Mackenzie George
REI Energy Contest
2017

Trash to Cash

Incentivizing recycling in on-campus dorms and apartments

RUTGERS UNIVERSITY

HOW IT WORKS:

1. Students weigh their recyclables before actually recycling them

2. They enter the stats (weight and picture) of the weigh-in into the app on their phone, updating their profile in the game

3. Students compete with others in their building, and top leaders rewarded a monetary prize

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The total **COST** for the program would be between $32,800-$38,000. The scales would be the most expensive component, followed by the development of the mobile app.

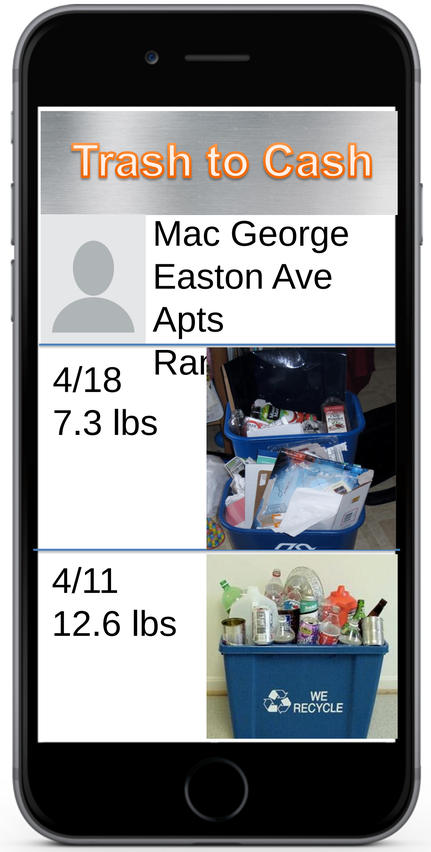
	Cost	Reason
Designing & Developing App	$5,000-$10,000	Game is centered around the use of the app
Scales	$20,000 ($200 per scale)	To weigh recyclables so student can record
Posters	$800-$1,000	Display rules of game in recycling room
Rewards	$7,000 (per semester)	Incentive / Reward top 2 students in each building every two weeks

Did you know?

The average American throws away approximately 185 pounds of plastic every year. If a student were to recycle just 50% of this plastic, they would be saving about 267 kWh per year, enough to power a light bulb for 445 hours.

Goal

The goal of this program is to encourage students to improve their recycling habits through a fun and competitive game. The game would hopefully cause students to realize that others around them care about reducing their impact, motivating them to do the same.



The main **BENEFIT** of this program would be the energy savings, as recycled products require much less energy to be turned into usable materials (as demonstrated below). The program would also improve Rutgers' standings in the Recyclemania competition, and hopefully demonstrate to other universities that recycling programs are a feasible solution even on campuses as large as Rutgers.

Recyclable	Energy Saved by Recycling	Carbon Emissions Prevented
Aluminum	96%	10 tons CO2 / ton aluminum
Polyethylene Plastic	76%	1.7 tons CO2 / ton polyethylene
Newsprint	45%	2.5 tons CO2 / ton newsprint
Glass	21%	0.34 tons CO2 / ton glass

Implementation Timeline Ex: 2018-19 School Year

2017 — June - Nov
- contact app developer& get estimate
- design and create app

2018 — Dec - Feb
- order & place scales
- design & print posters

2018 — Mar - July
- prepare over summer break
- waiting period

2018 — Aug - Sept
- debrief RAs/AAs/maintenance
- move-in occurs & program begins