Recycruncher: Automated Can and Bottle Crusher

Team Recycruncher
Sponsored by Aous Mohammad

**Problem Statement:**
Sponsor Aous Mohammad is seeking a design that allows users of any age/ability to easily crush down cans and bottles, reducing the amount of space needed for recycling storage while making the process effortless. This method of crushing cans will be lighter than current solutions on the market and offer a fun and rewarding way to recycle at home, in a car, or anywhere the device can be mounted.

**Design Needs:**
- Fully automated operation to crush cans and bottles of standard size
- Portable and easy to move
- Safe to use for all ages
- Attach to various recycle/trash bins
- Rechargeable internal battery system

**Operational Order**
1. User inserts can/bottle into open window and closes safety door. ON button is pressed, executing code within device.
2. Power is provided to the dual motor setup, moving the bottom puck towards the body, crushing the item inside.
3. Puck completes full cycle by returning to initial position at full extension, bottle or can falls through bottom opening into attached recycle bin.

**Battery Life Test**
Repeatedly running through product cycle to determine battery life.

**Circuit/Code Functionality Test**
Running code to ensure motors spin correctly with a button press & safety switch feature.

**Motor Operation/Crushing Test**
Testing system with a plastic bottle to determine crushing ability.

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**Team Members**
- Mateo Marquez: Team Lead
- Melissa Owens: System Overview
- Zach Morgan: Components & Electronics
- Brady Lopez: Material Selection
- Brenden Denney: 3-D Designer