Flow H_2O

Saving water, one drop at a time.

Written for: HCC Ideas Pitch

Flow H2O

HCC Ideas Pitch Competition Registration

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Our Essay

PROBLEM

Freshwater makes up a small fraction of our water on the planet. 70 percent of the world is covered by water, but only a mere 2.5 percent of it is freshwater. Furthermore, only 1 percent of this freshwater is easily accessible, since most of it is trapped in glaciers. As a result, only a few thousandths of a percent of the planet's water is available to fuel and feed its 7.4 billion people. Despite these alarming figures, we waste millions of gallons of water on a daily basis. People's lack of knowledge concerning water usage has been a detrimental plague on our economy, environment, and society. Globally, we have become ignorant of how much water we waste on a monthly or even yearly basis. People don't consider when or even how much water they use and waste. Unknowingly, the average household wastes approximately 2,400 gallons of water on a daily basis. In a year, America alone wastes 2.5 trillion gallons of water. This leads to water scarcity and severe droughts in regions such as California and parts of Texas. Statistics by The Atlantic show that the recent and ongoing California drought deprived the farming sector an estimated 2.2 billion dollars in 2014, and in 2015 more than 44% of California was in

"exceptional drought" - the worst level of drought. We have become so ignorant of our water that we lack the knowledge about what utilities use or when we use the most water. The challenge we now face as we head into the future is how to effectively conserve, manage, and distribute the water as a community for our current society and future generations.

SOLUTION

We've devised a solution called Flow H2O. The Flow H2O is a system composed of hardware and software that tracks the amount of water going through the consumer's household, sending this data to the user to provide awareness about their usage of water. On the software side, the application includes easy-to-understand graphs generated based on the water flow measured by a volumetric sensor attached to the house's main water supply. The graph shows how much water is being used per second, as well as when (the time and date) that amount of water is being used. This is very useful to the user because they're able to see which appliances are using their water, and they can use this information to conserve water. In addition, the user is able to see not only the total amount of water that they use daily, but also, their water usage by week, month, or year. They can also see a little tip about how to save water. Furthermore, the consumer can set a daily limit as to how much water they want to use. When they approach the limit, they receive a notification on their phone or on computer, so that they are aware that they are reaching the limit and don't waste as much water, saving the community.

Our product has immense appeal to the consumer base, because in the modern era, access to information is paramount. Flow H2O gives crucial information and data, allowing users to make judgments on their own water usage. This kind of technology has been used occasionally in service in industrial and manufacturing industries, but has never yet reached the consumer market. The reality that consumers now have the ability to know how much water they use during the day, as well as know what utilities in their household use the most water, opens the field to new methods on conserving water for the present and future.

KEY METRICS

Since the consumer market is untouched in the specific niche Flow H2O fits in, the potential size of the market could be up to 126.22 million customers from the population of homeowners in the United States. Unless other similar consumer-targeted systems are implemented, Flow H2O would hold the entire market share of its niche. Flow H2O appeals to middle-class homeowners who want to have access to their water usage information so that they can conserve water. Companies that use a lot of water like car

washes and laundromats can also use this product to save water and increase profits by seeing where water is being used the most. The potential size of this market could grow very rapidly as companies want to know how to cut cost on their operational cost to maximize profits when running a company.

COST STRUCTURE

The customer acquisition cost would be inexpensive due to the usage of social media platforms. According to average manufacturing and other costs, our operational cost would be around $2,010 for $10,000 of Flow H2O products and to maintain the application and software. Our distribution costs would low due to the fact that our product is lightweight reducing shipping costs to around $2-$3 per unit.

UNIQUE VALUE PROPOSITION

The value of Flow H2O is immeasurable. The information that our product gives access to lets the consumer have more control over their water usage. If we can have every person save just 6 gallons of water every single day, we would be able to save about 700 billion gallons of water annually in the U.S. alone. This is only possible using the Flow H2O as it allows users to view and make judgments on their water usage. This has global benefits in that we can resupply dried up reservoirs, import water to drought areas, and many other economic and social benefits.

UNFAIR ADVANTAGE

Distinct from other water companies, such as Aqua America, who keeps the data concerning how much water their consumers use at specific times periods during the day to themselves, we provide real-time data for the consumer's use. Because the application is easy to download and provides data regarding changes in a user's water usage, they can take immediate action towards conserving water, as the user can easily visualize the water usage using the line graph on the Flow H2O software. In addition, the application catalogs the user's water usage from past weeks, months and years so the user can see their improvements over time which serves to encourage them to conserve more water. We allow users to set personal limits on water usage, which allows for specialized needs of water, and inform them about the necessary gallons of water an individual needs per day, which is 80 gallons. Very exclusive to our product is the notification system which enables the users to receive warnings as they increase the percentage of the total amount of water used compared to their daily limit set, incentivizing them to take more steps to conserve water for the day.

CHANNELS

Customers will be able to purchase the Flow H2O sensors and electronic components as a single unit from both online and in retail stores with home appliances. The mobile and computer application would be free to download from the app store or from our website. After the purchase of a Flow H2O unit, a user can sync their computer Bluetooth to the device and use the free-to-use software provided by Flow H2O to instantaneously start viewing their water usage.

CUSTOMER SEGMENTS

Flow H2O appeals to many smart-home users. Approximately 17.9 million Americans live in what would be considered “smart homes.” Our product would also attract eco-friendly citizens, which are estimated to make up 79 percent of the American population. These individuals will enjoy our product because it allows them to make a conscious global impact in their societies while also saving money. They will understand that they are saving water and are appreciated for the service they do. People that have a desire to make a change in the world, conserve water to decrease their water bills, or enrich the environment, will be now be enabled to do so with Flow H2O. States that use the most water, such as Texas, California, and Florida, or even regions that are experiencing droughts, such as the eastern US, will be able to conserve water for their population more effectively. Consumers would require running water through a pipe system in order to use Flow H2O to for its intended extent.

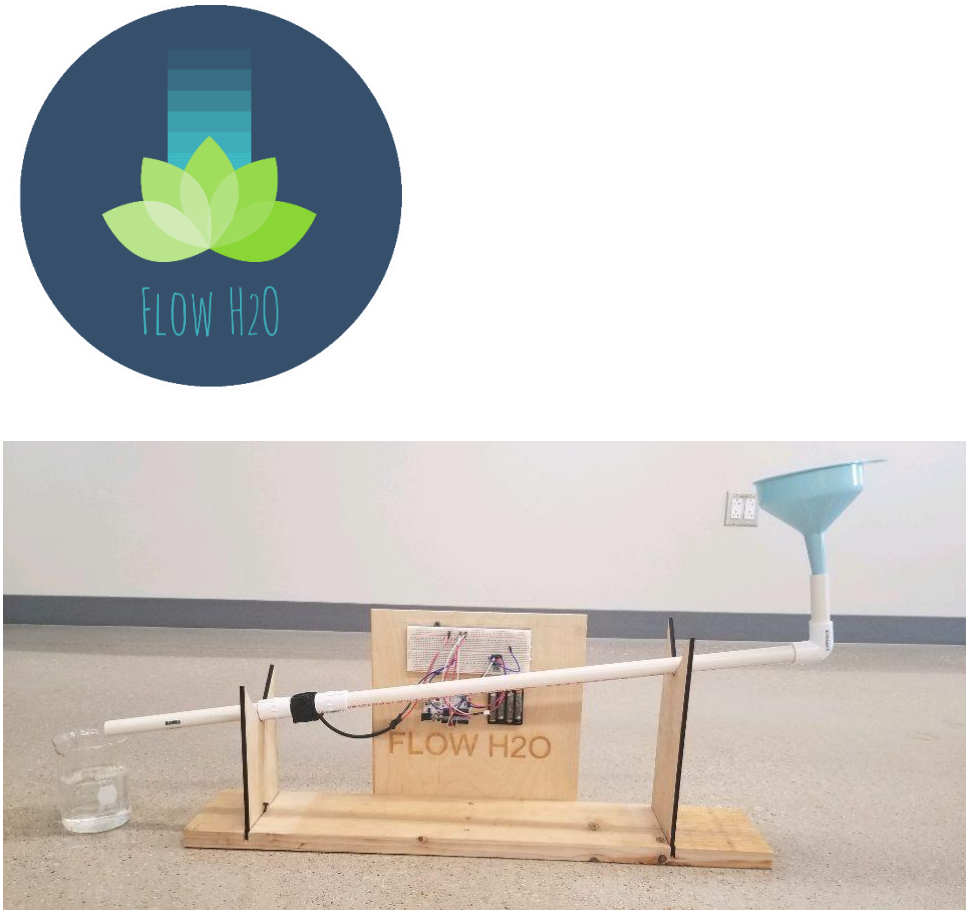
REVENUE STREAMS

Our product costs around $15 - $20 dollars to manufacture and we plan to sell it for around $50 dollars. To our customers, the product will be extremely cost-effective in the first 6 months due to the amount of money saved from less expensive utility bills. In order to be profitable, we would need around 75% margins, because we would also have to pay for licensing, starting manufacturing costs, etc. It would take under or around 1-2 years for the Flow H2O to be profitable for us with 75% margins. However, if we sell it for $50 and manufacture for $20, our margins would be 150%, meaning that we could be profitable in under 1 year. The lifetime value of our customers would be unlimited. Once the system is installed, the customer will likely keep the appliance until they leave the house, because they will continue to use water and water appliances.

THEME (COMMUNITY)

Flow H2O impacts many communities in an environmentally friendly way. By informing people to save water it allows for people to save water for future generations, marine life, and more. Flow H2O also helps replenish dried up lakes, rivers, and parks, and helps save water for times of drought or emergencies. With all the benefits and perks of using Flow H2O, you can save money and make the Earth environmentally friendly place.

Visual Concept



Our Short Video Pitch

youtube.com/watch?v=mixnX9dlVPo