

Tidal Rescue User's Guide

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The anxiety regarding the future of the planet motivated the team to focus the project's educational content on environmental awareness and marine conservation efforts. In present day, many people are not aware of the troubles that our oceans face. For young students to understand the impact that human intervention has on Earth's waters, virtual reality provides a confrontational platform for *Tidal Rescue* to create a personal experience. Through the hands-on interactions with the environment, the players feel immersed in the experience and form a connection through a first person view of the sea creatures in the marine environment.

As a player, you start underwater in an air bubble that provides oxygen. In this position, you pick up litter, save any marine wildlife in trouble as they come close to you in their own little bubbles or as you get close to them. You can grab and heal injured animals. You must stay alive for as long as possible as you earn points & time for every good deed and lose points & time for mistakes.

How to set up:

The current software prototype runs on laptops/computers regardless of operating system. Users are required to possess a HTC Vive headset and a Steam account, the latter of which can be created for free. Ideally, the user will also have cleared space in a radius of at least seven feet, so that the game may be played without accidental collisions and risk of injury.

Game Play Features:

Heal as many sea animals as possible before running out of air. For each sea animal you heal with the appropriate hand, you gain air when their color indicates you healed them, earning you more time. For each sea animal you heal with the wrong hand, you lose air and your surrounding bubble decreases in size.

Throwing away trash on the ground also counts as earning points or air adding to your overall bubble time. Additionally, the overall background bubble of your area decreases as time continues adding to the urgency of the game. In order to score points, the player must save the animals by healing the sick ones, marked green with the right hand, and getting information from the tagged animals, marked pink with the left hand. By doing so, the player can earn more air in their bubble so that they have more time to earn more points. The player can lose points for making mistakes. If they fail to perform the correct action for each type of animal, such as using the left hand on a sick green animal, then they lose points and air, which is indicated by the bubble decreasing.

Technical Issues:

The vive often had trouble sensing the overhead sensors.

Off the Shelf Assets:

Low poly Animal Models:

<https://www.gameart2d.com/free-platformer-game-tileset.html>

Trash-can: <https://assetstore.unity.com/packages/3d/low-poly-trashbin-60789>

Trash: <https://assetstore.unity.com/packages/3d/props/free-cans-pack-122374>

Water Texture: <https://www.gameart2d.com/temple-run---free-sprites.html>

Software:

Unity Game Engine

SteamVR

HTC VIVE