

DESIGNMATTERS

BUSINESS FOR SOCIAL INNOVATION FELLOWSHIP

AT RUBBERMAID COMMERCIAL PRODUCTS (FALL 2012)
KIM H.Y CHOW



Each year, Designmatters funds three fellows to participate in high-level internships that integrate design and social responsibility. Traditionally, a fellow is set up with an organization whose core mission is to perform humanitarian work on a global scale, typically an NGO. There, the fellow applies their design insights to impact the work of the organization.

My particular fellowship was organized differently. As a Business for Social Innovation Fellow, I partnered with a for-profit company, Rubbermaid Commercial Products, and worked with their team on my own personal social impact-focused project, *Balde a Balde*. I developed this product as a result of a Designmatters sponsored studio and have continued to develop it independently over the past year. I feel incredibly fortunate to have been given the opportunity to learn from the expertise of the knowledgeable professionals at Rubbermaid, as well as benefit the support of Designmatters, especially at such a crucial juncture of my project.



ABOUT RUBBERMAID COMMERCIAL PRODUCTS

Rubbermaid Commercial Products (RCP) is part of Newell Rubbermaid's global portfolio of brands. RCP manufactures and sells commercial and institutional products, working in the categories of food services, sanitary maintenance, waste handling, material transport, washroom and safety products. Headquarters are located in Winchester, Virginia, which houses both corporate offices and a factory.





MEETING ROBERTA

The idea for this partnership began at the 2012 Dwell on Design Conference in Los Angeles. I demonstrated *Baldea Balde* onstage during the event as part of a presentation about Safe Agua Peru, the Designmatters class from which this project was developed. Afterwards, Roberta Murnyack, manager of advanced development at RCP approached me about working with her team. They would assist me with the engineering for manufacture of my product, and in return I would contribute to the development of a variety of projects at Rubbermaid. Thanks to the support of Art Center faculty and Rubbermaid staff, we were able to arrange an internship for me for the following term.



BALDE A BALDE SO FAR

Over 3 billion people globally live without piped connections. *Balde a Balde* (Spanish for “bucket to bucket”) is a clip-on faucet that provides running water from any bucket to those living without it. It provides significant water savings, makes cleaning more effective, and the supplies convenience and dignity of a tap.

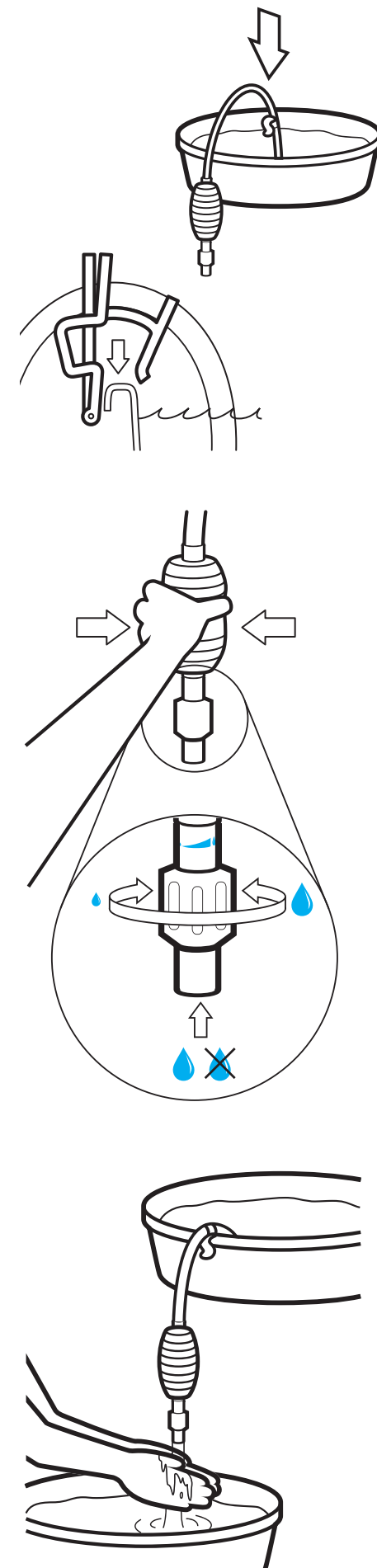
A universal clip securely attaches the *Balde a Balde* to any existing container. A squeeze of the siphon pump initiates a continuous flow of water. Twisting the valve regulates

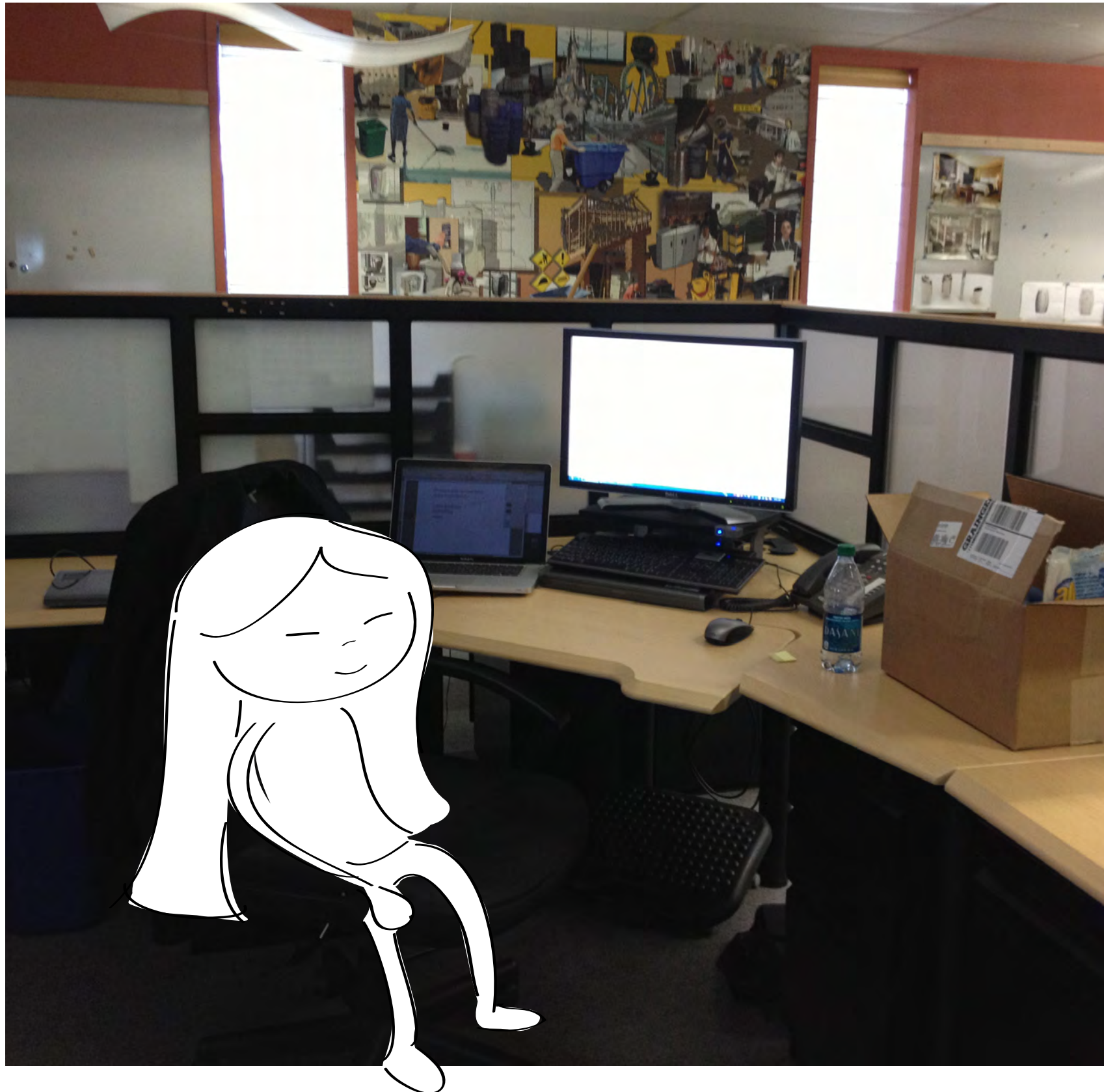
the volume of water and turns the flow on and off. *Balde a Balde* will be sold, unsubsidized, through local, retailers using existing distribution chains.

This product was the result of a cross-disciplinary studio hosted by Designmatters in 2011 called Safe Agua Peru. The class began with a 10-day intensive field research trip to the slums of Lima and resulted six projects related to water and poverty. Since class ended I’ve continued to work *Balde a Balde* with the aim of creating a commercially viable product for families living at the bottom of the pyramid.

By the start of the fellowship, with the help of my team, we had field-tested the product in both Peru and Chile, received awarded enough grant and prize money to conduct a large-scale pilot test of the product and business model next year in Colombia.

bolde
bolde

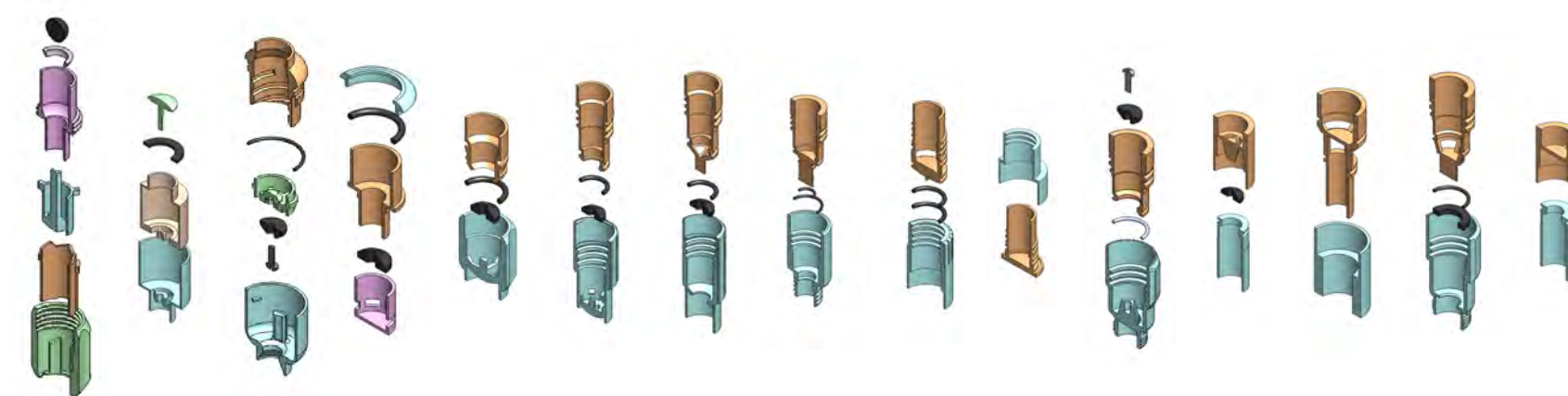
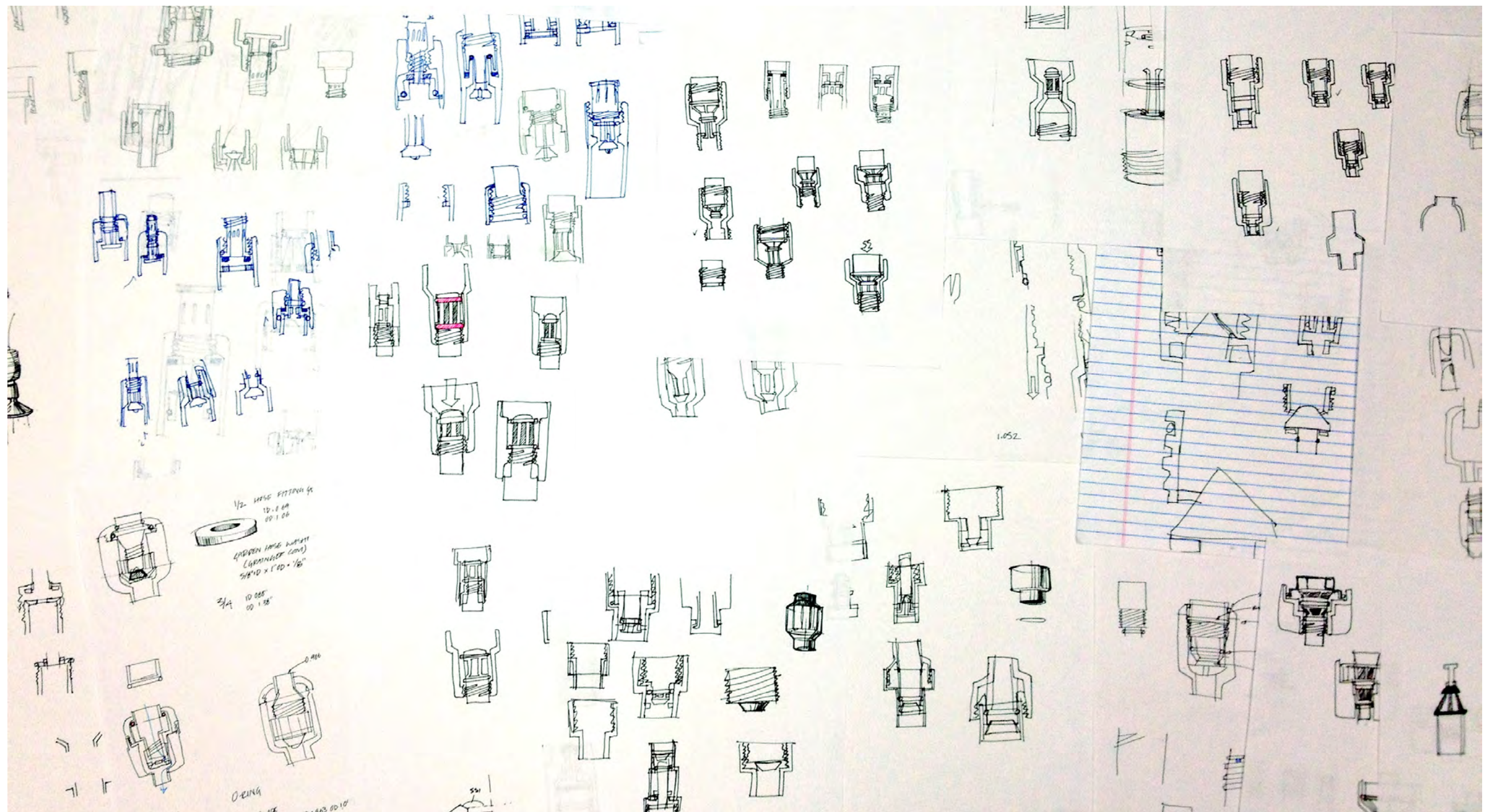




DAILY RCP

At RCP, I sat with the advanced development team, which included three engineers and two industrial designers. Whenever I needed advice on a problem I encountered, I could simply lean over and ask. Everyone was very open and happy to help.

My time was split between working on *Balde a Balde* and RCP projects. My primary advanced development project was to collaborate with the engineering team on a designing a new type of mop bucket, but I also worked on various smaller branding projects and renderings as needed. Throughout the week, I regularly attended a variety of departmental and organization meetings, which helped me gain an understanding of how the company was structured.



SKETCHES, MOCK-UPS & MODELS

One of great benefits of my stay at RCP was that it allowed me to focus on Balde a Balde, instead of only being able to work on it only in my free time. While there, I created hundreds of concept sketches, paper mock-ups and 3D models.



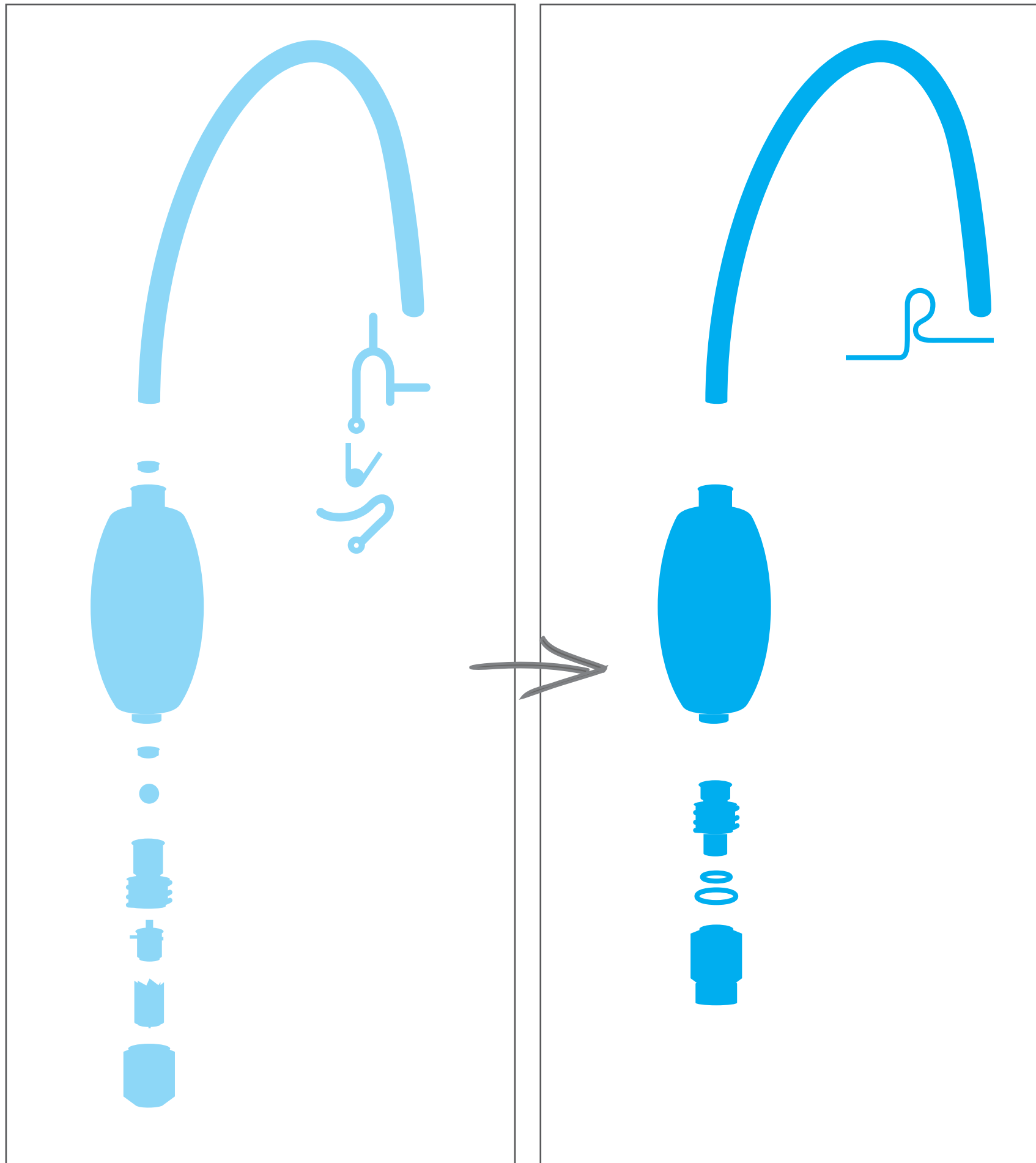
MAKING IT WORK

I also learned what I should pay attention to when designing working parts for manufacture, as opposed to designing for a visual, or a works-like model. Now I have a better understanding of how to account for the specific calculations required in design for wall thicknesses, O-rings, threads, draft, and working with a variety of mold process.

At RCP I had access to an expert in plastics, who helped me determine which materials to select for a specific environments and price points, a finite element analysis specialist, who could computationally analyze my parts for durability; and a team of creative engineers and industrial designers who would could use their fresh perspective to see potential problems and solutions.

Additionally, I had the opportunity to present my project to the marketing, distribution, and Latin American sales team and get feedback on how to proceed taking my product to market. I was also able to take cues from RCPs project management structure and organization and apply it to my own work.





SIMPLER & CHEAPER

In the end, I felt as though I reached my objective in creating a product that is durable, manufacturable, cost-effective, and easy to use. I was able to greatly reduce the number and cost of the parts, replace molded parts with off-the-shelf pieces, and redesign the unit to be easily disassembled and cleaned.

Sept. - Dec. 2012,
RCP internship

March 2013,
Distribution planning trip, Bogota Colombia

July 2013,
Pilot test deployment (75-100 units), Bogota, Colombia



Sept. 2011,
Initial research trip

Nov. 2011,
1st Prototype testing, Lima, Peru

Fall 2012,
Concept development

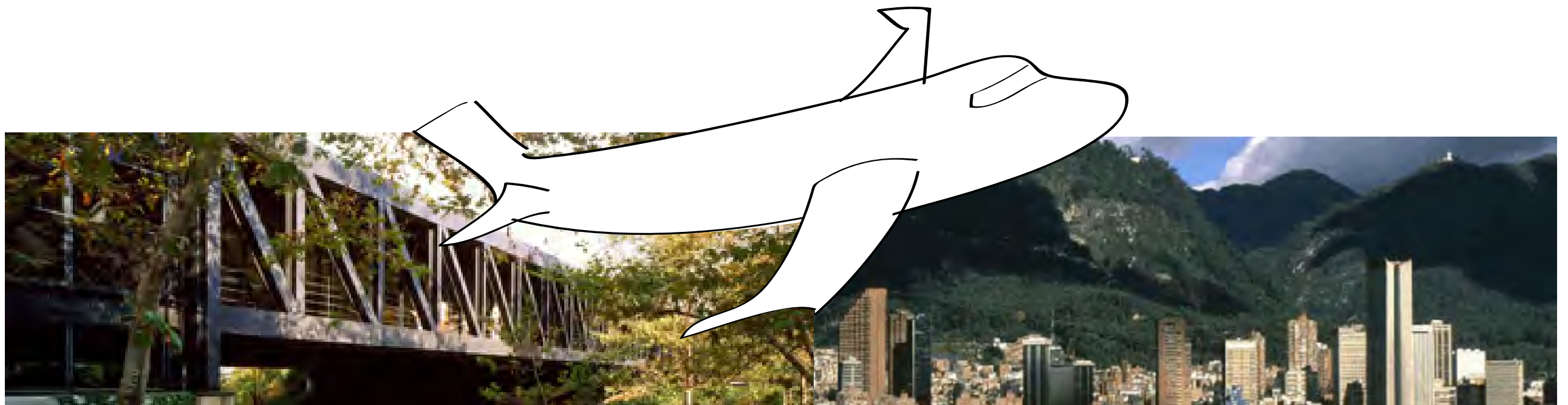
May 2012,
2nd Prototype testing, Santiago, Chile

Awards and Grant Applications

Year 1- South America
Year 3- Central America
Year 4- India

NEXT STEPS

Working at RCP has allowed me to reach a point where I can freeze my design and begin to focus on other parts of the business. Next summer, as we plan our pilot tests in Bogota, Colombia, I will have many more connections and resources at my disposal thanks to the Designmatters fellowship.





MEETING WTH CONSULTANCIES

To help with the new bucket concept, RCP brought in marketing, design and human factors consultancies, including Radius and Smart Design. It was fascinating to see how this collaboration worked from the company's perspective.

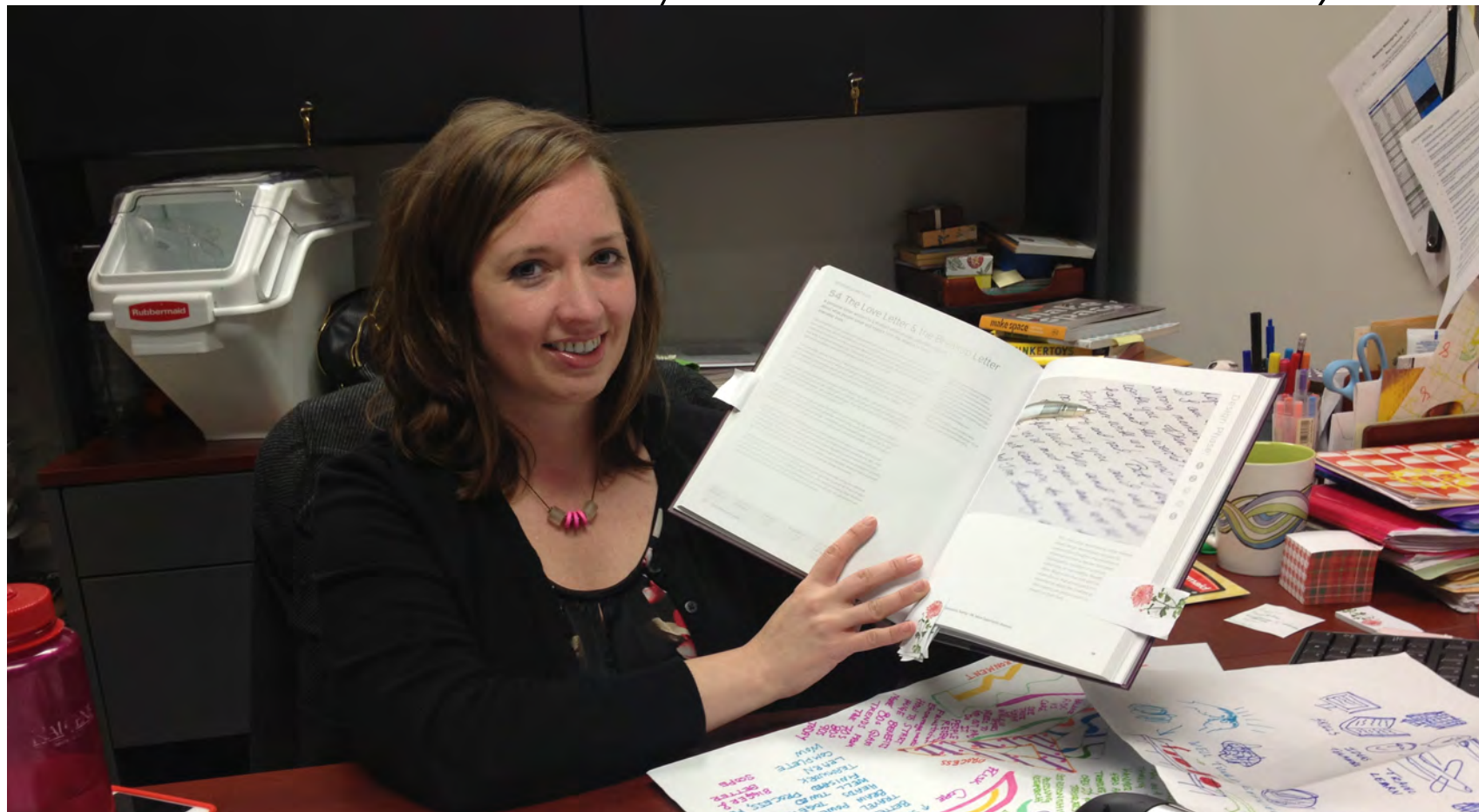




*Don't love letter exercise,
You were good for
some laughs.*

PAPER & PLAY

I enjoyed introducing the advanced development team to new books, processes, and design research methodologies. The day Roberta had the team write love letters to the bucket prototypes was one of the funniest of my visit. I had the engineers play with rough models made of paper and pipe cleaners. Grown men playing with kids' craft supplies always warms my heart.





FAST COMPANY DESIGN AWARDS

I was able to leave small town Virginia for New York one weekend to attend the Fast Company Innovation by Design Awards. I was honored to be acknowledged as a finalist amongst such esteemed company.



TECH AWARDS

I also took a week off to attend the Tech Awards in San Jose. Hosted by the Tech Museum, the Tech Awards celebrates innovation benefiting humanity. Our team was honored to be recognized as Young Innovator Laureates. Throughout an enriching week-long seminar, we pitched our concepts to Silicon Valley professionals, listened to lectures from past winners, and made connections with teams working on socially beneficial projects.





Halloween, mining town theme

PARTING THOUGHTS

As a designer working in the area of social impact, I found that it was easy to get people excited about my project. I often encounter people who are eager to volunteer their time and are willing to participate. The difficult part, it seems, is convincing others that it is a viable investment, and that good intentions will yield good results.

The success rate for these types of projects can feel depressingly low. I worry sometimes if everything will work out in the end. Then I have to stop and realize that even if the project fails, the journey and the lessons learned make the work worthwhile. I find this comforting to remember this sometimes.

My fellowship was a rare combination of good timing and the right people. If I didn't have my own project pursue, the for-profit company partnership could still work depending on the company's needs. I could imagine a partnership company that is beginning to work at the bottom of the pyramid markets. Just as a fellow in an NGO teaches others the value of design, a fellow in a for-profit could teach the value of social impact. Their mission would be to show that working in these markets is not an act of charity, but can be a benefit to all involved.

A SPECIAL THANKS TO

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