# The Carbon Catcher: Utilizing the Carbon Sequestration Abilities of Coccolithophorid Algae and Seagrass to Create a Low-Cost Carbon Collection System for Developing Communities

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This project explores the effectiveness of coccolithophorid algae and eelgrass in reducing atmospheric CO2 levels through a small-scale carbon capture system. The goal was to design an affordable, replicable device that could efficiently sequester CO2, particularly benefiting low-income communities. Three samples were tested over seven days: one with only coccolithophorid algae, one combining algae and eelgrass, and a control with neither. Results showed the algae-only sample reduced CO2 by nearly 50%, outperforming the algae-and-eelgrass combination, which also effectively sequestered CO2. The control showed no significant CO2 reduction, confirming the success of the biological components. This inexpensive system, costing approximately $68.71, demonstrates the potential for accessible carbon capture technology to address climate change equitability.

**Awards Won:**