The MCAW: A Magnetically Compounding Accelerator for Watercraft

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Many modern engines for watercraft are internal combustion engines. These engines have a significant harmful impact on marine ecosystems. A goal was set to find and optimize an alternative method of propulsion that was much more eco-conscious. In the project for 2024, a design concept was found that was much quieter and had much lower carbon signatures than the current methods. A prototype was built to confirm viability of the new system, and some data about noise levels and energy consumption was documented. In the 2025 project continuation, the design was optimized for power to weight ratios and implementation into the hull of a vessel. Data was recorded for speed, power output and consumption, and efficiency. Results found that the new prototype at its current size was more efficient by weight than current full scale propulsion methods.

Awards Won: