Form, Function, and Structure

Function

EcoBin is a simple, earth-friendly solution to monitor your trash impact. EcoBin's intended purpose is to recognize the type and amount of trash discarded. EcoBin is divided into two sections: Recyclables and Non-recyclables. The user will discard their waste into the corresponding bin and connected sensors will recognize the amount of waste. The sensors will provide users with metrics on what they are discarding (recyclable vs non-recyclable) how much they are discarding. The sensing technologies are anticipated to enlighten users on their waste habits. The data being sensed will be transferred to an application, via cloud computing, and made accessible by mobile device. Through the app, users will also gain insight about their usage trends over time and can receive tips for to reduce waste. EcoBin focuses on the informational problem of trash, drawing attention to waste, as opposed to ignoring it. Through enlightenment, positive reinforcement, and community engagement, we anticipate a change in behavior.

Form

EcoBin is designed to be modular in form, allowing for customization based on user preference. Each individual compartment may be removed for emptying and/or cleaning.

EcoBin is designed to fit your home. A simple two-section bin that accommodates recyclables and non-recyclables respectively. In another version of our design, EcoBin Plus, the bin is industrial sized and designed to accommodate businesses. EcoBin also allows the consumer to choose from a variety of exterior materials including recycled plastic and stainless steel. For those interested in color choices, eco-friendly plastic EcoBins are available in a variety of colors, including: blue, green, orange, red, black, and white.

Structure

The two compartment EcoBin is 25.5" H x 23" W x 13.5" D, weighing 25.5 lbs. The EcoBin Plus version is 46.3" H x 44.0" W x 22.0" D, weighing 80 lbs. In either version, the compartments will have an opening measuring approximately eight inches by twenty-four inches. This is sized large enough to accommodate a majority of goods intact and a minority of goods in various crushed states. Each has an easy open door for quick emptying of the hidden receptacle inside. In each version, EcoBin will be separated into two main compartments: trash and recycling. Sensors will be embedded into each of the individual compartments. The sensors used will serve two different functions. One will identify the type of discarded material and the other will determine the space left inside of the bin to display how full it is.