

# Automatic Dual-Purpose Trash Collector Based on Soft Tooth Collection Structure

Jin, Xiayi (School: The Hill School)

This project is inspired by a comparison picture of two beach pictures. After viewing the two beach pictures, it is showed that the amount trash and pollution people create on the beach and in the ocean out of mind. The creation of this automatic trash collector not only helps to clean up the trash on the beach and the sea, but also alerts people to start protecting our environment and reduce the ocean trash and pollution. The whole collector can be separate into three parts to function, collecting system, controlling system, and containing system. It is important to have all three of these systems coordinate together in order for the whole collector to work, while the collecting and containing system can be build up by material we see in daily life, and during the process of collecting, it is critical that all trash can be successfully transmit from the beach or the ocean to the container of the collector. Adding some extra sticks on the conveyor belt to make sure the trash wouldn't fall back during the transportation and would stay on the belt. On the other hand, the controlling is extremely important, the controlling system will need to make sure the three system is following the order while working, and Bluetooth remote control should also be an important part on building this trash collector.