Development History

Initial Concept

- G&J Wave Energy started with the goal of developing a wave energy converter that would be simple, rugged, and built from readily available materials.

Model Development

- After exploring several concept designs, a configuration using a buoy, dual cable drum, and cable tensioning device emerged as the best fit for these goals.
- A small (1 watt) working model of this wave energy converter was constructed using AutoCAD, 3D printing, a used permanent magnet miniature motor for the generator, and other hardware sourced locally. Physical testing of this model provided proof of concept.

Prototype Development

- Utilizing the lessons learned from the 3D printed model, G&J Wave Energy designed and built a 2.5 watt prototype for testing in a wave test facility.

Final Design

- Drawing on experiences from the construction and testing of the 2.5 watt prototype, the team developed detailed designs for the 2.5 kW and 3.5 kW wave energy converters.