**1. Introduction:**

The Eco Bot is an autonomous water-cleaning machine designed to remove floating garbage from water bodies while monitoring environmental factors such as pH, dissolved oxygen, humidity, and temperature.

**2. Objective:**

The objective of this project is to create a robot capable of detecting and collecting garbage from water surfaces, utilizing sensors and GPS for navigation and data collection.

**3. Methodology:**

The Eco Bot uses a combination of GPS for navigation, ultrasonic sensors for detecting the garbage collection area, and propeller-controlled servos for movement, while utilizing image processing to identify floating garbage.

**4. Result:**

The Eco Bot successfully navigates to identified garbage locations, collects the garbage, and returns to base when the collection area is full, while providing real-time environmental data to a client computer.

**5.Key Features:**

* Cleans floating garbage from water bodies.
* Monitors water quality in real-time (pH, dissolved oxygen, temperature, etc.).
* Uses automated navigation, avoids obstacles.
* Uses fiberglass chopped sheet for body, which is durable, makes the machine float and also doesn’t pollute the water in any way.