

# SEA PERCH: BRINGING LIFE BACK TO CORAL REEFS ONE CORAL TREE AT A TIME!!!

## Why do coral reefs matter?

Coral reefs are one of the most diverse and valuable ecosystems in our ocean. They are home to over 4,000 different species consisting of fish, coral, and marine life. They provide habitat for more than 25% of the world's marine life. Coral reefs provide food for coastal and inland communities. They are essential for supporting commercial and recreational fisheries. Coral reefs reduce the impact of waves, storms, and floods. This helps protect from erosion, loss of life, and property damage.

## How coral reefs are being affected?

Coral reefs not only are the most valuable, they are the most threatened. Increasing temperatures are causing coral to, put simply, bleach themselves. Coral reefs aren't able to withstand the huge increase in temperature that's been occurring. If the temperatures become too warm, reefs could lose an important food source as the coral expel symbiotic algae. This causes them to turn white or 'bleached'. Rising sea levels also pose as a problem. With the sea rising, coral will lose the sun that they need to grow. Overfishing is the biggest problem of all. It affects more than 55% of coral reefs. The fish that live in coral reefs eat the algae that grows on coral. If there's nothing to eat the algae, the coral will be smothered.



## Concept Overview

Our concept is designed to restore coral reefs through the use of remotely controlled vehicles designed to place coral trees on different surfaces in the ocean. We aim to give out an extra hand in restoring and creating more coral reefs.

## How can seaperch help?

There are many of ways people are trying to help with this issue. A way that we can move to the next step is by using ROVs. Robots are already being used. CHARM is the first step to this change. We can use ROVs to place coral on man made nurseries and sunken ships in the ocean. Although this is something that has widely spread through the world, there truly isn't enough people. ROVs could help with the lack of human support.