



# Challenge 4 The Final Review

**EST-2023** 





# Executive Summary



#### **Product Description**

Cup Boost uses 3D printing to produce environmentally friendly cup holder extenders. We source our filament from a Kiwi-owned company that makes their filaments from 100% recycled materials and manufacture our products through another Kiwi-owned business. This allows us to produce and sell a 100% Kiwi-made product. As we 3D print our Cup Boost it allows us to offer full customisation to our customers, which means personalising it to their requirements

#### **Our Story**

We created this product because we both own large drink bottles and have struggled with where to place them while driving. But also keeping them in reach for hydration. Most people we talked to have experienced some type of spillage. Our product will hold your beloved drink in place to ensure no spillages. We also wanted to keep drivers safe while driving and ensure no loose items roll under their brakes, creating a safe place for their drink bottles allowing the driver to drive with no worries. We have created the Cup Boost - to solve everyday problems.

#### **Our Mission**

Our mission is to create a product that fits all types of bottles and cups into any desired vehicle's cup holders. To solve the problem of drinks spilling and rolling around in vehicles. To reduce the amount of plastic waste by only using environmentally friendly products we offer a complete recycling system.

Our Vision
To create a
sustainable way
to have
hydration on
hand at all times

#### **Our Achievements**

- Selling a total of 34 Cup Boost by August 2023
- Creating a company that is 100% eco-friendly.
- We adjusted our product to meet our customer's Feedback
- Selling our product in four different locations.
  - Placed top 8 for challenge 2 The Pitch
- Sitting in the top 6 at the end of August 2023
- Being awarded a Selwyn District Council Grant of \$500

#### **Our Values**

Sustainability, reducing plastic waste. Keeping it local, locally made materials and local products.

Recyclable, 100% recycled materials & and a chance for customers to do the right thing for the environment with our 3 R system.

Educating our Community about the importance of recycling

# Innovation

#### **Unique Value Proposition**

Cup holder extenders are very much in trend,
Multiple TikTok's went viral for purchasing a
plumbing part, personalising it and using it for
their large drink bottles. This viral trend resulted
in a shortage of essential plumbing
components. The Cup Boost is 3D printed from
100% recycled and environmentally friendly
materials making it unique to other cup holder
extenders on the market.

Our product is marketed at a lower price than competitors after shipping costs, ensuring our product more affordable.



#### **Innovative Business Practices**

Our 3Rs system means that when a customer has damaged or used our Cup Boost we offer them a chance to help our environment by returning their damaged Cup Boost, We send these back to KiwiFil who melt them down and make more filament. When the customers do this we offer them a \$6 discount on their next purchase. This process will ensure that our product won't end up in the landfill.

We promote our business with QR codes that people can scan with their phones to direct them to the information all about our product and about our business. This means that we aren't producing any unnecessary business cards that are later thrown away. When shipping our products we will reuse cardboard boxes from our product shipment and from supermarkets. This ensures our business is upholding our eco-friendly promise.

As our product is 3D printed with rPETG and PLA this means it is set to last meaning it should never break so we can put a **24-month guarantee**. It also means that our product can be re-made hundreds of times.



#### **Product Diversification**

We are growing as a business and the feedback, We have received is that people love our product and love the idea that it is made of 100% recycled materials. They feel better about purchasing it knowing it won't harm the environment but also because they have a way to recycle their Cup Boost.

After creating our initial product, We decided to create two new products. This was to provide our customers with a wider range of options to meet their needs.

The First new product is the 2-in-1 Boost. This has 2 extended cup holders but only takes up one vehicle cup holder. This will only fit into some vehicles as it will need to fit sideways so you can use the other cup holders or it can fit in a back seat cup holder.

Feedback from customers was that they run out of room in their cup holders as they use them for storage for their phones, sunglasses, pens, etc. So we created our second new product, The Storage Boost. The Storage Boost provides extra storage space for phones, sunglasses, pens, etc. The Storage Boost can also hold your McDonald's chips meaning no more chips on the floor of your car!

We have started to look into how we can reduce manufacturing costs. Our Manufacturer Mahi Ta has reached out to Action Plastics to create an injection mould for us to carry on making our Cup Boost at a price we can afford. The owner of Action Plastics offered to take us for a tour around their factory and set up a business meeting. We discussed pricing, materials, time, colour, labels and texture.

It will cost us \$13,958,20 NZD for the mould manufacture. After this initial setup, it will cost us around \$2.607 for 500 units. We would need to sell around 1500 Cup Boosts to break even and anything from there is straight profit. We have to look at this more in the future when our business is financially stable.





2-1 Boost

Storage Boost



#### Insert Packs

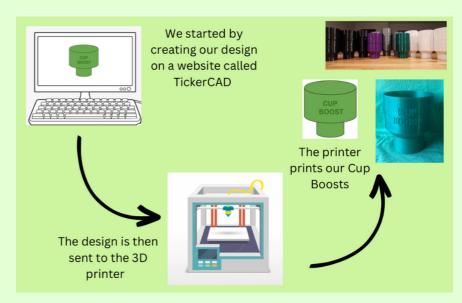
We are starting to look into making inserts people can buy in a pack of 3 or a family pack containing the 3 inserts plus the Boost, This will ensure all sized bottles or cups fit within one Boost. We have decided to look into this because people have commented on the fact that their bottle doesn't really fit into the Boost but also if the Boost is in there they can't hold a smaller bottle or cup. By making this change it gives everybody an opportunity to solve their everyday problems.



# Production

#### **Quality Control**

Our quality control takes the following steps,
To ensure that all our Cup Boosts are the
same standard before sale. We are taking the
following steps in consultation with our
manufacturer Mahi Ta 3D Limited who create
a digital mock-up of our design that is then
sent to the 3D printers to produce a
prototype. All Cup Boosts are then printed to
these exact dimensions. After printing Mahi
Ta will visually inspect, Each Cup Boost for
any defects and remove them from the batch
for recycling. As a second quality measure,
we visually scan each Cup Boost we receive to
ensure they meet our standards before they
are ready for sale.



#### **Successes**

Throughout our production process, we have had some great achievements. The first one is the fact that we cut our cost of production down by sourcing our Filament at a lower price. This had a great impact on our ability to produce an affordable product. Secondly being able to remain an eco-friendly business throughout the whole process.

#### Reflections

Reflecting on our initial vision for our product, everything didn't go quite as we had planned. We realised our product didn't satisfy our customer's needs. Taking their feedback and advice on board we created a product that met their requirements for a smoother, thinner design with a different colour range to select from.

To minimise our manufacturing overheads we had planned on utilising the 3D printing equipment at school. However after a couple of prototypes, we realised we could not produce enough per day, the printer prints 1 Cup Boost per 13 hours and needed someone to watch it, the printer only worked with PLA and we wanted to use rPETG. This wasn't going to work for us. We quickly changed and found a company that had multiple printers and experience in 3D printing. This meant we could produce way more Cup Boost in a short span of time, making this a better solution for us. It also had a major positive effect because we couldn't print all the time as the school used the printer but also because we had classes to attend meaning it slowed the printing process down even more.

# Suppliers

Filament



Manufacturer



# Marekting

#### **Target Market**

We have identified that our target market is women (18+), who own a car and own oversized drink bottles. They care about the environment and make ethical purchases of Eco-Friendly products.

#### **MVP**

Our MVP was originally based on our research of what people were looking for in a cup holder extender. During our initial face-to-face and online surveys. We were able to refine our initial MVP and narrow down our target market. Having the MVP really helped our customers give us feedback on our product and helped us develop a better and unique product. Based on our information we knew we had to change part of your initial MVP to make it look like a sellable product.

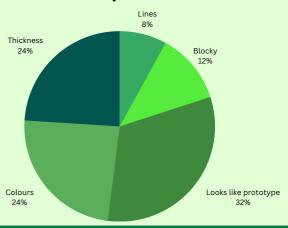
### **Selling Prices**

Short Boost - \$26.99 Tall Boost - \$29.99 Custom - \$34.99 Lettering -\$0.50ea

#### Our MVP



#### Survey answers



#### **Validation**

To validate our product we created a prototype and conducted face-to-face and online surveys, Asking people for their opinions and feedback.

The main feedback from the prototype was that it wasn't smooth enough in it's design, it was too thick, and they would prefer different colours. We took this feedback and created another Prototype made from Mahi Ta 3D Limited. This company that has made all our products being sold today We took this prototype around to the same people and the feedback we recived was great. They also loved that we had created a product based on our customers and what their want's and needs are.

We created another survey similar to the initial face-to-face interactions. We initially only talked to people who were in our target market but we wanted to see if there was a market outside our initial target market. We talked to males about it and although they liked our they said they probably wouldn't purchase one. Based on This feedback, we knew there was a market for our product and we found our target market. We also found out where they would want to purchase the Cup Boost from.

# Promotional Strategies

#### **Social Media**

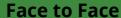
We have been posting regularly on Instagram and Facebook, Updating our followers on what is happening in our business. We make use of keeping our information simple and straight to the point. Our Facebook has worked far better than Instagram, as it reaches our target audience. Facebook also allows us to post on multiple groups and community pages. It helped promote our product to a wider audience and has resulted in sales and great feedback.



#### **Cross Promotion**

Mahi Ta and KiwiFil have promoted our business on their facebook pages, And this has increased our followers and this has resulted in more sales. This is a great way for our business to expand and get known by more businesses and social media users.

Exposure to customer pools of existing businesses.



We have visited businesses and spoken with owners face-to-face. This is a great opportunity for us to tell them exactly what we are doing and to show them what our product is. This has worked really well and has enabled us to sell our product in these businesses such as the BP West Melton, CUT Clothing and Fat Beagle.



#### **Posters**

We created an eye-catching and user-friendly poster to show case our product and to help drive our sales. These posters have been place on notice boards, At petrol stations and car service stations. This has allowed us to gain more followers and gain more business awareness outside our initial social bubble.







#### **Email Marketing**

Email marketing has been a quick and easy way to get our information out to multiple businesses. We have sent over 30 emails to businesses asking if they would be interested in purchasing our product for their business as we can custom-make it for them. We have also been able to take orders through emails and have been a place to connect with customers.

#### Reflections

We had a very successful year promoting Cup Boost and our products. Without good marketing and promotion, we would not have grown so much. Our best promotional strategy has been Facebook as it allowed our target market to follow our journey, connect and reach out when needed. Posting on group pages has expanded our business as it has allowed our products to reach people outside our initial social bubble. Cross-promotion proved to be innovative and successful. This worked really well as it meant outside people got an insight into what our business was doing and Generated more customers.

Posters worked well for us as we Included our Instagram QR code and contact details. It meant we could interact with potential customers without being there. We gained more followers after putting these up and a couple of emails requesting purchasing a Cup Boost.

**Tall Boost** we forecast selling for 18 units. Our actual sales to date are 22 Tall Boosts



# Sales

**Short Boost** we forecast selling for 18 units. Our actual sales to date are 19
Short Boosts



Custom Boost we forecasted for 14 units. Our actually sales to date are 5 Custom Boosts.



#### **Unit Sales Reflection**

Indirect sales have been our most successful channel, Where we gained the most awareness and sold the most units. We realised that petrol stations will be our best sales location as they have hundreds of customers walk through every single day. People like to read things and look around when waiting for their coffees meaning our product will stand out and attract customers. From the conversations we have had with other petrol stations, they are very interested in our product, Our goal is to get the Cup Boost into more petrol stations Nationwide.

We have emailed multiple businesses inquiring about either selling our product in their business or Custommaking the Cup Boost to suit their businesses and buy in bulk. This would have a major impact on our business and crete a wholesale market for our products.



#### **Indirect Sales**

This has been our most successful and least successful sales channel. It has been our most successful as we have been selling at the BP West Melton since 16th June and have sold a total of 10 Cup Boosts. It has also been our least successful because we have been selling at the CUT Clothing store in West Melton since 13th July and have only sold one to the owner. We believe this is due to the type of customer that they are looking for and the customer's mindset when they enter into a store. We looked closer into this and found that when people go into a store they go in for a particular reason, At the BP people purchase Petrol, coffee Etc and often wait in line. They are driving with a Cupholder have the time to look around and are more likely to align our product with their reason for shopping at the BP.

#### **Business to Business**

Business to Business sales have been challenging, We have had one business contact us about wholesale and purchase our product in bulk to sell through her store. We have emailed over 30 businesses and met face-to-face with the manager or owner to show them our products. Wholesale would be a major milestone our business.

#### YES Market

On Sunday 13th August we attended the YES Market at the Hack Circle in the city centre. This was a great opportunity and experience for us to get out there and meet customers face to face-instead of over a device. This was a unique sales channel but it really boosted our businesses and gained positive feedback on our product. We had a successful day with a total of 5 tall Boosts being sold. We got to interact with our customers walk them through our business and get to tell our stories.

# Financial Report

#### Income Statement

	Budgeted	Actual	Variance
Revenue			
Sales of Cup Boost	\$3,118.96	\$1,396.67	\$1,722.29
Less: Cost of Goods Sold	\$1,958.80	\$851.52	\$1,107.28
Gross Profit	\$1,160.16	\$545.15	\$615.01
Plus: other revenue			
Shares			
Grants	\$500.00	\$500.00	\$0.00
Gross Profit plus other revenue	\$1,660.16	\$1,045.15	\$615.01
Less: Expenses			
Prototype	\$10.00	\$10.00	\$0.00
Shipping	\$7.00	\$7.00	\$0.00
Custom Design	\$77.00	\$77.00	\$0.00
Travel	\$28.00	\$28.00	\$0.00
Stationary	\$43.39	\$43.39	\$0.00
Uniforms	\$87.66	\$87.66	\$0.00
Brochures/Advertising	\$63.24	\$63.24	\$0.00
Photographer	\$150.00	\$150.00	\$0.00
Total Expenses	\$466.29	\$466.29	\$0.00
Net Profit before tax	\$1,193.87	\$578.86	\$399.01
less taxation (25%)	\$298.47	\$144.72	\$153.75
Net profit after tax	\$895.40	\$434.15	\$461.25

#### **Profit Reflection**

We are proud to say that we made a profit on our products, our Tall Boost sold 22 and our Short Boost sold 19. Unfortunately, we only sold 5 Custom Boosts. We believe Customers would rather have something now instead of waiting.

	Budgeted %	Actual %	Variance %
Gross profit %	37.2%	39.00%	-1.80%
Net Profit %	38.3%	41.40%	-3.10%

#### Cashflow Statement Reflection

Our closing bank account before tax is \$761.44 which is \$615.01 less than what we had budgeted for. The difference isn't too big and we are very proud of how we have done as a business during the year.

The cash payments are very similar with a difference of \$1,107.28 between the budget and what we actually spent.

#### Income Statement Reflection

Actual income from sales is lower than we had budgeted for as it has taken us longer than anticipated to refine our product and decide on the best methods of selling the product. The product that has brought in the most sales is the Tall Boost with the most popular colour being the Silver Grey colour. The Custom Boosts have not sold well as it was harder for customers to understand what they could purchase but also wanted to buy a product on the day and not have to wait for it to be made and delivered. Reflecting on these results were able to see where we should focus on in the future of our sales.





#### CashFlow Statement

	Budgeted	Actual	Variance
Revenue			
Sales of Cup Boost	\$3,118.96	\$1,396.67	\$1,722.29
Share Capital	\$182.58	\$182.58	\$0.00
Fundraising			
Grants	\$500.00	\$500.00	\$0.00
Total Receipts	\$3,801.54	\$2,079.25	\$1,722.29
Cash Payments			
Filament	\$526.80	\$216	\$310.80
Printing	\$1,432.00	\$635.52	\$796.48
Prototype	\$10.00	\$10.00	\$0.00
Shipping	\$7.00	\$7.00	\$0.00
Custom design	\$77.00	\$77.00	\$0.00
Travel	\$28.00	\$28.00	\$0.00
Stationary	\$43.39	\$43.39	\$0.00
Uniforms	\$87.66	\$87.66	\$0.00
Brochures/Advertising	\$63.24	\$63.24	\$0.00
Photographer	\$150.00	\$150.00	\$0.00
Total Payments	\$2,425.09	\$1,317.81	\$1,107.28
Surplus of cash	\$2,425.09	\$761.44	\$1,663.35
Plus: opening bank account	\$0.00	\$0.00	\$0.00
Closing Bank Account	\$1,376.45	\$761.44	\$615.01

# Sustainability



# Environmental Outcomes

**Goal**: To reduce the unwanted plastic waste on our planet.

**Achievements**: Using 100% recycled materials and being a 100% eco-friendly business that is sustainable.



# Cultural Outcomes

**Goal**: Kaitiakitanga - Protecting our Planet

Achievements: Educating our generation about Kaitiakitanga. This means that Future generations will have a major impact on protecting our planet. We have implemented these factors into our business and put it into society.



## Social Outcomes

**Goal**: To give people the chance to give back to the environment

We want to provide people with the chance to give to the environment by not throwing plastic waste into landfills or the ground. By purchasing our products and completing our 3RS system at the end of your Cup Boost life you are doing what you can to help the planet and help reduce unwanted plastic waste.

Achievements: 3RS System

With our 3RS system we receive old or broken Cup Boosts, send them to KiwiFil and they melt them down and make them into more filament for us to use. The customer is rewarded with a \$6 discount towards their next purchase. This encourages people to do the right thing.

#### **Economic Outcomes**

**Goal**: To be conscious about where our grant is being spent and how we utilise our grant ensuring we don't have to use lots of our own money.

Achievements: We are very proud to say we only used \$282.58 of our money and used our \$500 grant wisely and only spent it when we needed to purchase a product. We have produced 66 Cup boosts using the grant.







# The Best Moments of Cup Boost





