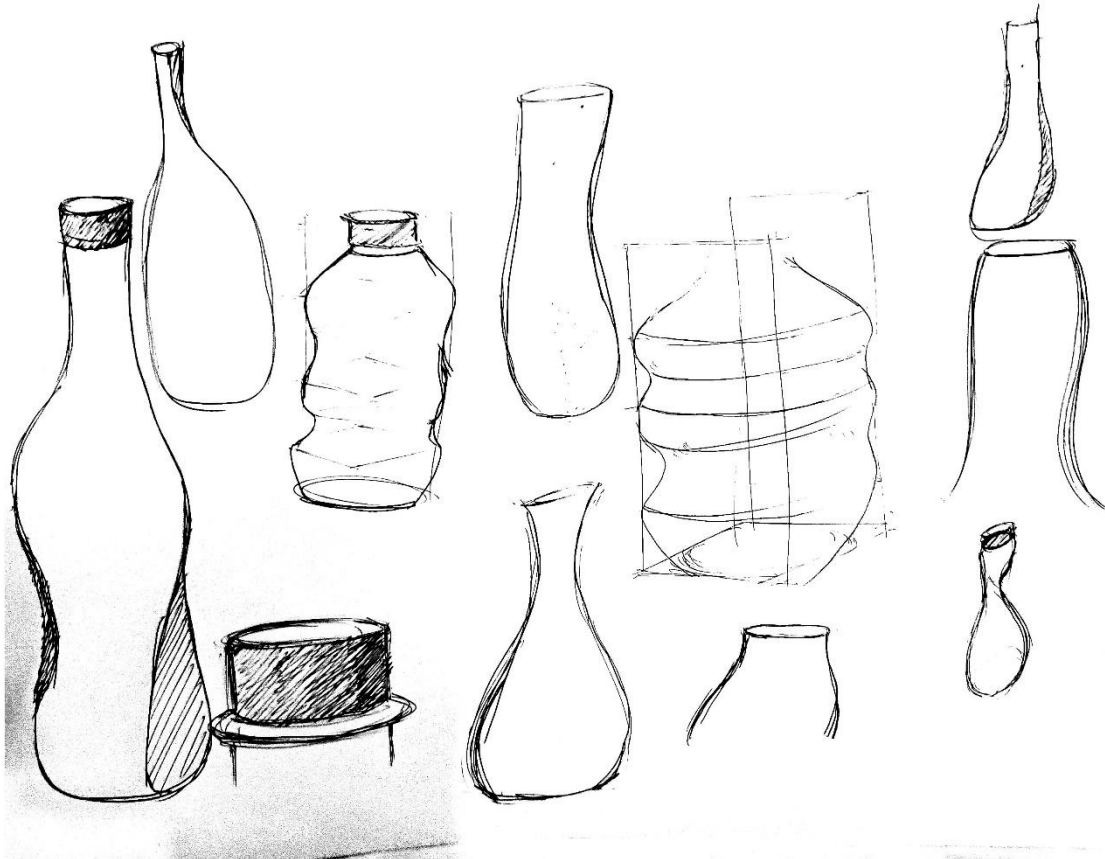
Because the design would depend on research of trends and interiors while at the same time being dependent on the result from the investigations that came before it, it was decided that the design for context would be solved as part of a separate research project. It was determined that the intuitive design, semiotic information, and lighting would all rely on the concepts gathered from the findings discussed above. It was also decided that these aspects would not be a primary emphasis of the design process, but that they should be kept in mind as it progresses.

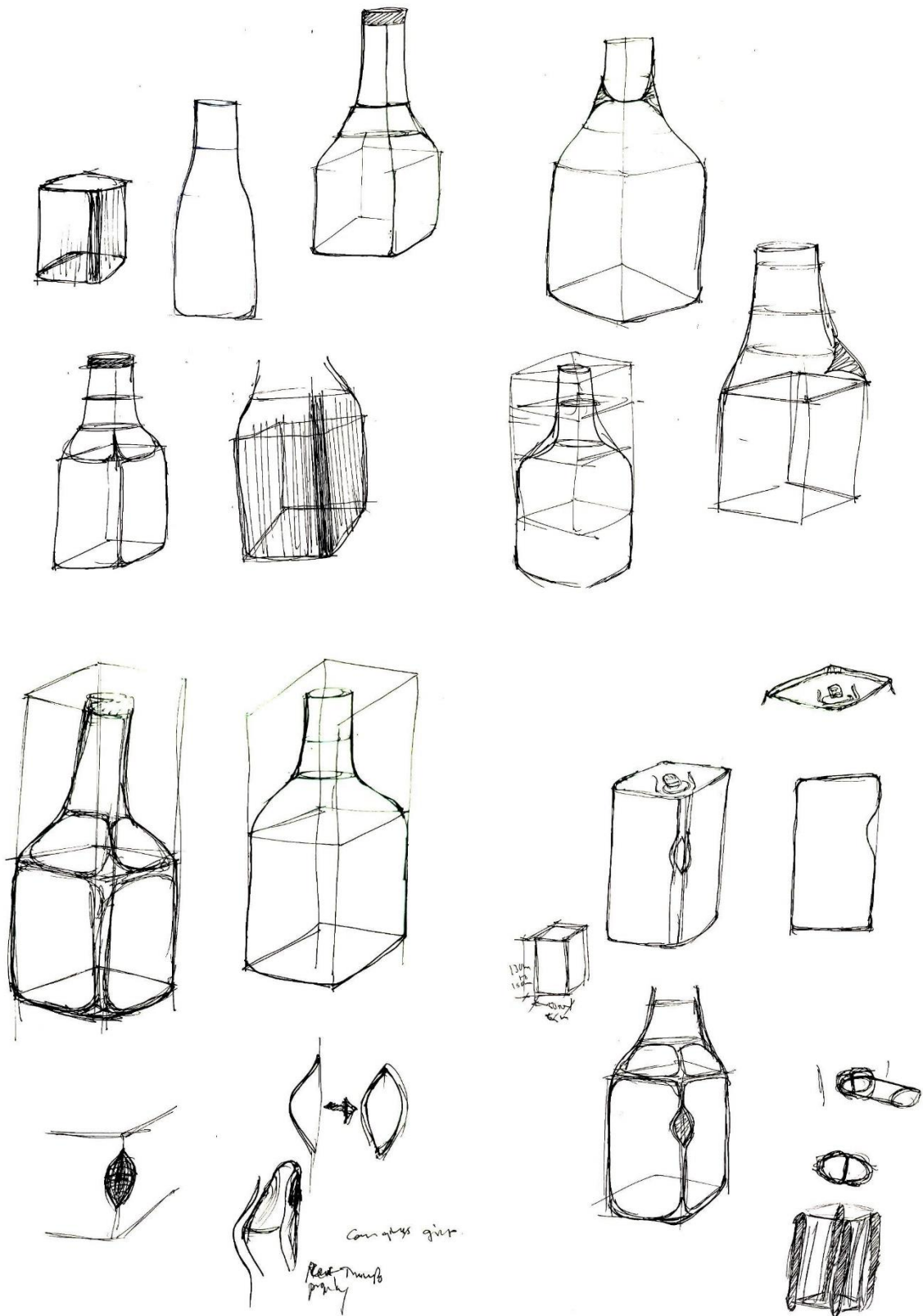
I began with the shape that Artos utilized for their initial product, which was goli soda, but in the end, I came up with a cuboid-like shape that featured a groove that was modelled after the groove on a soda bottle. The first product that Artos ever produced was the goli soda bottle. Its primary purpose is to provide a more secure grasp for the hand that is holding it, hence the aesthetic value of the design is secondary to this function.

3.8.2 SKETCHING









Traditionally, cola drinks are prepared by first serving the soda and cola syrup on the side, and then combining them in the appropriate amounts in the glass.

This concept was conceived with the intention of providing the user with a great experience. Because this design has many components, such as soda and cola, the user is required to combine the components before they can be consumed.



3.9 3D MODEL



Fig 14

3.10 RENDERS



Fig 15

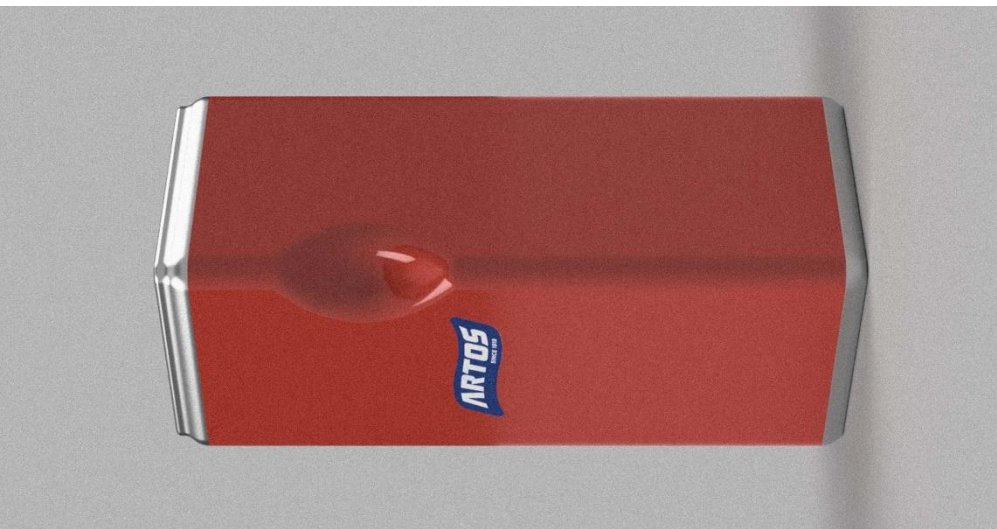
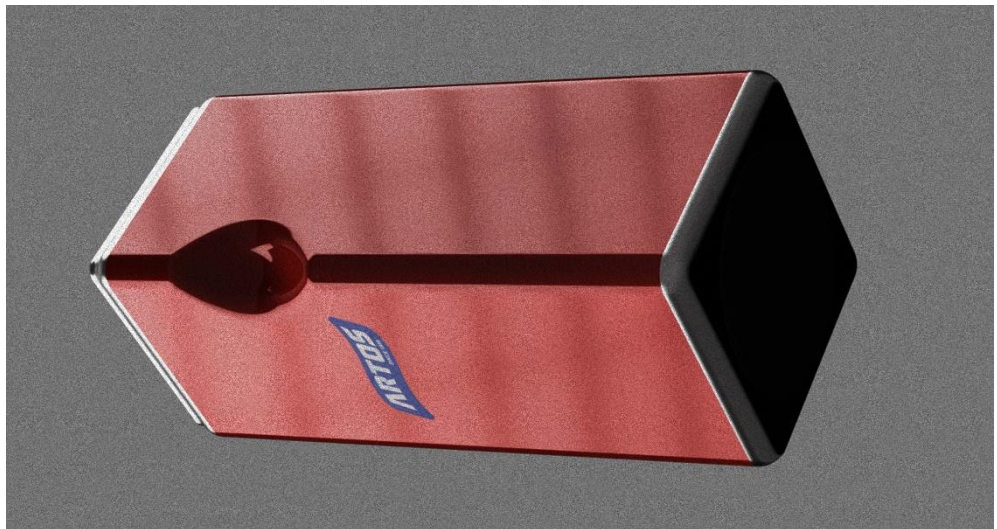
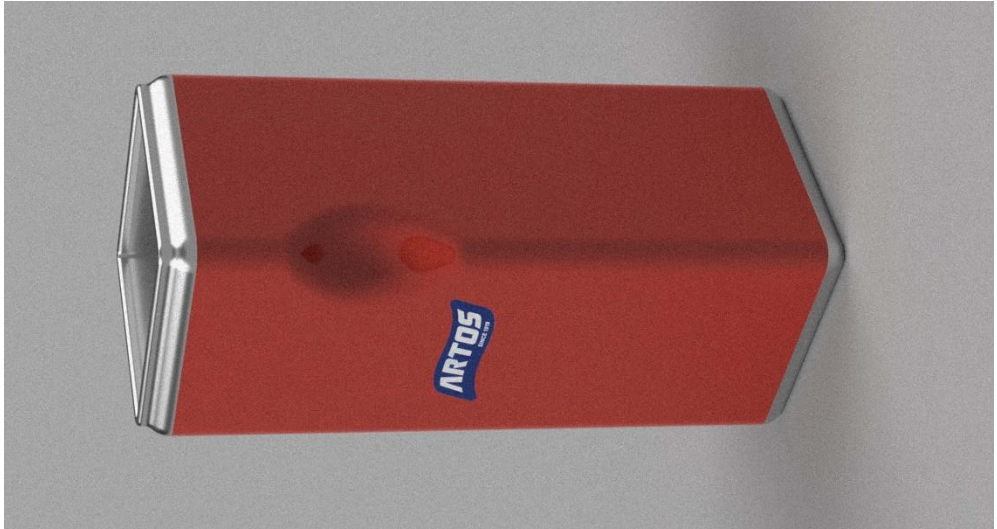


Fig 16



Fig 17

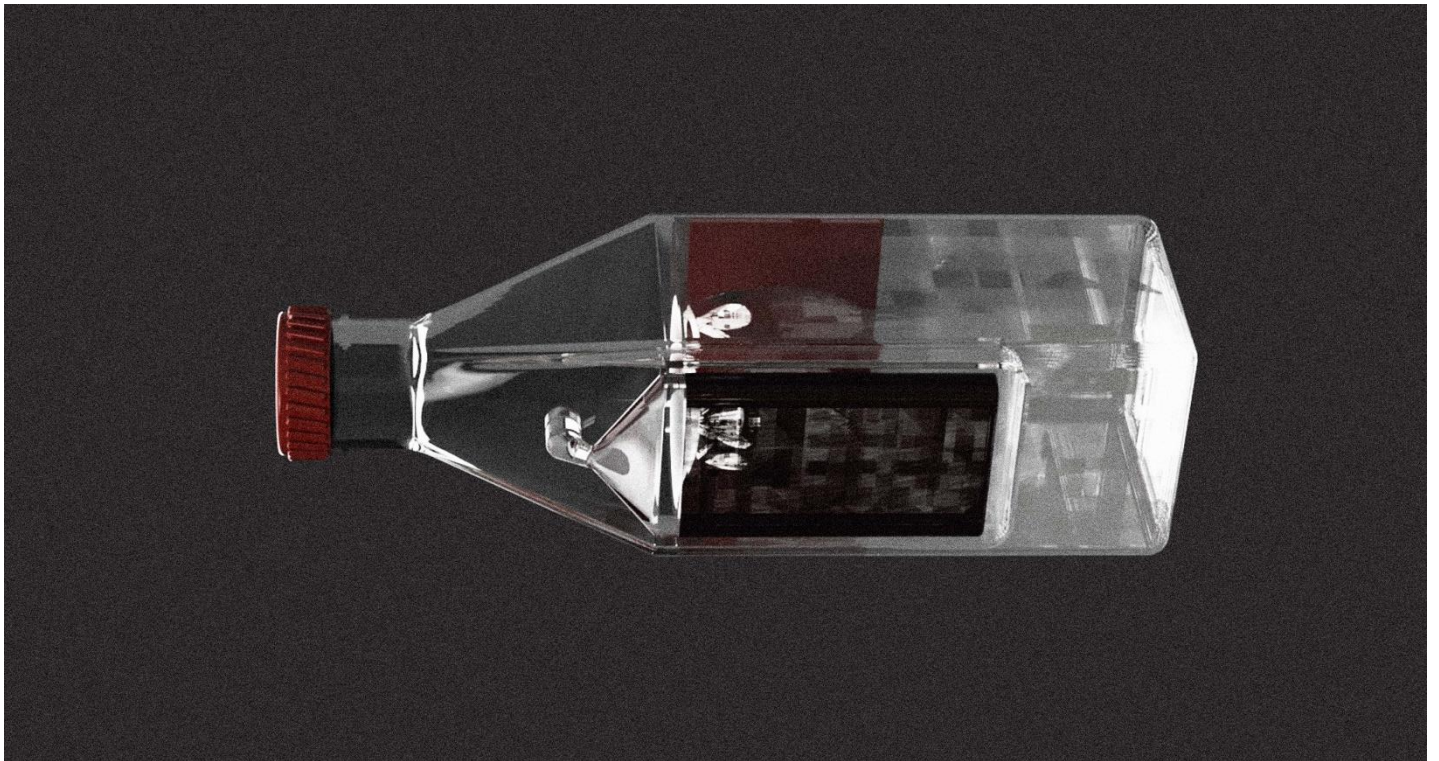
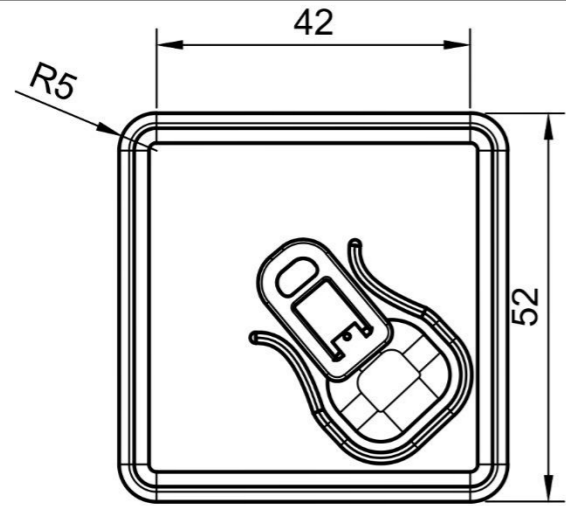


Fig 18

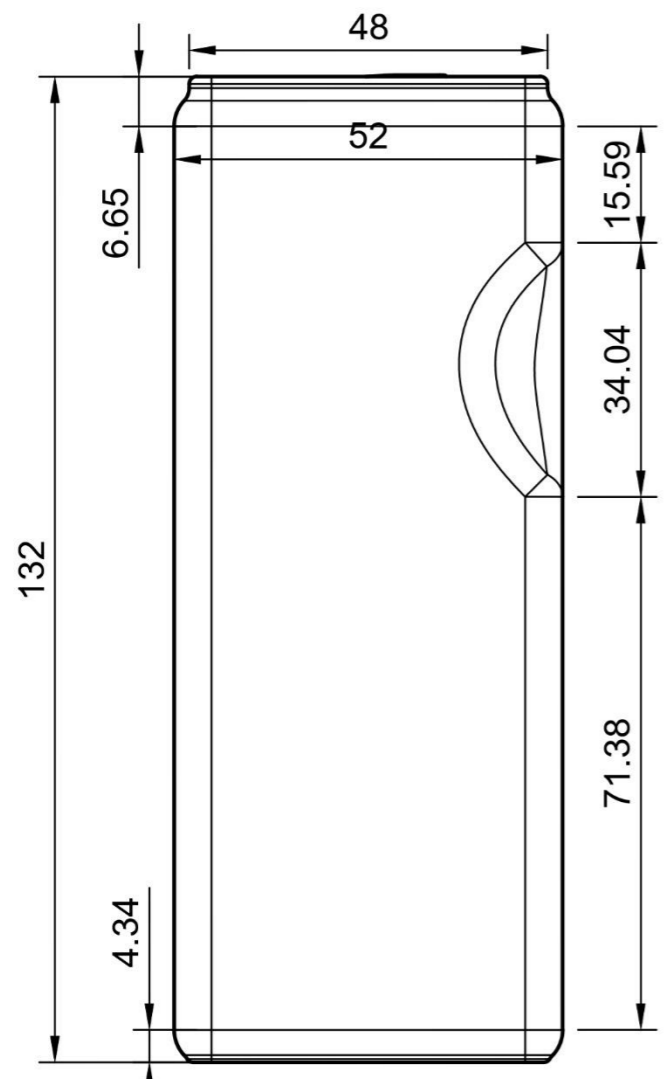
3.11 PROTOTYPE



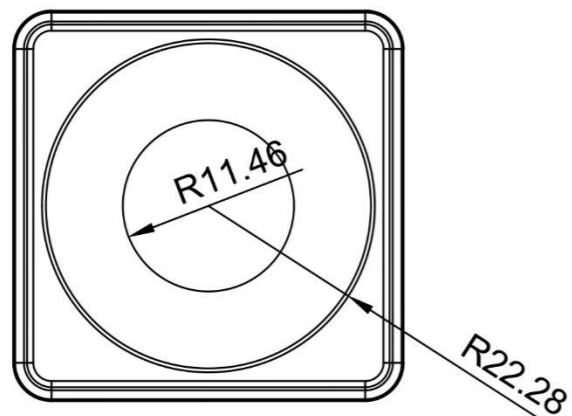
Fig 19



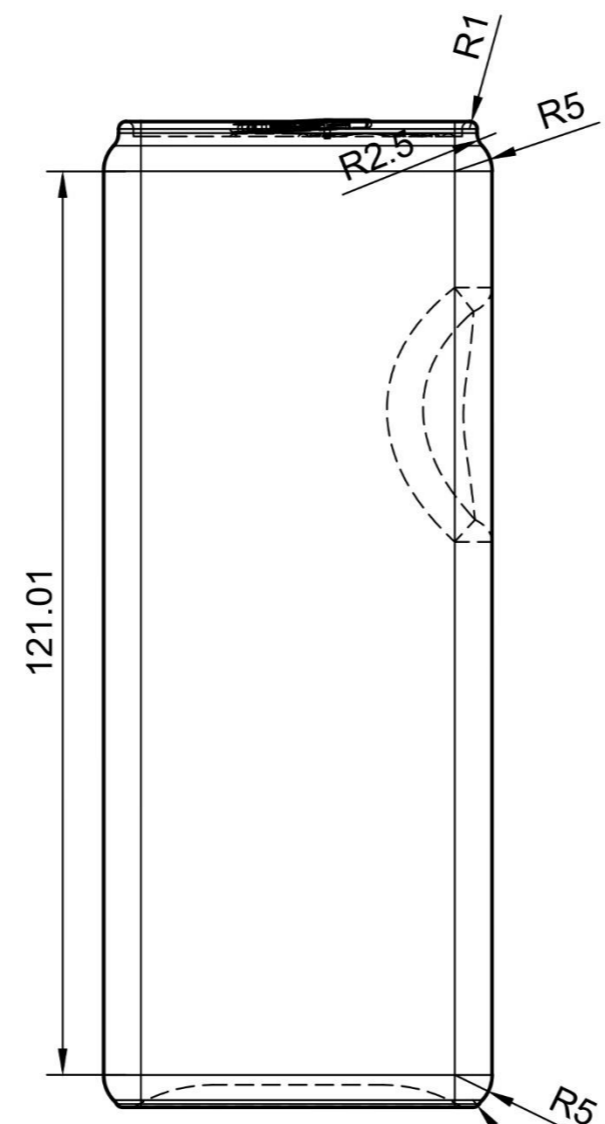
TOP VIWE



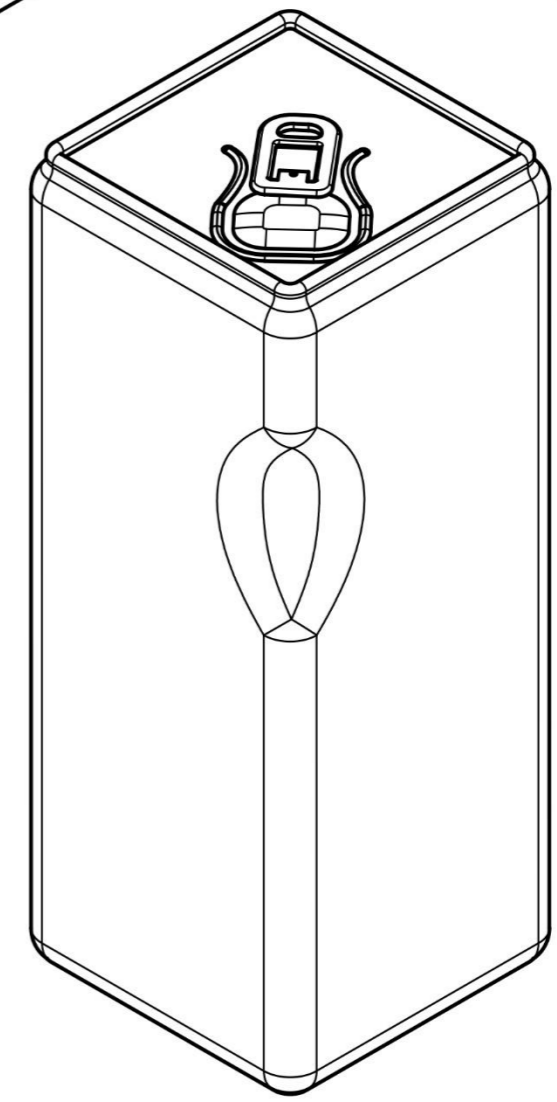
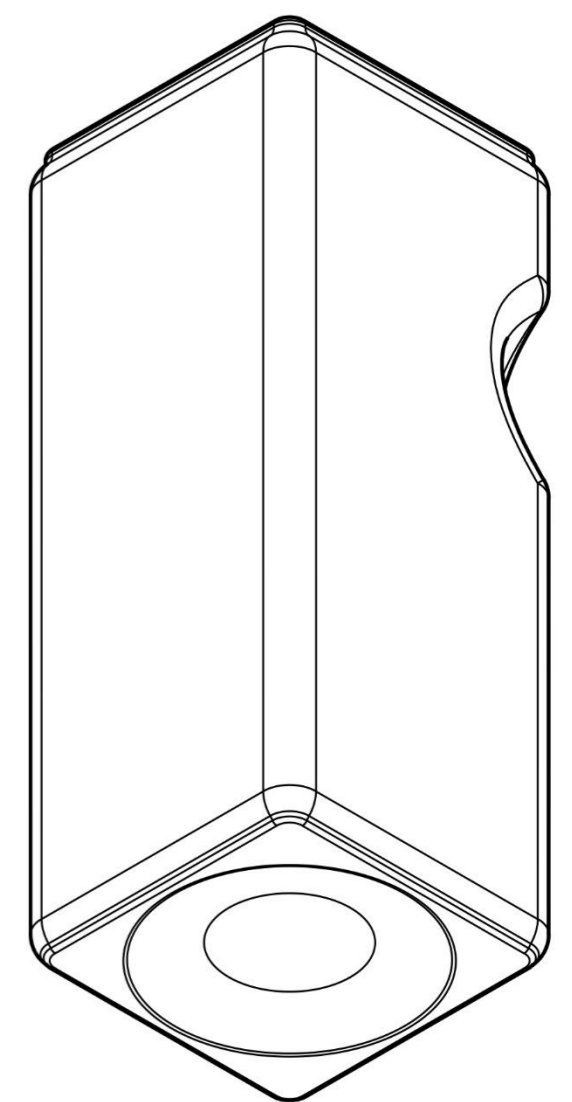
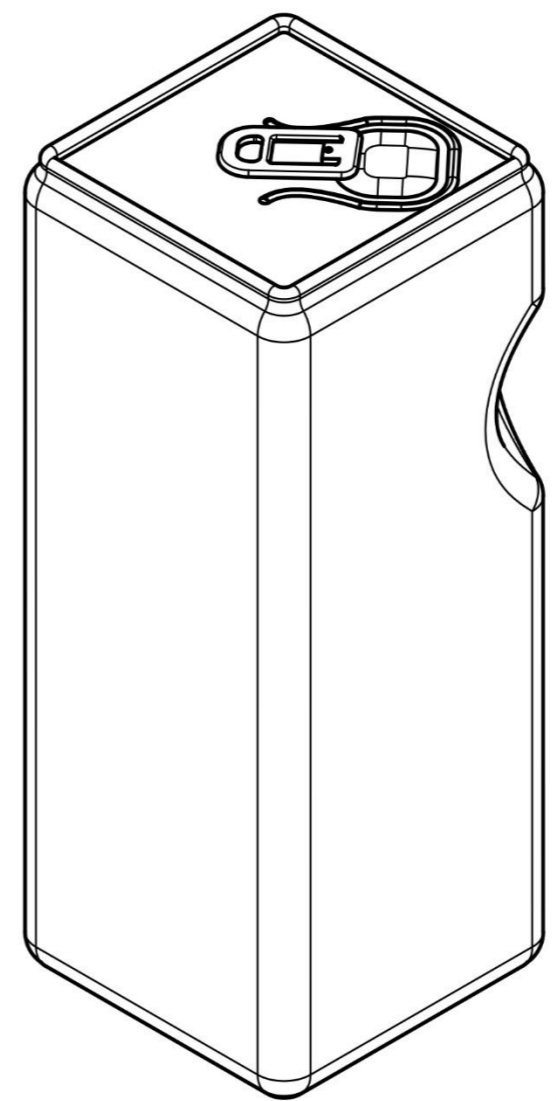
FRONT VIWE



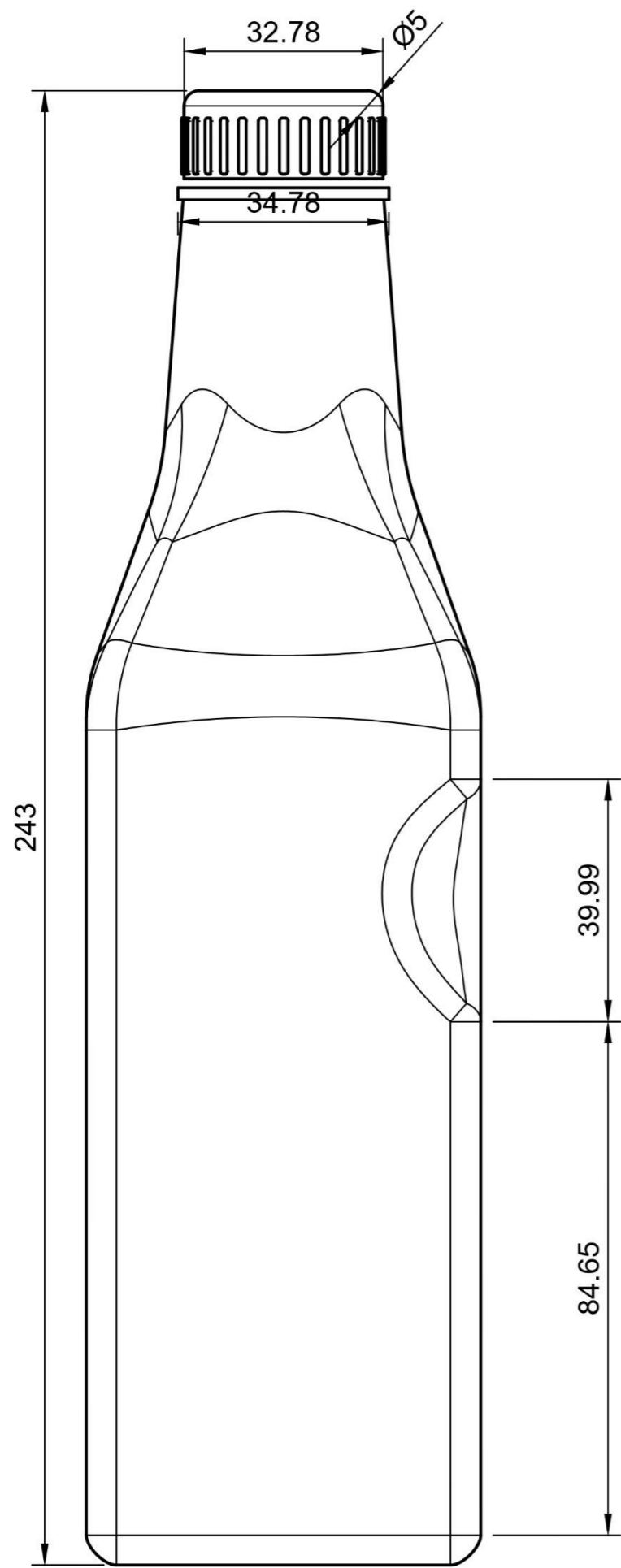
BOTTOM



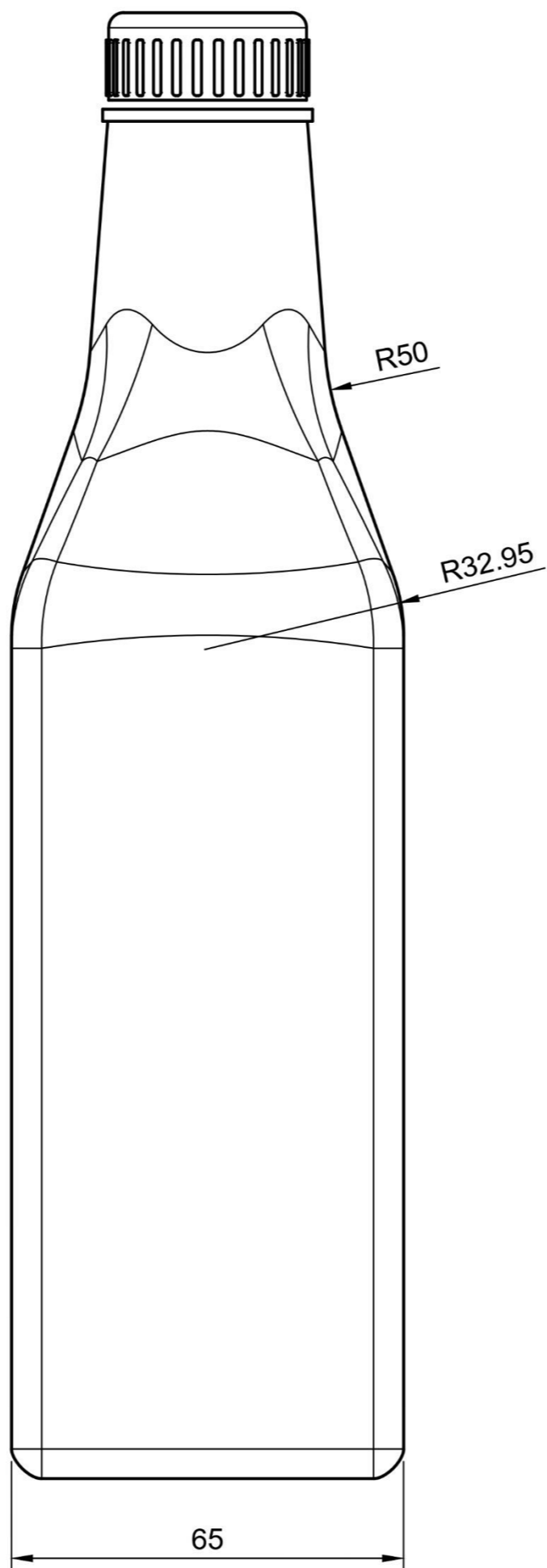
RARE VIWE



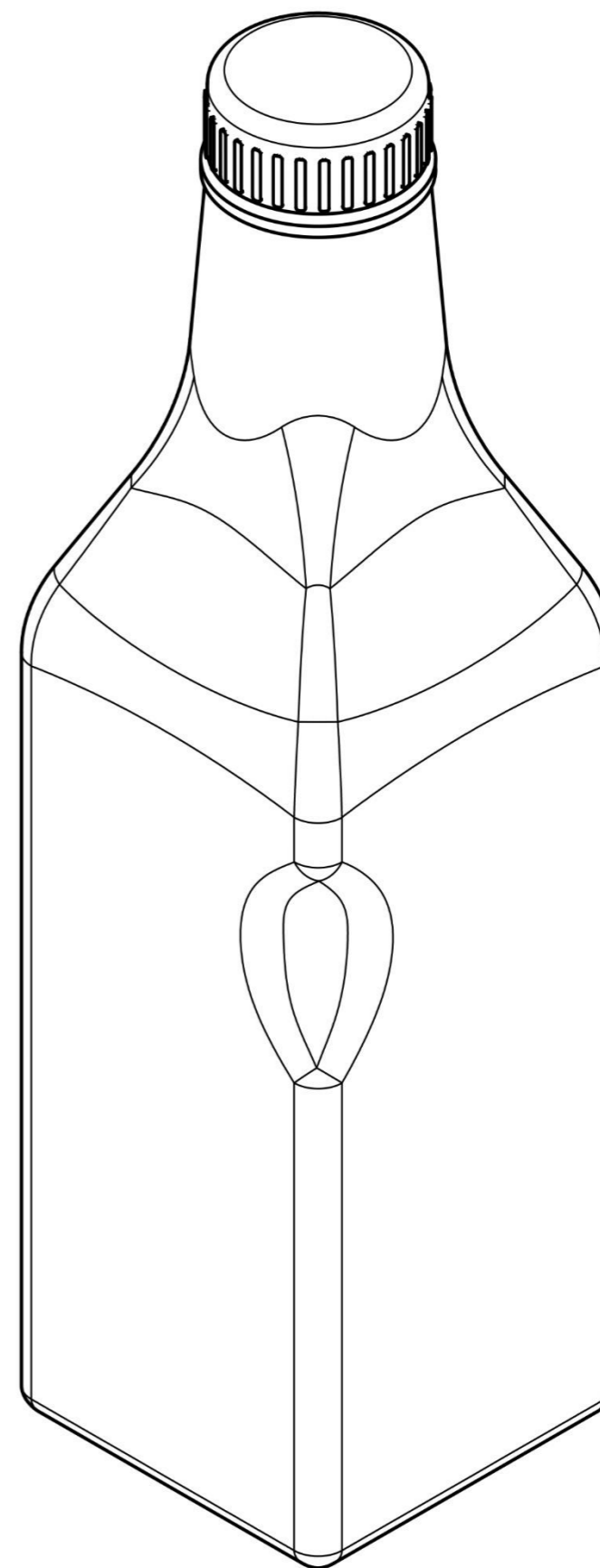
PERSPECTIVES



FRONT VIWE



RARE VIWE



PERSPECTIVE VIWE

3.13 CONCLUSION

In conclusion, the package design for Artos, a firm that specializes in the production of soft drinks, was successfully created via the construction of a bottle and can design in sizes of 500 milliliters and 250 milliliters respectively. The objective of the project was to develop a design that not only drew in buyers but also safeguarded the items contained inside the package and offered a one-of-a-kind experience to the individual who made use of it. The completed product is a streamlined and contemporary design that successfully blends the brand's colours and logo in a manner that is both aesthetically attractive and easily recognizable. The Artos package design project was successful as a whole, and it is anticipated that the project would favorably add to the company's brand awareness as well as sales.

3.14 FUTURE WORK

As for future work, there are a number of different directions that may be investigated in order to make the Artos package design even better. One potential area is the development of graphical package design (*fig 20*). Another possible path to go in would be to integrate more environmentally friendly components in the design of the packaging in order to keep up with the increasing demand for products that are ecologically responsible. In addition, further research may be done to investigate the impact that the format of the packaging has on the decisions and behaviors of customers when it comes to making purchases. To summarise, it would be beneficial to study the idea of building an all-encompassing brand identity design for the Artos brand. This would be done for the brand's benefit. The whole Artos brand would be included into this design, including the brand messaging, the packaging, and the marketing materials. If these aspects of development are emphasized as part of the Artos brand's growth plan, the Artos brand will be able to continue its expansion and maintain its position as a competitive player in a market that is always shifting.

A graphical package design example for feather that may be used as a reference for the ongoing work project.



Fig 20

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