

INDUSTRIAL DESIGNER

INDUSTRIAL DESIGNERS ARE THE PEOPLE BEHIND THE DESIGN OF PRODUCTS—THE ART, THE BUSINESS, AND ENGINEERING—BEFORE IT'S MANUFACTURED.

"Hang on, I'll get that right over to you, I'm just finishing the last of that sketch." Aaron hands his well-worn sketchbook to his fellow designer for review.

"That's close. Now let me try to put that in CAD and see how it looks with the technical specs. I think the client is going to be really happy about this."

There was a sense of creative relief for them both. They'd been working on the research, concepts and drawings for the last two weeks for their latest baby product assignment. They just couldn't seem to find the solution to make the pineapple teether character look friendly to a baby and authentic to the parents.

They'd tried so many ideas to get to this point and it felt like a real accomplishment to turn the corner on this concept, but still would the client and the marketplace like what they'd done? So much energy goes into developing new products that could be duds or could be the next great thing! Who knows?



FOR THE RECORD

EDUCATION

COLLEGE:

University of Utah

Salt Lake City, Utah 2005

Urban Planning and Environmental Studies

PUT/AUT University

Auckland, New Zealand 2011

Master of Design

WORK HISTORY

Design Workshop

Urban Designer

2006 - 2009

Salt Lake City, Utah

Furniture Builder Apprentice

2011 - 2013

Salt Lake City, Utah

Atmosphere Studios

Retail and Tradeshow Designer

2013- 2016

Salt Lake City, Utah

Klugonyx

Industrial Designer and Creative Director

2016 - Present

Salt Lake City, Utah

YOU MIGHT LIKE THIS CAREER IF:

You already love to draw, design and try to think outside of the box. You love to try to understand why things are designed the way they are and want to try to improve current solutions. You like to communicate and can work well in teams since you're constantly interacting with a lot of people. You don't take criticism too personally, but focus on a creative process that can take time and that everyone's contributions come together to accomplish the goal. Maybe you really love products and know if you had the chance you could make a difference in improving them with better design or materials. You get inspired by great design and know that products, like architecture, can be artistic and functional.

If you were lucky enough to get a personalized gift from Aaron in elementary school, you'd probably get a hand-drawn stylized expression of the letters of your name. "I'd do this especially for girls I liked. They were always impressed by these artistic love notes I would pass to them."

Aaron was obsessed with drawing from an early age and it was his favorite way to give the gift of his passion to others. The love Aaron had for drawing has stuck. Now as an Industrial Designer, he still considers drawing his most important skill—much more than using professional design software alone. Whether on paper or on the computer, drawing matters a lot.

"I took every graphic design and art class

I could find in high school. Design and art classes were so much more interesting to me than classes where we were asked to memorize dates and stats like in social studies and trigonometry. I was always happiest drawing and making stuff."

FIRST CAREER AS AN URBAN DESIGNER

When Aaron thought about his future as a high school student, he wanted to do something in the field of design. Because he was also interested in the environment, he thought urban design and planning would be a field where he could really make an impact using both his passions.

He imagined designing more sustainable architectural and landscaping projects

that would benefit the earth. He decided to double-major in Urban Planning and Environmental Studies.

He really loved his studies in college and when he got out of college he got a job at an urban design and landscaping firm, which I worked at for several years. He got to work on projects that did contribute to more sustainable building and landscaping "I liked my job and knew I was making an impact, but I was anxious to get back to graduate school to get a formal degree in design. I knew I needed to take my career to the next level with an advanced degree."

Aaron wasn't totally clear as to what his focus might be for his graduate degree in design. He wanted to have a more direct influence on projects. He liked to do tangible things where you get in and get your hands dirty making real things, like furniture.



AARON BRAINSTORMS WITH HIS TEAM AND CLIENTS TO DISCOVER THE BEST DESIGN

There is so much process that goes into any product design and a lot of it starts on paper or drawn on a computer. Imagine that the product you buy might have had twenty-five variations with dozens of designers and decision-makers before the final result was put into production.

“I actually encourage young people to go into debt for their education in a career trade-focused degree; it’s totally worth it.”

He and his wife decided to both go to graduate school at the same time. They got inspired to look into study abroad programs and both found programs in Auckland, New Zealand. His wife found a modern dance program that was perfect for her, and the Auckland University of Technology design had a program that was focused on industrial and product design. He knew how much he enjoyed hands-on work and settled on that focus despite his many interests. “It was a pivotal decision to go with this program and I never looked back.”

He’d gone to an inexpensive state university, the University of Utah, for his undergraduate program. It was a good program and he could pay for it from family savings without taking any loans. For grad school in a foreign country, he and his wife would both need to take loans. “We were nervous about taking on new debt. But now I actually encourage young people to go into debt for their education if they’re going into a field where the degree will

help with their career. A philosophy or history degree might not pay off directly, but for a career trade focused degree, it’s totally worth it.”

BACK TO UTAH AS AN INDUSTRIAL DESIGNER

When they got out of school he and his wife decided to return to Utah. He took all kinds of freelance projects and apprenticed as a furniture maker. As he gained recognition in the design community and built a larger portfolio of successful projects, he was able to land a full-time position in a couple of years. It was at a studio that built environments like store interiors, trade shows and museum exhibits. He worked there for three years, then in 2017 he got hired by a product development firm, Klugonyx Group. Although he was hired into the position of product designer, he is now the creative director there.

His company designs consumer products and specializes in toys and baby products. “Clients come to us at all stages of a project.

Some have a fully developed ideas like a “Pineapple Teether” baby toy. For a specific ask like that, we engage in character development, studying pineapples and pineapple illustrations already out there. We brainstorm and sketch up ideas, refine them and then present many alternatives to our clients. We pride ourselves on generating lots of ideas to show our clients. Often the best ideas come by having many many ideas.”

Other times, the client doesn’t really know what they want, but are looking for a solution to a problem, like how to get the family to eat together without electronic devices. In this case, his team does a lot of research including talking to families and trying to understand how they control screen time. They look at existing products on the market and learn from them. All this research comes together into a presentation of a unique solution for their client. If the client likes the solution, then they begin the product design phase.

A DAY AT THE OFFICE

Aaron works from 8am to 5pm like a lot of other professionals. He usually brings lunch from home so he can work through the day at the office. The office and staff are quite small. They have two designers and two engineers, a business development person for getting new clients, a project manager who keeps the projects moving on time and

CAD Computer-aided Design

CAD files are used for print, machining, or other manufacturing operations.

budget. They work with outside vendors for setting up production and have a partner office in China for manufacturing. "It's a funky little office and ideal. We all work in one room and it's really personable and allows us communicate and collaborate very quickly. We also have one little room dedicated to spike ball (a game that requires bouncing a ball on a trampoline) that we are all super into. It makes our breaks really fun because we warm up our bodies and get our blood flowing so that when we sit back down to work, we are energized for more work."

"We have quick morning meetings and catch up on where we are with the projects, which is easy because it's a small team. Then we get down to work with a lot of sketching by hand, also using the Adobe software like Photoshop and Illustrator, and CAD drawing in 3D. Our clients are about 60% out-of-state and those locally can come in and chat with us in our conference room, otherwise we do a lot of video meetings

and calls."

The creative process that explores so many ideas and alternatives is also what can be the most frustrating thing about his work. "A lot of the work is 'form finding' and presenting alternatives, we typically develop four to six different versions. There can be a bit of disappointment in knowing a lot of your hard work will never see the light of day. So much time goes into exploring ideas, but you have to finally pick one. There's a lot of blood, sweat, and tears in working with a team of designers, engineers, and factory toolers to get a product ready for production. After all that, the client could decide not to do it. It's a numbers game. You have to design 30 concepts to get one thing on the store shelf ready to sell."

Form finding

Seeking the best solution through exploration including drawing, prototyping and testing.

"We pride ourselves on generating lots of ideas to show our clients. Often the best ideas come by at the end of many many ideas."

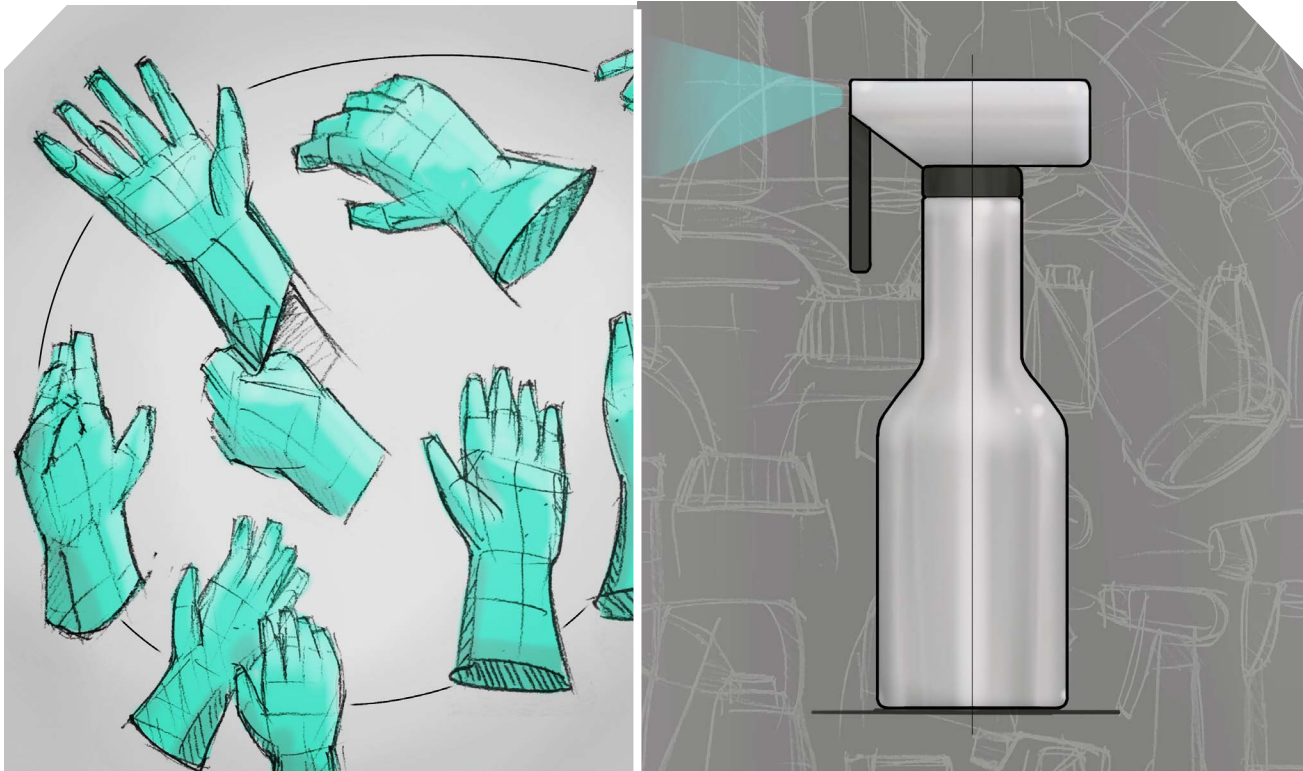
WHAT AARON WOULD TELL ASPIRING DESIGNERS

Aaron is not shy about helping future designers. He likes to speak to design students and give them insights into how to break into the industry. "Learning 3D CAD is a good idea. Learning software programs like SolidWorks is not easy but you can get a student license. Students can use the professional grade 3D CAD programs Onshape and Fusion360 for free I believe. I use SketchUp, which is used by mostly architects and landscape architects. I'm one of the only industrial designers that uses it, but find it useful. If you want to be a designer, you have to draw or you'll be a very limited designer. There's a lot of support for designers with Instagram and YouTube tutorials on drawing."



SPENDING YOUR FREE TIME BUILDING AND DESIGNING PRODUCTS

Aaron spent several years interning with a furniture designer and building his own projects. Now when he hires new designers he looks for candidates that are willing to design and build personal projects. It's that kind of passion that makes you stand out as a designer.



DRAWING BY HAND AND ON THE COMPUTER

Aaron emphasizes the importance of developing life-long drawing skills. Development of new products requires a creative process with trial and error experimentation. A lot of that happens on paper and later using CAD programs on the computer.

Aaron also has a very healthy respect for persistence when it comes to getting a job. "There's no shame for an applicant for a job to call every week. In fact, we gave an interview to a candidate we wouldn't have otherwise exactly because he was so persistent. Perseverance itself is a good professional skill to have," It's also really important that designers are doing side projects like building a piece of furniture or a clay model. We want to see that passion for design outside of the school

environment."

In fact, Aaron's development focus at the moment is the same as it's always been: constantly working on drawing skills. "I want to make my quick drawings more presentable to save time" He's also formalizing the methodology, or process, his company uses for research and design. "This is the high-level creative director type stuff. We are designing the process of increasing creativity within our organization," Yes, Aaron emphasizes that

creativity is a process and a skill that can be developed all your life; it has little to do with raw talent or luck.

“Designers need to be inquisitive, ask questions, fight for the creative process, practice like crazy, and draw a ton - draw until someone pays you to do it!”

DATA FILE

INDUSTRIAL DESIGNER DOT: 142.061-026 O*NET: 27-1021.00 HC: AES MANUFACTURING

WORK DESCRIPTION

Industrial designers develop the concepts for manufactured products, such as cars, home appliances, and toys. They combine art, business, and engineering to make products that people use every day. Industrial designers consider the function, aesthetics, production costs, and usability of products when developing new product concepts.

WORKING CONDITIONS

Industrial designers work in a variety of industries. Although industrial designers work primarily in offices, they may travel to testing facilities, design centers, clients' exhibit sites, users' homes or workplaces, and places where the product is manufactured. They spend a lot of time with the same team.

PLACES OF EMPLOYMENT

Industrial Designers work in professional dedicated studios that develop products for their clients or for companies that are focused on developing their own products in-house.

EDUCATION AND TRAINING

A bachelor's degree is usually required for entry-level industrial design jobs. It is also important for industrial designers to have an electronic portfolio with examples of their design projects.

JOB OUTLOOK

Employment of industrial designers is projected to grow 3 percent from 2018 to 2028, slower than the average for all occupations. Consumer demand for new products and new product styles should sustain the demand for industrial designers.

SALARY RANGE

The median annual wage for computer and information technology occupations was \$66,590 per year in May 2018, which was higher than the median annual wage for all occupations of \$38,640.

RELATED OCCUPATIONS

Architects, Art Directors, Desktop Publishers, Fashion Designers, Graphic Designers, Industrial Engineers, Interior Designers, Drafters

WHAT YOU CAN DO NOW

Besides taking every art and design class offered by your school and community education programs, there are a lot of online training programs to start learning CAD programs. Several industry programs include SolidWorks, Onshape and Fusion 360. Most have student versions that are free or inexpensive. There are also a lot of tutorials

on Instagram and YouTube and other online training programs like Lynda.com that your library might give you access to for free.

LIFESTYLE/HOURS

Normally 8-5, but sometimes more hours can be required at nights for special projects or during deadlines.

MORE INFO

Professional Organizations

Industrial Designers Society of America - idsa.org

The subject of this biography is not available to answer personal inquiries.