ACOUSTIC ANGLE SEMESTER 2

FINAL REPORT Aug - Nov 2013

In Collaboration with









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Chris Coller Product Design Engineer Role: Project Manager



Heikki Marttila Wood Engineer Role: Marketing



Christine Lee Digital Media Designer / Communication Design Role: Branding/Communication



Jack Tyrrell Marketing Role: Marketing Manager



Deep Kansara Product Design Engineer Role: Product Development



Tegan Berry Product Design Engineer Role: Product Development/Designer



Viola Kressmann Interior Design Role: Product Development, Fun Manager



Vinay Raja Digital Media Designer Role: Marketing/Communication/ Branding



Acoustic Angle, working with Involve Audio, have designed and developed a speaker system proof of concept and accompanying marketing strategies to showcase Involve Audio's "Total Perspective" Technology. For a full sound experience, conventional speaker system require the listener to be seated in a specific spot, commonly known as the "sweet spot". Use of the Total Perspective technology resolves this and provides a full sound experience from any point in the room.

The purpose of this report is to clearly communicate and define the final proof of concept and marketing strategies. This report clearly states the process and research by which those outcomes were obtained during the course of the project. Methods of research conducted include targeted surveys, competitor benchmarking, semantic differential analysis, user testing and various other business and marketing tools. To achieve the final proof of concept the team went through a number of stages in the design process, including sketching, ideation, testing, rapid prototyping, user testing, prototyping and more prototyping before narrowing down to the final proof of concept.

Throughout the year, Acoustic Angle has conducted research across various fields, from trends in home audio, all the way to exploring specific target markets. As a team, they came up with many ideas through ideation, product development and lots and lots of prototyping! The combination of research and development has led the team to a strong proof of concept and marketing strategy, which they believe showcases the technology at its very best.



During Semester 1, Acoustic Angle applied a broad definition to the brief outline provided by Involve Audio.

"Design and produce a speaker system, which incorporates Involve Audio's Total Perspective technology. A series of marketing examples will be generated to form the basis of a set of marketing proposals for Involve Audio to consider."

This brief was then further refined in Semester 2 as more research was conducted to more specifically mention Total Perspective, what the speaker design would look like, their form factor and with how they would function with other Involve Audio products.

"Design a set of proof of concept bookshelf speakers, which are also wall mountable and can be placed on a custom made tower stand. The speakers will incorporate and showcase the Total Perspective technology in a way which balances both technical and aesthetic aspects. The speakers will be designed to work with a subwoofer unit or other unit which has the electrical components of Total Perspective and other electrical components built in. A series of marketing examples will be generated to form the basis of a set of marketing proposals for Involve Audio to consider."



Swinburne Design Factory

Swinburne Design Factory plays a major supporting role in interdisciplinary projects, bringing Design, Engineering and Commerce students together and providing a stimulating workspace for students to creatively develop a solution to the given problem. SDF facilitates activities such as PD4 (Product Design in 4 hours), weekly consultations with mentors and teaching staff, and reflective journals and feedback sessions, which helps the groups to approach problems from multiple angles and develop the most innovative solutions to meet the brief.

Involve Audio

"Involve Audio was founded by acoustic engineers who were also audiophiles. Their vision was to create not just better audio products, but products so good that if someone were able to build better ones, the human ear would not be able to discern any difference." That vision led them to question conventional wisdom about how we hear and about how audio products are designed. Over the years they made a number of unexpected discoveries, turning design theory on its head in the areas of speakers, sound encoding, and playback. Their remarkable breakthroughs, the first major advances since Dolby® more than 40 years ago, led to the patent-pending technology embedded in all Involve Audio products."

- Involve Audio, 2013

Acoustic Angle

Acoustic Angle is an interdisciplinary team of design, engineering and business students from various countries across the globe collaborating under the supervision of Swinburne Design Factory. Every member of the team has a specific set of skills which evolved the development of this product and strategy to the next level. The following team members have contributed to make this happen.

Christopher Coller is currently in his third year studying Product Design Engineering at Swinburne University of Technology, with the objective of completing the course with HD Honours. The Product Design Engineering course has provided Christopher with the technological skills and knowledge expected of professional engineers, in particular towards the design, development and manufacture of domestic and industrial products. Christopher also has a love of music and during high school learnt classical voice, trumpet and piano. He currently sings in a community choir based in Box Hill and at church and also enjoys playing trumpet in many different types of ensembles including jazz bands, orchestral ensembles and concert bands. In addition to music Christopher also does gymnastics once a week just for fun.

Christine Lee is from Melbourne, Australia. She studies Digital Media Design at Swinburne University of Technology, and is currently finishing her honors year. Her specializations and skills include web design/programming, publication and logo design,



UXD (user experience design), and motion graphics/ kinetic typography. She was presented with the Undergraduate Design Excellence Award for her contributions to the Gunter's Fables capstone project at the end of 2012. Outside of university, she enjoys costume design and sewing, and performing in community choirs and musical theatre productions.

Deep Kansara is an Indian born New Zealand citizen residing in Melbourne. Currently in third year Product Design Engineering with aims to pursue automotive design as a career later on. He enjoys working as part of interdisciplinary teams as well as individually to create amazing products as part of his course. His skills include sketching, CAD modeling, 3D rendering, creating prototypes and tinkering with products that ought not to be tinkered with. He occasionally enjoys video games, reading books, and socialising with friends in his spare time.

Jack Tyrrell is in his last semester of his marketing degree at Swinburne University. He is a very confident , passionate and competitive individual that always strive to get the best out of himself in any situation. This confidence is what has led him in undertaking a marketing degree, Jack has done two sales internships at two different companies in the metropolitan area of melbourne. He currently works at the Glen waverley golf course where he is the marketing and events manager. He was involved in the latest spring swing event that had over 150 players and had a range of sponsors. He hopes to travel the world in a sales role for a leading company.

Heikki Marttila comes from Finland, the land of deep forests and thousands of lakes. He is studying Masters in Wood Product Technology at Aalto University, Finland. In addition to wood technology, he is also studying International Design Business Management. Heikki has work experience all the way from diesel engine manufacturing to plywood R&D. Other experiences and skills include project working, product development, design thinking, creativity, business modeling and planning, sustainable design, wood materials, and marketing. His free time passions are exploring the world, listening and playing music, walking and hiking, on and off road biking, visiting saunas, reading books, meeting friends, tasting crafted beers and drinking strong lattes.

Tegan Berry lives and grew up in Melbourne, with one foot in the city and one in the country. She is currently studying Product Design Engineering at Swinburne University of Technology and enjoys the challenges that the course provides through both design and engineering. Her skills include CAD work both in modeling and rendering, along with using her course to produce projects that go all the way through from ideation to working engineered prototypes. She also works part time at a company producing 3D models and technical drawings to go out onto the factory floor. Her extracurricular interests include badminton, photography, and four wheels driving and camping.



Vinay Raja, originally from India but lived and worked in various places in Asia before moving to Melbourne to pursue his Masters Degree in Digital Media Design. Started his career working for QJam MTV-India, designing interactive jukeboxes. Since then, Vinay has worked for over 10 years in various industries and slowly progressed from a Graphic Designer to Creative Director position. Vinay was a standing contributor of his design skills to various charitable organizations such as Red Cross and Red Crescent Societies, The Banyan, Cancer Institute-India and many more. With specialized skills in branding and advertising, he also possesses a working knowledge in marketing communications and event management. Vinay is also a wine connoisseur, loves photography and motorcycling.

Viola Kressmann completed an Interior Architecture Bachelor Degree in Coburg, Germany and is now in her second year of her Master studies in Mainz, Germany. Currently she is part of the Study Abroad Program at the Swinburne University of Technology. In between her studies Viola worked full time at an architectural office in Munich and did various other projects with other design students. Viola has skills in furniture design, conceptual design, brand design as well as interior architecture. In her free time Viola likes to explore the world, loves food and cooking, snowboarding, reading, listening to music and spending time with friends.

Martin Whittle, Rachelle Whiteside and Eliza

Opie contributed to the project in semester 1. Martin Whittle is an industrial designer who during semester 1 was the Project Manager for the team. Rachelle Whiteside studied HR and Marketing and had the role of Consumer Relations Manager in Semester 1. Eliza Opie was the Financial Controller during semester 1 and studied Accounting and Finance.



SDF (Swinburne Design Factory) conducted the PD4 (Product Development in 4 hours) workshop, which brought together the Acoustic Angle (AA) team along with the industry clients, Involve Audio, to work on a brief provided by SDF. This brief related closely to the main project brief of AA, and landed itself to the idea generation process.

The goal of PD4 was to produce as many concepts as possible by creating a pool of sketches and quick, easily constructed cardboard prototypes. With the technical knowledge of Involve Audio and the design expertise of AA, over 60 workable sketches were produced, some of which were then further developed into more refined prototypes to showcase what the final product could be.

The overall outcome of the PD4 workshop was a large collection of designs that AA could further develop, a much more focused design path, and it also gave Involve Audio a chance to see how AA worked together to deliver a solution to a given problem.



SIGN

The steps shown represent the process used by Acoustic Angle during the semester to develop the Y speaker and accompanying Marketing Proposals. Moodboards, Research Ideation and workshops, Affinity Diagramming, Rapid visualization Was used to come up with a wide range of ideas to form a foundation and cover a wide search space. Building on others ideas

A team exercise used to take ideas from one step to the next and allow and idea to be looked at from multiple views and disciplines. (Appendix B)

Rapid Visualization

Was used to come up with a wide range of ideas to form a foundation and cover a wide search space.

Concept Ideation

Takes the initial ideas to develop them further into more rounded concepts.

Quick and dirty prototyping

Used to put a scale on ideas generated. (Appendix D)

Concept Screening (5 concepts)

Screens out the top and most viable 5 concepts from the wide pool of ideas.

Top 5 Concept Iterations Development and branching

Develops and branches the top 5 concepts to explore the possibilities of each concept based on the research conducted.

Concept Screening (Final Concept)

The final concept is chosen based on

research and potential for refinement with a clear design direction taken.

Concept Refinement Iterations

Further iterations of the concept were created based on research results to refine the form, technical requirements and aesthetics of the design.

Concept Selection using criteria developed from research

Based on a set of criteria developed from research the final concept was chosen. Previous concepts were included to give a well rounded view and to make sure the design was being developed positively.

Final Concept Refinement

The final concept was refined to balance technical and aesthetic requirements. A final proof of concept was built.



Research Methods

The team has used various types of research methods such as Affinity Diagramming, Competitor Analysis, Closed Pile Sort etc. in order to condense the large amounts of data that is collected and identify the key features and concepts that are essential for the development of the product design as well as the marketing strategies.

Affinity Diagramming

A process whereby data is divided into ideas and written down on post-it notes. Data is then organised into different groups as determined by the team. This data analysis process enables large amounts of information to be quantified for further analysis.

Closed Pile Sort

A process whereby large amounts of information are divided into groups and then into further subgroups. Both of these data analysis strategies enable large amounts of information to be visually organised and quantified. Visual organisation of information also assists with idea generation process.

Competitor Analysis

an assessment of current and potential competitors in marketing and strategic components of their respective businesses. By identifying the strengths and weaknesses of the competitors, and also look at the opportunities and threats in both offensive and defensive strategic contexts.

Surveys

Acoustic Angle conducted two web-based surveys. There was an initial, more general survey, and then a targeted survey, which was completed by selected respondents within a target demographic that the team established after the first survey was sent out.

Initial Survey

The initial survey was designed to be quickly distributed to get a large quantity of responses in a short amount of time. The main objectives of the survey were to investigate the home audio preferences of the respondents, get an insight into their listening habits, analyze which features of audio products/systems were most important to them, and see what audio products and technology they owned or used within their homes.

There were a total of 90 responses to the survey; around half of these were received in the first three days of the survey going live. As the survey had mainly been sent out via the networks of the team members, a majority of these responses were from university students, who would not necessarily have the motives or income to purchase the end product. However, there were some key findings that reinforced previous research findings or knowledge, or helped to establish the design aesthetic of the final product.

The most desired size/shape for an ideal set of speakers was "compact/small" and "slim". Product life span, compatibility with other devices, and sound quality were the most important attributes



in a speaker system for this respondent group. 65% of respondents noticed a difference in the sound when they weren't seated centrally to the speakers. Around half of these respondents had an annual income of less than \$20,000. Only 10% had an annual income of over \$80,000.

For the full results of the initial survey (Survey 1), please see Appendix G.

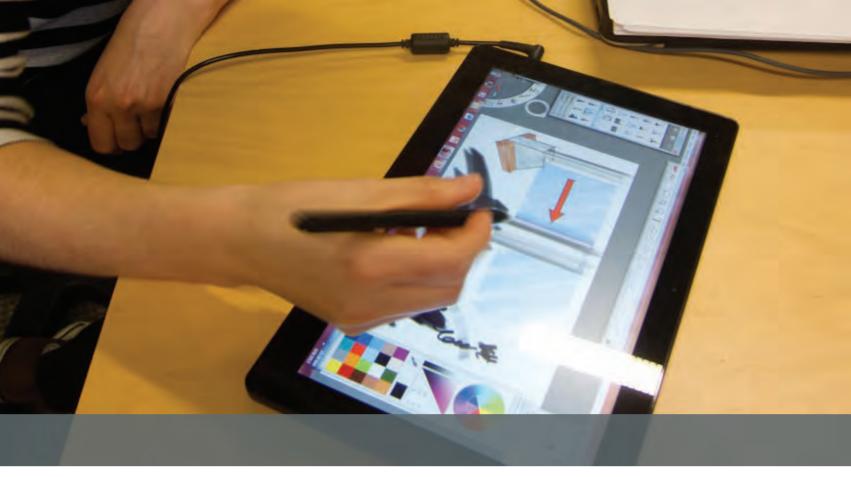
Targeted Survey

Around a week after the distribution of the initial survey, Acoustic Angle worked on trying to pinpoint a specific target audience to market the product to, and this ended up being an older demographic, aged around 45-65, who were believed to have a higher level of disposable income. This survey was a revised version of the first survey, with the key objective to explore the media and advertising preferences of this demographic.

There were 20 responses to the targeted survey, specifically from the profession groups of golfers and lawyers who the team was able to distribute this revised survey to. There were mixtures of male and female respondents.

Similar to the general survey, there was a definite preference towards compact/small speakers, although this group of respondents also would like speakers that are slim, invisible, or wall-mounted. Styling, brand and sound quality were the most important attributes for speaker buying choice within this targeted group. Respondents were most likely to buy home audio products from a specialist audio store, or department store. This gave insight into where the product could possibly be distributed. 65% of these respondents earned over \$80,000 a year. Nearly half were willing to pay over \$1,000 for a full home audio system. The media that these respondents were most likely to respond to included radio, television and newspaper, as well as word-of-mouth.

For the full results of the targeted survey (Survey 2), please see Appendix G.



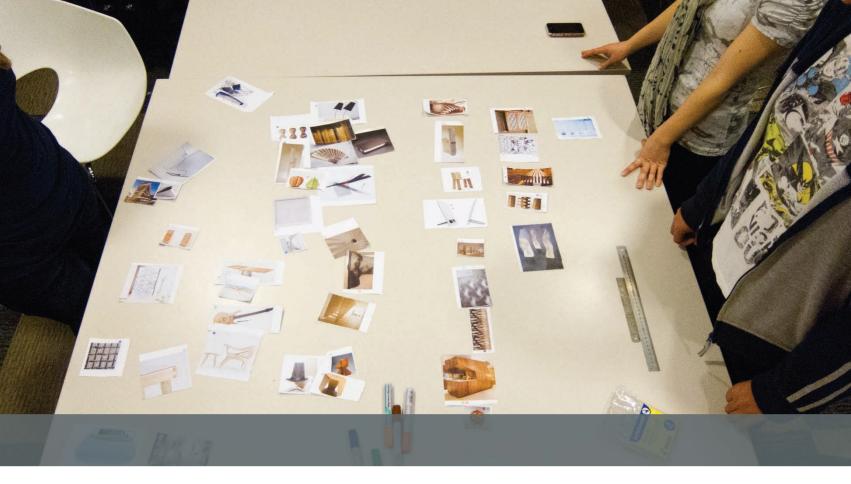
Influence of results on the Design

The survey showed us what our target audience is looking for when it comes to buying speakers. These results lead to the creation of criteria that could then be used to either influence further designs, or refine existing designs. Several items that was important where the styling, sound and build quality, compact, small and slim among others. Directions were then taken to ensure that our design was stylish, this was based on preference, that the design ensured that there was good audio separation ensuring good sound quality. The design was such that the build and strength of it would last. The overall looks would need to be compact and slim, aided by the slim nature of electrostatic speakers; which allowed us to follow a direction of creating a speaker that appeared thin. Throughout the ideation stage, the information gathered from the surveys was referred to and used to ensure that as a group we were on the right track. This information was also used in conjunction with feedback from the client.

Influence of results on the Marketing

The survey that was conducted among the target group revealed few interesting matters that were thought to be important when creating the marketing plan.

Price was considered to be somewhat important, but responses varied between "not important at all" and "very important". For home stereo speakers, one-third of respondents were willing to pay more than \$2000, one-quarter, between \$800-\$1000 and one-fifth, between \$1000-\$2000. Based on the survey and competitive product benchmarking, the team decided to set the price slightly higher than with competitor products. It is hoped that the higher price will communicate the image of high quality and new technology. The prices for each product in the product family are presented under business considerations section.



Visual Audit

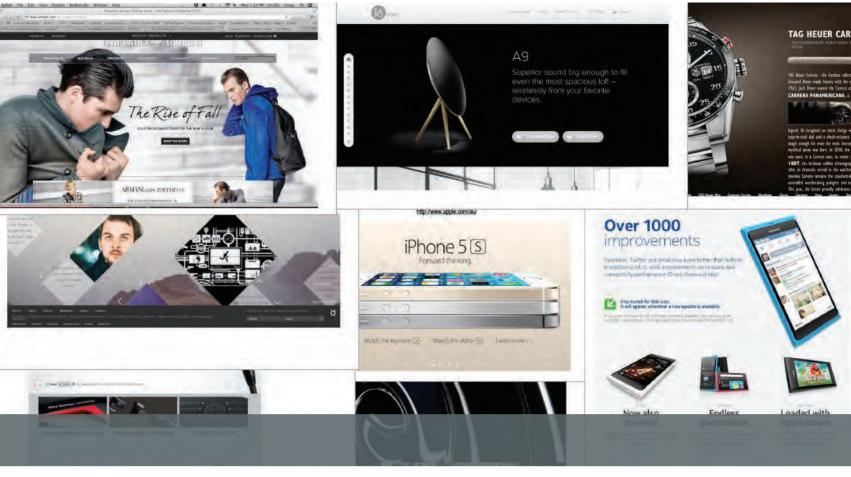
Acoustic Angle has done a visual audit of Involve Audio's existing products, past products and other visual design elements in order to determine and identify the key design influences of Involve Audio.

Moodboards

Based on the visual audit that Acoustic Angle conducted and the latest trends in design, key design influences were identified. Considering that there was a huge influence of Nakamichi on Involve Audio, the team has created moodboards based on Japanese art and design, Scandinavian, American and other Eurpoean art and design were also displayed. Design trends of the day were created based on shapes, textures, interiors and materials used across a wide range of designs. Innovative user experience designs were also looked up by the team. Once all the moodboards were picked the team agreed on key images which would influence the design outcome. These images were also used to create key words to describe the direction of the design. [images of mood board key images and keywords in bold around the moodboards] Appendix A

Prototyping

The team has done various types of prototyping throughout the process of the product development. Starting with rough paper and cardboard prototyping, the team developed a diverse range of prototypes before developing the final proof of concept. Quick and Dirty Prototyping helped the team of shape the initial ideas to take to the next dimension. Further prototyping was used to develop the best concepts and compare their form, shape and possibilities for further refining. Based on user testing and research, further prototyping was done to refine the form of the final concept and assist in the detailing of size, speaker location and the technical capabilities the form would offer. All these prototypes can be viewed in the Appendix D



Benchmarking

Brands

Brand benchmarking was conducted to familiarize the team with existing company and product names, taglines, visual styles and product descriptions. It was a starting point for the Y speaker branding process. Example brands with short analyses can be found in Appendix H. Key findings were that the strongest product names are easy to remember, the accompanying taglines are short and describe the most important features and selling points of the product, and the product descriptions are used to enhance the meaning of the tagline. Also, most brands usually create sub-branding for their products.

Websites

The team benchmarked websites of some well-known brands that the target group might be familiar with. The goal was to see which websites best appeal to the target group. The benchmarking report can be found in Appendix I. Key findings were that the color theme was typically dark (shades of gray, black, dark red, metallic) with high contrasts, there were high quality pictures of the products ("hero shots"), and websites were built to work in a vertical scrolling direction, meaning for example, all the product features were presented in one continuous page that scrolls down. Those findings were used as a guidelines for building the visual style for the Y speaker website.

Idea Generation and Screening

Several exercises were run within our group to help with idea generation. These included not only individual activities, but group activities as well.

Timed activities: the goal was to come up with as many ideas as possible individually in a set amount of time, and then sort these into categories and build on these ideas as a group.

Group activities; one activity ran as follows: one person would sketch an idea on one quadrant of a page, and then others built on the idea by passing the sheet around and sketching their own version. This allowed for alternative visualizations of product designs. Individual idea generation was also done, and later all the ideas were shared with the group. This method of having everyone's input meant that the final concepts that were generated were a well rounded mix of many ideas, encompassing several disciplines and cultures, this allowed us to have a wide breadth in our ideas.



Competitors

The team gathered a list of competitive products (bookshelf speakers, sound bars, surround systems, stereo speakers and electrostatic panels) with selling prices. (Appendix I). The goal was to get a better understanding the price ranges for different products. That information was used when the selling price was formed.

Product branding workshops were run to create a pool of powerful words that would represent the product, later developing into product name proposals and tagline proposals. At the beginning, the team familiarized themselves with well-known technology brands, such as the Apple iPhone, Nokia Lumia and Bowers & Wilkins Diamond series. The goal was to understand and explore the purpose of taglines and what makes a good tagline.

For example, the tagline of Nokia Lumia 1020 is "Zoom. Reinvented." which communicates efficiently with the picture, that the smartphone has a superior camera with a detailed zoom feature. The tagline is then explained with more detail: "The Nokia Lumia 1020 takes photos and video that no other smartphone can match." The conclusion was that the use of a product name with tagline is used to arouse viewers' curiosity, and then explained in more detail later. Many other brands were found to use the same style.

The next step was to come up with many powerful words that represented the Total Perspective/speaker brand and experience. In 10 minutes, the team came up with approximately 180 words.. Those words were used later to create taglines for the product. The team also created more than 120 name proposals in 20 minutes. For the key five product features, the team generated taglines as well. The reason was to communicate the technical features - while avoiding too much technical jargon, which is difficult to understand for most average consumers. Product branding will be discussed in more detail under business considerations section. (Appendix K)

Results Analysis

(Influence on Design and Marketing)

Recommendations from friends were important for the target group. That made the team create tools within the customer journey map that is described in detail under business considerations section. Examples are organizing pre-product launches in golf courses to improve awareness of the brand and engage consumers to purchase, and creating the community for fans to make it easier to spread the word.

The brand itself was found to be important for the target group. That was one reason the team decided to start building a strong brand using the name Y.

The most common places where this group of respondents buys audio products are specialist audio stores and department stores. Online specialist audio stores and online department stores were not considered important. However, the survey was lacking a choice of online brand stores meaning that the product could be purchased directly from the company's website. Benchmarking of competitors revealed that some audio brands (e.g. B&O) already



THE PROOF OF CONCEPT

have their own online store. In addition, Apple for example, has an online store with a vast retail network. Also, online retail is growing rapidly (ABC 2013). The team decided to focus on both: specialist audio retailers, and an online store for the brand/product.

Surprisingly, based on the survey, radio was found to be the types of media the target group would most likely respond to. The second best media channels were television, newspapers, word of mouth and magazines. Based on the findings, team decided to create a radio script, press release and magazine advertisement. A television advertisement was not realistic to create at this point in time, due to lack of resources, but in the future it might be useful. Interestingly, social media and Internet were not found to be powerful channels among the targeted survey group. However, based on desktop studies that social media was considered to keep on growing, as the price-quality ratio is significantly better compared to traditional media. The importance of social media is discussed in depth under the business considerations chapter. (Appendix G)

Why Y is Y

"Y", the final concept reflects the key features identified by Acoustic Angle during the research and development of the project. These features include the Total Perspective technology, flat design, the expandability of the product line and brand, the potential for customization and the sustainability of the product. From research a set of criteria was developed to compare the final ideas generated, these criteria related to the form and aesthetics, the technical and manufacturing capabilities and the "wow" factor of the speaker designs.

Key Features

Total Perspective

Total Perspective is a radical new technology created by Involve Audio which widens the "sweet spot". For conventional speakers, only a limited number of people can be seated in the sweet spot location, Total Perspective widens the sweet spot allowing more people to sit within the sweet spot. The requirements of the technology proved a challenge in the design of the speakers. This challenge helped create a proof of concept which uses those requirements to a design advantage.

Flat Design

A key trend found from research into the modern design trends of today was that of flat design. Flat design has been seen not only in the electronics



industry, such as the change to flat screen TV's but also across a wide field of design such as web design, ui design and visual communication. The team has incorporated this design style into the final concept as it is a strong trend and is also embodied in Involve Audio's electrostatic speaker technology.

Expandability

The product family includes the following packages: the basic set-up, surround expansion, woofer towers, wall mount, and floor stand. The idea behind the product family is to give consumers chance to start with a basic set-up and expand his or her audio experience later. In addition, the range of varieties increases the customizability - consumer can choose what type of speakers set-up fits best in his or her needs.

The basic setup includes a pair of Y speakers with a subwoofer/amplifier unit. The Y speakers and subwoofer come packaged together, because without a subwoofer there is a risk that the customer will not be satisfied with the audio experience, due to the lack of low frequencies. The subwoofer is designed to reproduce lower frequencies that the Y speakers alone are not capable to reproduce. The amplifier is integrated in the subwoofer and it includes the Total Perspective and Surround Master technologies. Surround Master is included with the amplifier to make the surround expansion more appealing for consumers. Selling price for the basic setup is \$2000.

The surround setup includes a pair of Y speakers. Those can be connected to the amplifier of the basic setup. Together with Surround Master technology, four Y speakers and subwoofer can create surround experience that is competitive or even better than Dolby's 5.1, 6.1 and 7.1 setup. Selling price for the surround expansion set is \$1500.

The subwoofer tower set includes a pair of subwoofer towers. Those are floor stands with cone speakers capable of reproducing lower frequencies than Y speakers alone, and thus creating a more comprehensive and better audio experience. The Y speaker can be attached to the woofer tower to create a comprehensive tower speaker. Price for a pair of woofer towers is \$1000.

A wall mount can be purchased to attach the Y speakers directly to a wall. Selling price for the wall mounts is \$100 each. A floor stand can be purchased to elevate the Y speakers without woofer towers. The floor stands are designed to be part of the Y speaker design. Price for one floor stand is \$250.

Customizability

Based on the survey results, customizability surfaced as one of the main components for the design. Being able to choose a product that suits the environment of the home is an important attribute to most of the

Sustainability (Sound and Materials)

Y speaker's construction is relatively simple. There are three main parts: the wooden frame, electrostatic panels and the boxing that contains all electronic parts. To create a sustainable product all those parts should be manufactured using as little



amount of materials as possible, using sustainable materials, and manufacturing the materials and the final product using sustainable processes.

Materials

The best material for the wooden frame is thermoformable plywood. Plywood is great material for Y speakers because it is strong and rigid even when thin (Y Speakers use a 7mm panel). However, the challenge with traditional plywood is that it cannot be bent easily. The conventional way of creating bent shapes is to spread glue on each thin veneer sheets and then compressing them into desired form. That process requires a lot of time in the manufacturing process since the gluing and glue curing are time consuming phases.

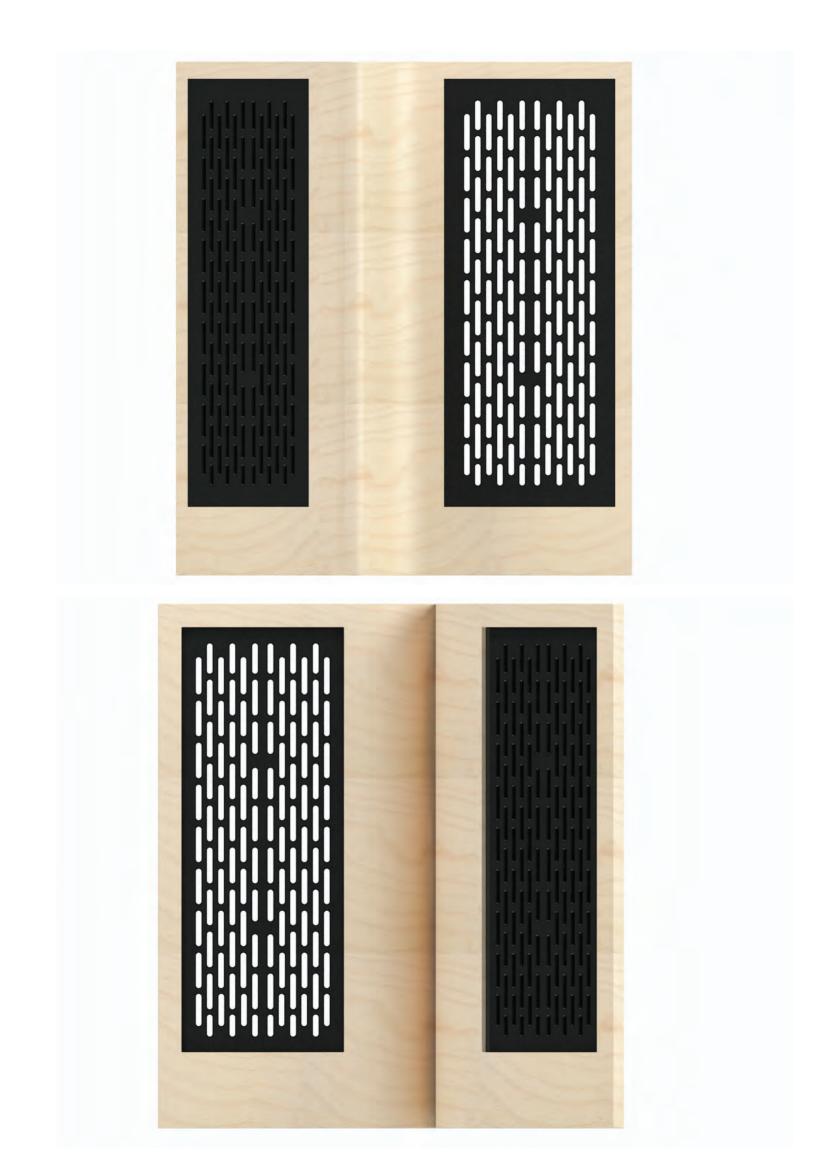
A forest product company UPM invented thermoformable plywood few years ago and named it as UPM Grada. It is becoming popular among design furniture manufacturers especially in Europe and Scandinavia. Using Grada gives freedom for designer with shapes and makes the product manufacturing process more efficient. There is no need for slow and messy gluing phase, and time consuming curing phase. The panels can be pre-cut (e.g. with CNC or laser cut) to desired shape before forming. In addition, Grada panels can be surfaced using e.g. veneers, laminates and textiles before forming. Therefore the product manufacturing process becomes not only more efficient but also more sustainable since less machinery, space and energy is needed. (UPM Grada 2013)

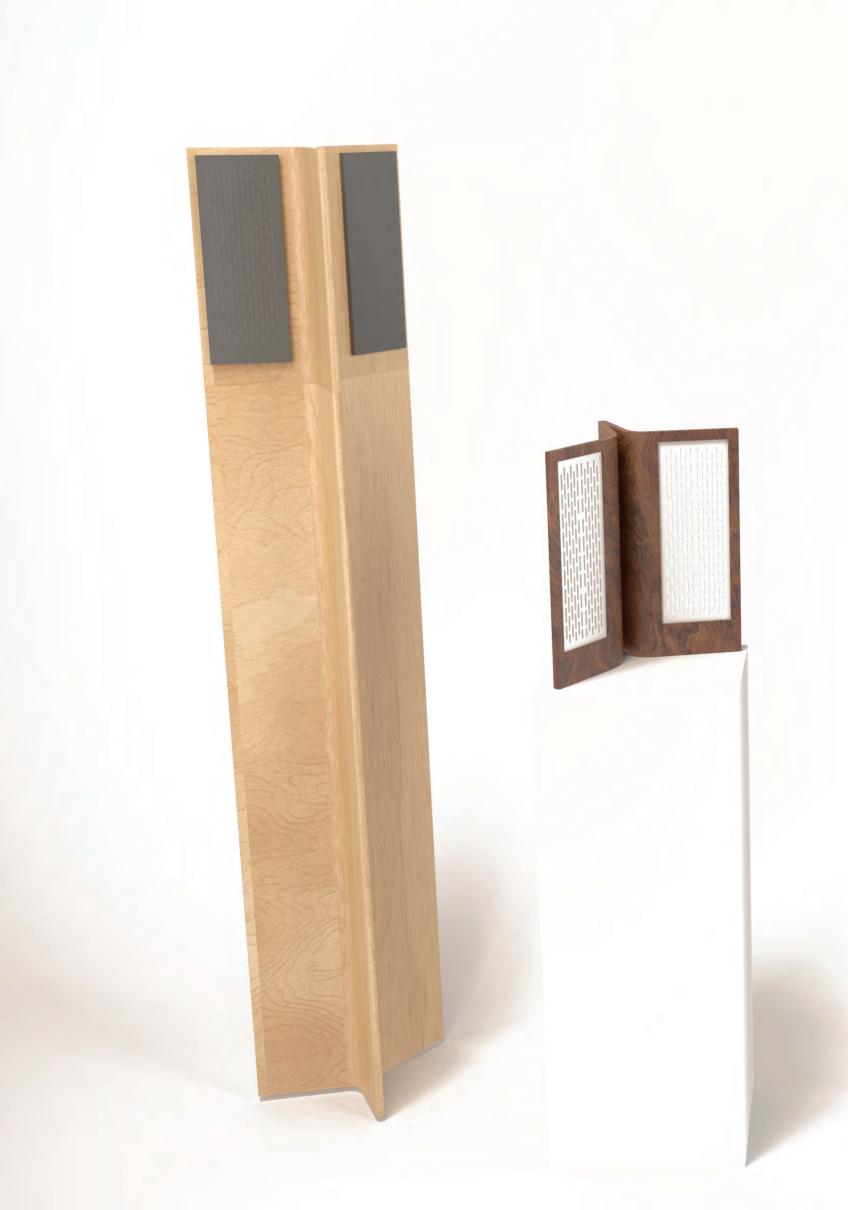
Grada forming process requires three phases: heating, forming and cooling. Panels needs to be heated throughout up to 130 °C to enable forming. A heated flat press is the most efficient way to heat the panels. For the forming phase it is recommended to use a mould and pressure. The mould has to be cold (ca. 30 °C) and the hot Grada panel needs to be moulded quickly after heating to avoid cracks. The finals shape is ready when the temperature of the panel has decreased down to 80 °C. After that the product is ready for finishing. (UPM Grada 2013)

Grada as a material is safe, durable and ecological. It does not contain any harmful compounds. Compared to most other plywood products, Grada does not contain any added formaldehyde or volatile organic content. Therefore it is ideal for public and private places such as living rooms. The material is strong, rigid and impact resistant, which improves the lifespan of the product. Grada is manufactured using PEFC or FSC certified raw materials (mainly birch) and following the best practices for sustainable and responsible forestry. The energy used for manufacturing Grada is 97% bioenergy. Grada stores CO2 and it can be safely recycled or burned at the end of product lifecycle. (UPM Grada 2013)

Currently there are no distributors for Grada in Australia. However, UPM interested of expanding their sales. There might be potential for collaboration with them. For example, in Finland UPM has been collaborating with Genelec speakers with marketing in media.











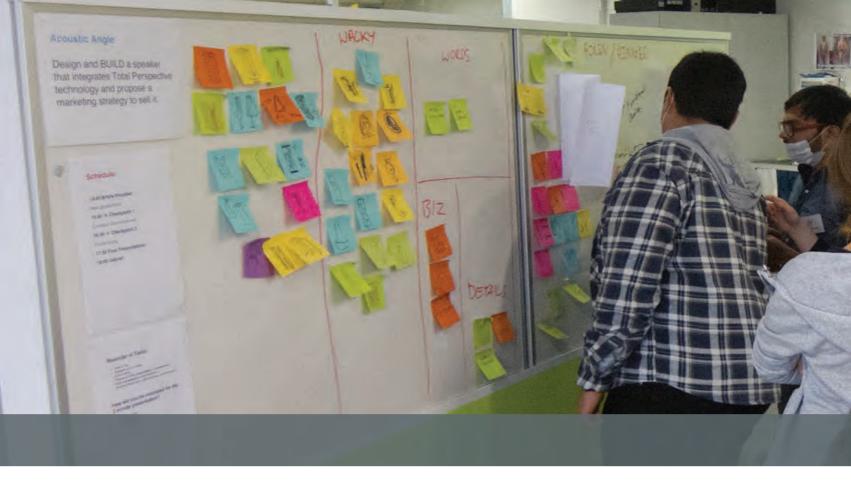
Target Market

The target market for Involve Audio is people who are interested in speaker systems and who are financially capable of purchasing these speakers. We believe that the groups of people that will be targeted are working professionals, audio enthusiasts, and family households.

The primary markets that will be targeted are working professionals. This particular group has a medium to high level of disposable income. They are not price sensitive, and seek to have the highest quality, latest products in their possession. They tend to lead a luxury lifestyle, driving cars like Mercedes, BMW, Jaguar or Audi, and often partake in sports like golf or sailing. This group of people are generally less technologically savvy, as they gather information from sources magazines, newspapers, radios and television commercials, rather than online or via social media.

The secondary market is an audio enthusiast. This particular group of people is looking for something of high sound quality, high build quality, something different and a product that has different characteristics from other competitors' products. This group of people is not price sensitive and this group size is small to medium. They will gather most their information from online sources and will be always researching information regarding speakers. Providing up-to-date social media campaigns will be the best way to target this group of people. is family households. They are going to be very price sensitive and want something of reasonable quality. The market of households consists of two different groups of people, parents and children. Due to two groups of people influencing the purchasing decision, the use of radio, newspapers and television advertising would be better utilized for the parents, and a social media campaign could be aimed at older children. They are looking for speakers that are durable and built to last, possibly due to young children being in the household.

The tertiary market group that is going to be targeted



Business Model Canvas

The Business Model Canvas visualizes and communicates clearly the business model of the product, the Y speaker. The content is discussed with more detail later in this section.

BUSINESS MODEL CANVAS

KEY PARTNERS

- Material Suppliers
- Retail Chains
- 1. Online
- 2. Furniture Chains
- 3. Interior Design Companies
- Manufacturers
- 1. Electrostaric panels
- 2. Lartama
- 3. Packaging
- Designers & Engineers

KEY ACTIVITIES

- Design
- Manufacturing
- Retail / online
- Sell
- Maintenance
- Recycle (Closed Cycle)
- Marketing
- 1. Customer Relationships
- 2. Channels

KEY RESOURCES

- Raw Materials
- Manufacturing
- I.P.
- Brand Management

CUSTOMER RELATIONSHIP

- Customer journey map
- 1. Use
- 2. Use more
- 3. Advocate

• Awareness

CHANNELS

- Engage
- Purchase

COST STRUCTURE

- Salaries
- Manufacturing
- Marketing & Advertising
- Customer Service / Relationship

CUSTOMER SEGMENTS

30-45 years Medium to High Disposable Income (\$60,000 - \$100,000) Laywers **Business People** Entrepreneurs Designers

VALUE PROPOSITION

Freedom

Freedom of sound. Solves the 1. sweet point spot issue

Unconventional

Out of the box. Literally 1.

Customizable

- Make it yours through 1.
- Customisable finishes 2.

Expandability

Build your experience with an 1. expandable product family (wall mount, tower, bookself)

Sustainability

Sustainable design: Australian 1. Made, sustainable materials (wood), efficient manufacturing

REVENUE STREAMS

- Product Range:
 - Basic Setup:
 - Surround Expansion Set:
 - Woofer towers:
 - Floor stand:
 - Wall mount:
- Technology Licensing
- Retail Distribution

• Technological Collaboration

2 x Y speakers + subwoofer unit \$2,000 \$1,000 2 x Y speakers \$1,000 2 x WT \$ 500

\$ 60

- 2 x Stands
- 2 x Wall Mount

ENGALE DENC ANANE DESKON -Rerailers Media (Blass

Customer Journey Mapping

Awareness

The goal of the first phase of the customer journey is to create awareness about the brand, the product and the technology among the target group, which in the case of the Y speaker, is aimed at people aged 30-45 with medium to high disposable income (\$ 60,000 - \$ 100,000).

Involve Audio is currently not a well-known brand, and their revolutionary technologies remain still unknown to the general audience. Therefore, creating awareness about the brand and technology are the main aspects for creating awareness for the product as well as the brand. The campaign will focus on the product branding, rather than the Involve Audio brand because of the lack of brand awareness for Involve Audio. In addition, the new brand will be targeted to different target groups than the existing Involve Audio target market.

Tools that could be used to gain awareness are listed below:

Creating brand identity including product name and tagline, logotype, website, and brochures. These are explained more in detail under the section Brand Identity. Social Media Plan and implementation is cost effective way to reach potential customers. This will be explained under section Social Media Plan. Marketing campaigns including pre-launch, launch and post launch advertising, magazine advertising, and newspaper advertising. GolfDigest, Box Magazine, Financial Review, The Age, Money, and Rolling Stones are examples of magazines and newspapers that would best utilize to communicate to the Y speaker target audience.

Digital Media utilization including Facebook and Google ads and campaigns; product showreel video for YouTube, Vimeo and Facebook; Facebook fan page, and search engine optimization (SEO). The advantage of digital media is cost effectiveness.

Press Release is a form of public relations that is designed to reach a range of people across different markets quickly and at low cost. The press release written by the team can be found in Appendix P. It could be released in Financial Review and The Age newspaper because their readers are considered the Y speaker target audience.

Engage

The goal of the engagement phase is to persuade customer to purchase products by educating them of the benefits and value of the products. The relevant questions are: how does the product make their life better, and why will they buy the product?

The Y speaker target group is not necessarily aware of the sweet spot issue. In addition, the product has other appealing features, such as unconventional design, customization, expandability, and sustainability. The target group needs to be educated about those benefits.

The following tools could be considered to support engagement with consumers across various platforms: Reviews are helpful tools for consumers to get

SE MORE SUDUME Modernizatio Play lista

unbiased feedback about the product from existing consumers, and technology journals and bloggers. Website is a platform where users get to access all the necessary information about the product. The website includes an online store to allow immediate and easy purchasing.

Mainstream Advertising to reach a wider audience through advertising in newspapers, magazines and various other channels which have a wider viewership rate. Based on the target group, Acoustic Angle has determined some of the best magazines and newspapers where Demo Room is a physical place located close to the city centre where potential customers can go to get the Y speaker audio experience. All products of the Y speaker product family are present. Demo times can be booked on the Y speaker website. The room has a tablet with internet connection that provides an access to online store if the customer wants to purchase the product after experiencing the demo.

Exhibition Display can be created to demonstrate Y speakers in exhibitions. It would be a transportable demo room. The concept can be also used elsewhere, such in golf clubs, furniture exhibitions and other pop-up displays to spread the word about the product.

Purchase

The hardest and most difficult job is to convince the customer to purchase the product. Since they have hopefully decided to buy, the actual buying action should be as easy as possible to ensure that they do not step back and change their minds. Therefore, the goal of the purchase phase is to create the best purchase experience.

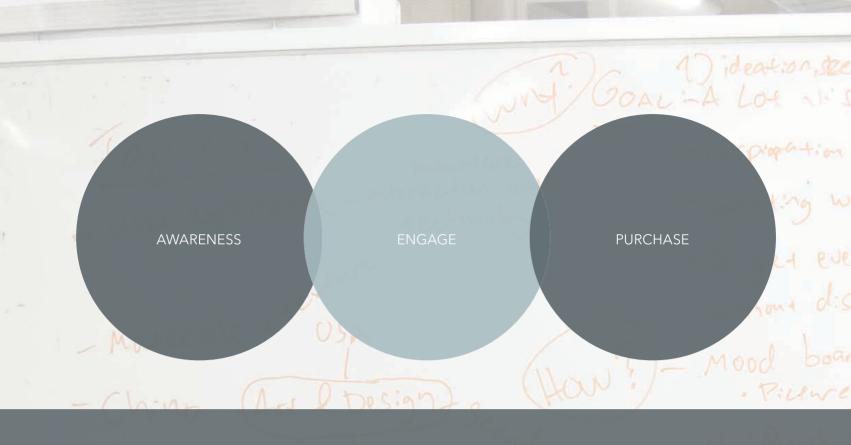
Here are listed some tools that can be used to make a good purchase experience. Online store provides a place where users can purchase the products with a payment system integrated to make the product purchase process easy. The product can be placed in Specialist audio retailer stores to ensure the positioning of the product in a unique and elite range. This also creates an opportunity to give a demonstration of the product to consumers.

Pop-up Displays - Since placing the product in conventional and regular audio stores is not a cost effective solution at this stage, Involve Audio can create pop-up display solutions/demo rooms.

Use

The first impression is important. Packaging, manuals and set-up have to communicate the same brand message and information as the website, brand visuals and advertisements. The goal is to create the best user experience, starting from the moment the product is delivered to the customer.

The following tools will be used to enhance the user experience, which involves interaction with the product: Packaging needs to communicate the same brand image as the product, website and advertisement. Packaging is an important part of the experience and thus needs to be well designed. The goal is to be able to set up the product as easy as possible. Ideally an instruction manual and support would not be needed and everything works seamlessly.



Instruction manual educates quickly using clear visuals how the Y speakers are set up. The goal is to keep it as simple as possible. Ideally, a manual is not needed. Telephone Support will provide extra safety and support for the customer if something goes wrong. At the early stage it can be just a mobile phone that Involve Audio personnel will keep on all the time. Online support for product installation can be Facebook or other social media chat facility that Involve Audio follows actively. This could be for example Facebook chat in smartphone that has also the telephone support number, to provide live product assistance and troubleshooting. Installation service options in necessary (customer service) can be considered if Involve Audio wants to expand from products to services. It could be a service that the customer needs to pay for. It could provide "professional setup and calibration of speaker system." Demo audio piece that will demonstrate the benefits of Y speakers what it comes to audio quality and Total perspective technology. It will be also good tool for customers to show the performance of their audio setup to their friends and thus help to spread the word.

Use More

To create brand loyalty, customers need to experience the exclusivity and support from the company even after the product is sold. Extending the support after the product is sold in order to support the consumer is an important aspect in building the brand loyalty. Through the process, creating exclusivity to the existing customers will be a good strategy to ensure building on the brand loyalty. In order to create this extensive adaptability, the speakers can be used for a wide range of choices and connect to several electronic products and have excellent After Sales / Customer Service where customers get to troubleshoot their technical challenges easily. Also providing a range of addons which can be integrated or interchanged with the existing system so that customers continue to build on the existing speaker system.

In order to help the consumers have a great experience through the product's life cycle, the following tools could be used to support the process 10-year warranty manufacturing faults is provided to create customers feeling of high quality speakers. This will improve also the sustainable image of the Y speaker brand.

Repair and maintenance service to fix products under the warranty period. Also, if speakers are damaged, customers can get them fixed. This will improve also the sustainable image of the Y speaker brand. Add-on product range can include for example new fabrics to cover the electrostatic panels so that customers can refresh the outlook of their speakers. In addition, the electrostatic panels could be replaced with new version.

Advocate

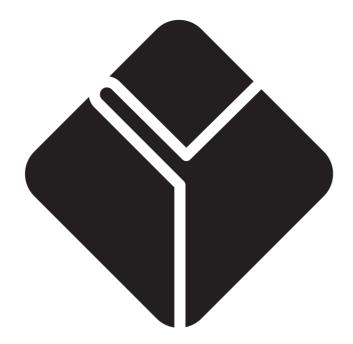
The advocate phase will help to get the already existing customers to come back to purchase more, and to make them spread the word of the brand and products. In addition, gathering feedback to refine and develop products further is valuable. The goal of advocate phase is to make it easy and appealing



for product owners to share their story, become loyal to the brand and giving their valuable feedback.

The following tools can be used to advocate further about the product:

- Discussion boards and clubs as part of the Y speaker website where customers and fans can share their hype, satisfaction, disappointments, recommendations and feedback. That would be a good place for conversations between customers and Involve Audio.
- Social media fan page in Facebook, which would work as a location and base for the fan community.
- Reviews of bloggers, technology websites and customers as part of the fan page and website. These will help to engage new customers.
- Product Updates in terms of new product releases and product updates such as driver updates to improve the surround encoding.
- Invitation to product launches and demos for existing customers and their friends.
- Merchandise such as golf balls, shirts, key chains, beer coasters, and corkscrew with Y speaker logo on them to increase the brand exposure.



BRANDING

The brand Involve Audio is positioned more technologically savvy. Currently since the product is more design-centric, the team benchmarked leading consumer electronic brands and found that having a strong product brand along with the company brand is a well established strategy. Therefore Acoustic Angle decided to create a new brand for new speakers, which would be, operate as a sub-brand of Involve Audio. The goal was to create a product name, which narrates and represents the product better to the target consumers. In addition, Acoustic Angle is also creating proposals for Involve Audio about how to enforce the new speaker brand. To support this, the team created some marketing material focusing on the key features and design benefits. Those presented in following sections.

Name, Logo and Tagline

"Y - Pure Sound. Pure Freedom." was chosen to be the name and tagline for the new Y speakers. The name represents the elegant design and angular shape of the speaker, it is easy to remember and interesting to play with - "That's Y"! The product logo for the brand "Y" went through a number of iterations, before the final logotype was chosen. The logo had to look clean, simple and professional, represent the brand values for the product, and appeal to potential buyers. As "Y" is just one letter, it seemed important to have a visual representation that spells out this letter. Development of the final logo was inspired by the speaker's shape from above, illustrating this form as a line, which originally divided a square into different sections. However, the logo read more clearly as the letter

Y when rotated 135 degrees clockwise, creating a diamond shape instead of a square. The corners of the bounding diamond were then rounded, to match the rounded edge at the end of the fold in the line on the upper left-hand side. Leaving the logo as a black and white, positive/negative form will allow it to be easily engraved on or applied to the surface of the product, and reinforces the simplicity and distinctive form of the speaker design.

The tagline was chosen to be "Pure sound. Pure freedom." It represents the superior audio experience in terms of high audio quality and the freedom of being able to enjoy the sound in any part of the room. It has also natural connection to Involve Audio's tagline "Pure sound. Pure joy."

Taglines of the Key Features

The team wanted to create taglines to communicate the key five product features without technical jargon. The key features are discussed in detail later in Proof of Concept section. In addition the features were illustrated to increase the easiness of understanding them. These feature taglines can be used in all marketing materials.

- "Freedom of sound" Total Perspective technology
- "Out of the box. Literally" Thin design with electrostatics
- "Make it yours." Customizability -
- "Build your experience." Expandability
- "Sustainable sound." Sustainable materials



Social Media Plan

Importance of social media and pull marketing The traditional way of marketing, which includes radio, television, newspapers, magazines, direct mail campaigns, etc are considered as "push" marketing. It is called "push" marketing because the marketing message is pushed out to wide audience, in order to try to make them purchase products or services. The disadvantage of "push" marketing is low price-efficiency ratio: a lot of money is required to connect to a very small percentage of customers. The contemporary method of marketing is called "pull" marketing. Pull marketing utilizes the advantages of Internet and "pulls" customers through search engines to the business web sites. The web site needs to contain relevant and proper content for customers looking to purchase. (Packer 2011)

The use of social media continues to grow, which means new business opportunities not only for new businesses but also for traditional ones. For example in U.S. in 2010 80% of online users aged 18-29 use social media such as Facebook and LinkedIn. The rate is high among adults as well. 61% of online adults aged 30-49 and 47% of aged 50-64 use social media (Packer 2011). Another growing trend is online sales. In Australia, the annual online retail sales growth is predicted to be 9.6% in 2013 (ABC 2013). In the UK, the growth rate is estimated to be 14.5 % (eMarketer 2013).

Social Media Plan Proposal for Involve Audio

To benefit from the three trends mentioned before, it is recommended that Involve Audio would create their own social media plan and start implementing it as part of their marketing. The following plan is created based on the framework created by Ron Packer (2012). The plan is divided into four steps: the discovery phase, the pilot project phase, the creation phase and the measurement phase.

Goals and Objectives	Metrics of Measurement	Tools
- To improve brand and product awareness of Y speakers across social media channels	 Number of visits on Involve Audio and Y speaker Facebook, Twitter, LinkedIn and Instagram pages. Number of links, blog posts, likes, hashtags, tweets, tags, status updates and instagram pictures of Involve Audio and Y speaker 	- Facebook Ads - Google Webmaster Tools - Search Engine Optimization - WooBox



- To increase positive sentiment about the Y and Involve Audio brand	- Number of positive and negative messages written about the Involve Audio or Y speaker brands	- EDMSs, - MailChimp / Constant Contact
-To increase traffic to the Y speaker and Involve Audio website	- Number of website visits	- Google Webmaster Tools - Organic Optimization - Google AdSense/ Adwords Business Registry Online Services
- To educate people of the product and problems the products solves	- Number of visits in product pages - Number of conversations of product in blogs and forums	- eDMs - Mailchimp - Google Analytics

- To engage customers and potential customers to conversations	- To engage customers and potential customers to conversations	- Campaigns - Blogging
- To gather feedback	- Number of feedback messages	- Excel spreadsheet

Pilot Project

Create Facebook, Instagram, LinkedIn and Twitter pages for Involve Audio and/or Y speakers. A uniform visual style should be used to communicate across the different platforms. The style should be considered to appeal to the target group. For the Y speakers, the communication style could be expert (expert of product and design). It is also important to keep the same style regardless of who is writing. That will increase the level of professionalism. Remember to create links to your website so that it is easy to find more information when awareness turns to engage and purchase.

Once the pages are published it is advised to start actively listening the potential customers. Visit the pages they use, read what they write and learn what they think. Slowly start participating in the conversations. Do not start selling your products immediately. Instead of pushing your marketing message, try to pull customers to you by acting as a valued participant of the conversations.



Implementation Phase

Develop relationships by participating in the conversations. Post comments on blogs and forums. Answer questions. Start following relevant Twitter chats, Instagram pages and news feeds.

Define what kind of content visitors want. Y speaker target group may want to know what is the value the speaker would bring them. In practice, they have to be educated of the benefits of the product. The main features should be presented as solutions for a problem instead of just technical features. Customers may not necessary know what is a sweet spot and thus they have to be educated first to realize that they have that issue. The technical feature is just tiny detail for them. All that matters is if it solves their problem and brings value.

Social media works well for marketing campaigns. Before product launch awareness and excitement can be created revealing tiny details of the upcoming product.

The Measurement Phase

Measurement is crucial for success in social media. Track down when you update something and follow what is the result. For example, how many new visitors come to the website after the blog update? Assess the results, modify the strategies and improve the performance or the campaigns. There are tools available for measurement.

Resources

All this requires work and effort. One way is to donate

an hour or two each week and later each day for social media conversations. Another proposal is to hire personnel who are familiar with social media marketing. It might be good idea to hire a young and enthusiastic marketing student or just some other enthusiastic person for internship or part-time job to start implementing the social media plan. Young generation is fluent in social media already. They understand how it works and they have seen a lot of social media marketing already. They are experts without realizing it.

Gala Stand

The measurements of the Gala stand is planned to be 4x4 meters. The stand should be against one wall. People will be able to walk through the stand from more than one direction and move around the stand. The stand will be looking very clean and not overwhelming by the look but by the sound experience you can have, when you just walk through the "sweet spot" zone.

The whole square of the 4x4 m will be marked with a bright and colorful masking tape to the ground. Also there will be markings for the positions of the entrances, speakers, stools, and plinths.

This should give the impression of a floor plan. The "room" will be provided with the four speakers, one in each corner, to create the Total Perspective



Sound. There will be movable stools in the center of the stand. In the center of two of the speakers there will be a TV or Screen. Involve will be providing one or two subwoofers, hopefully two, these will go in between the TV and front speakers. We will use more than one socket.

The things which need to be connected to power are: TV/Computer Monitor, a laptop to run the monitor, two sub woofers and the three electronics things to power the Y Speakers and cables will be taped to the ground to fix and avoid people stumbling over them. Also there will be two X-banners or retractable exhibition banners (830 x 1800 cm, one sided) providing further information and pictures to the audience.

Electrostatic Panels and Electronics Casing

The visible supporting frame of the electrostatic panels is usually made of plastic. Also the case protecting other electronic components is made of plastic.

By replacing plastic with biocomposite would decrease the carbon footprint significantly (NatureWorks 2013). Biocomposites offer also great stiffness and strength (NatureWorks 2013; UPM 2013) allowing thinner wall thicknesses and structures, which in other terms means less material and thus cost savings (UPM 2013). In most cased biocomposites can be used like traditional plastics what it comes to product manufacturing (e.g. can be injection moulded). Biocomposites have also other benefits such as non-vibrating behavior that is great for speakers (UPM 2013), high quality feeling and touch (UPM 2013), and natural look (Kareline 2013).

There are not many biocomposite or natural fibre composite providers yet since those are relatively new. Kareline and UPM have their own wood fibre (Kareline 2013) and pulp based (UPM 2013) biocomposites where CSIRO (2013) and NatureWorks have focused more on other plants based composites (NatureWorks 2013). There is also a lot of research going on in universities especially in Aalto University (2013) in Finland and Boku (2013) in Austria.

The future will be more and more in sustainable materials and products and thus it might be useful to start working on those materials already before competitors do. Sustainable materials can be a great marketing asset to bring more customers but also great way to cut costs. By being sustainable is not only ecological but also economical.



Acoustic Angle strongly recommends that the manufacturing be done in Australia instead of Asia. An interview with Klapp Audio sales personnel revealed that "Made in China" gives the impression of low quality for people looking for good audio experiences. None of the quality brands are manufactured in China because of that reason. The manufacturing is potentially more expensive in Australia, but the cost difference should be considered as a

marketing investment to gain more customers.



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- ABC 2013, NAB index shows online retail sales in Australia are growing at the slowest rate in three years, viewed 10 October 2013, http://www.abc.net.au/news/2013-09-30/online-retail-sales-fall/4989514>
- eMarketer 2013, UK Online Retail Growth Flatlines, as Mobile Drives Growth, viewed 14 October 2013, http://www.emarketer.com/Article/UK-Online-Retail-Growth-Flatlines-Mobile-Drives-Growth/1010262#2RCxKdhlvE7rFWcd.99
- Packer, Ron 2011, Social Media Marketing The Art of Conversational Sales, WSI Institute, viewed 10 October 2013, http://wsiinstitute.com/media/ec/SocialMediaMarketingWhitepaper.pdf>
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- CSIRO 2013, Advanced and composite materials, viewed 25 October 2013, http://www.csiro.au/Outcomes/ICT-and-Services/Data-deluge/Advanced-Materials-Overview.aspx
- Kareline 2013, Products, viewed 25 October 2013, <http://www.kareline.fi/en/products/>
- UPM 2013, ForMi, viewed 25 October 2013, http://www.upm.com/formi/Pages/default.aspx
- NatureWorks 2013, Products& Applications, viewed 25 October 2013, http://www.natureworksllc.com/Product-and-Applications>

APPENDICES

Appendix A: Moodboards







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User Experience

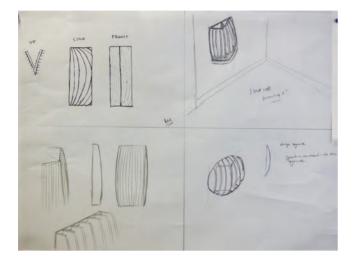
Art & Design

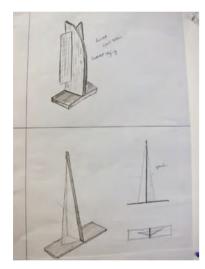




Appendix B: Sketches

from left to right: tower twins version 1 twins version 3 japanese screen/ the y

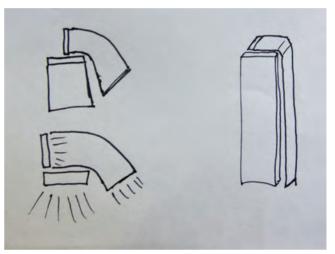




The Elephant Contemporary Design utilising a baffle in between the panels

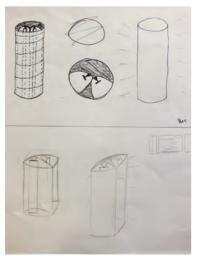
Audiowave Tube

The idea here is that audio waves could be redirected using tube kind of structure. In the picture you can see electrostats that are aligned perpendicular to each others to save space. Totap perspective effect is created with the tubes that point the audio to 2 different directions.



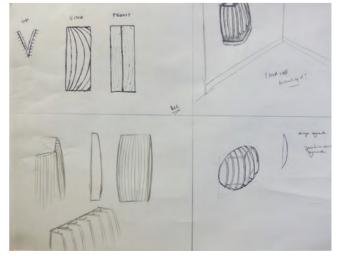
"Orange Segments"

The initial idea was to use curved slats on the both sides of the speaker (see the sauna light below). Slats would point the audio waves accurately towards listener. The radius of the slats decreases towards the back. Could me made out of wood. Streamlined, fins/columned design.



Concealing the speakers

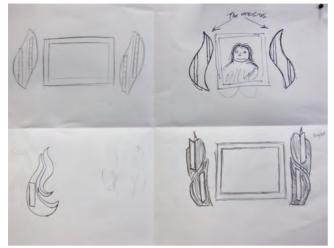
Parabola shapes could be conceled inside the speaker. The outer surface could be, for instance, thin fabric. There is also possibility extended functionalities using speaker as a lamp.



Leaf/Organic Shape

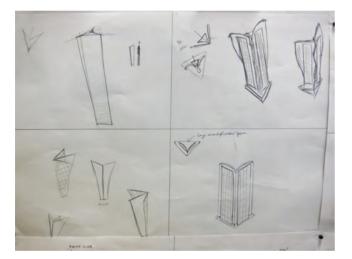
Petal/leaf/nature inspired shapes. To sit either side of a television screen.

Would use a parabolic reflector behind electrostatic panels to allow for wall mounting.



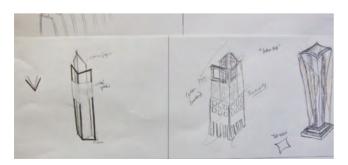
Pillar

Very clear and reduced look.



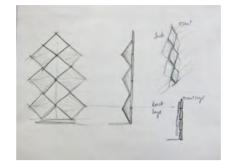
Layers and Frames

The construction is build up of a frame of metal or wood with integrated speakers (wrapped cloth).. the rear part of the speaker's function is to give a background for the frame and a plane of reflection for soundwaves.



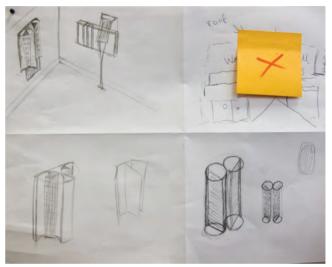
Planes

The planes in the central are straight and not functional. The lateral planes are folded back and build the speakers. In addition, the lateral surfaces are offset backwards so that there is a distance inbetween the central and lateral planes ...



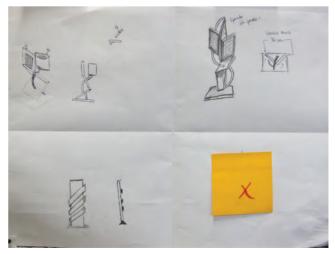
Cylinders

Use of the half cylindrical "parabola" shape, with the speaker panel sitting nicely inside the half round shape. Has the potential to be wall mounted.



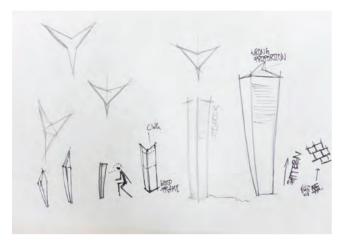
Avant Garde

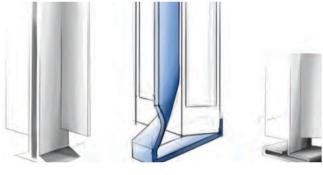
"Art object" and sculptural approach. Use of mixed materials such as wood and metal. Floating speaker panels, angles.

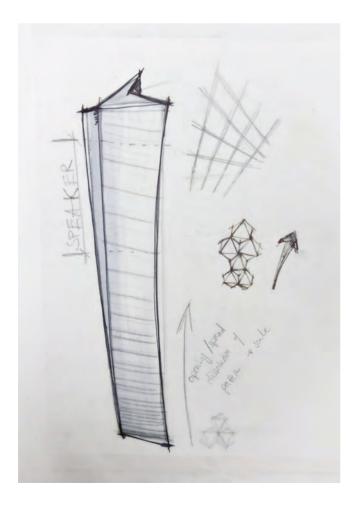


Appendix C: Idea Bank

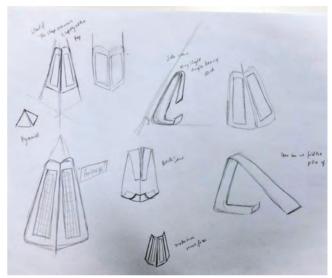
Sketches

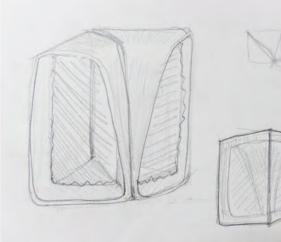


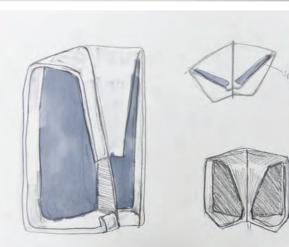


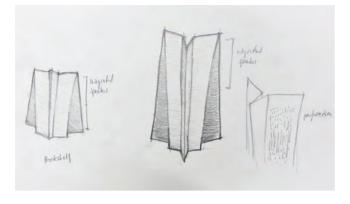


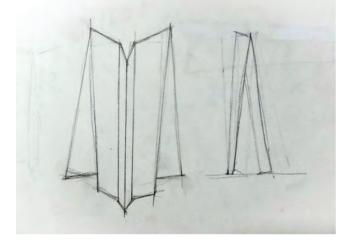
Contraction Contraction PD. D all he was a for a TI Agenal Super

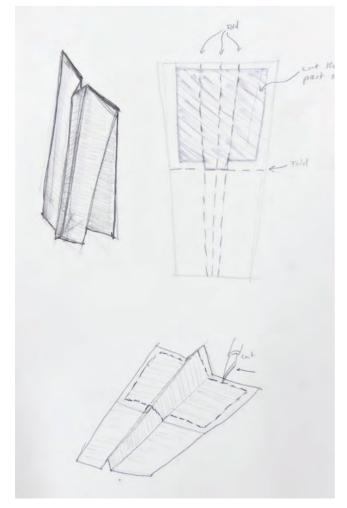


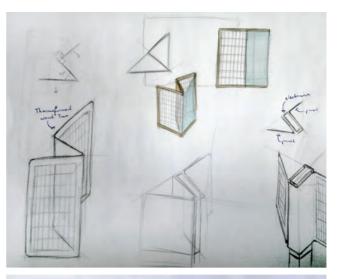


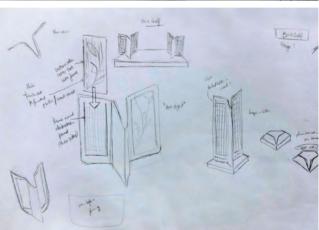


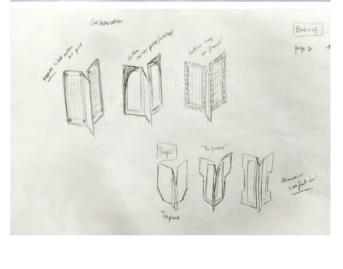












Appendix D: Prototyping

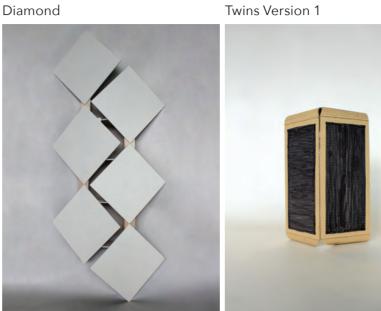
Folding Bookshelf (concertina)

Foldable panels...basically there are different panels,

Parabola







Elephant





Diamond



Twins Version 2







Japanese Screen



Twins Version 3



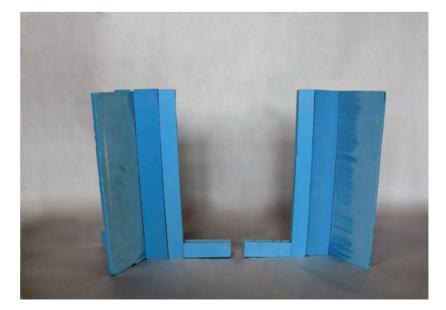
Twins Version 4









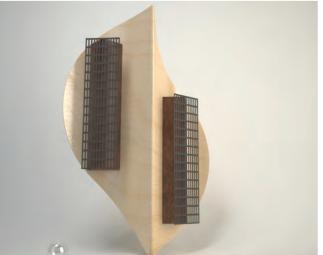


Appendix E: Concept Renders 3 to 4, that make up the speaker. the furthest

3 to 4, that make up the speaker. the furthest panels are the electrostatic panels that emit sound, while the panels in between act as baffling to direct/stop the sound.





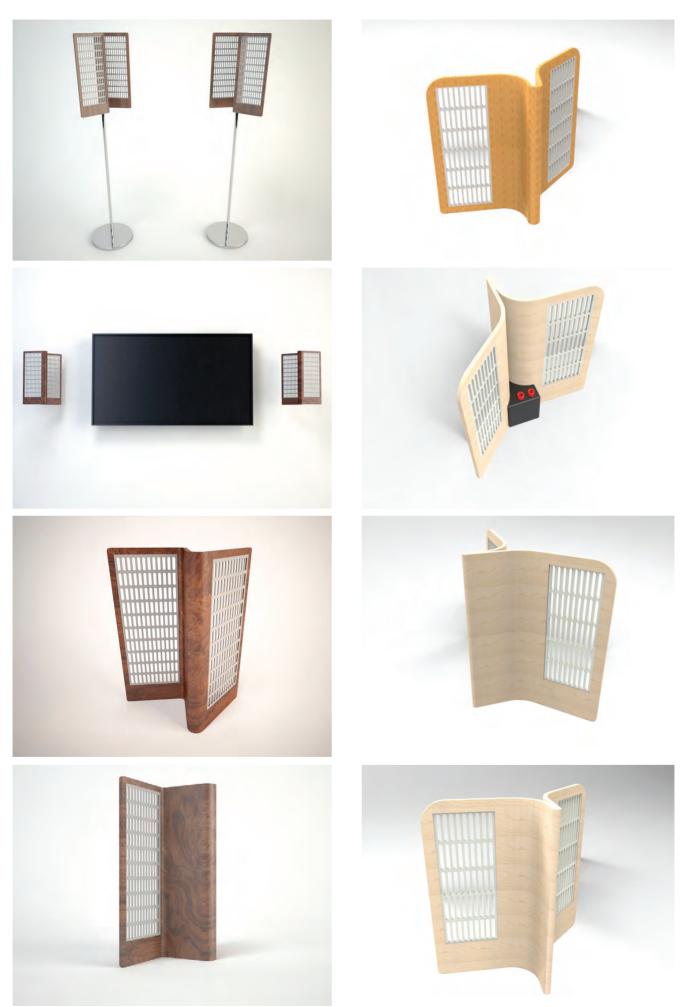


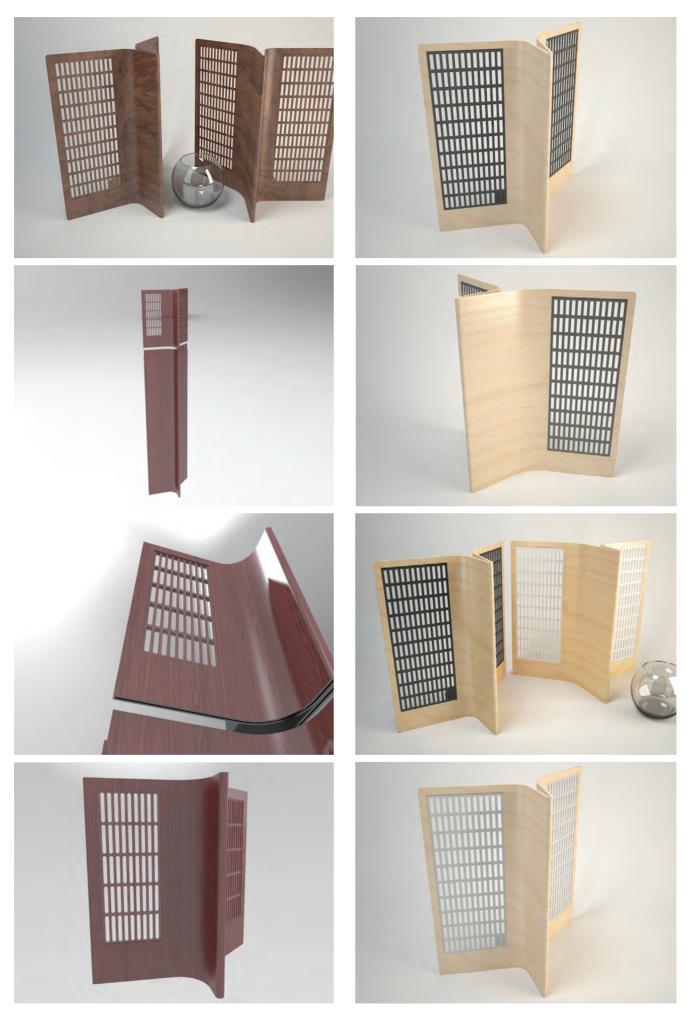






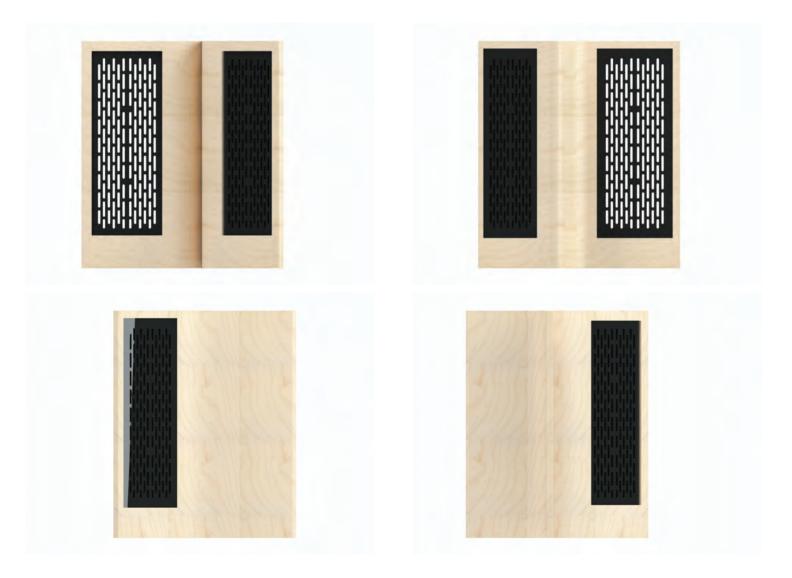
Concept Renders





Appendix F: Final Concept Renders

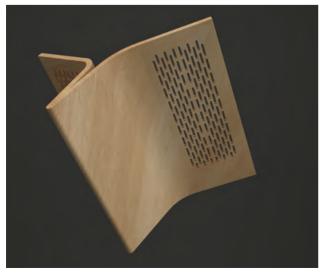












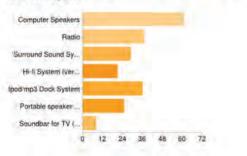


Appendix G: Survey Results

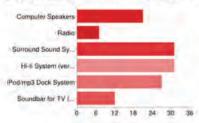
User Survey (90 Respondents)



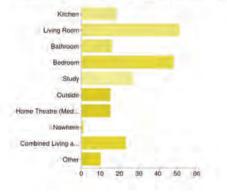
2. If you answered YES to Question 1, please mark the following of what you have. If you answered NO please move onto Question 3. You may mark more than one response.



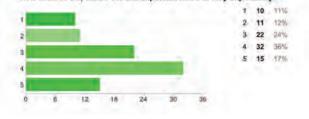
3. Have you considered purchasing a speaker system, and if so please mark the following. You may mark more than one response.



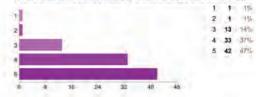
4. If you answered YES to Question 1, where do you use your sound system? Please mark the following. You may mark more than one response.



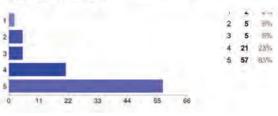
Styling [5. Please rate how important these features are when buying speakers, on a scale of 1-5, where 1 is not important and 5 is very important.]



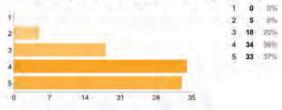
Product Life Span [5. Please rate how important these features are when buying speakers, on a scale of 1-5, where 1 is not important and 5 is very important.]



Compatibility with devices (eg. TV, Phone) [5. Please rate how important these features are when buying speakers, on a scale of 1-5, where 1 is not important and 5 is very important.]



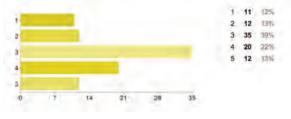
Price [5. Please rate how important these features are when buying speakers, on a scale of 1-5, where 1 is not important and 5 is very important.]



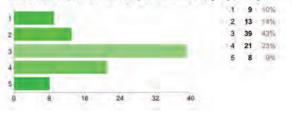
Special Features [5. Please rate how important these features are when buying speakers, on a scale of 1-5, where 1 is not important and 5 is very important.]

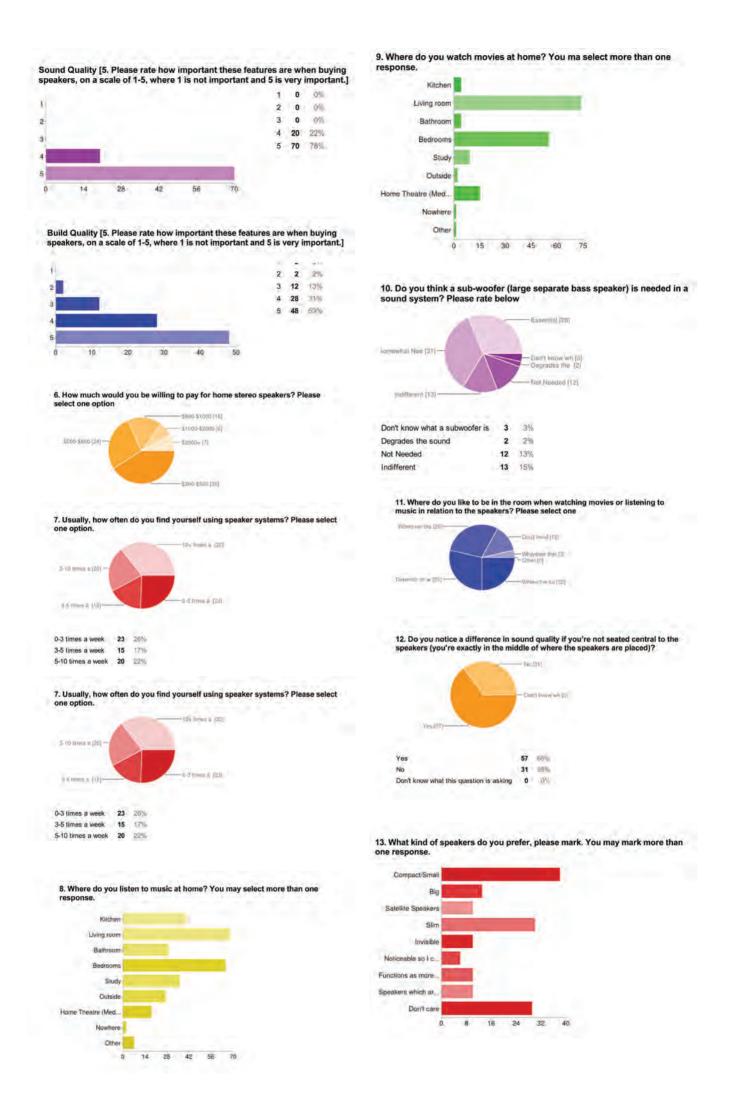


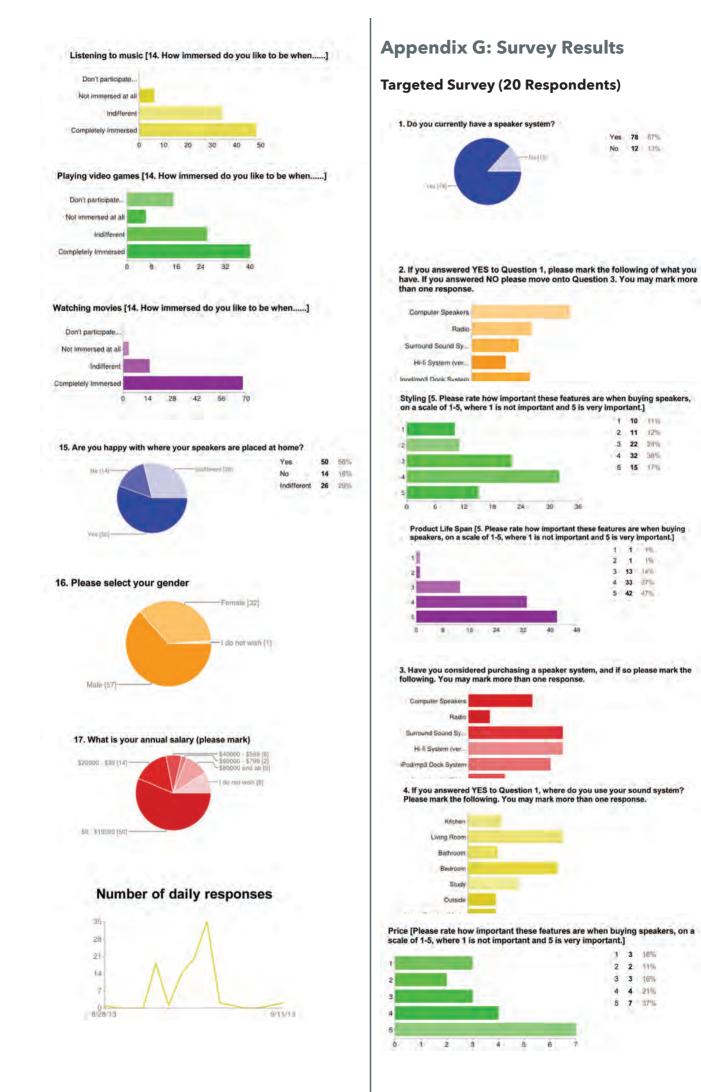
Recommendations from friends [5. Please rate how important these features are when buying speakers, on a scale of 1-5, where 1 is not important and 5 is very important.]



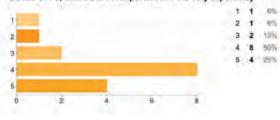
Brand [5. Please rate how important these features are when buying speakers, on a scale of 1-5, where 1 is not important and 5 is very important.]







Brand [Please rate how important these features are when buying speakers, on a scale of 1-5, where 1 is not important and 5 is very important.]



Compatibility with devices (eg. TV, Phone) [5. Please rate how important these features are when buying speakers, on a scale of 1-5, where 1 is not important and 5 is very important.]



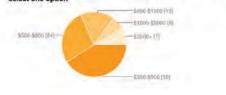
Price [5. Please rate how important these features are when buying speakers, on a scale of 1-5, where 1 is not important and 5 is very important.]



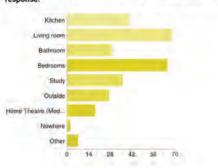
Special Features [5. Please rate how important these features are when buying speakers, on a scale of 1-5, where 1 is not important and 5 is very important.]



6. How much would you be willing to pay for home stereo speakers? Please select one option



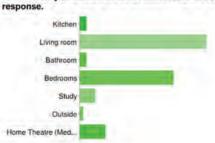
8. Where do you listen to music at home? You may select more than one response



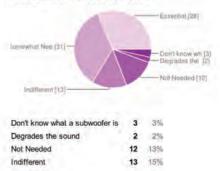
How much would you be willing to pay for home stereo speakers? Please select one option



9. Where do you watch movies at home? You ma select more than one



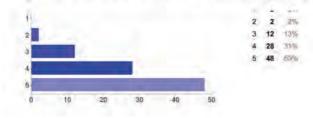
10. Do you think a sub-woofer (large separate bass speaker) is needed in a sound system? Please rate below



Recommendations from friends [5. Please rate how important these features are when buying speakers, on a scale of 1-5, where 1 is not important and 5 is very important.]



Build Quality [5. Please rate how important these features are when buying speakers, on a scale of 1-5, where 1 is not important and 5 is very important.]



Appendix G: Survey Results

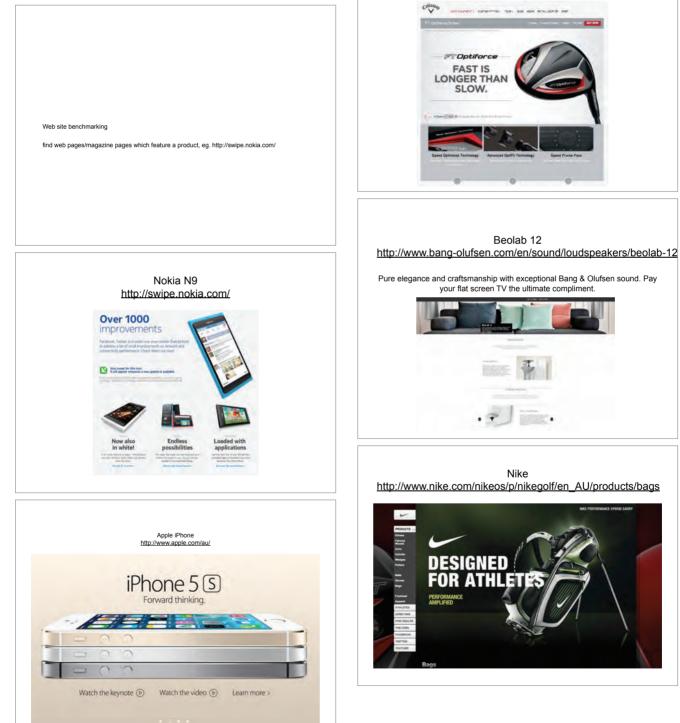
Tag Heuer

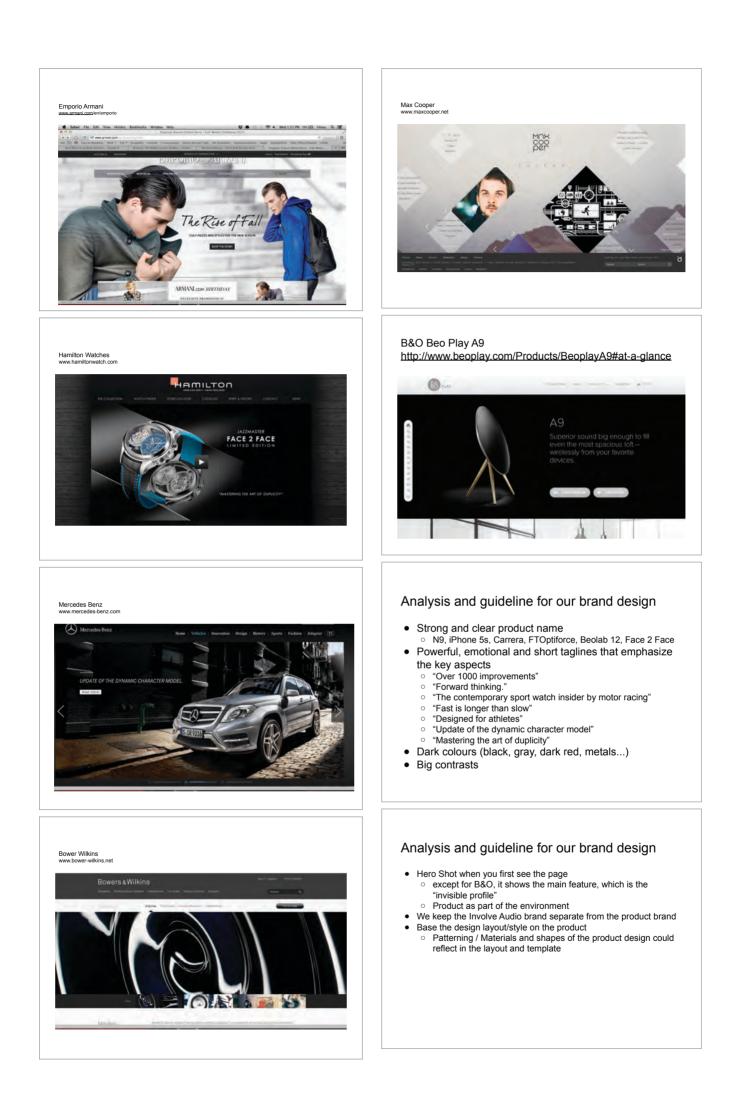
http://www.tagheuer.com/int-en/luxury-watches/tag-heuer-carrer



Callaway

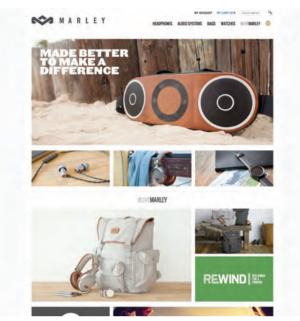
http://www.callawaygolf.com/global/en-us/golf-equipment/golf-cl





Appendix I: Competitors

House of Marley



Moss / Versus - Designed by Florian Brillet and David Letellier

Moss







Marley Sound

Design and Principles

Earth Friendly materials

Unique designs

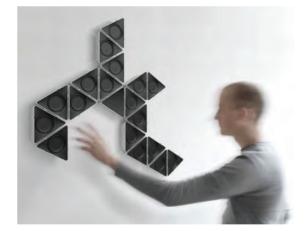
Cause Minded - 1love.org

Ways of Market Penetration

Fan Following

Social Media Integration

Developing systems true to



Design & Principles Modular Infinite possiblities to adapt and personalize Adaptability Marketing Strategy Artistic / Boutique / Featured primarily in home living and less in tech review

Innovative Marketing Strategies

British Airways / Collaborated with Silicon Valley



 $\label{eq:http://ungroundedthinking.com/post/52706731354/ungroundedteamtransatlantic$

Nikon Social Sharing Campaign / Collaborated with Warner Sound



Warner Sound captured with Nikon DSLRs

Shared on social platforms

More than 500,000 people watched our live stream shot with Nikon HD-SLR cameras and the average viewing (11+ minutes) was 5X the industry average

We reached the #1 trending topic on Twitter the 2nd night of our three-day activation and were among the top trending topics all three nights

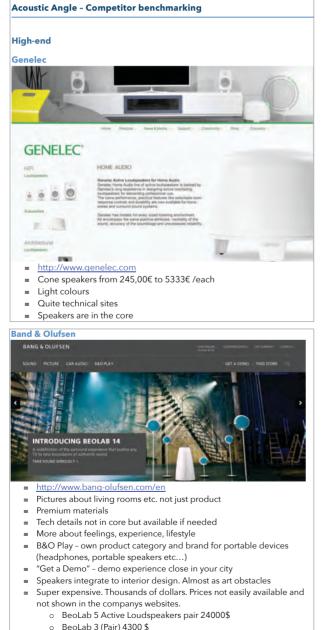
Over 1,100 photos were captured and shared by consumers taken with Nikon cameras that attended the event

More than 15,000 social posts featured our program tag #NikonWarnerSound and sentiment was incredibly positive The campaign generated over 46 million media impressions through coverage in leading publications and more than 166 million social impressions.

Advertising references

Panasonic



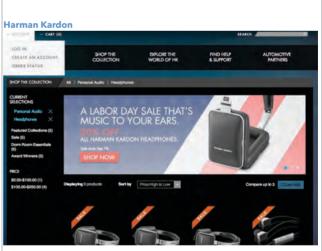


o BeoLab 3 (Pair) 4300 \$ http://www.shopbangolufsen.com online store



- craftsmanship
- Prices not available at the website ~

Mid-price



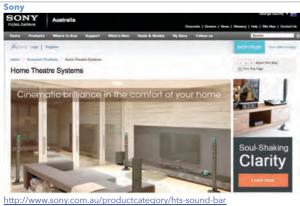
- ĩ http://www.harmankardon.com/estore/hk/us/shop/Headphones/cat3 70050
- Dark colour theme and see tha USA flag on the back!! ~
- They actually promote headphones with US flag!!
- HK also sells high quality amplifiers with not that high quality ≅ surround speaker sets.
- Marketing is about technical details.
- "An elegant surround-sound **soundbar** that eliminates component ≅ clutter."
- Soundbars comes with subwoofer. Prices: 799,95\$ and 499,95\$ ≅
- ≅
- Don't' produce speakers but amps Surround speaker systems: 179,95\$/pair to 999,95\$/5.1 ≅



- Surround setups: 399,99\$ to 699,99\$ ≅
- ≅ Don't' produce speakers but amps \cong Tries to be elegant and stylish
- Cheaper stuff

Jamo VIEW NOW http://www.jamo.com/ ≅ Targets to many customer segments

- - \circ $\,$ Young people 25-35 with a short video of young couple $\,$ dancing in their living room. Speakers at back o More elegant speaker designs for more mature people
- Lot of stuff and products. Easy to lose interest because of that.



- ≅ White and gray theme
- ~ Really technical with some visuals explaining how thngs work
- Soundbars from 399,99\$ to 1399,99\$ ≅ Surround systems with amps from 179,99 $\$ to 1299,99 $\$ ≅
- Selling 5.1, 7.1 etc not that much experience ≅
- ≅ Lot of stuff and products. Easy to lose interest because of that.

Start-ups



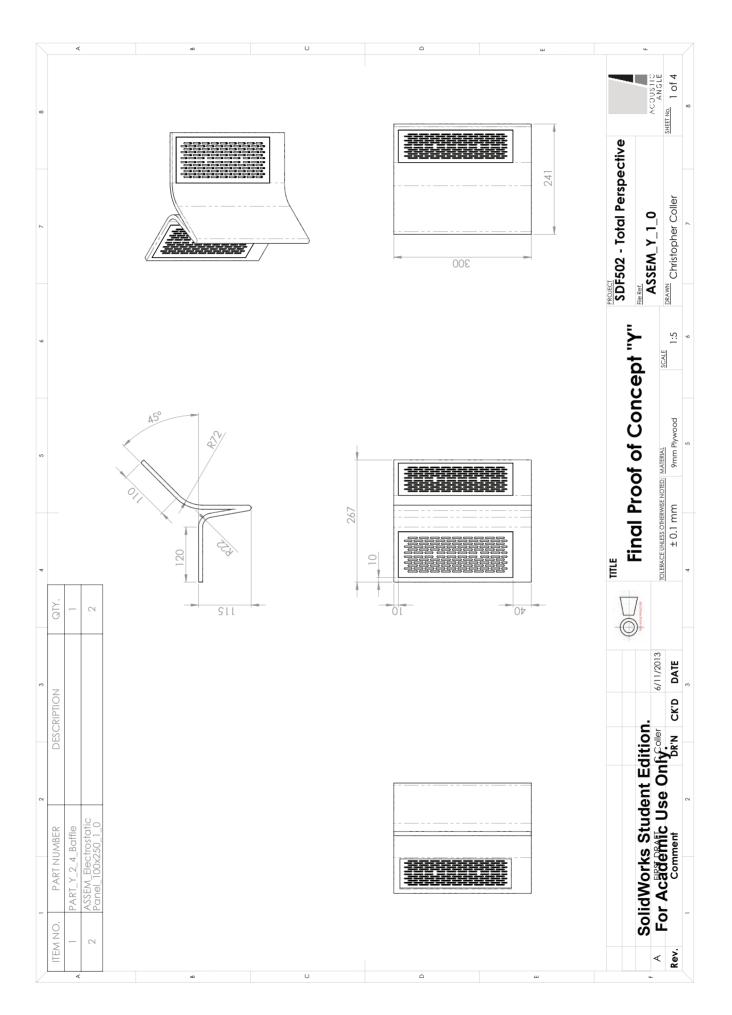
- http://www.uploudaudio.com ĩ
- ≅ Finnish loudspearker start up who are just starting their business
- ≅ Really cool looking fresh websites
- Conespeakers part of interior design ≅
- Focus on websites are not on speakers but on their use in different ≅ environments

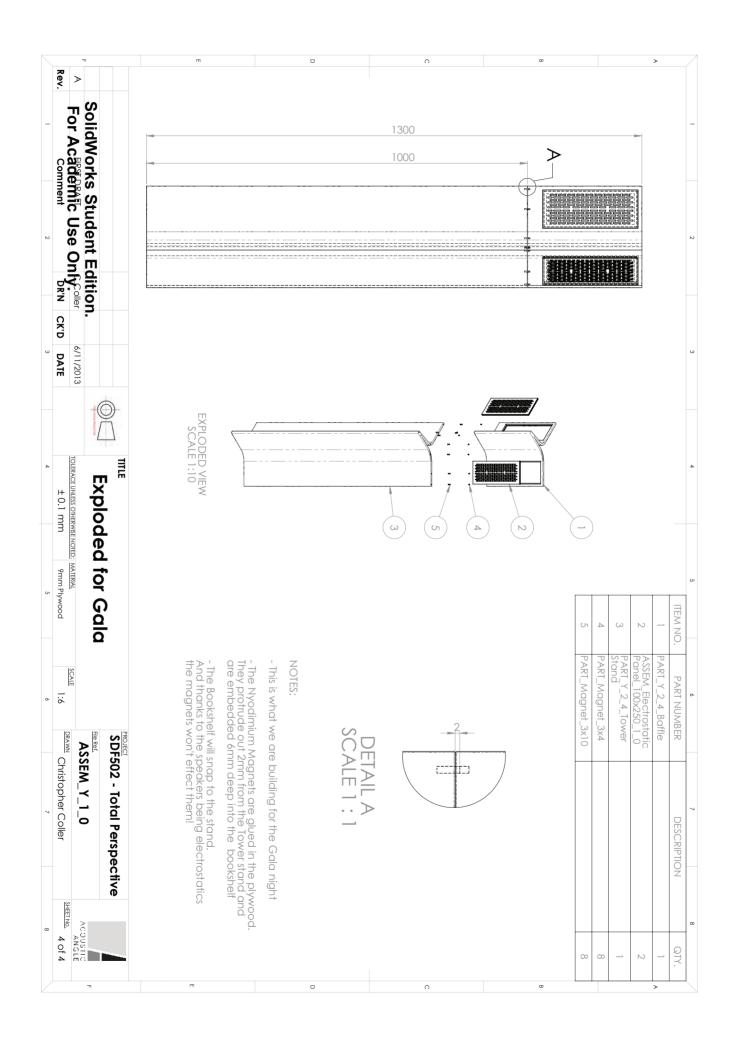
Sonolux



- http://www.sonolux.fi/en/ ≅
- Another speaker company from Finland integrating speakers to ≅ interior design. Actually speakers are also lights.
- Totally customizable colors (fabrics can be changed)
- 1990,90€/pc. And covers 190€

Appendix J: Technical Drawings







Appendix K: Product Naming

Name	Explanation
Ripple	Sound is air waves. Ripple is a beautiful word describing a thin and delicate wave
Gem	Like diamond. Precious that you wanto have. Beautiful and valuable.
Clef	Connects you to the world of music. Word well known for musicians but connects also others to the musical context.
Bass Clef	Could be used for the base speakers in case of tower + wall mount combination
Treble Clef	Could be used for the wall mount part in case of tower + wall mount combinati- on
Wei	River in China. The valley of the Wei was one of the early cradles of Chinese civilization.
Wind	Sound is like mild wind
Koala	It's an ANIMAL, you dum as!
Z	Represents the simplicity, elegancy, shape of speaker, modern
Υ	Represents the simplicity, elegancy, shape of speaker, it sounds beautiful
Säde	Ray in Finnish
wal	Like Y but just written like it is said. Pretty close to Wei river as well
Wide Spot	Instead of sweet spot we have wide spot
Verse	
Chorus	
Song	Chinese dynasty and has also meaning in english
Pepper Spot	Instead of sweet spot we have another kind of spot. hehe
Vapaa	Free in Finnish. Represents the freedom of choosing your listening place
Vapaus	Freedom in Finnish. Represents the freedom of choosing your listening place
Tiger	rawr
Sing	Represents the pure audio.
Wave	Audio is waves. Represents the audio quality.
inverse	inverse experience: small speaker, great sound.
mighty yoda	???
dragonfly	lighter version of dragonspeaker, follower of dragonspeaker, fly represents light- ness of speaker
firefly	represents the luminous sound, fly represents lightness of speaker
flatbeat speaker	flat panels
boom tower	massive sound, probably only for a tower speaker
sound master	greatest speaker ever
tower of sound	massive sound, probably only for a tower speaker
tower of light	outstanding sound, not comparable to other speakers
kirei	jap. clean; clean sound
fukai	jap. deep; deep sound
eNvelope	the N is the shape of the Jap Screen idea
Clear Screen	jap screen, clear through it
Byobu	folding screen wall

Hajime Hoyahoya	beginning, uncharted/new
Dragon Screen	from nakamichi dragon speaker
Dragon Wing	from nakamichi dragon speaker but the wing as it is like a wing
Haiku	japanese poetry
Haiku Screen	
Acoustic Angle	our team name, might work if changed a bit
Nakamichi Screen	
kazuki	tree
audiophase	
zen	relaxing, in the zone
kishi kaisei	wake from death and returne tp life
dragon shield	
uni-sound	one sound
yuudai	grandeur, splendor
x-air	
phantom	
nakama	good friend
omoshiroi	interesting
audio-fiber	
composite	
Origami	japanese paper folding art
Otogami	Japanese "oto" (sound) and "origami" (paper folding)
Otokami	Japanese "oto" (sound) and "kami" (paper)
Vertex Surface	
O-Tower	Variations on "oto" and "tower" - tried blending the words together
Taw Audio	
Airspace	
Ongaku	Japanese for "music"
Kiku Tower	Japanese "kiku" (listen)
Trifold	
Triwing	
Airwing	
Soundfold	
V-Base/V-Bass	
Planule	reference to modules
Hummtron	
Oto Byobu	Japanese "oto" (sound) and "byobu" (folding screen)
Sound Lantern	our designs could light up?
Concertina	
Windraker	
Orime-oto	Japanese "orime" (fold) and "oto" (sound)
Ejji	Japanese for "edgy"
Overlap	

Envelop	
AudiGami	English "audio" and Japanese "gami/kami" (paper)
Concorde	reference to aviation
Twinvolution	
Module "T"	
Above Base	
Transcend Audio	
The Edge	
Reflexion	
Ichigo Ichie	Japanese - A meeting that occurs once in a lifetime
Υ	Shape of the speaker
Undei No Sa	Japanese - The seperation between clouds and mud (the vast difference between the two)
Fly	
Move	Cause you can move around
Yugen	Japanese - Awareness of the universe triggers deep undescribable emotional response
Lightning	From the shape of two of the designs
Run Wild	
Immersed	
Zipline	
Listen In	
Freedom	
Excite	
Feel Free	
Kiyome	Purity in Sound, Design and Experience
Acoustic Art	Art of Sound
AudiArt	The perfect blend of audio and technology
Jiyu	Freedom to the listening experience

Appendix L: Product Name Proposals

Product Brand Identity Workshop

Goal 1

to have a pool of more than 100 words answering "What does the product represent to you?" - to have those categorized

How we are gonna do it? Write down words to post it's that comes up to your mind about our products.

Quantity matters! We need at least 100 words. 10 minutes

Categorize them into less than 10 groups 15 minutes

Homework 6 votes for each Fill the Google Survey

Goal 2: to have a pool of more than 100 name proposals - to have those categorized

MAKE IT MEMORABLE The key to any name is grabbing attention and staying memorable.

FILL IT WITH MEANING Choose a name that tells your brand's story.

SAY, SCREAM, SING IT OUT LOUD Names that roll off the tongue invite customers to become your viral marketing agency

DON'T WAIT TO FALL IN LOVE Even the best name may not seem terrific the first time you hear it.

Gordon, Matt & Foleythe, Nick, 2012, FOLEYTHE 8 PRINCIPLES OF PRODUCT NAMING,

STAND OUT IN A CROWD If you are different, you want to sound different.

TOO MUCH IS NEVER ENOUGH Develop thousands of alternatives

EXPECT ITS STORY TO EVOLVE

There are always reasons to dislike a name, but you can't make the right decision if you never make any decision at all. Names are just one part of your brand, and they're elastic - you can stretch them to mean what you want.

(<http://www.fastcompany.com/1819418/8principles-product-naming>)



Analyse: Forward thinking tells the story of technologically advanced products. Pictures tells the same story.



Analyse: All about colours. It's been mentioned 6 times! Nothing about technology. Just what the colours do.



Analyse: All about the superior camera and zoom. Also the picture shows clearly the huge camera. Must be good.



Analyse: Picture shows the beautiful design that is mentioned also in the description. Tagline is really strong and like a poem.



Analyse: Name is pretty easy to remember. Tagline is convincing



Analyse: Description does not tell too much for people who are not familiar with previous models. Why is the construction technique relevant? No idea!! Name is hard to remember. Very technical.



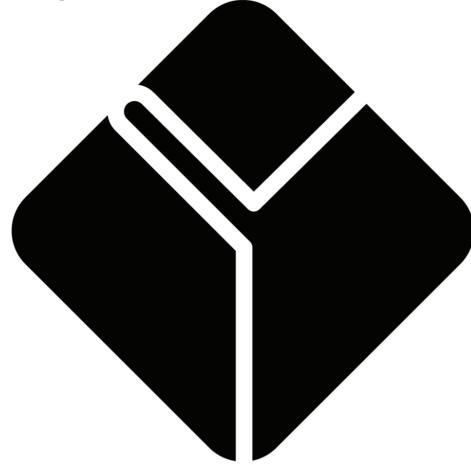
The Nokia Lumia 520 The more fun smartphone.

fun and affordable smartphone with 1 GHz dual core processor. Powered by Windows Phone 8.



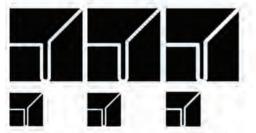
Analyse: Tells that this phone is cheap but has still the WP8 and fast processor which makes it a smartphone. Picture shows only the WP8 user interface and not much about design or camera, that are not the priority one.

Appendix M: Logo

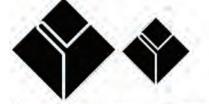


Logo Development - "Y"

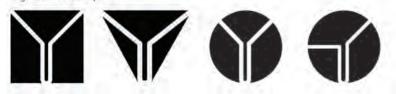
Speaker shape in square. L-R 3pt stroke, 4pt stroke, 5pt stroke 4pt stroke looks best in my opinion, as the narrow black part where the fold in the white line is, looks the same width.



4pt version, 135 degree rotation (spells out Y more clearly)



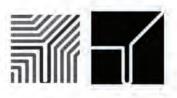
More alternative versions - symmetrical Y in square, triangle and other shapes Original Y in circle shape.



y not?

CAL 2013

Fingerprint-inspired linear logo based on this same form. Bit of an optical illusion, but could look nice when engraved. Not that easy on the eyes.

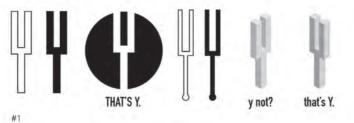


Greyscale shaded versions - similar to Acoustic Angle logo!



70

LOGO IDEAS - "Y"



Tuning fork ideas - tuning fork is shaped like a letter "Y". Relates to sound as well.



Ideas related to the shape of the speaker (from above)



Possible fonts:

That's Y. that's Y. [DIN Schrift]

That's Y. that's Y. [Akzidenz Grotesk]

That's Y. that's Y. [Futura Condensed Medium]

That's Y. that's Y. [Univers 59 Ultra Condensed]

That's Y. that's Y. [Abadi MT Condensed Light]



#4

This particular design would also look good as a silhouette/ single colour logo.

CAL 2013

Isometric font inspiration. Pixel art/technological feeling.

LOGO IDEAS - "OTOGAMI"/"OTOKAMI"



NtoKami

#1

Modular, geometric fonts. Stylised pictograms based on the font. Also inspiration from Chinese tangrams.



I drew this mark out and realised it looked like a person from the side.



Tried playing with something abstract and isometric, and applying 3D extrusion to it..

#2

Variation on the name - instead of "Otogami", "Otakami". Could be developed into acronym "OtoKami" (OK!!) Possible fonts:

OTOGAMI otogami otoGAMI OTOKAMI otokami OtoKami [DIN Schrift]

otoğami Otoğami

otokami [Lunatix]

otogami Otogami

otokarni [Tangram Rounded Regular]

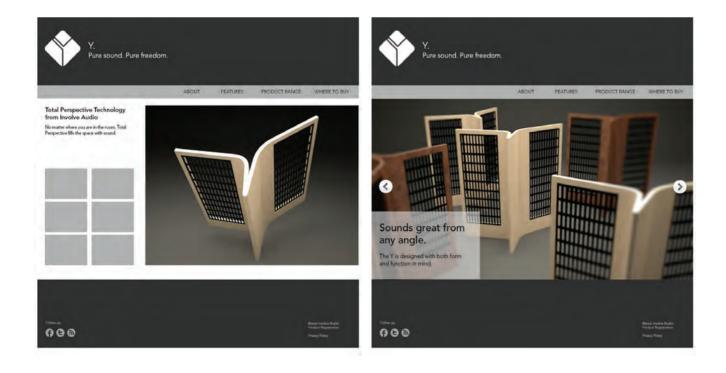
otogami [Matura MT Script]

OTOGAMI OTOGAMI [The Sans Extra Light]

Otogami otogami ^[Syntax] CAL 2013

Appendix N: Website





Appendix P: Press Release

November 5, 3013

Press Release: Immediate Contact: Christopher Coller Website: www.involveaudio.com Email: acousticangle@gmail.com

Pure Sound. Pure Freedom.

Involve Audio in collaboration with Swinburne Design Factory, has conceptualized and designed a revolutionary speaker system for the Melbourne audio market. This exciting new product is called Y Speaker System.

The Y Speaker System is a bookshelf speaker designed with both form and function in mind. It incorporates and realizes a revolutionary technology delivering a superior stereo sound experience.

The company believes that this new speaker system, combined with its radical technology and smart design will successfully change the market due to the purity and quality of sound produced. It encompasses certain special features that make this product unique. Y uses a technology known as Total Perspective, which is invented by Involve Audio. Total Perspective eradicates the sweet spot issue and gives total freedom to the consumer by filling the entire space with sound. This in return allows the consumer to experience the same quality and clarity of sound from any position relative to the speaker. Conventional speakers usually fail to produce a similar experience.

In the early stages, the product will be sold online till it gains exposure through an array of marketing channels. Involve Audio is also seeking potential partnership to whom they can license the technology as well as looking for possible avenues to channel the product range into the international market.

The Speaker system will also be showcased in up and coming Audio and Electronic Exhibitions and Tradeshows through the year of 2014. Further details will be announced at a later date.

Involve Audio has planned to present the proof of concept of the product at the upcoming Swinburne Design Factory Gala organized at Swinburne University of Technology, Hawthorn on the 22nd of November.

Launch Details

Venue Swinburne University of Technology, 427-451 Burwood Road Hawthorn

Date and Time 22 November 2013 5:30pm - 8:30pm

Appendix O: Radio Message

Feel like being special up to date fashionable stylish and different then look no further that the new Y speaker produced by Involve Audio. This new cutting edge technology will bring a new level of quality of a sound from speaker. Can be used in a TV computer radio this would be perfect for anyone. Release date December Y speakers Involve audio bring a new meaning of sound.





acousticangle@gmail.com

