JUSTIN LOW: INDUSTRIAL DESIGN.

STATEMENT OF INTEREST:

I am a creative entrepreneur who enjoys problem solving and identifying new opportunities. My future goal is to design and deliver products, services and immersive experiences that spark imaginations and address unmet or latent needs within the global community. To achieve this goal, I need a solid foundation that combines design, engineering, business and psychology.

My interest in studying industrial design was sparked and reinforced by two rewarding experiences. Both involved developing a viable product solution to solve a problem.

The first experience was the intensive four week SHAD Valley program at Carleton University during the summer of 2014. The team challenge across all SHAD campuses focused on sustainability with the objective of designing a product and developing a business plan to solve the problem of "living large on a small footprint". I was elected to be the CEO and Chief Designer for my team. In this role, I was responsible for building a collaborative environment and designing our solution, an innovative and sustainable compact refrigerator. Our team won the Carleton competition and advanced to compete in the National Finals where we won one of the coveted SHAD Entrepreneurship Cups.

My growing interest in product design and entrepreneurship led to my second experience. I was invited to participate in the 2015 Hong Kong Polytechnic University's Innovation and Entrepreneurship Global Student Challenge, where 130 teams from 22 countries competed. I assembled a team with two of my peers. In the preliminary competition, we were the only North American high school team to earn an all-expenses-paid trip to Hong Kong to compete in the semi-final competition. In the end, my team won the bronze medal for third in the world and also the theme award for Environment and Sustainability.

My experiences in developing product ideas and business models have been exceptionally rewarding and inspiring. I have learned new STEM and business skills plus important life skills such as self-reliance and being a team player and leader. I have also learned how design thinking can be a powerful process for problem solving in various areas and facets of life. Applying the design thinking concepts of problem definition, ideation, benchmarking and prototyping can lead to amazing results and benefits.

I have evaluated a number of university industrial design programs. Carleton's unique multi-disciplinary industrial design curriculum is an impressive blend of industrial design courses with required and elective STEM and business courses. I returned to visit Carleton in the summer of 2015 and received valuable insights from Professors Lois Frankel and Stephen Field plus an in-depth tour of the school's top ranked facilities from Ms. Valerie Daley. Even though I am in Vancouver, Carleton has continued to stay connected by linking me with Rob Shudra who is providing additional perspective as a 3rd year ID student.

The people, courses and environment at Carleton's School of Industrial Design are completely aligned with the educational experience I am seeking. My journey is in its early stages. I have much to learn. I look forward to meeting and exceeding my personal potential for growth and excellence. I am confident that Carleton's School of Industrial Design will enhance my toolkit of knowledge and skills to a level that ignites the transformation of my ideas into solutions that can change the world.

Thank you for your consideration,

ABOUT ME:

I am an optimist and a problem solver. My mission in life is to create solutions that generate a sense of wonderment and happiness. My professional goal is to become an industrial designer. I am inspired by clean aesthetics and provocative themes. I value creativity and ingenuity. Through this work, I hope to spark imaginations and inspire others to collaborate in building a better tomorrow.

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BEEKEEPING 01

18"x24" CHARCOAL

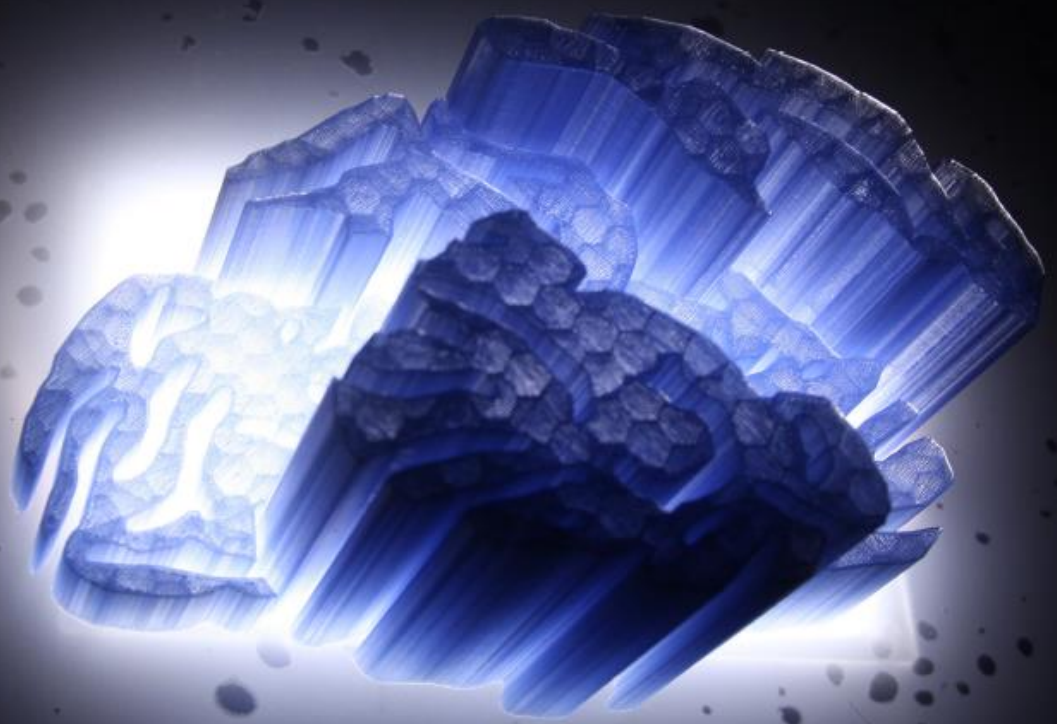
As the founder of the Beekeeping and Gardening club at my school, my interest in bees has expanded from extra curricular clubs, to environmental science curriculum. This charcoal drawing was inspired by one of my lab activities in class, one in which I was testing for harmful parasites in our school's bee colonies.

BEEKEEPING CONTD.

8"x4"x3" MIXED MEDIA

Through our school's Beekeeping club, we create a series of seasonal products. Following our annual honey harvest in the summer season, we sell the honey our bees make to our school and local community. I was asked to design the logo and choose the packaging for our line of products for 2015-2016. Through a series of design iterations with input from our club and community sponsors, we successfully designed a brand that will last for years to come.

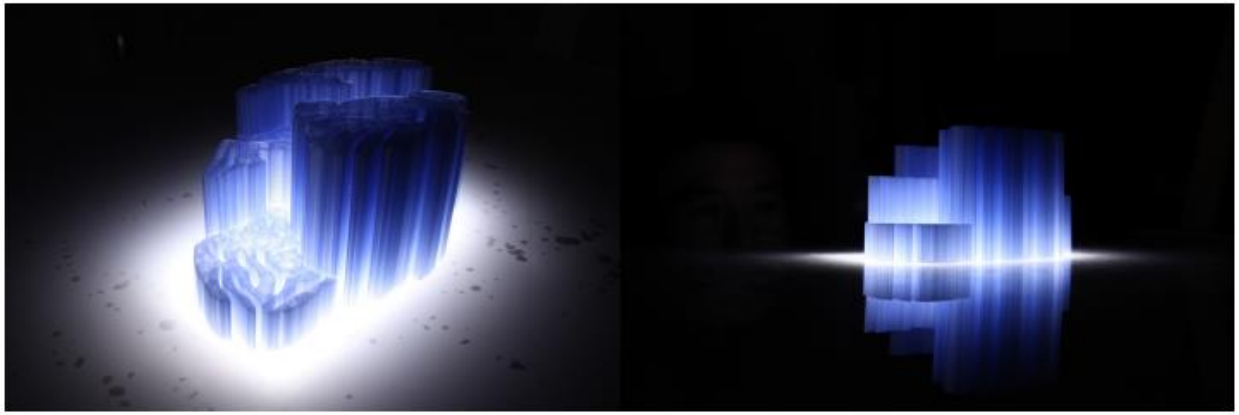
Products include: Various honey jars, chapsticks, candles, holiday ornaments and even chocolates!

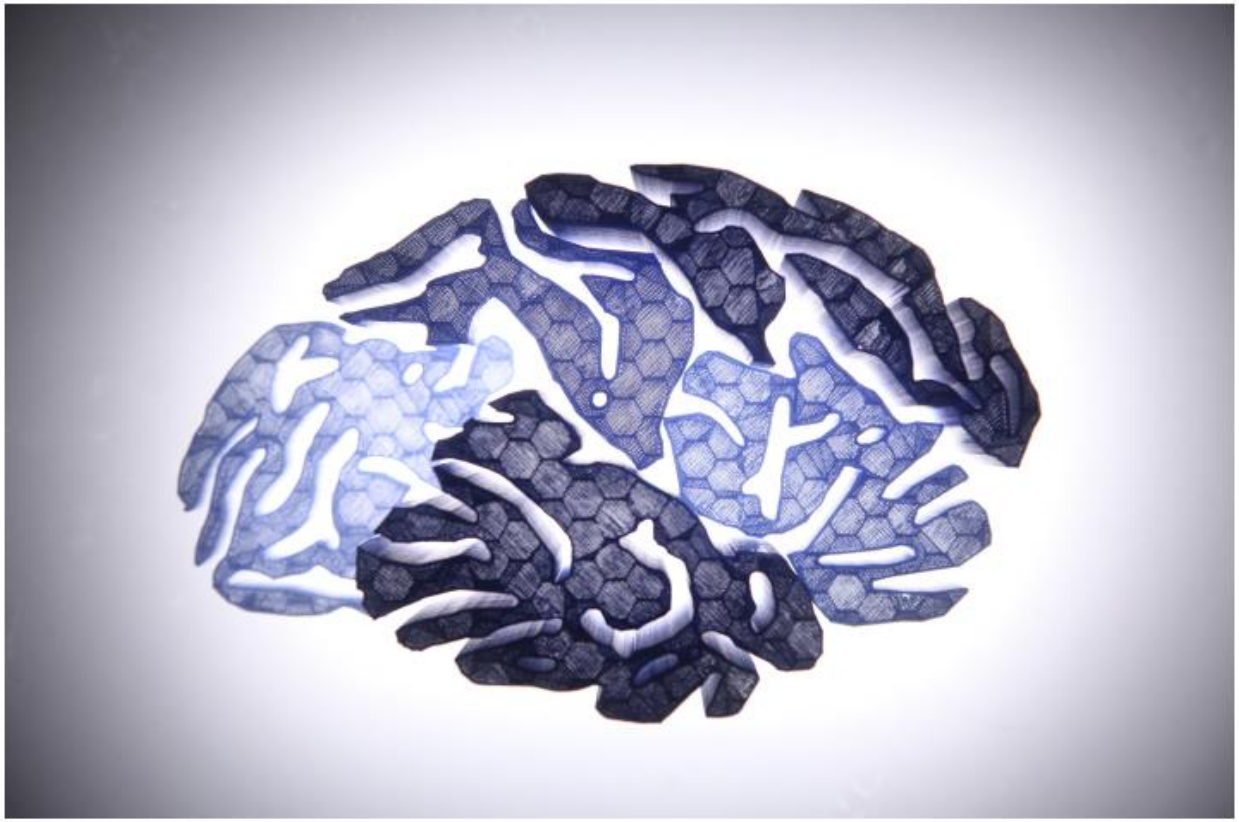


L.O.B.E. 02

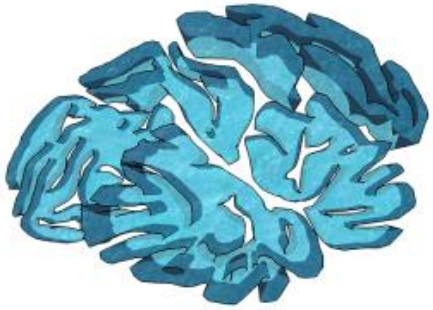
8"x5"x3.5" 3D PRINT PLA PLASTIC

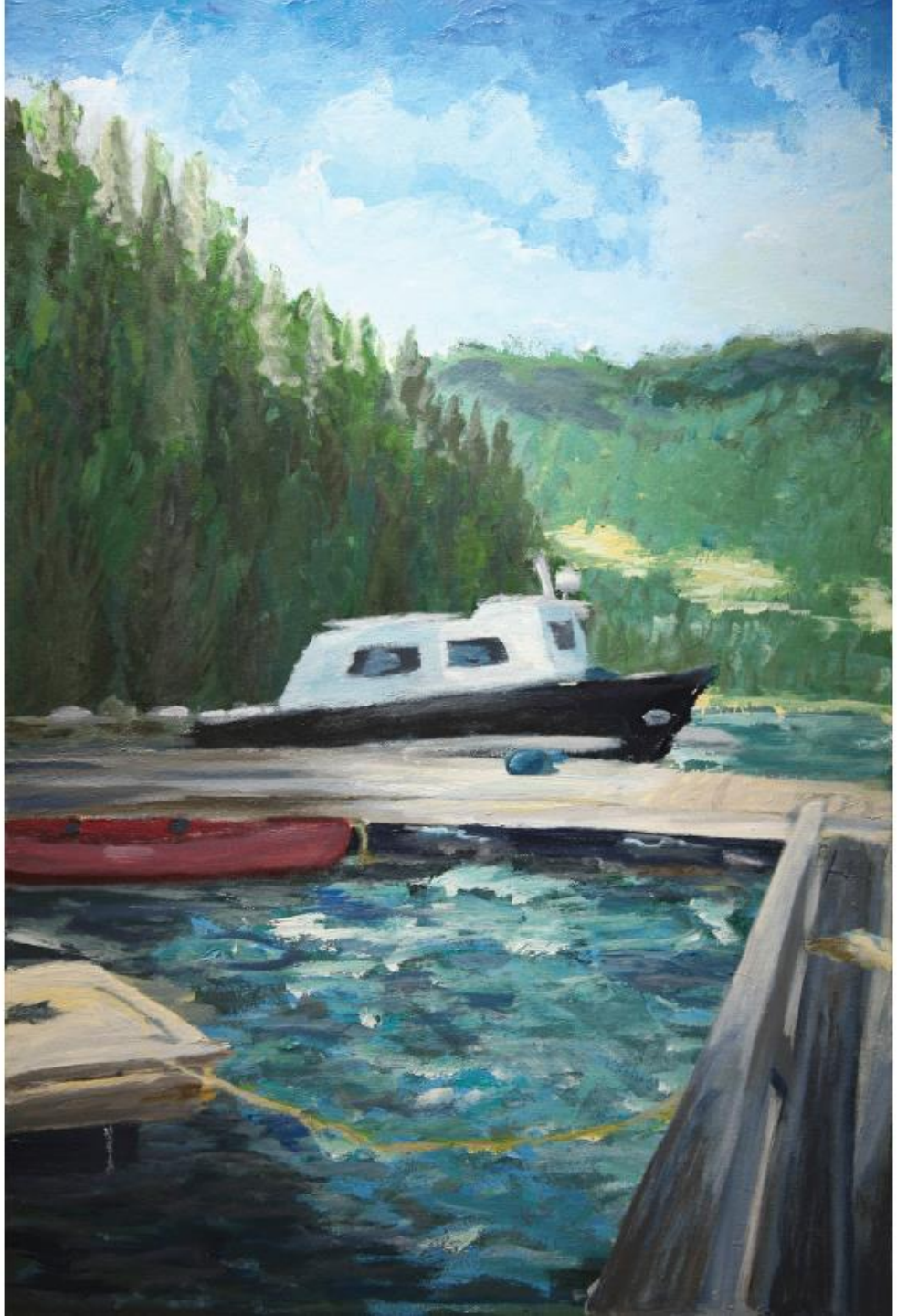
L.O.B.E. features a study of the human mind. This 3D printed piece showcases a bar graph of different brain lobes, representing strengths and weaknesses of the mind. I highlighted a hexagonal 3D printing infill with a blacklight, comparing the inner-workings of the brain to a beehive. L.O.B.E. can only truly be appreciated in complete darkness.





L.O.B.E. was the first 3D printed art display at my school. This sparked a wave of interest in rapid prototyping among the student population. It led me to found my school's Maker's Club. Every week, I mentor students interested in 3D printing and design, and help them develop their own projects.





BIRD POINT 03

22"x33" - ACRYLIC ON CANVAS

These paintings are from a series of pieces I created on my school's Drawing and Painting retreat to Bird Point, located off the coast of Sechelt, British Columbia. The retreat served as a break from the stresses of school life going into my senior year. Over the course of a weekend, I had the opportunity to capture the beauty of Vancouver Island through these paintings of observation.

BIRD POINT CONTD.

20"x16" - ACRYLIC ON CANVAS

Bird point allowed my classmates and I the opportunity to release from our day-to-day routines by living off the grid for the weekend. In the absence of sound and light pollution, I became fascinated with the ebb and flow of the tide pools and open ocean in the area.

SAINTS' PLAYERS HOODIE 04

28"x31" - MIXED MEDIA

Inspired by the countless sports team hoodies at my school, I thought the dozens of cast and crew members that dedicate themselves to the Saints' Players Theatre Company deserved their own. After collaborating with our school's directors, fellow cast members, and school merchandise handlers, I was able to produce a line of hoodies that are now a keystone symbol of our theatre company.

SAINTS
PLAYERS

SAINTS PLAYERS
THEATRE COMPANY

I see the members of Saints' Players Theatre Company as my extended family. Designing these products required several iterations. Through this process I discovered the importance of not representing Saints' Players as just another sports team, but rather a unique experience and community that our school (and sister school's) students can partake in.

SAINTS' PLAYERS PATCH

4.5"x3" - MIXED MEDIA

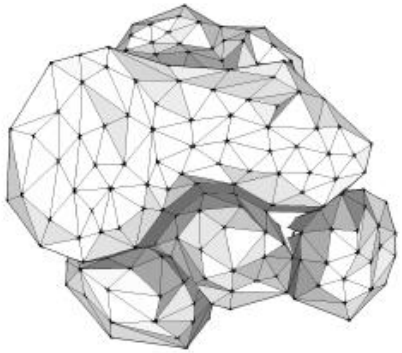
Recently, I've expanded the options available to our company. Students in their Grade 12 year at school are now able to wear a custom theatre patch on their letterman grad jackets to show off their Saints' Players spirit.

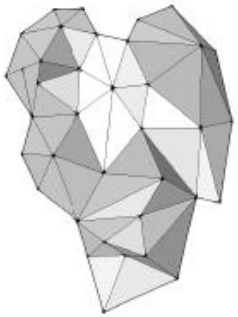
Many people underestimate the complexities of 3D printing. Take the large iceberg featured above for example. That iceberg takes approximately 18 hours to print with PLA plastic filament. Combined with the collection of unique icebergs created for this piece, it adds up to nearly 100 hours of printing!

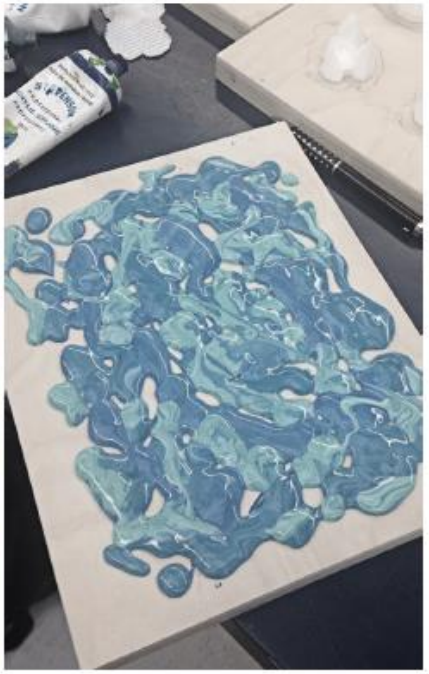
ICEBERG AHEAD 05

16"x20" ACRYLIC ON CANVAS, 3D PRINT PLA PLASTIC

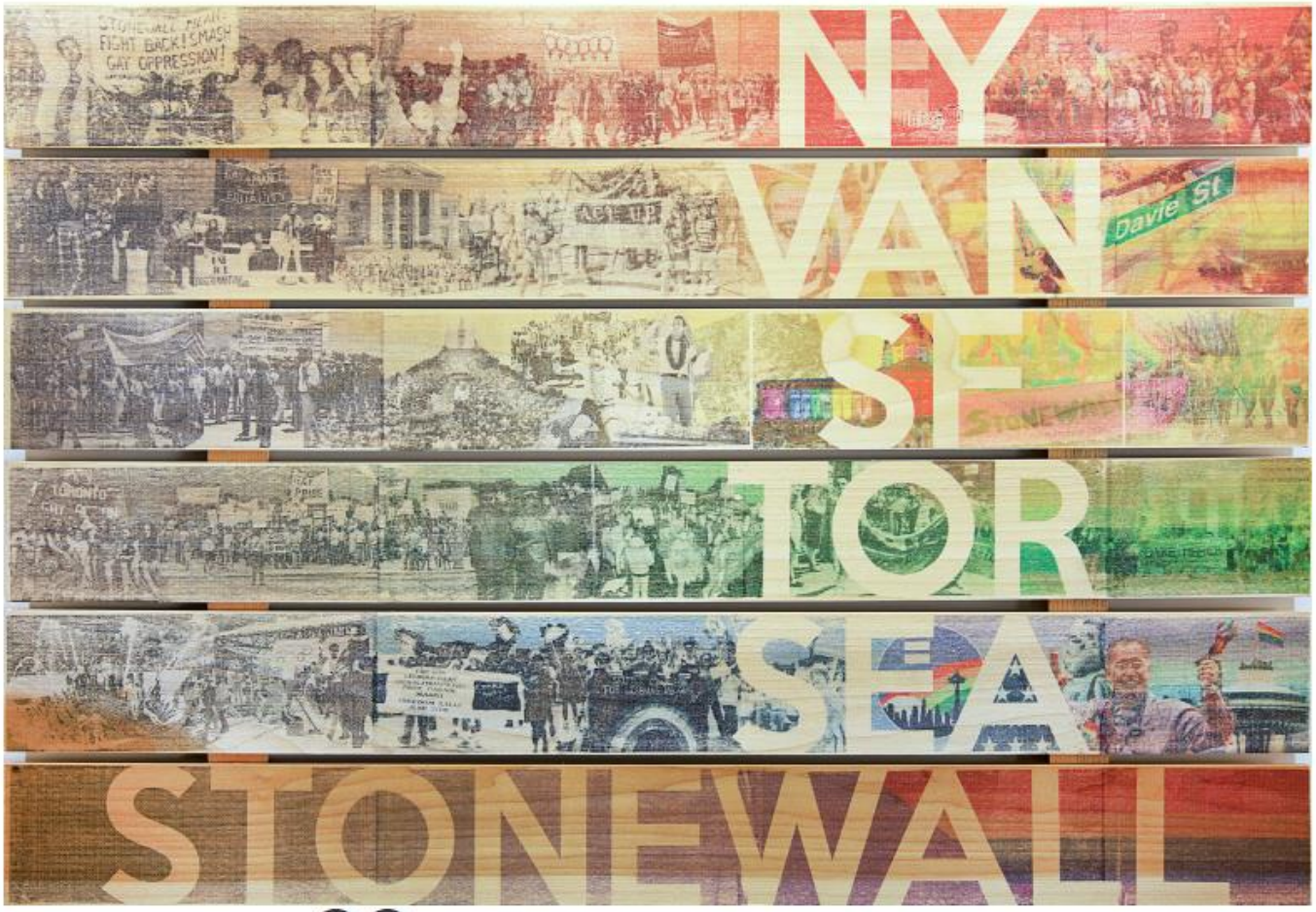
Following my experience in the most recent Saints' Players production of Titanic: The Musical, I created this mixed media piece to represent something that my director preaches: "People of the theatre wear their hearts on their sleeves." The collection of four wooden canvasses features a series of 3D printed icebergs. The single, overturned iceberg symbols the theatre community, showing that actors put themselves out there to be vulnerable. This is what I find most interesting about theatre.







For this piece, different ratios of acrylic paint and medium were used to create varying transparencies on each wood canvas. This makes some areas seem deeper than others.

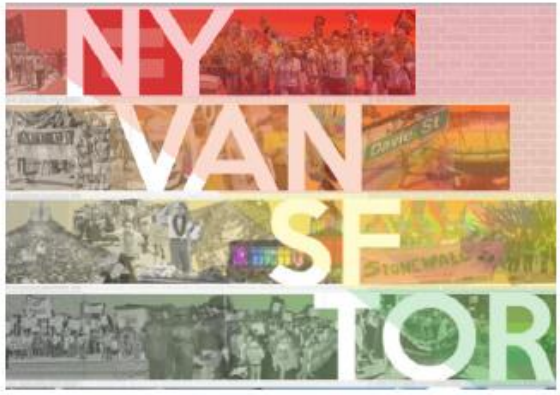


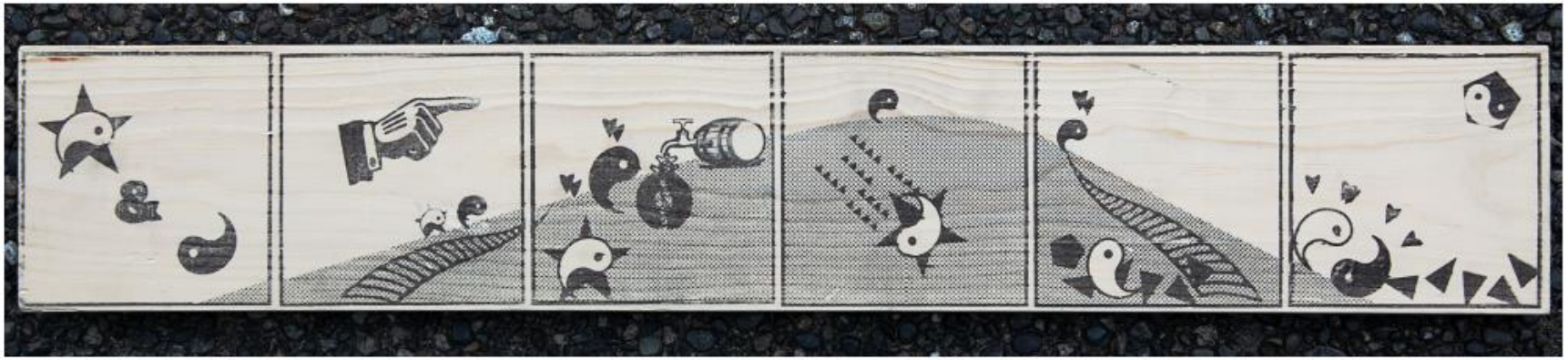
This ink-to-wood transfer process of my own design includes preparing an 8 1/2" x 11" sheet of paper with wax cooking paper. The wax paper is then run through an inkjet printer, in which the ink balls up on the surface of the wax. The wax paper is then burnished on an unsealed plank of wood. This piece features more than twenty wood-ink transfers.

STONEWALL 06

33"x22.5" WOOD-INK TRANSFER

As a strong supporter of the LGBT community, I created this piece to visually tribute the struggle, overturn and success of the LGBT community since the 1950s. This piece features five murals that document the history of a selection of the most influential cities for LGBT rights. The murals also highlight significant leaders in the LGBT movement, such as George Takei and Harvey Milk. These six wood panels were created via an ink-to-wood transfer process, and gradient from black and white to the colours of the modern pride flag.

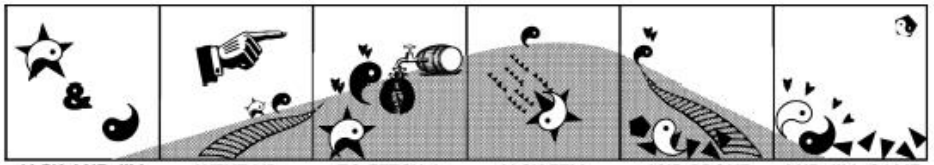


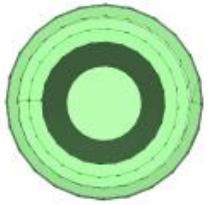


JACK + JILL 07

31"x5.5" WOOD-INK TRANSFER

Just as this is a single plank of wood from end to end, it is also a story with a beginning, middle and an end. The six panels on this wood-ink transfer each depict a different line from the nursery rhyme of "Jack and Jill." In this piece, the characters of Jack and Jill take the form of Yin and Yang, in a story told only through symbols. The piece uses the Roy Lichtenstein technique to achieve grey mid-tones in an exclusively black and white piece. This piece was orignially a proof of concept in preparation for the Stonewall Mural pictured left.





THE VASE PROJECT 08

4"x4"x6" - 3D PRINT PLA PLASTIC

The vase project was created for a design showcase at VanDusen Gardens in Vancouver, BC. This assembly of vases is a study of form and function. Experimenting with various print speeds and filaments, I was able to build a series of vases that take from modern design and biomimicry.

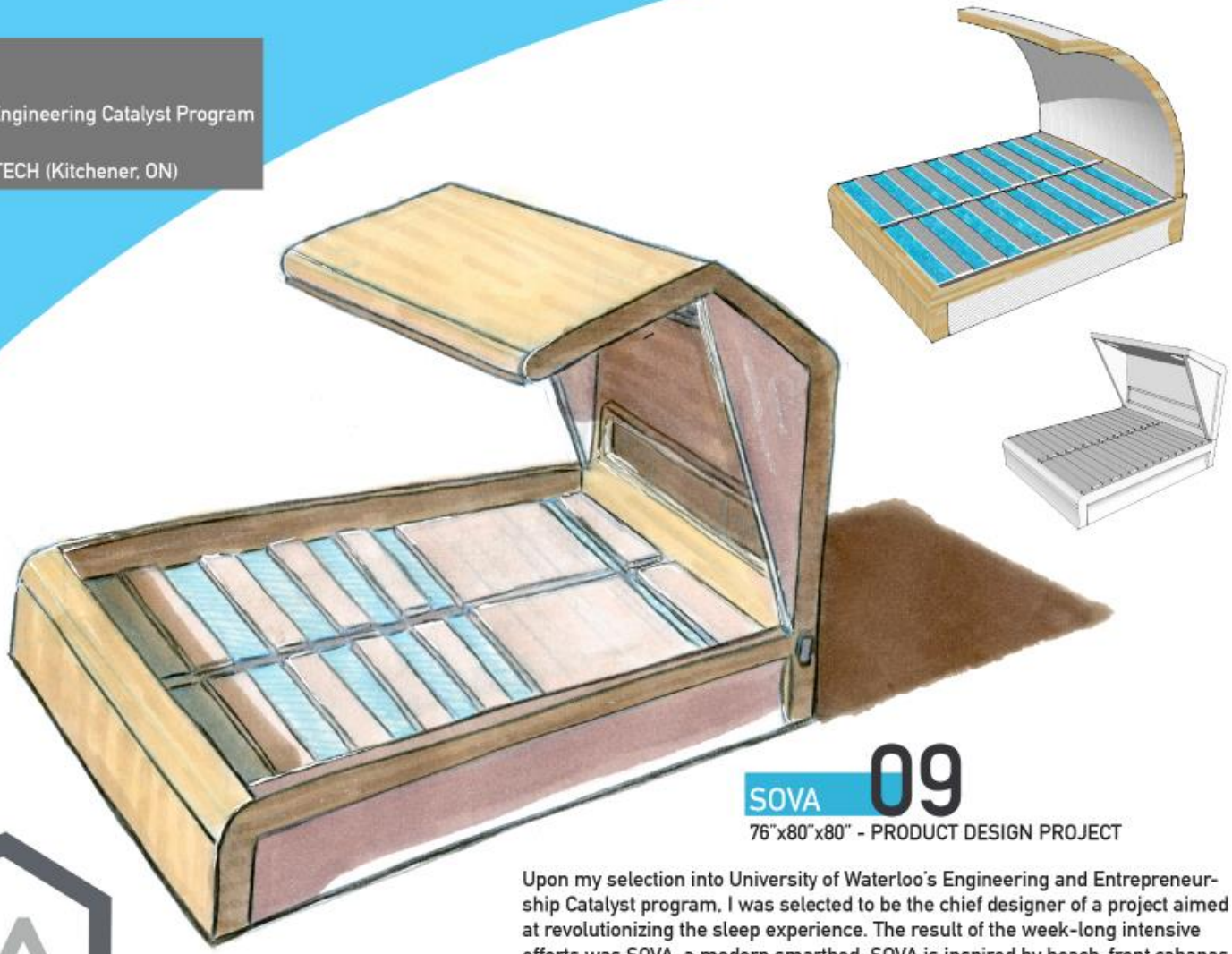
Pulling from the successful results of using transparent filaments and infills from the L.O.B.E. (brain) piece, I decided to use similar plastics in a few vases. When lit from below, the vases evoked a sense of bioluminescence. (found in light-producing organisms)

SOVA BED

AWARDS //

PROJECT FINALIST:
Waterloo Entreprenurship and Engineering Catalyst Program

JOB OFFER:
TD Innovation Lab at COMMUNITECH (Kitchener, ON)

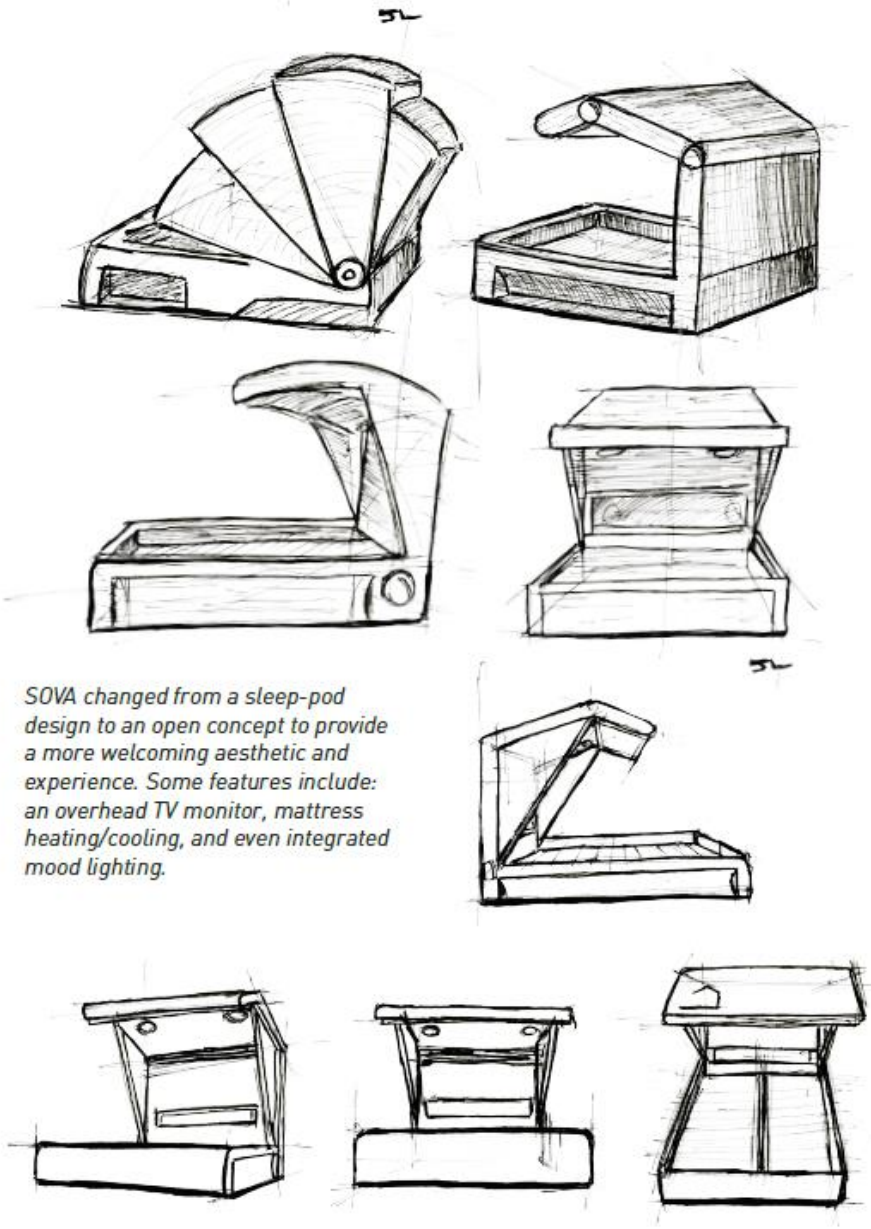


SOVA

SOVA 09

76"x80"x80" - PRODUCT DESIGN PROJECT

Upon my selection into University of Waterloo's Engineering and Entrepreneurship Catalyst program, I was selected to be the chief designer of a project aimed at revolutionizing the sleep experience. The result of the week-long intensive efforts was SOVA: a modern smartbed. SOVA is inspired by beach-front cabanas and is combined with a series of integrated technologies to make the bed a one-stop-shop for an overall entertaining and comforting experience.

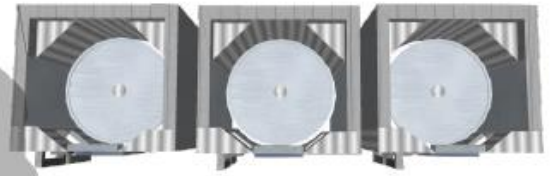


SOVA changed from a sleep-pod design to an open concept to provide a more welcoming aesthetic and experience. Some features include: an overhead TV monitor, mattress heating/cooling, and even integrated mood lighting.

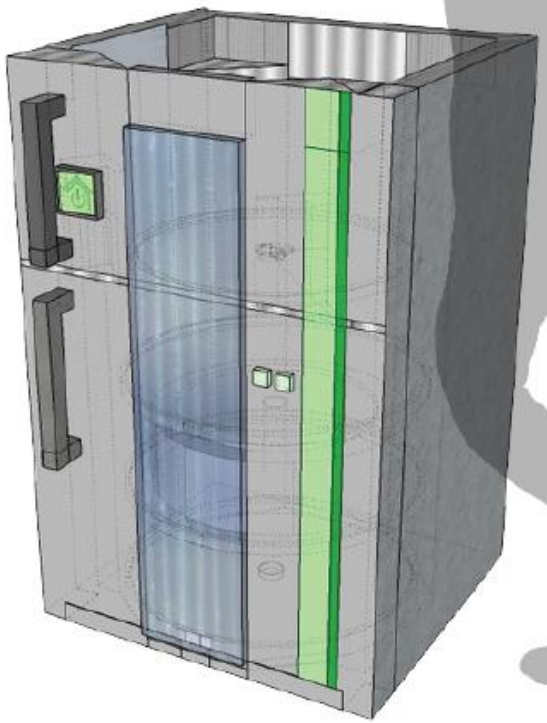
FRIO FRIDGE

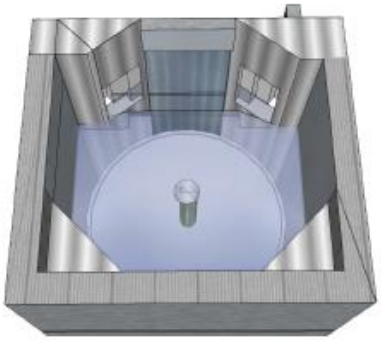
AWARDS //

BEST PROJECT:
Shad Valley Carleton University
BEST MARKETING:
Shad Entrepreneurship Cup
BRONZE AWARD:
Hong Kong PolyU Global Student Challenge
ENVIRONMENT AND SUSTAINABILITY AWARD:
Hong Kong PolyU Global Student Challenge



The lazy-susan shelf design eliminates the "back of the fridge." In combination with the glass door slit, every food product inside the fridge can be seen without opening the fridge, thus saving energy.





FRIO 10

21"x21"x36" - PRODUCT DESIGN PROJECT

I was selected as the CEO and chief designer of a Design and Engineering project during my SHAD experience at Carleton University. Following the year's theme of Living Large on a Small Footprint, I dreamed up a half-size fridge with a lazy-suzan shelving system, designed to tackle food and energy waste.

Silhouette Image Credit: https://www.formfonts.com

The fridge developed in several versions in order to best tackle the competition's theme of sustainability. For example, a circular fridge would not be the most space efficient when sitting on a countertop, or that a full-size fridge would not be the most energy efficient and would provide restrictive access to lower shelves among certain consumers. The project continued to be revised and developed with every pitch I performed, from Waterloo Ontario, to Hong Kong China!