

SEA-UP

PROBLEM STATEMENT

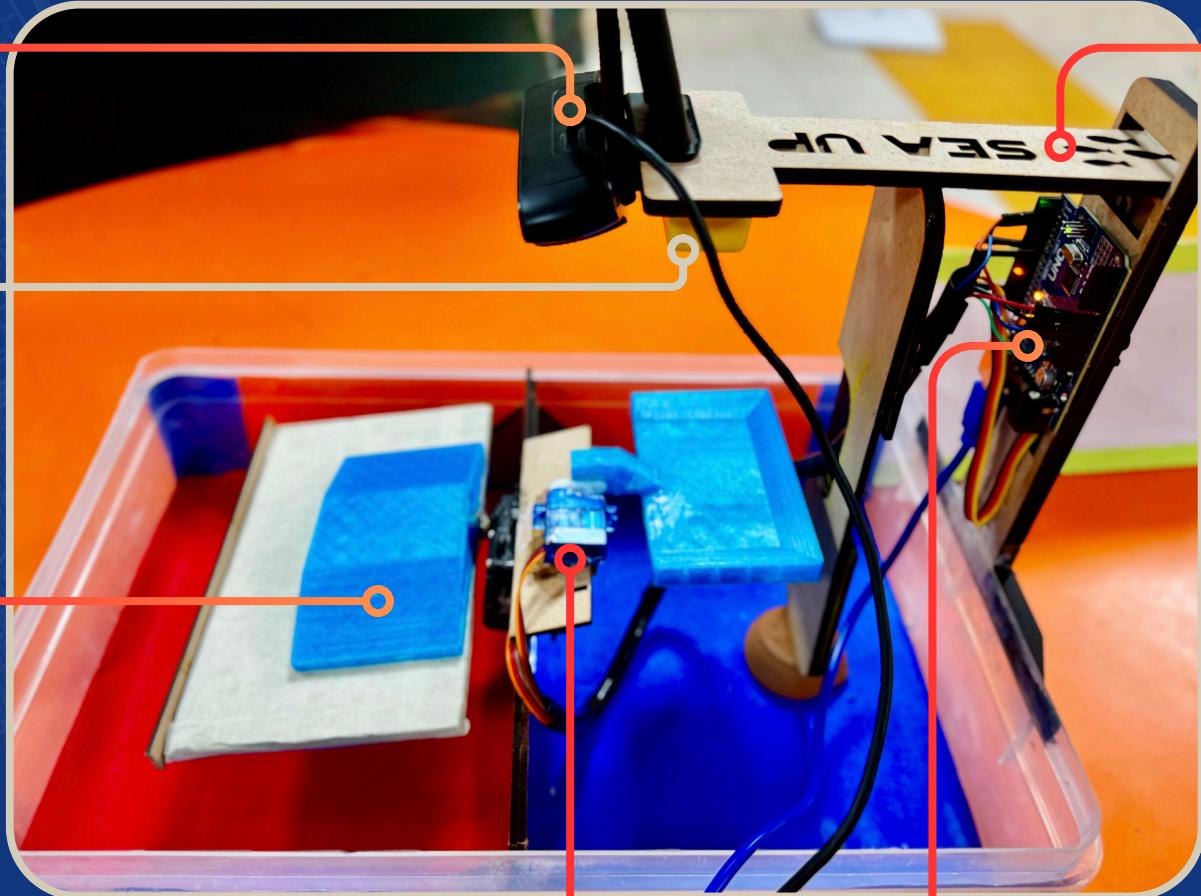
Water pollution, particularly the accumulation of waste in water bodies, is a pressing environmental issue. Floating trash in rivers, lakes, and oceans harms marine life, disrupts local biodiversity, and poses risks to public health. Despite awareness, most cleanup efforts are labor-intensive, inefficient, or too costly to scale, leaving the majority of water bodies neglected.



OUR SOLUTION

- **Sea Up is an automated system for detecting and collecting waste from water bodies.**
- **It uses an ultrasonic sensor to scan the surface of water for waste.**
- **Once waste is detected, a robotic arm collects it and transports it to a separation section.**
- **An AI-powered camera connected to a microcontroller then identifies and categorizes the waste with over 95% accuracy.**
- **The waste is separated into different sections for disposal or recycling.**
- **This system offers a scalable and efficient way to clean water and manage pollution, reducing human effort and improving water health.**

SEA-UP



♦ **Separation Arm
MC 995 Servo**

♦ **Waste Picking Arm
SC 90 Servo**

♦ **Micro-
Controller
Arduino Uno**

♦ **3D Printed**

♦ **CNC Cut
Chasis**

♦ **Ultrasonic Sensor**

♦ **Webcam
connected to PC
running separation
Programme**