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4073G Vex Jets

Fishbot: The Underwater Fisherman

Most people that enjoy going to the beach partake in many activities both underwater and on land, such as fishing, surfing, swimming, building sandcastles, or simply walking along the shoreline. Even with the variation between these activities, there is almost always one similarity: the amount of trash left on the beach. It can be seen high and low, far and near. We, 4073G, have created a robot made from only recycled materials to clear the pollution and reverse this issue that has lasted for much too long.

Our idea for creating this robot was partially about thinking about why recyclable materials cannot be used for other purposes and are often thrown away in unconventional places as it is easiest. By repurposing these materials for the purpose of cleaning up both recyclable and non-recyclable items, they can be properly dealt with instead of hurting the environment.

There was no notable design process for this robot, but it was difficult to come up with the correct materials to make a stable robot. The sticks used to connect these parts were either too long or too short, finding the correct kinds of materials that were stiff and could be practical when moving through sand for wheels took a lot of brainstorming, and it was difficult to figure out the way this robot would function (as in how it would pick up trash and effectively pick up multiple at a time) after being mobile and having the purpose of picking up trash. The materials used to create this robot include (1) plastic container, (2) soda cans, (3) wooden skewers, (2-3) toothpicks, cardboard, and glue.

This robot was constructed beginning with the claw/arm. Cardboard would be cut into separate pieces and holes would be made on all of them, then the pieces would be connected with glue and a toothpick inside for the arm to move to some extent. The claw was constructed a similar way as the arm, except the toothpick was used to connect the top and bottom of the claw for it to stay together. The wheels were created through cutting the soda cans in half to form a shape similar to a wheel, cutting two skewers to the right size, and attaching the skewers to the wheels using glue (also poking the

skewers through the plastic container). The propeller, created to help the robot move through water without simply using wheels, was constructed through cutting out pieces of paper and wrapping the ends around a skewer (that was then poked through the plastic container).

The sharp metal of the soda cans could help it cut through sand easily to pick up materials along the beach. The claw is used to pick up trash and put it into the container where it will be emptied into proper trash containers. With the rising amounts of plastic straws, bags, or cuffs to hold soda cans, the claw is perfect to pick these items up. The propeller is used for quick, underwater exploration without having to traverse only on land. With these elements on the robot, it is perfect to quickly clean up our beaches and bring it a step in the right direction.