

# AQUA SURVEYOR

## TEAM LIGHTS OUT

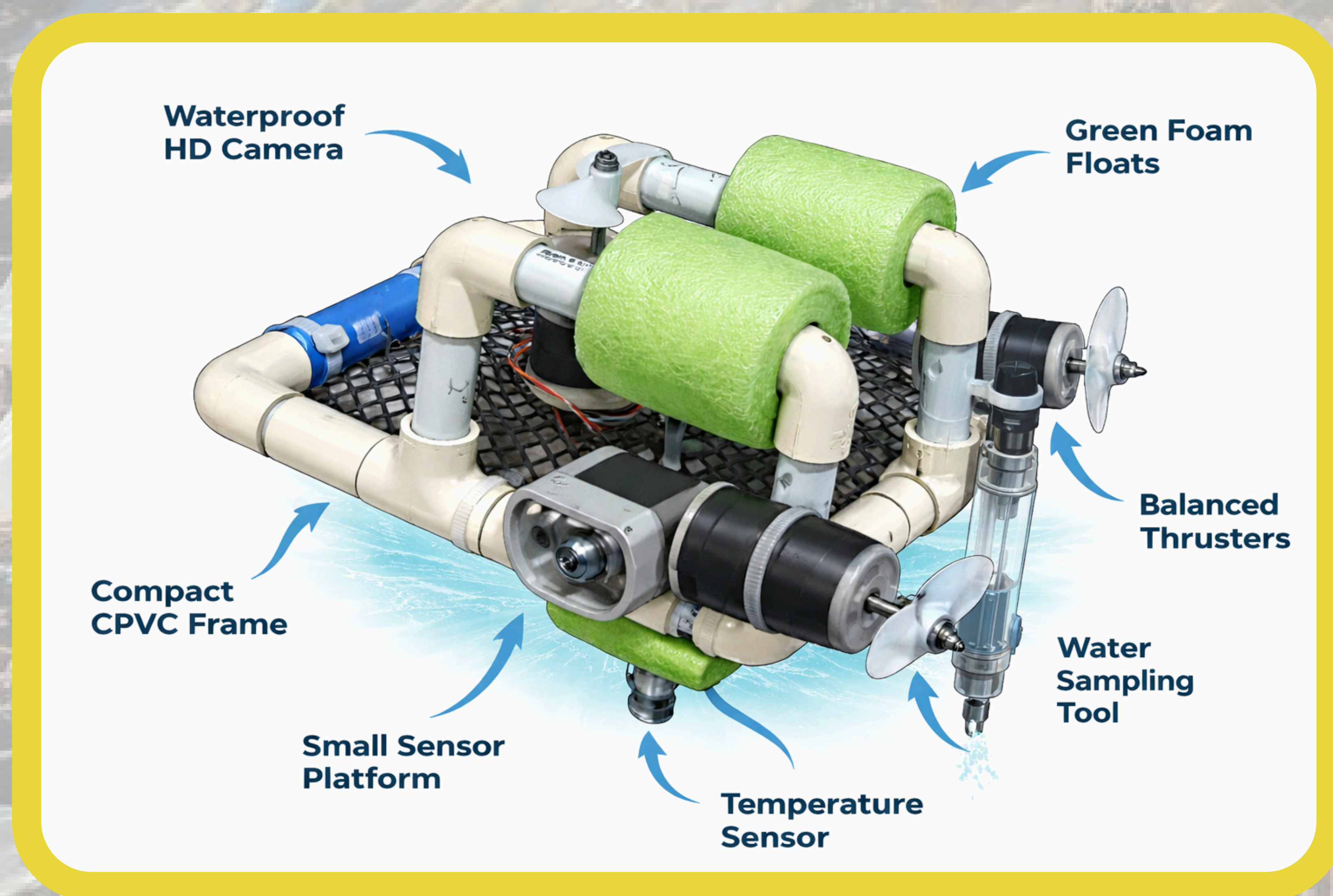
River City Science Academy Southeast (Jacksonville, Florida, United States of America)

### Project Overview

Water pollution can harm fish, plants, and people. Aqua Surveyor is a SeaPerch ROV designed to help monitor water conditions in a safe and efficient way. It can observe underwater environments, collect visual data, and support a small sensor area for water checks.

### Background & Rationale

Florida is surrounded by lakes, rivers, springs, and coastal waters that are important for wildlife, tourism, and local communities. When these waters become polluted by trash, runoff, algae, or other contaminants, they can harm fish, plants, and people. We connected our project to Florida because protecting water is especially important in a state where so many ecosystems and communities depend on healthy waterways. Aqua Surveyor was designed to help monitor water conditions safely and support efforts to better understand and protect Florida's waters.



### Approach

Our ROV was designed for stability, visibility, and control. It features a clear viewing area, space for a camera, and a platform for a small sensor. Its compact frame allows it to move carefully through shallow or narrow spaces where pollution may be present.

### Discussion & Reasoning

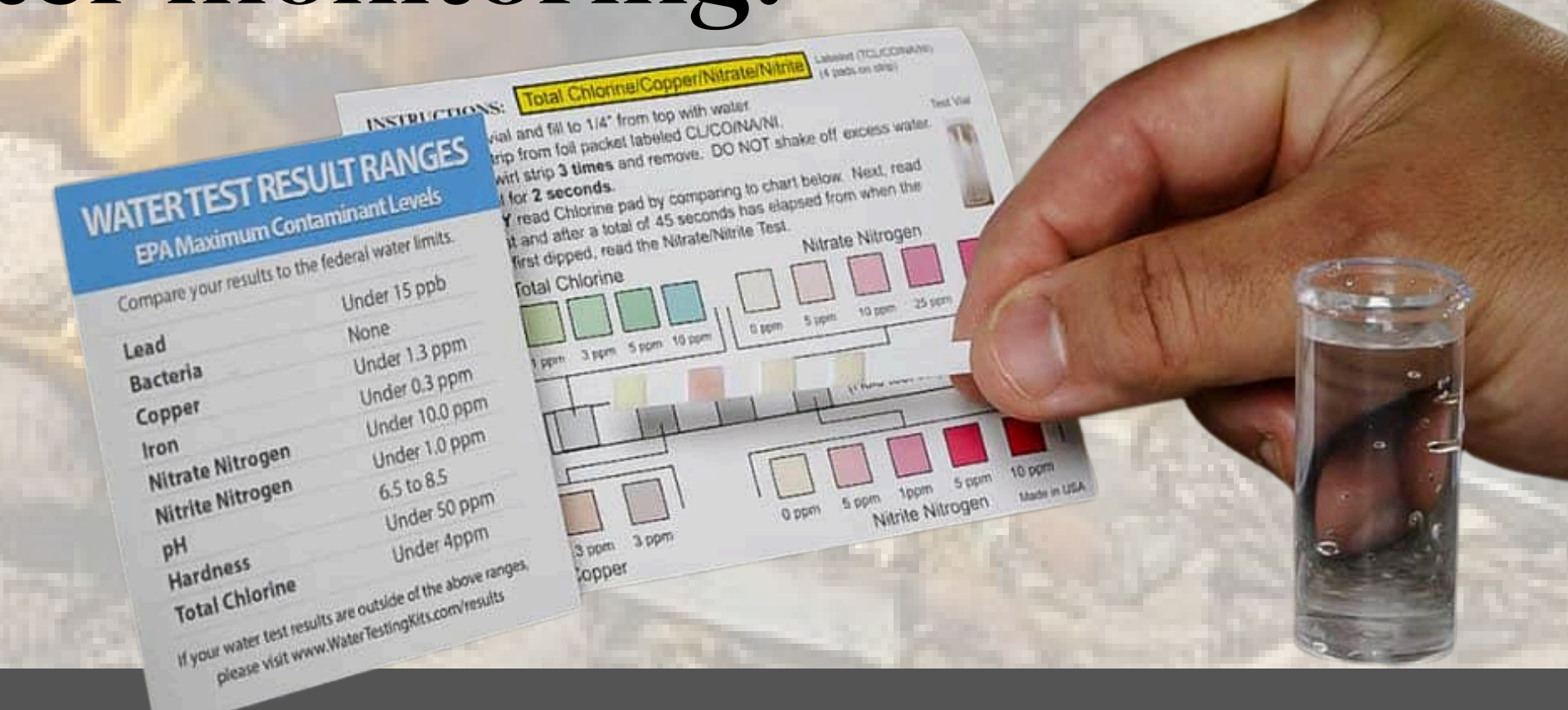
We focused on observation rather than speed. A stable design helps collect clearer images and more useful data. The camera area can help identify murky water, algae, trash, or other visible pollution, while the sensor platform could support temperature or water-quality checks.

### Next Steps

Next, we would test Aqua Surveyor in different water conditions, add a working camera, attach a temperature sensor, and explore ways to detect more signs of pollution. These improvements could make the ROV even more useful for real-world water monitoring.

### Why It Matters

Aqua Surveyor shows how student engineering can support environmental science. This project is an innovative way to use SeaPerch technology to protect waterways and better understand water health.



**Aqua Surveyor: Exploring underwater conditions to protect our water.**