



DROPCycle™

An Eco-Entrepreneurship Group Project
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A closed-loop bicycle delivery service for replacement water filters

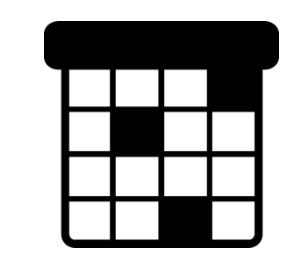
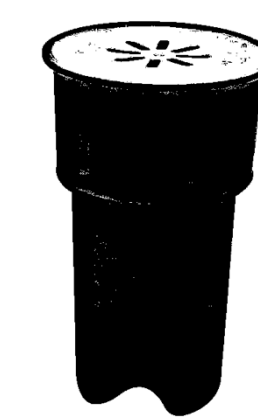
Customer Problem



Water filtration pitchers can significantly improve the taste of tap water.

However, pitcher owners must replace their filter every 2 months.

Most don't. Here's why:



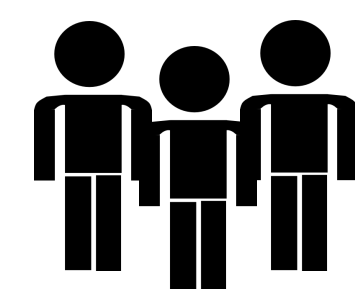
They don't know when to replace.



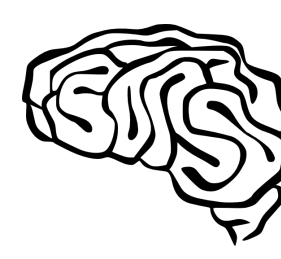
They don't have time to buy new filters.



They lack transportation to reach retail locations selling filters.



They share filtered water and are unwilling to purchase new filters for the group.



They forget to buy filters when at the store.



They are unsure how to dispose of expired filters.

Customer Research

350+ Survey responses

50+ Interviews

1 Focus group

2 Websites w/analytics

3 Social media campaigns

Key Learnings & Facts:

- Filtration pitchers are the most popular type of in-home filtration product (~60% of POU users).
- Brita dominates the pitcher market (>80% of users).
- Filtration pitchers are very popular with collegiates.
- Less than 1/4 of surveyed pitcher owners replace their filter within the recommended time frame.
- Only 8% of surveyed filter owners recycle old filters, but most would pay \$2 more for a recyclable filter.

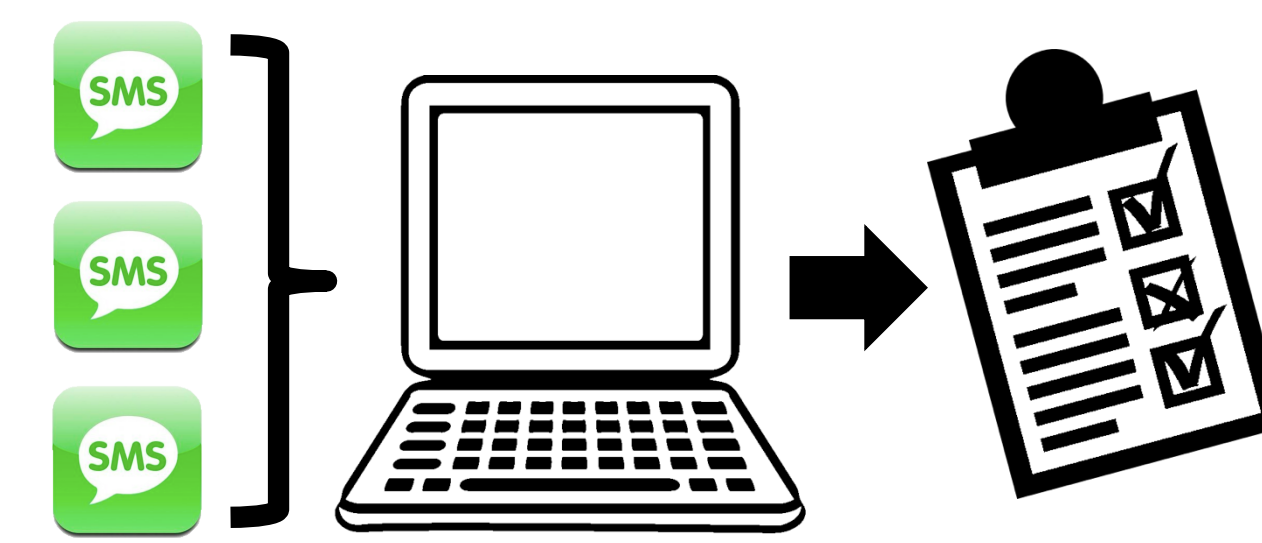
Solution

By bringing replacement filters to the customer, DROPCycle helps consumers overcome traditional inhibitors to regular filter replacement and recycling. DROPCycle targets college campuses and other areas where tap water quality is poor, water filter use is high, delivery is feasible, and sustainability is valued.



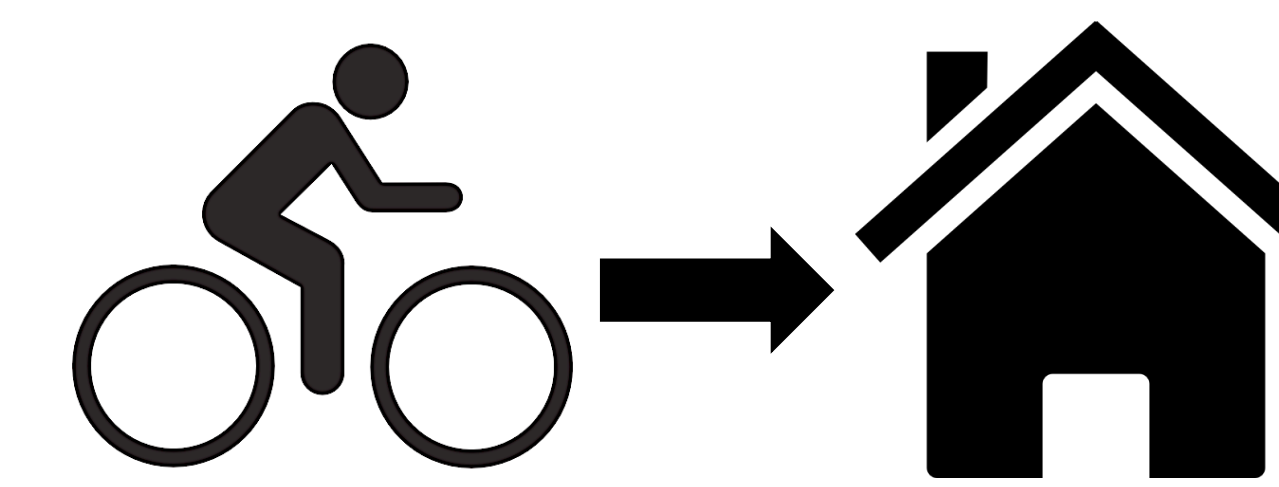
1. Order

Customers place orders and receive confirmation via text message.



2. Process

Orders are aggregated, organized, and used to plot delivery routes.



3. Delivery

DROPCycle couriers efficiently deliver filters by bicycle.

4. Transaction

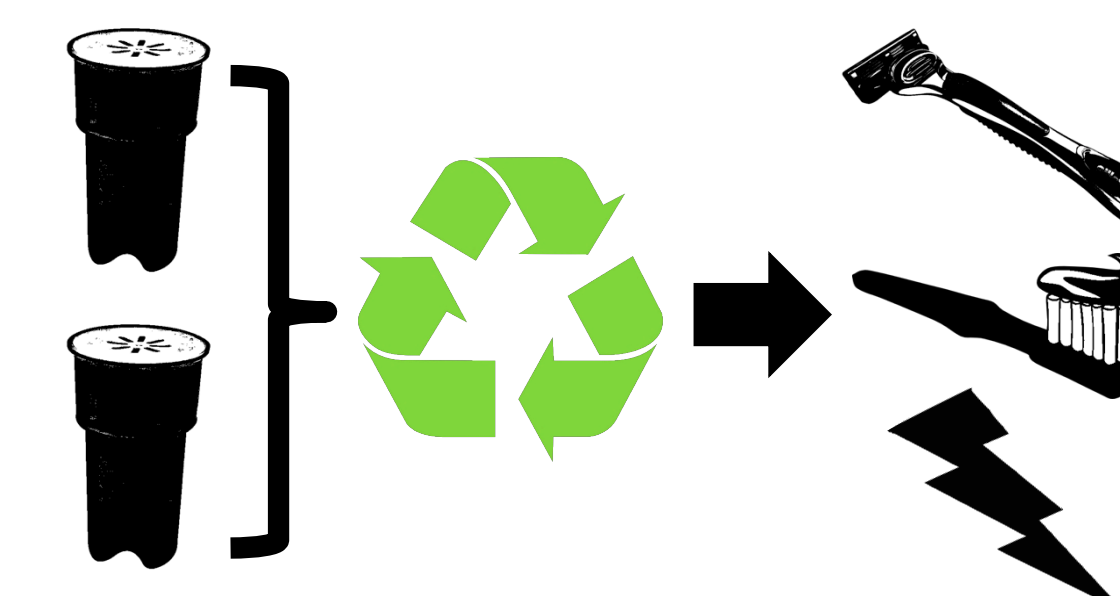
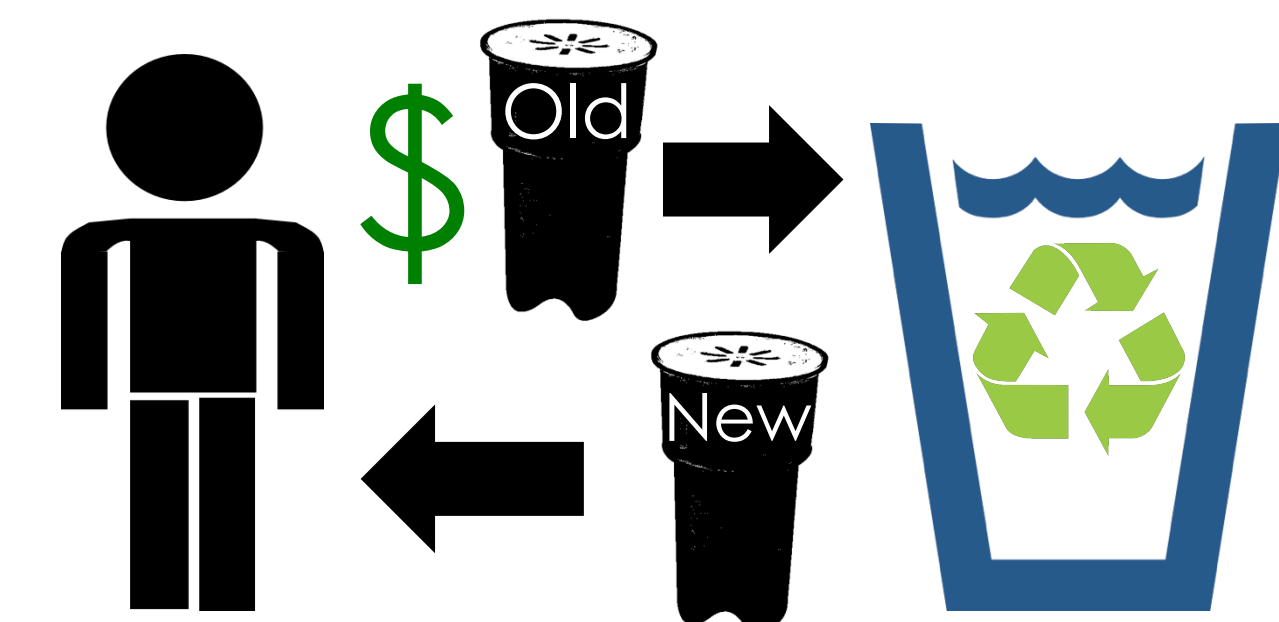
Customers pay courier for new filters, provide expired filters for a discount.

5. Recycle

Recycling facility converts old filters into toothbrushes, razors, & energy.

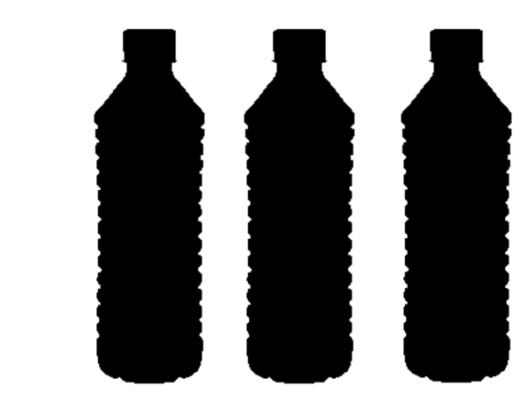
6. Repeat

Every two months, customers are reminded of need to replace filter.

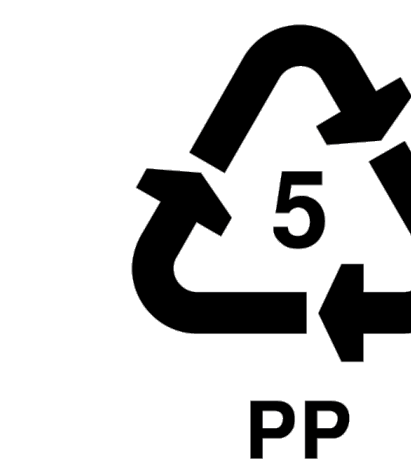


Environmental Problems

Plastic Waste

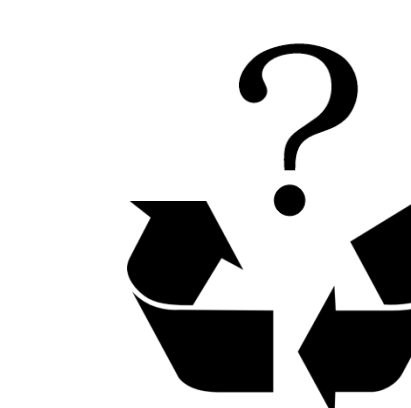


30 billion water bottles enter landfills each year, where they take thousands of years to decompose.¹



Only 3 to 5 percent of #5 plastic is recycled in the municipal solid waste stream.² Polypropylene filtration products reduce bottle waste, but few cities recycle this material.

Broken Recycle Loop



Brita water filters can be recycled...but few ever are. The process is too difficult:

- 1) Deposit used filters in one of 200 "Gimme 5" recycling containers, or...
- 2) Pay \$5+ shipping to mail expired filters to an authorized recycling facility.

¹U.S. Government Accountability Office. <http://www.gao.gov>, 2011.
²U.S. EPA, Municipal Solid Waste in the United States: 2009 Facts and Figures.

Pilot Study

Launched: January 9th, 2012

Service area: Isla Vista, CA + UCSB campus

Goals:

- Identify effective marketing strategies.
- Determine acquisition and retention costs.
- Improve operational efficiency.

Marketing Strategies: Website, Facebook, Twitter, AdWords, face-to-face, promo stickers, pitches

Key Learnings:

- Back-end operations are simple and seamless
- In-person marketing is effective, but inefficient
- Delay exists between impression and conversion

Impact

- Annual
- 5000 customers

Financial	
Revenue	\$36,673
COGS	\$19,956
Gross Profit	\$16,717
Fixed Expenses	
Marketing	\$6,830
Employee Hourly	\$2,302
Fees/Taxes	\$549
Annual Profit	\$7,036

Environmental	
Landfill diversion	7.5 tons of waste
Energy generation	4.3 MWh
Avoided virgin polypropylene production	<ul style="list-style-type: none"> • 54% less water • 64% less GHGs • 46% less electricity • 77% less natural gas • 48% less coal • 75% less oil
Bottles avoided	7.68 million bottles

Acknowledgements

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