bud

REUSABLE
Made from bioplastic.

DISPOSABLE
Made from paper pulp.

The Bud is a fruit container that will be available in supermarkets in two different materials, a reusable bioplastic based Bud, and a disposable paper pulp based Bud. Once the reusable Bud has been used, it can be washed and reused. Once the disposable Bud has been used it can be thrown out and begin to naturally decompose.

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PROBLEM:

The problem I tackled is food packaging. There is too much nondegradable packaging used to package fruit. Whenever the fruit is sold separately, most supermarkets provide nondegradable plastic bags. All this packaging has no second use and is often thrown away, having a negative effect on our environment.

PROCESS:

I created a questionnaire asking what changes customers wanted to see in fruit packaging. From my answers it was clear that the customers wanted less nondegradable plastics used and for the packaging to have more than one use and could be brought back to the store to reuse. I began sketching and coming up with a look for this fruit container. I then began looking into what material would be used in my design.

SOLUTION:

I created the Bud, a container that replaces packaging in the fruit section. Fruit would be sold individually and be stored in the bud. There are two available Buds, a reusable Bud made from bioplastic which acts as a fruit bowl, and a disposable, biodegradable Bud made from paper pulp.

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MY PROPOSAL:

My proposal is to remove all packaging and nondegradable plastics from the fruit sections in supermarkets. I believe that supermarkets should start selling fruit individually again, as this was the way fruit was sold originally. Most fruits are packaged just to keep them in bundles so they can be sold in multiples. The material used in this packaging is mainly plastic which is nondegradable. This packaging also has no second use and is often thrown away once used.

If supermarkets were to start selling fruit individually again, I believe it would have many positive effects. As the fruit is no longer bundled it would reduce the amount of fruit being thrown out from expiring, not being eaten or being damaged. For example, in many supermarkets when one piece of fruit in a bundle is damaged or expired, the store will usually throw out the bundle which contains perfectly fine fruit, but because one is damaged/expired it isn't appealing to the customers. If the fruit was sold individually it would also reduce the amount of packaging used. Most fruits are packaged in nondegradable plastic, netting and foam. This packaging is thrown away once the fruit has been eaten as it has no second use.

Because of all these problems, I believe my design, the Bud, would be a perfect replacement for packaging used in supermarkets. As previously mentioned, I believe supermarkets should sell fruit individually and have Buds available at the front of the fruit aisle. There would be two different Buds available, the first, a reusable Bud made from biodegradable bioplastic that will act as a fruit bowl. Once all the fruit in the Bud has been eaten it can be washed out and brought to the store to be reused. This Bud would be available for £1 in supermarkets. The other Bud available is a disposable Bud made from paper pulp. This Bud is free and would replace plastic bags as it only has one use and can them be disposed. As the disposable Bud is made from paper pulp it will naturally degrade away, unlike the current plastic bags available in the fruit aisles in supermarkets.

SOCIAL & ENVIRONMENT BENEFIT:

The Bud would have a lot of benefits, socially and for the environment. If the Bud was introduced and fruit was sold individually, it would lead to less fruit being thrown out. If the fruit was sold individually it would eliminate packaging in the fruit industry and reduce the amount of packaging being thrown away, most of which is littered. Since there is no more packaging required for fruit, it would decrease the amount of nondegradable plastics being produced.
In terms of social benefits, since the fruit is no longer being packaged and branded, I believe this would lead to more people beginning to grow fruit and sell it to their local supermarkets. As there is more fruit being produced, more fruit would be sold. The increase of fruit consumption will have a positive effect on peoples nutrition intake and improve their diet.

RESEARCH & INSIGHTS:

When I looked into packaging, I wanted to single it down to a certain food type. I began looking into which food group has the biggest problem in relation to food packaging. After reading an article in The Guardian by Tom Hunt called *'Fruit and veg come in their own natural wrapping. Why do we smother them in plastic?'*, I wanted to look further into the problems in the fruit sector. Many fruits, such as bananas, come in their own protective coat, or skins, and there is no need for them to be packaged. I then looked further into what packaging is used in the fruit industry. Most fruits are packaged in plastic containers and then an outer plastic cover. Netting is usually used to keep bundles of oranges together and foam is also used to protect individually sold fruit.
I then began looking into the way this packaging is disposed of. Most fruit packaging has only one use and is thrown out after the fruit has been eaten. I looked up statistics and found on the Environmental Protection Agencies website that in the year 2016 it was estimated that 990,000 tonnes of packaging waste was recorded. After my research I decided that what I wanted to remove all packaging in the fruit industry and create a container that would replace packaging and plastic bags available in the fruit aisle.

DESIGN THINKING:

When I began creating my design, I knew I wanted create a unique container that could hold a large amount of different varieties of fruit. I began by sketching many different shapes until I found one I was happy with. I looked into shape psychology and found that round and smooth objects triggered positive emotions with users, it was because of this that I wanted the final shape to be rounded. From my research I also found that is it recommended to keep some fruits separated from each other. To solve this I added two separating panels into the design. In terms of the overall shape, I began looking into containers that can be stacked. I altered the final shape so my product could be mass stacked in supermarkets and take up little space.
I also put a lot of thought into the material used in my design. After carrying out my research, I wanted to create a product that was reusable and degradable. In the end what I created was two different products, a reusable container made from bioplastic and a degradable container made from paper pulp.

COMMERCIAL AWARENESS:

The reusable Bud will be available for £1 as they are not expensive to create. This Bud will have a long lifespan. It can also be resold to the store and you will receive 50c. Returned Buds will be properly cleaned and resold or sent away to be recycled and create more Buds. The disposable Buds will be available for free as they are replacing the current option available for collecting loose fruit, plastic bags.
As mentioned previously, the shape of the Bud is commercially based. Thanks to the shape of the Bud it can be mass stacked and will therefore take up only a small section of the supermarket. The Buds would be setup at the front of the fruit aisle and the user would then begin to fill them. They will then weigh the Bud and will be given a receipt of how much their fruit will cost altogether.

EXECUTION:

The Bud is a simple yet effective solution to the problem I have selected, food packaging. I believe that my design could easily be incorporated by many different supermarkets, such as Tesco, Aldi and Lidl. There is a lot of potential in the Bud. I have focused primarily on fruit, but in the future if the Bud takes off it could be tweaked to cater for the vegetable industry aswel. The main reason people will pick up and use the Bud is primarily for its function, but I also believe the smooth, sleek look of the Bud will attract the customers to try out my product.
All that is needed to create the Bud is a shape moulding tool. Once this has and the material, bioplastic and paper pulp, has been acquired, millions of Buds can beging to be produced and sent to supermarkets all over the world.

MAGIC:

I believe the magic within my design, the Bud, is it will get fruit sold like how it used to be. No longer will fruit be concealed away but it will be on full display in supermarkets and more visually appealing. The fruit will be purchased based on its quality and not what company is selling it. As it will be more appealing on the eye I believe more people will start buying fruit. The introduction of more fruit to peoples diets will have a huge positive impact.
Another form of magic within the Bud is the nostalgia of when they were a kid eating fruit. When the fruit is kept in the reusable Bud it will remind them of the fruit bowl they used to have when they were a kid. Because of this nostalgia, I believe more and more people will want to purchase the Bud and have it in their kitchen.

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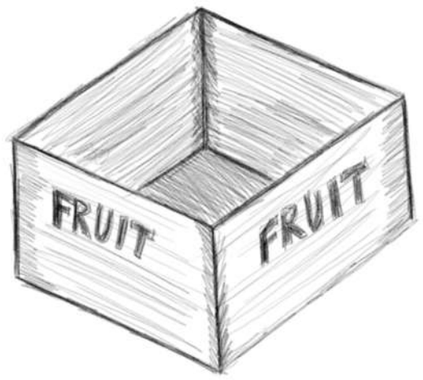

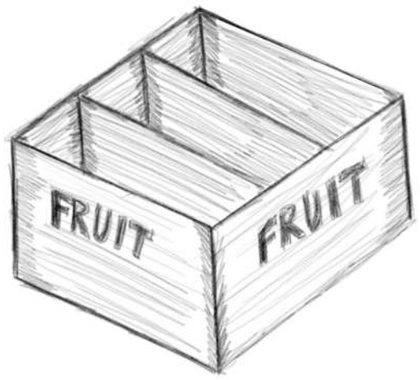

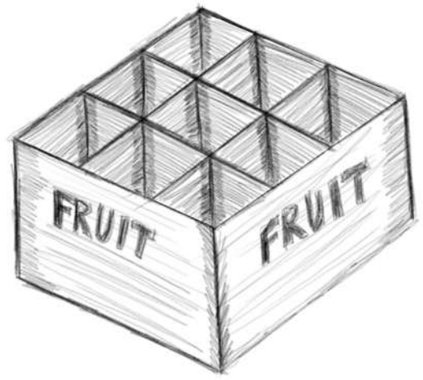

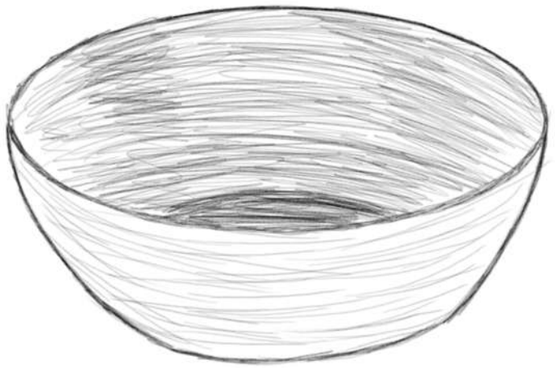

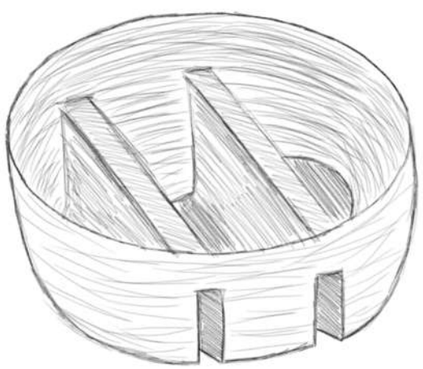

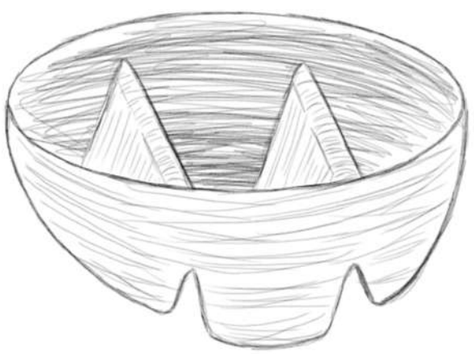

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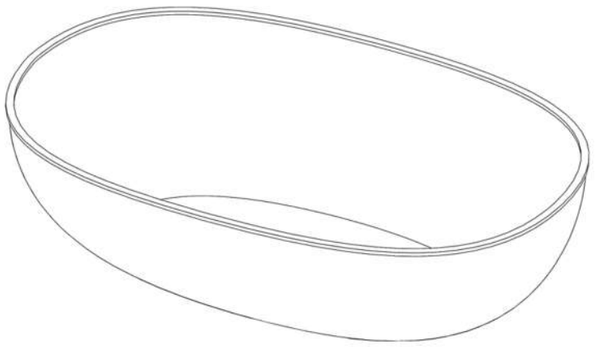
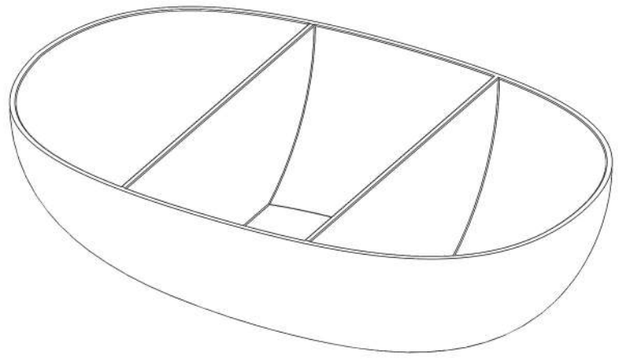
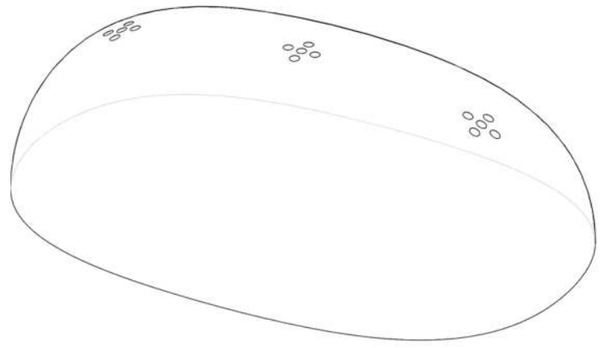
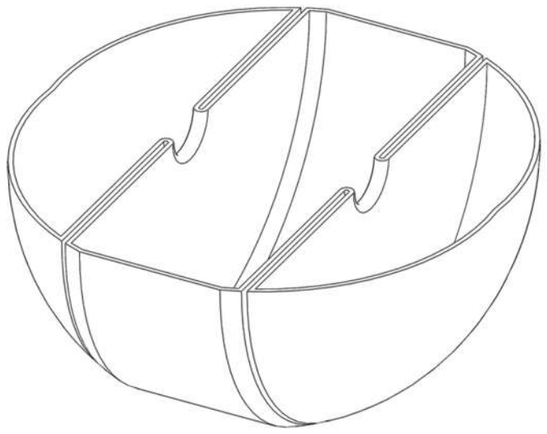
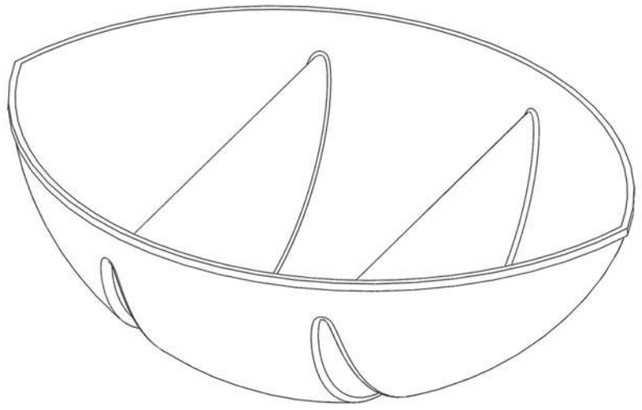
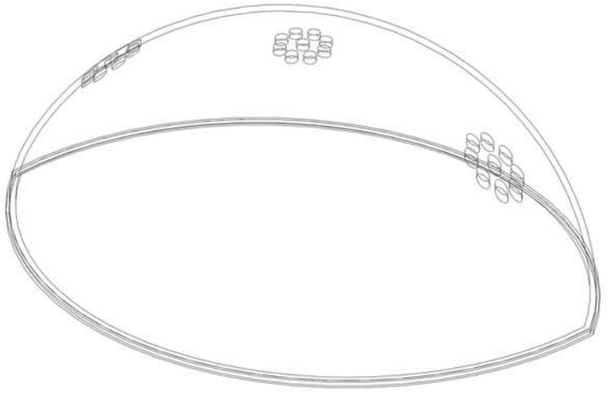




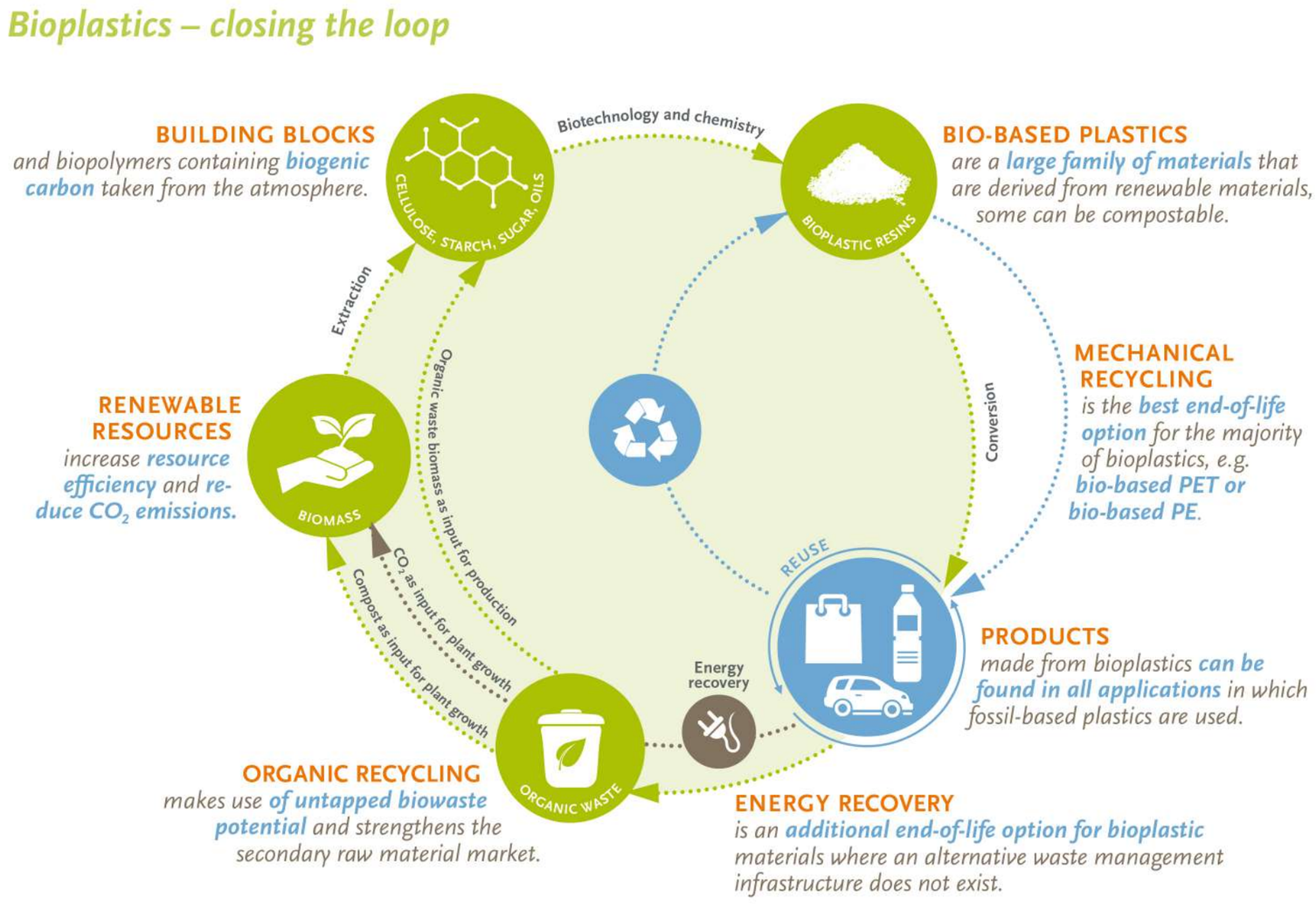








After carrying out research, I decided that the best available material to use in my design was Bioplastic.



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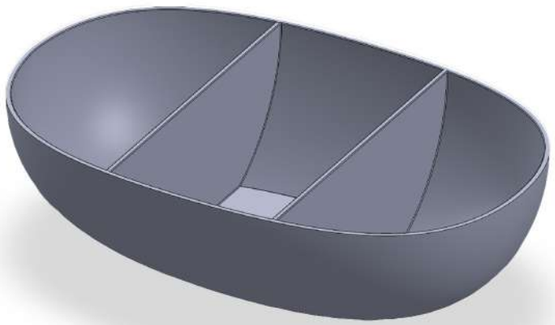
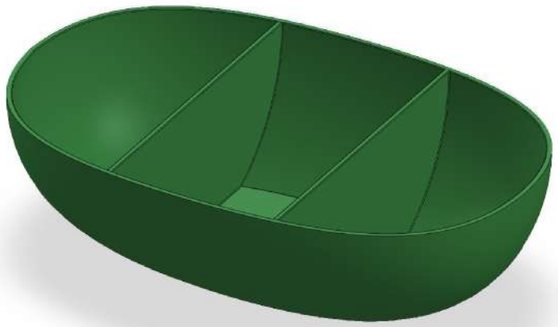
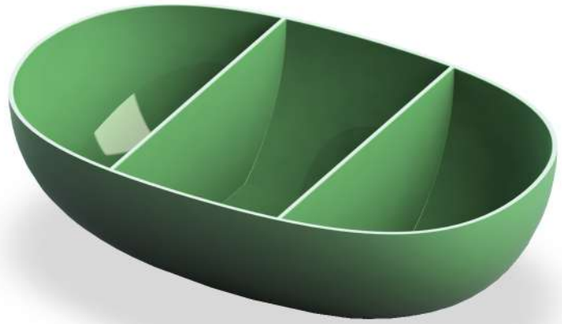
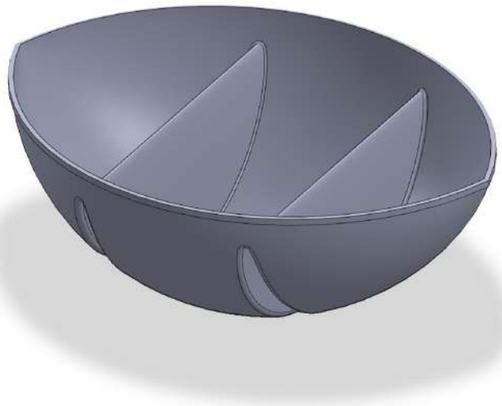
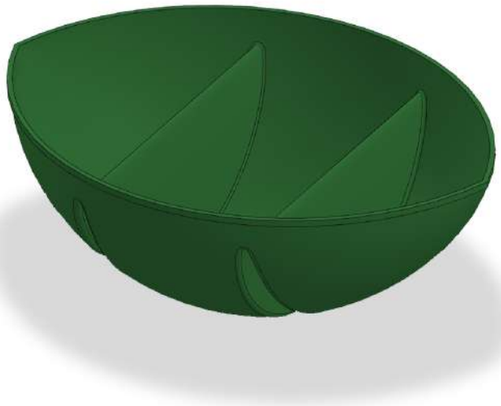
Solidworks Models

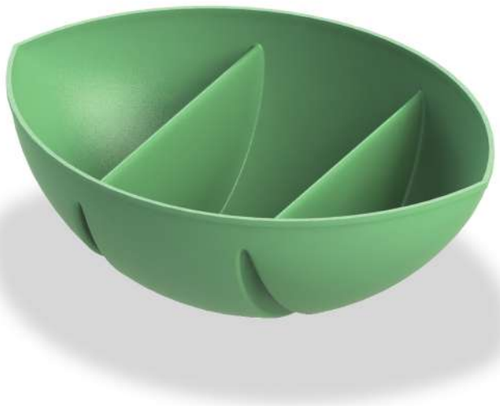


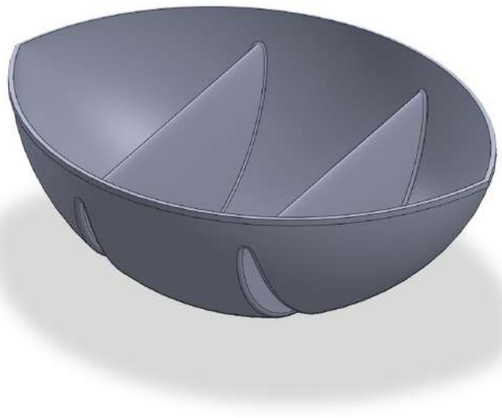












The Bud will be available in the fruit aisle. You can fill it with fruit and then place a plastic top on it to protect the fruit.