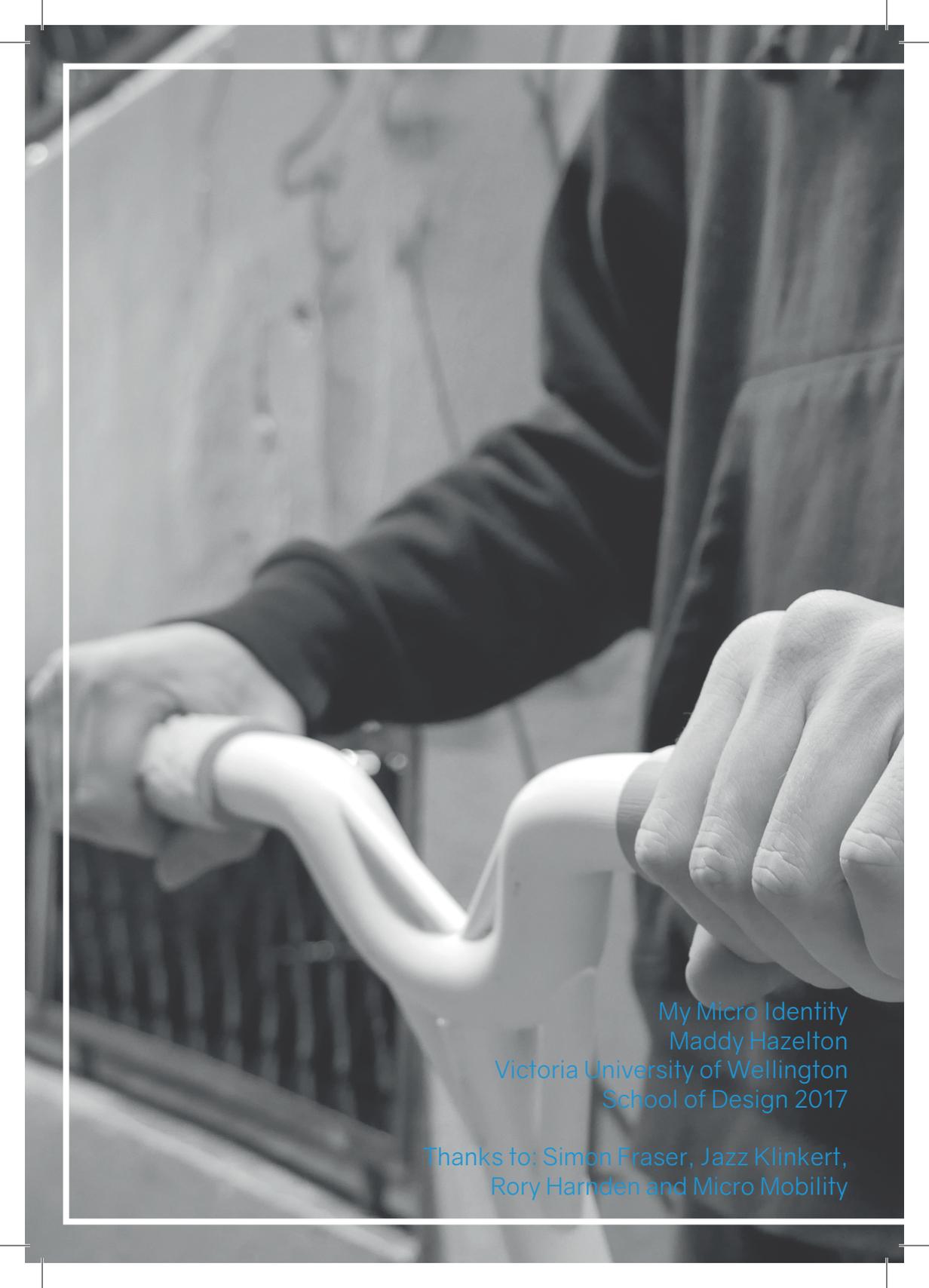




My Micro Identity
Maddy Hazelton



My Micro Identity
Maddy Hazelton
Victoria University of Wellington
School of Design 2017

Thanks to: Simon Fraser, Jazz Klinkert,
Rory Harnden and Micro Mobility

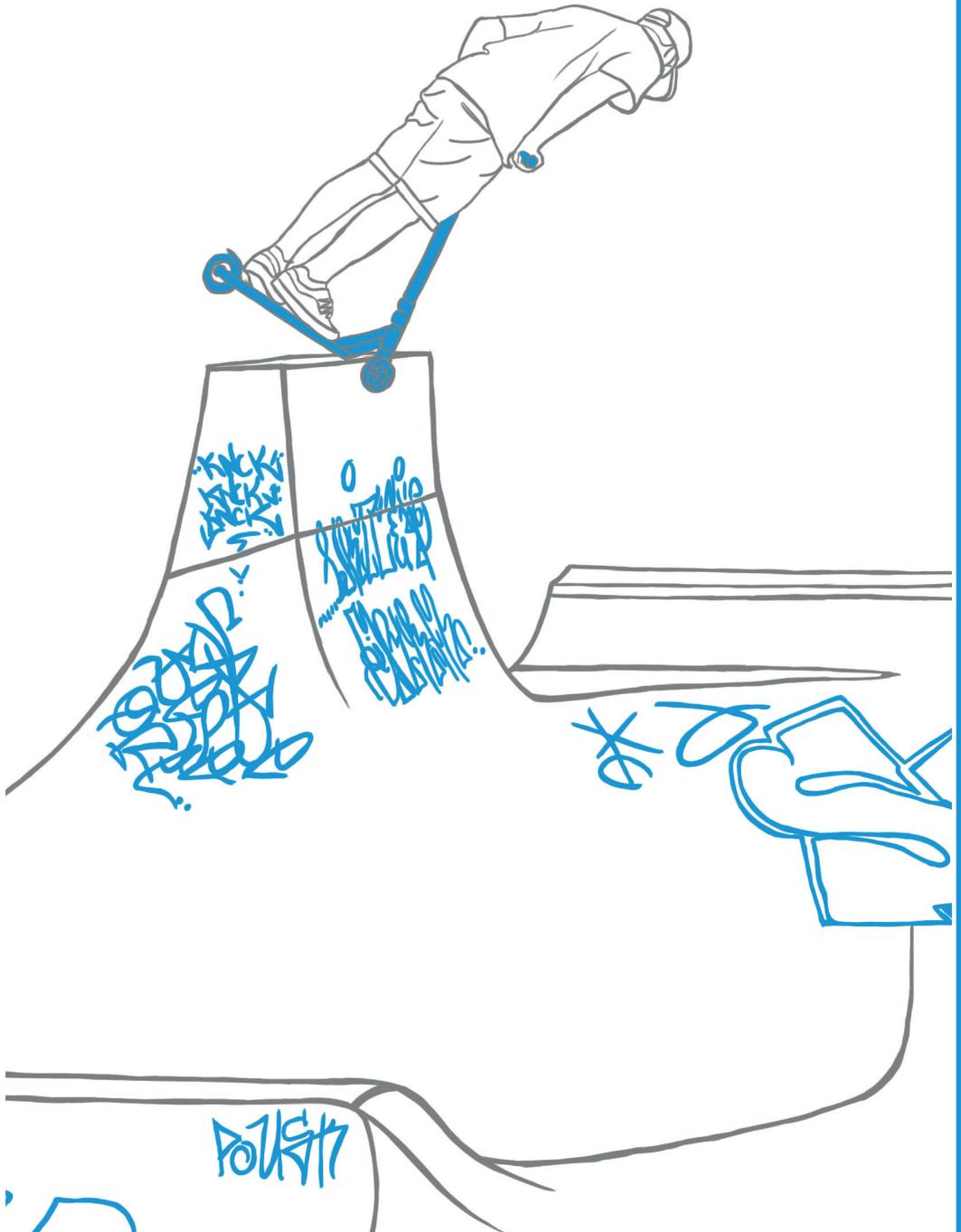
CONTENTS

- 4 Value Proposition
- 6 History
- 8-9 Scooter design and Context
- 10 Process and Development
- 12 Concept
- 14 Ergonomics
- 16 Technology
- 18 Selection
- 19 “Blank Canvas”
- 20 Objects

VALUE PROPOSITION

When examining the Micro brand, I noticed that Micro have targeted the middle-aged and working people extremely well through their range of scooters, E-scooters, and micro luggage bag. One of the most popular uses for scooters is stunt scooting. Although Micro has a good freestyle range, I think there is a very good opportunity to target a younger audience. The

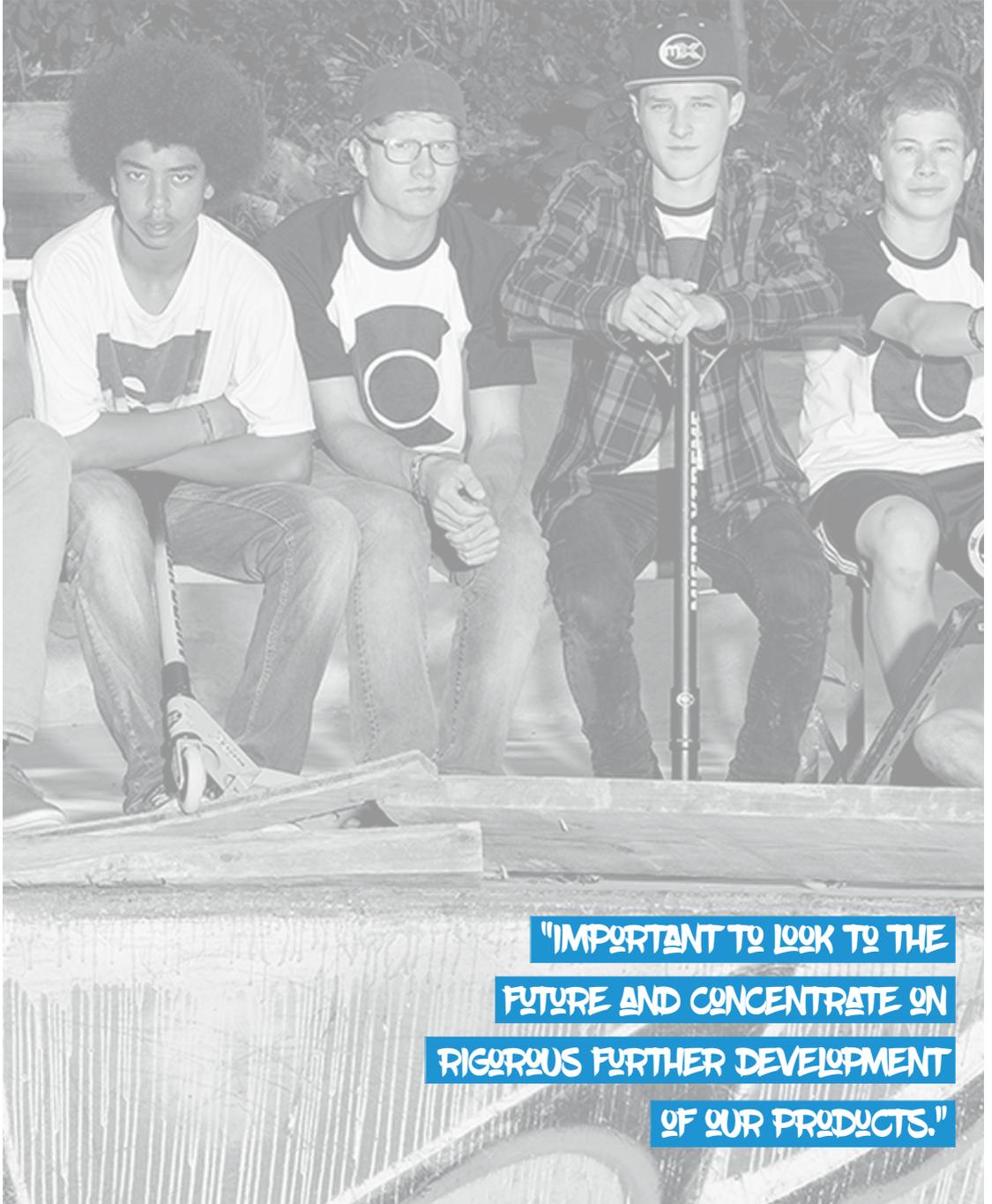
freestyle range has the potential to appeal to a younger skating audience who choose to use the products for leisure and high performance. My aim for this project was to create a more customisable, personal, and fun way of interacting and purchasing Micro's freestyle range of scooters.



HISTORY

In 1996, Micro introduced folding scooters to the market. They turned into an international craze, providing a popular commuter tool in crowded cities such as Tokyo, as well as toys for children. Their lightweight frames made them perfect for jumps, so it wasn't long before extreme skaters started to use them for tricks. To fill the need for stronger scooters to withstand bigger impacts from more extreme stunts, the 'pro' scooter market was born. Freestyle scooters have been engineered over time to take a beating at the skatepark, and still live to tell the tale. Crucial changes to design mark the difference between a toy and a piece of extreme sports equipment.





**"IMPORTANT TO LOOK TO THE
FUTURE AND CONCENTRATE ON
RIGOROUS FURTHER DEVELOPMENT
OF OUR PRODUCTS."**



SCOOTER DESIGN AND CONTEXT

A stunt scooter is designed with scooter/skatepark riding in mind. The hard landing tricks and stunts mean that the components in a freestyle scooter are often reinforced. Freestyle scooters are often landed upon from heights or spun through the air, it is important that the scooter provides the user with the confidence that it is not going to collapse, crack or fall apart. Wheels on a stunt scooter are often metalcore rather than plastic to help withstand impact. The deck of a scooter is



made from one piece to withstand the impact of landing. The handlebars do not fold down either, as the hinge provides a weak joint. Instead, the handlebars are welded together for strength. Compression systems and headsets are important to ensure bars spin freely and decks can be concave to provide extra control.

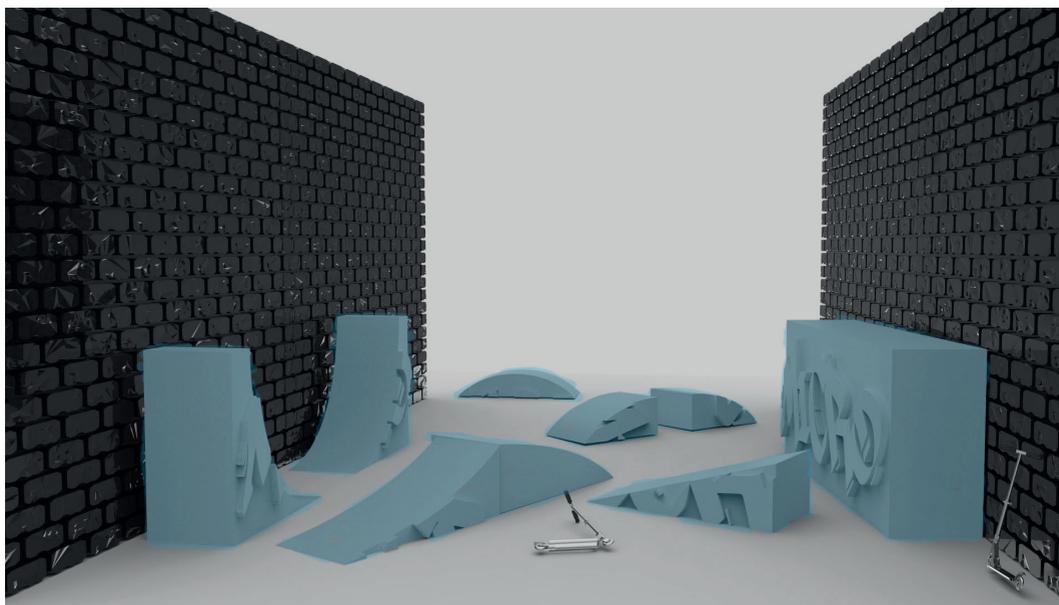
Micro's freestyle range is most commonly seen in urban areas such as skateparks, alleyways, or other abandoned areas of

the city's where there aren't too many pedestrians. Wellington is the perfect place to try and increase the number of people who enjoy stunt scooters, as it the population isn't too big and there is plenty of space for freestyling. Some of the alleyways in Wellington could be the prime positions for Micro to try and influence the younger freestyle scooter enthusiasts to practice their tricks and stunts. This would make these areas more accessible and will be inviting for the Wellington public.

PROCESS AND DEVELOPMENT

Through the development phase of this project, I wanted to come up with several concepts that would allow the freestyle range at micro to become more accessible and customisable for a younger audience. One of the largest influences in the skateboard and freestyle scooter range is graffiti and street art. Personality and customisation allow for individuality and creativity to be expressed. For my first concept, I want to provide an online service that allows people to control the artwork and customisation on their scooter. The user would either take a photograph or draw a picture, upload it to Micro's website to the vinyl sticker template. This image would then be sent to the user to apply to their scooter. The vinyl stickers would also allow for interchangeable designs to be applied to their existing scooter. My second concept was to

incorporate the neglected spaces in Wellington such as the alleyways that connect main streets together. The council has been trying to give life to these areas for a while now, by updating the street art and making them more accessible. Another way I think the Wellington City Council could turn these spaces into more productive areas is by working alongside Micro to create a customisable skatepark. The skatepark would be made to be moved around, so individual ramps and blocks can be taken out of the modular installation to turn the alleyway into an exciting place to use your freestyle scooter. Influenced again by graffiti, the ramps would be stacked back together to create a piece of interesting street art.





Micro has missed the opportunity for their customers to have the opportunity to customise their scooter. Customisation allows for their consumers to bring their own personality to their freestyle scooters, and make it feel like theirs. A way to do this would be an online service that provides customers the opportunity to customise their own “blank canvases”. This service will allow the customer to choose everything from the shape, texture, colour, material and other personalisations. Through many options, the user can create their own freestyle micro scooter, with the

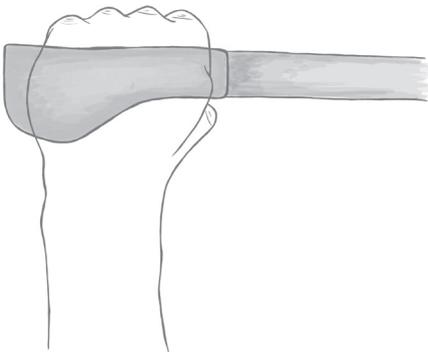
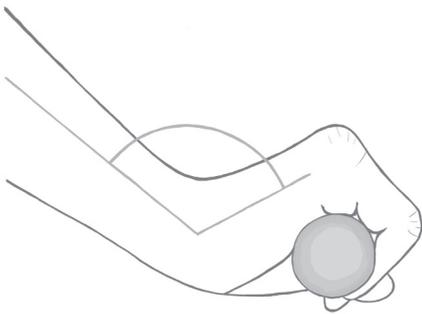
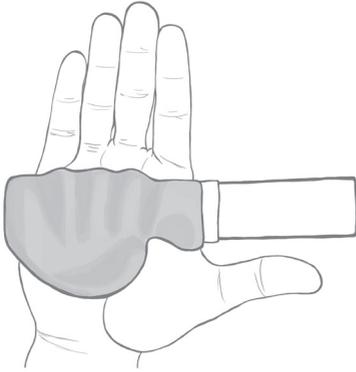
CONCEPT



great same quality and service Micro provides. This can be as inexpensive or as expensive as the customer decides. The service provides the opportunity to introduce 3D printing as a form of customisation, and one-off personalisations.

The first thing to identify is the areas on the freestyle Micro scooter that provide opportunities for customisation. The key areas I identified were; the handlebars, the deck,

wheels, breaks and the small blank areas that provide no purpose or structure. These areas all provide unique prospects for personalisation. The main areas I decided to focus on where the scooter deck the handlebars and the smaller areas. The smaller areas are places such as the ends of the handlebars, where the handlebars meet, and the bar between the deck and handles.



ERGONOMICS

Ergonomics and Grips are one of the key elements of a freestyle scooter because they help to control the tricks and stunts. The grips are also important to provide proper support to the rider when landing tricks and putting a lot of pressure on their wrists and hands. I designed two grips that could be customised on a website. The first being a standard bar grip seen on many the micro freestyle scooters. This grip is useful when trying to design intricate patterns to be applied as the grip tape. This grip is also easy to use when performing stunts. The second grip I designed was a more ergonomic grip. This grip was modelled off many of the bike grips that are commonly seen today. It fits comfortably in the palm and provides more support when resting your palm on it and applying pressure.



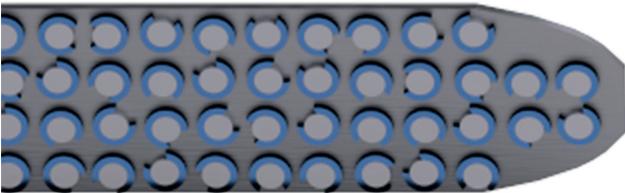
TECHNOLOGY

3D printing will play a major role in providing the ability to customise the Micro freestyle scooters. 3D printing not only allows for rapid prototyping but also presents the opportunity to create one-off custom pieces that are unique and personal for the customer.

It will allow for the customer to choose their material based on their own budget or needs. Shapeways is one of the largest 3D printing companies in the world and allows their customers to print in steel, silver, aluminium, gold, brass, bronze, acrylic plastics, elastoplastic, precious metals, castable wax, and PLA plastic.







"CHOICE MAKES US FEEL IN CONTROL"

One of the most powerful tools humans possess is the power of choice. Choice makes us feel in control. We enjoy being able to choose what we have for dinner, or what we choose to wear in the morning. Providing the customer with the decision to choose what their Micro Scooter looks like is giving the customer the power and control they want. It allows them to personalise their scooter for them. Giving them the decision about; colour, material, patterning, and shape. By providing the customer with choice, it is creating a respected relationship between the consumer and Micro.

CHOOSE YOUR BLANK CANVAS



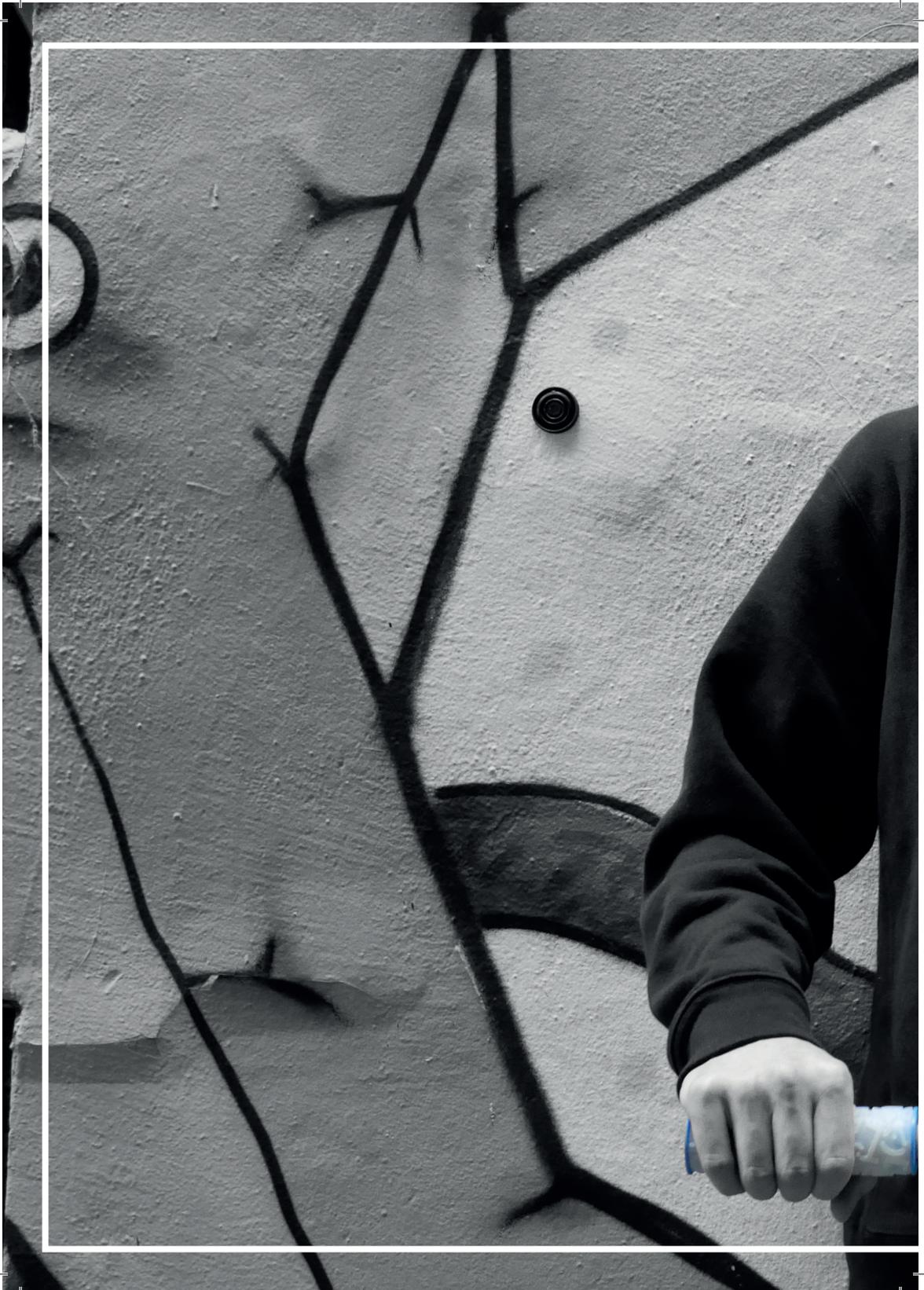
A website would be the perfect way for customers to access this technology. By providing the customers a way to create their own scooter online allows them to take their time and see their options rendered on a computer screen. Computer programmes can quickly allow the customer to visualise how their scooter will look. This can also be installed in Micro stores and so that customers can be assisted in stores and have still be presented the opportunity when buying their Micro Scooter



PHYSICAL MODELS

The physical models show all the qualities of 3D printing, and how this can be exploited on a large or small scale to provide one-off custom pieces for Micro. The following models are printed in Steele, Connex flexible material, and ABS plastic. Each print demonstrates how 3D printing can be exploited for Micro's benefit for the freestyle range. This project demonstrates the uses of 3D printing in a commercial context for the use of customisation. It utilises 3D printing and the human desire for choice and control.







My Micro Identity
Maddy Hazelton
Victoria University of Wellington
School of Design 2017

Thanks to: Simon Fraser, Jazz Klinkert,
Rory Harnden and Micro Mobility