LITHIUM-ION BATTERY RECYCLING PRIZE

AMERICAN MADE
BATTERY RECYCLING PRIZE

U.S. DEPARTMENT OF ENERGY

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Submission Title:	The AERbin
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A Public Document

AERbin
Rebates & Rewards

Concept

An Automated Electronics Recycling System.

- Sorts electronics using AI & Computer Vision.
- Built in fire prevention.
- Tags each item for simplified processing and reverse logistics.

Approach

- The AERbin is an electronics storage locker that acts as a waypoint.
- It uses a state of the art computer system with **environmental sensors, computer vision**, and **on board machine learning** to identify items.
- It learns what new items are using **crowdsourced learning,** and **notifies local recycling** companies when a **bin is full** or has specific items that they can process.

Potential Impact

- Incentivized recycling in partnership with electronics producers will create an ecosystem where it makes sense for people to manage e-waste properly.
- Think of it as a **Sweepstakes Machine** that **enables reverse logistics.**
- To achieve a **recycling rate of 90%** consumers need a reason to participate. Education is not enough.