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Bear-icade

My engineering project was designed to see if a self-opening, solar powered bear-proof trashcan could be made. I wanted this trashcan to be unlocked by the trash truck without the assistance of a person. The purpose of my project was to improve the health of bears by eliminating the consumption of toxins in garbage and reduce accidental deaths of bears caused by vehicles, weight gain and population growth of bears in urban areas. I went through a few steps in building the trashcan. First, the latch and the u-bolt were attached to the trashcan. Then, the solar panel was mounted. Next, the battery and the switch were installed. Once everything was in place, I wired it all together. Lastly, the metal coverings for all attachments were made and installed. My design is different from the current bear-proof trashcan because it is self-opening. My trashcan automatically opens when it's picked up by the trash truck and locks again when the lid is closed. After testing my trashcan with a trash truck, I was happy to see that not only did it automatically open but it proved to be easy and convenient for the public to use because of the ease of which it can be locked and unlocked. The significance of my results is that if bears were exposed to my trashcan they would be positively affected because they couldn't get into the trash. Humans that dealt with my trashcan were very happy because it was quick, convenient and simple.