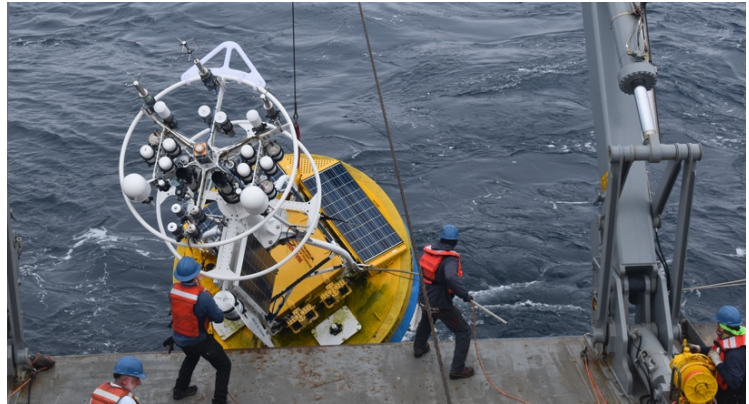


# 3newable Paid Internship

Interested in marine renewable technologies? 3newable develops equipment to collect ocean data more sustainably. Our compact buoy-mounted wave energy convertor (WEC) generates electricity to power ocean observation equipment, complementing on-board solar and wind power sources. This WEC integrates with a UV LED illuminator to inhibit biofouling of critical oceanographic instrumentation, reducing the need for highly toxic chemical anti-biofoulants. Using the WEC and the illuminator can increase the amount of time between ship voyages to service these buoys, thereby reducing both emissions and ecological damage, and greatly reducing expenses. A prototype 3newable UV illuminator is currently deployed on an NSF-funded Ocean Observatories Initiative buoy off the coast of Oregon. 3newable's equipment can be applied to several other purposes as well. For example, the WEC can power nodes to extend the Internet over surface offshore networks.

3newable works with the Woods Hole Oceanographic Institution in Massachusetts under awards funded by the US Department of Energy, as well as with Oregon State University for buoy deployment. The internship is located at 3newable's laboratory in Newark, California, in the San Francisco Bay Area. Funding is available to cover one intern for up to four months during 2024.



*Image from work supported by National Science Foundation's (NSF) Ocean Observatories Initiative, a major NSF facility*

This internship will focus on testing 3newable's WEC, with new control electronics, on 3newable's recently-upgraded laboratory WEC tester. Operating parameters will be chosen to optimize performance for an upcoming test deployment off the coast of Oregon. Motor control programming and mechanical assembly will be required.

## Qualifications

- Currently enrolled in, or recently graduated from, a bachelor's or master's degree program in Mechanical, Electrical, Ocean or Aeronautical Engineering, Physics or similar, having completed at least the first two years, or a combination of relevant technical education and experience
- Desirable experience
  - Experience assembling mechanical equipment (can be a hobby)
  - Experience programming a microcontroller or other controller, or a course in control systems
  - Rudimentary electronic circuits and measurement experience
  - Some familiarity with mechanical CAD such as Autodesk Inventor
- This position has physical requirements that most students will be able to meet. They will be discussed with candidates reaching the interview stage, but any candidate may request a list earlier.

Learn more at [3newable.com](http://3newable.com). To apply for this position, please send a cover letter, resume and dates available to [jefouquet@outlook.com](mailto:jefouquet@outlook.com). (More information may be requested from candidates who look like a good fit.)