The Air Pick Up

By Connor McNally

What is it?

My invention is called Air Pick Up. Its goal is to pick up as much garbage as possible and it has a sensor for plastic, metal and glass (not animals). I had many ideas but I chose Air Pick Up because it can pick up garbage on land and out of the ocean. My reason for inventing a device to also pick up from land is because if there is less garbage on land, there is less garbage on the ocean.

This is a picture of the Air Pick Up in the ocean picking up garbage. The background is of the dock with garbage cans so it can put garbage in.

How Does it Work?

There would also be docks on the ocean so that Air Pick Up could go and put garbage in the garbage cans and so that animals could hide under the dock from predators. My Air Pick Up will see these bright orange garbage cans and it will know they are deposit zones. People on land can also put bright garbage cans out on their property for the Air Pick Up to recognize. When it picks up small pieces of garbage, they can be stored in small garbage cans on the side of Air Pick Up. If the Air Pick Up is in the ocean, it will go to the floating docks in the ocean to empty the garbage load, and if it is being used at a river or lake, the garbage platforms can be on land.

What do you Need to Build it?

My Air Pick Up looks a bit like a drone, and would have 1 or more propellers for flight. It also has a body that the propeller, camera, and arms for picking up garbage are attached to. The solar panels are important because it does not have to fly to land to charge. The computer will go inside the body. These components will be made of light metal plastic and silicone.

How could you Measure its Impact?

The drone will have sensors on the side of its garbage cans to see how full the garbage can is. It will know when there is wildlife in the area and if they are healthy animals or not. It will detect how much garbage is in the area and if there is none, that is a good thing. When the garbage can is empty, that means that part of the river, lake, or area of the ocean is clean.

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I made this invention because...

1. I feel sad for animals because they haven't hurt us and we are polluting their homes.

2. One of my favorite places is PEI because my cousins and grandparents live there. Me and my cousins on PEI always go around picking up sea glass on the beach because we want to protect animals. To make it fun we make it a competition.

3. The animals need to be healthy for them to survive and we need them to survive for us to keep our oceans full of life.

If animals eat plastic or other garbage, they will get sick and if we eat these animals, we can also get sick. As soon as I heard that sharp sea glass can cut turtles' bellies open, I felt really sad and wanted to help them. When they eat plastic it can rupture their internal organs. I want to see Air Pick Up in real life and I wanted to help save turtles and other animals with my invention.

A waterway close to me that I want to keep clean is...

There are two waterways close to me: I live very close to Mooney's Bay beach and I have seen lots of garbage there, and my uncle lives on the Rideau River. I can collect garbage from the middle of the river because I paddleboard and kayak.

This is a blue Heron on my uncle's dock in Kars, Ontario. When we see garbage we will pick it up.

This is the turtle that I drew. I want to protect the turtles from dangerous garbage such as plastic, metal, sea glass, and tires.

About the Inventor

My name is Connor McNally and I am 9 years old. I live in Ottawa, Canada. My favorite summer activities include swimming paddle boarding and wakeboarding. One of my favorite places are the beaches of PEI where my cousins and grandparents live. I would be happy to work with the maker communities or company designing and producing the Air Pick Up. Big thank you to Rhiannon Ng for helping me with this project.