



DESIGNING FOR INCLUSION

Manchester | 2017

1 WHY

2 APPROACH

3 TOOLS

4 SOLUTION

5 REFLECTION

“How might we prevent, stop, or soothe, sensory shock overload in neurodiverse people to make everybody enjoy living in the city?”

BBC launched CAPE, Create a Positive Environment, initiative in 2014 to study the knowledge and attitude towards neurodiversity. Neurodiverse individuals are those with hidden conditions such as dyslexia, dyspraxia, dyscalculia, ADD/ADHD and Autism Spectrum Conditions. In 2017 a group of Hyper Island students got assigned a neurodiverse trait and a brief to solve as part of the Design Thinking module.



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SENSORY CHOCK OVERLOAD



IT'S NOT ONLY ABOUT WHAT WE DO, BUT ALSO HOW WE DO IT

My team tackled the challenge and time restriction with applying Human-centered design (HCD), involving the human perspective in all steps of the problem-solving process. Our work was based on a core set of values that influenced our process and helped us deliver an innovative solution. We also put the time and effort in team building, defining our team culture, storytelling, co-creation and having fun in the process.

Desktop research

User interview

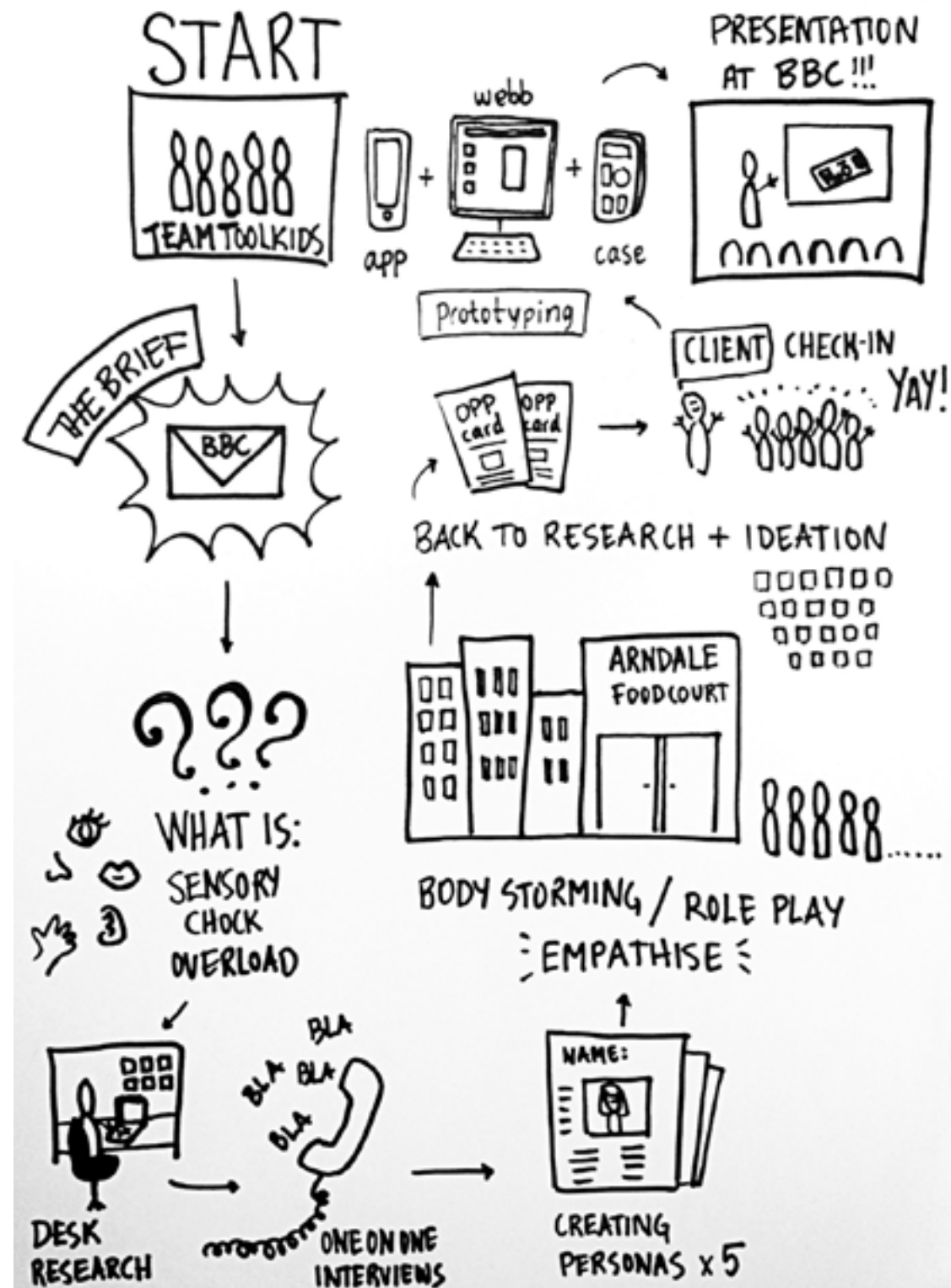
Creating persona

User journey map

Ideation

Opportunity cards

Prototyping



DESKTOP RESEARCH

“PROPRIOCEPTIVE SYSTEM”

Been given the neurodiversity of Sensory Chock Overload, which includes the spectrum of sensitivity of the six senses. We were on a mission to find an innovative way to empower people within the specific neurodiversity so they can enjoy living in the city of Manchester.

We quickly figured out that our body can not only regulate sensory processing but can also assist in controlling responses to sensory stimuli. Because of the “Proprioceptive system”, which is located in our muscles and joints. It provides us with a sense of body awareness and detects/controls force and pressure, making small movements with your body — also known as fidgeting!



USER RESEARCH

GATHERED QUOTES

SOURCE: WRONGPLANET.NET



*I have this small cheap party favor **bracelet** that has an interesting texture and is all stretchy, so I can focus on that to regulate other things.*

Karina F.
Age: 30 | Gender: Female



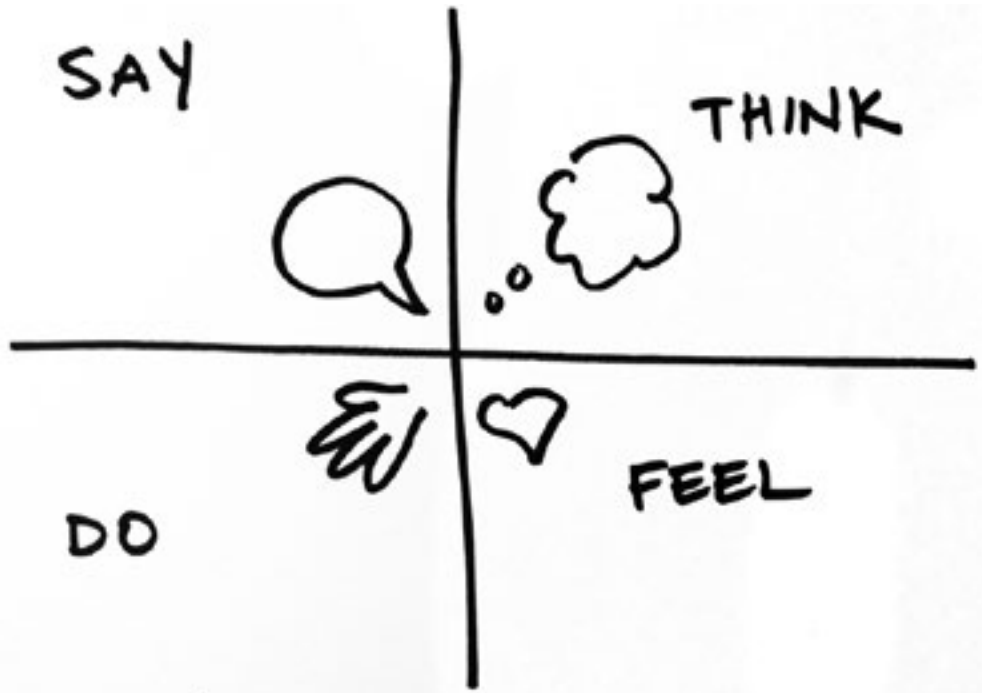
*I find that **ear plugs** can help a lot with my ability to filter away irrelevant background noise and chatter, and focus on a conversation of choice (the 'cocktail party effect') when a place is moderately noisy.*

Annie G.
Age: 47 | Gender: Female



*Another thing that helps me, though often I forget, is to bring something with a nice texture that I can stick in my pocket and rub with my fingers if I need too. This sounds weird, but I often bring a **plastic spoon** with me.*

James N.
Age: 24 | Gender: Male



USER INTERVIEW

GET TO KNOW YOUR USER AND THEIR EVERYDAY LIFE

The team decided to reach out to neurodiverse people through friends and family, due to interviewing on a sensitive issue. When a suitable person for the brief agreed on talking with a team member a 40 minute interview was conducted.

Through the interview we wanted to gain understanding about their habits and learn about difficulties and strengths in their everyday life. We uncovered valuable insights by asking these questions:

- The persons interests and overall likes/dislikes?
- What kind of situation triggers them?
- How they cope/handle with Sensory Chock Overload?

KEY INSIGHTS

DISCOVERING OPPORTUNITIES

“ *The city can't adapt accordingly to every single neurodiversed persons **individual needs**.* ”

“ *Neurodiversed persons have developed their own effective way of prevention and coping mechanism for Sensory Chock Overload by **distracting themselves**.* ”

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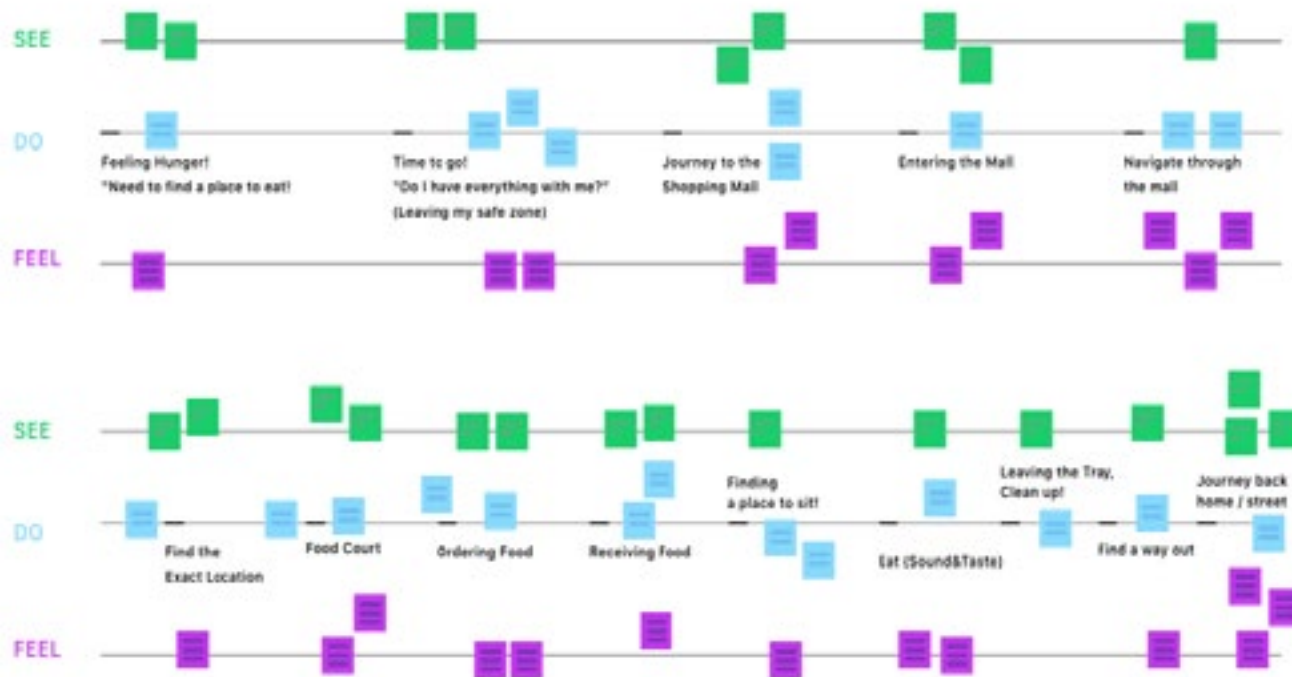
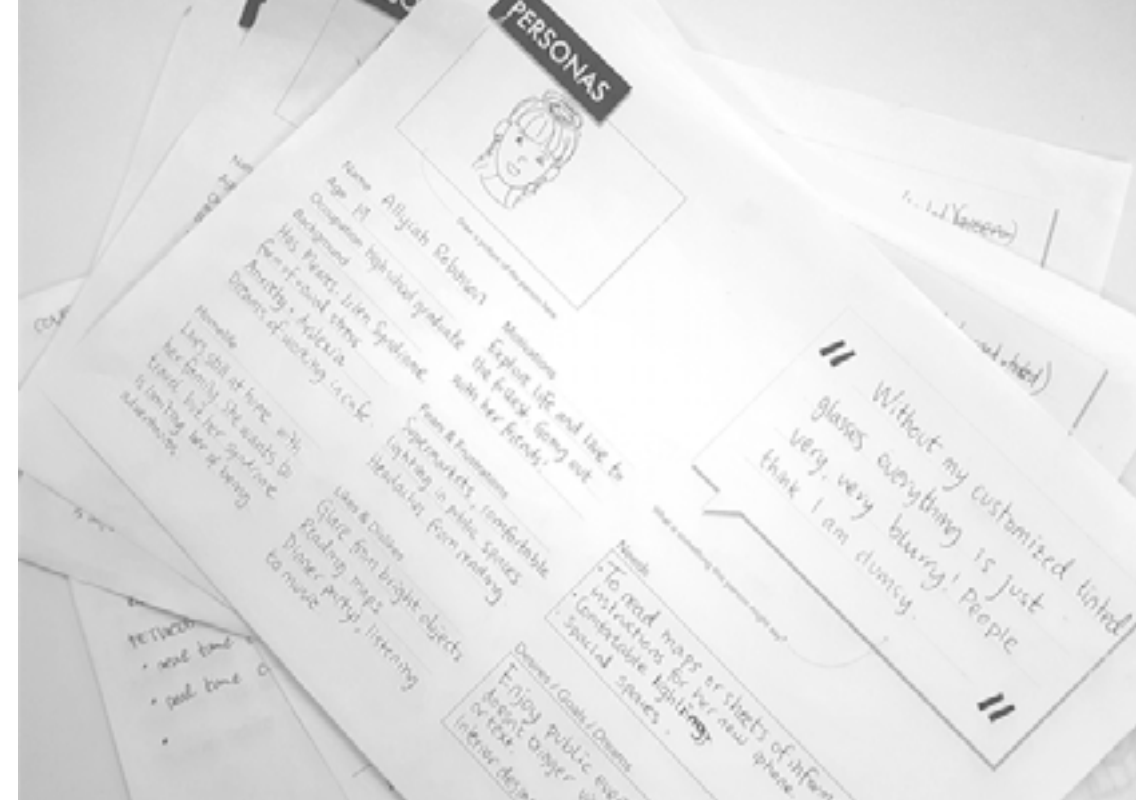
5 REFLECTION

PERSONA

SYNTHESISE RESEARCH

Creating persona from user research helped us synthesise the findings from our research phase. We listed down their goals, motivations, requirements and overall concerns and created five different personas.

Our personas don't describe real people, we composed our personas based on real data collected from multiple individuals. Which helped us add the human touch to what would largely remain cold facts in our research. We also used our personas as a guide for ideation session later on.



USER JOURNEY MAP

EMPATHISE

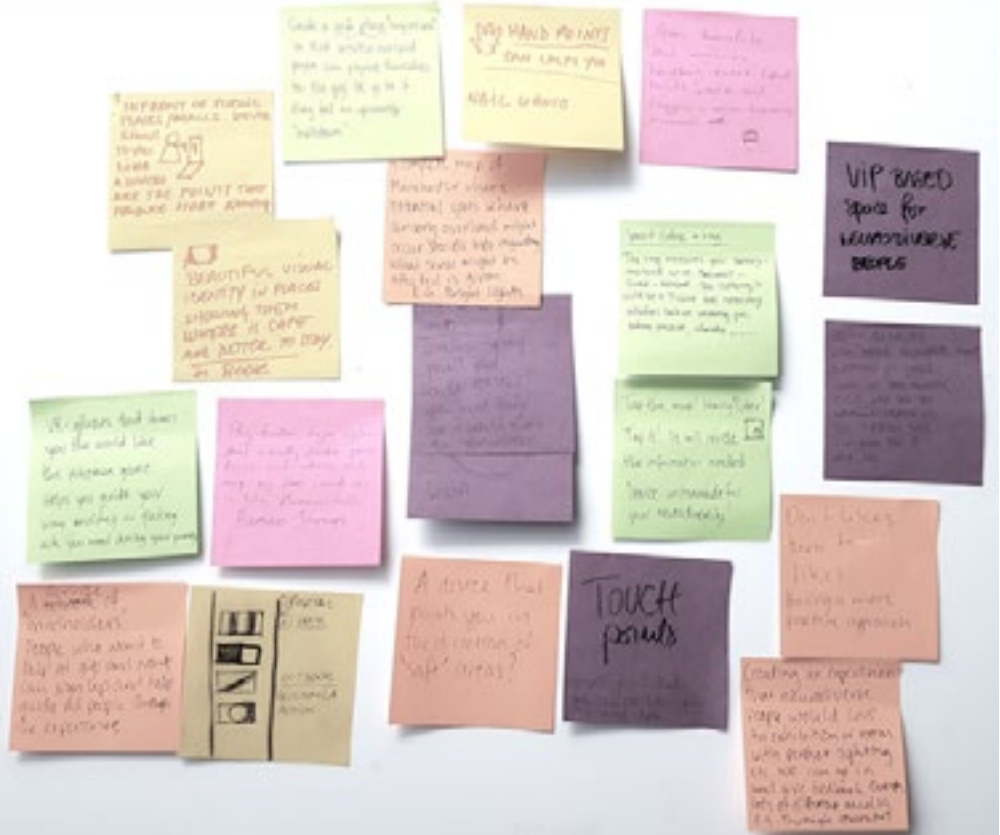
It was vital for the team to let go of what we "knew," so we could start looking at things with fresh eyes - and with more questions than answers. The real insights came from getting out in the world and gaining empathy with the people whose lives we wanted to improve.

The team did a user journey map in order to really understand our users everyday obstacles in the city. We used the created personas and walked in their shoes to empathise how they would experience going to a busy food court in Manchester.

IDEATION BRAINSTORMING GAMES

- Random words
- Trends

Building on each others ideas and practising YES AND, helped us create many concepts during the session.



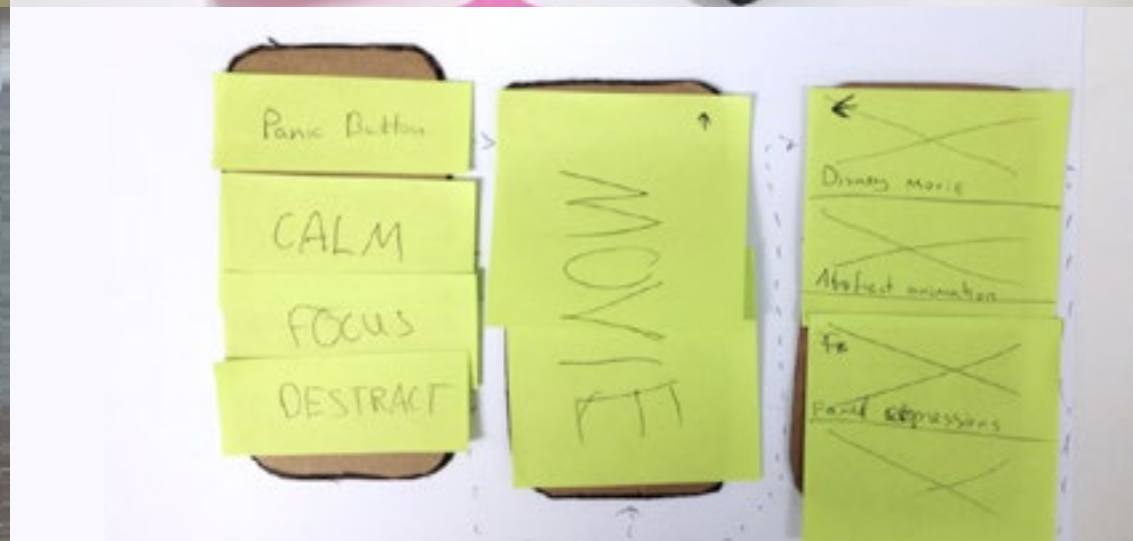
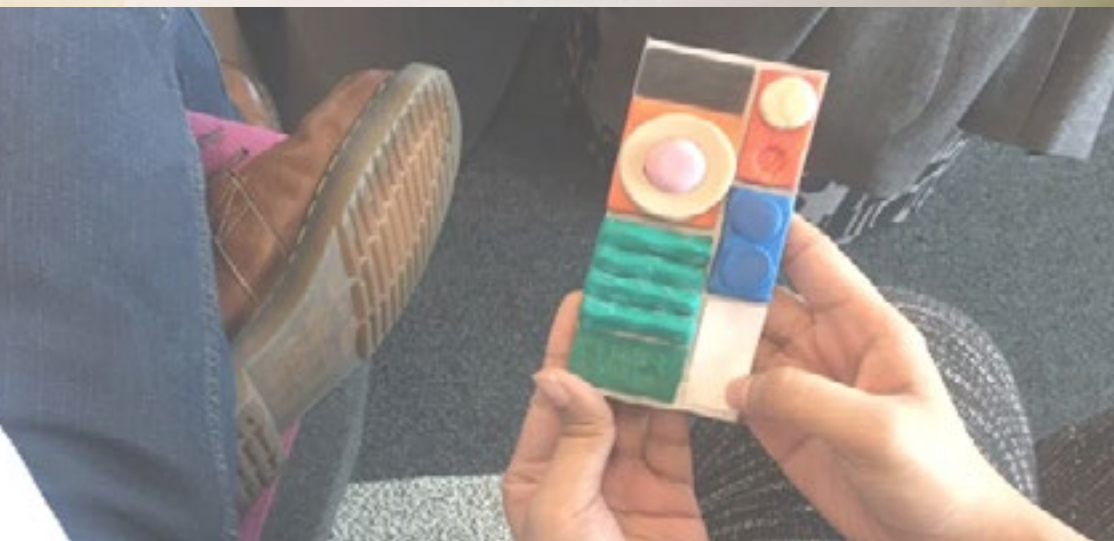
OPPORTUNITY CARDS SELECTING IDEAS

After ideation session we selected a couple of ideas and developed them roughly by making opportunity cards, one per idea. By doing so we managed narrowing down number of ideas. We found it very helpful to recognise strengths and weaknesses for each idea, which made the elimination process much easier.





PROTOTYPING



1 WHY

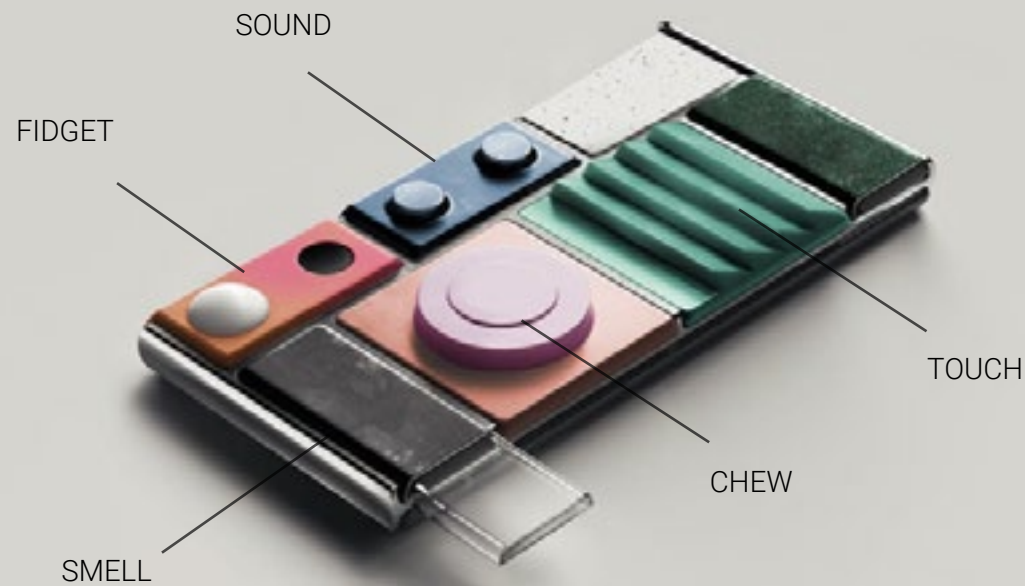
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Introducing the Cape Case, a modular phone case that allows customers to create their own personalised sensory distraction. The phone case is also supported by an associated app where your personalised visual & sound distractions can be downloaded and ready to be used whenever YOU need it.



The starting point is YOU!



Play us!

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REFLECTION

LOOKING BACK AT OUR PROCESS

Although BBC asked us to look into the challenge of a neurodiverse person going to a gig and had given us a challenge statement; "How can we design a Manchester that is accessible for neurodiverse people?". My team found it helpful to reframe the challenge statement so it would be broad enough for a wide range of solutions, but narrow enough so that we could think of specific and unique ideas.

By simply changing the challenge statement shifted our perspective for the project. Instead of focusing on the negatives we were looking for the positives in our challenge so that we could apply that knowledge into our solution.

In an interview with a father of two boys with autism and sensory overload, gave us a better understanding about how a day really looked like for young neurodiverse people.

Also hearing about their personality traits and what they were really good at and enjoyed doing helped our team when designing for inclusion. We made a breakthrough when realising that the physical activity of fidgeting could provide a temporary distraction from stress or discomfort, which our final solution was based on.

Paper prototyping was a great method for us to quickly prototype a digital product interface without using digital software. However, with a low fidelity prototype it was a bit unclear on how to conduct user testing for our service.

We found it hard to convey complex animations or transitions using this type of prototype, without having to explain all actions. On the other hand the benefits of paper prototyping being fast, cheap and collaborative method allowed us to iterate unclear information architecture —before finalizing our solution.

LEARNINGS

WHAT ARE THE TAKE AWAYS?

// *User journey maps enables a better understanding of customers experience and gives you the chance to translate your empathy into a design that will accommodate your users needs and alleviate as many pain points as possible.*

// *Sometimes, simple changes in the perspective can spark new insights.*

// *Keep asking why until you can define what to do!*

// *Always create different personas for different users, just one user persona is not enough.*

// *If you find something interesting takes place in an interview and there are no questions, on the script, to explore that idea... explore it anyway.*



MY RESPONSIBILITIES:

User research
Conducting interviews
UX prototype of the website
UI prototype of the app
Pitching

TEAM:

Hanna Elin
Ivan Holiakov
Jasmina Aleksic
Thiago Zandonai
Urška Tičar

THANK YOU