The purpose of this project is to study the technological and commercial feasibility of robotic control systems for freighters, and to develop a miniature proof of concept based on the findings. The research portion of the project involved a detailed technological and financial viability analysis of Unmanned Surface Vehicle (USV) technology for freight shipping, especially for inland waterways. The prototype-engineering portion of the project resulted in a proof of concept control system based on an open-source platform, which controls a miniature Unmanned Surface Vehicle prototype. The prototype is a 1.3-meter long twin-hulled catamaran, which navigates autonomously to ferry a miniature payload using differential thrust from two motors that are powered by two deep-cycle marine batteries. These undertakings have led to a comprehensive solution to enable zero emission inland freight shipping using mass-manufactured swarms of semi-autonomous, 100 DWT, low-draft, multi-hulled, solar ships that carry intermodal cargo containers.