



## **Team 9 -Trident**

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**Client: Professor Alan Pisano**

**Plastic pollution in the ocean is a pressing environmental issue our society faces today, and 90 percent of the ocean plastics originate from 10 river systems. We aim to collect floating plastics on rivers by using an autonomous boat named Trident. A single Trident vessel will be capable of navigating and clearing a section of water without human intervention. With multiple Trident vessels communicating with each other, large-scale cleaning of river systems will be possible. Our senior design project will be a proof of concept with one fully functioning Trident vessel collecting floating plastics in a small section of the Charles River. While beyond the scope of this course, the project's long-term goal is to have a swarm robotics platform allowing many trident vessels to work in a collaborative, optimized fashion for river cleaning.**