

Sensor-Based Data Acquisition and Visualization Platform

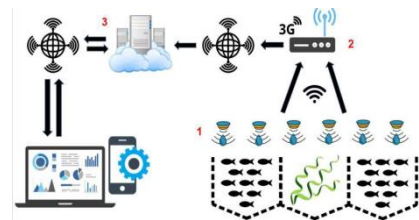
Period: 4-10 months, as soon as possible

Location: Hortimare BV, Heerhugowaard

Has the seaweed industry caught your attention? Do you want to work in a sustainable and innovative environment? Then Hortimare is your place to be!

What will you do / the assignment:

Join us to develop a sensor-based data acquisition and storage system for seaweed cultivation. Utilize tools like Raspberry Pi 4 Model B, Arduino Uno, and MySQL, and create a visualization platform for accessible data analysis. This real-world project in our facility offers a unique opportunity to apply your academic knowledge to a sustainable and innovative field. Ideal for those passionate about technology, sustainability, and practical problem-solving, this internship aims at professional growth in data systems and hardware integration.



What Hortimare is looking for:

- University of applied science (HBO) (Engineering or another relevant subject)
- Affinity for problem solving and thinking outside the box
- Knowledge on Raspberry Pi and Arduino, (MySQL)
- Communicative and teamplayer
- Hands-on, and proactive
- Able to take guidance and then work independently
- Fluent in English, verbal and written



Our offer:

Hortimare offers a challenging internship in a unique and passionate work environment. Our team is committed to providing a supportive and engaging environment for your internship thesis/assignment. Travel expenses will be reimbursed, and we offer a maximum of € 650,- per month to cover accommodation costs.

Information:

If you are excited about contributing to a sustainable future and joining Hortimare, please contact Gianluca Bizzaro for more information: gianluca.bizzaro@hortimare.com.

Applications :

To apply for this position, please send your application letter together with your resumé as soon as possible to hrm@hortimare.com

Background

Indoor aquaculture, by precisely controlling environmental factors like light, CO₂, O₂, pH, and temperature, creates optimal conditions to enhance seaweed growth. However, compared to other agri-food industries, aquaculture remains less digitized globally. While sectors like the food industry have embraced digital technologies such as robotics, big data, and AI, aquaculture lags due to its specialized needs and lower demand, resulting in high production costs. This makes digital technology adoption economically feasible mainly for large-scale operations.

Suciu I, Boquet G, Tuset-Peiró P, Vilajosana X. ADO: *An open digital end-to-end tank based aquaculture platform*. HardwareX. 2022 Mar 8;11:e00283. doi: 10.1016/j.ohx.2022.e00283.

Why seaweed?

Seaweed has great potential to have a positive impact on global (environmental) challenges. It is one of the fastest growing plants, and can be used for a variety of applications, such as food, packaging, and as raw material. Seaweed farming does not require added fertilizers or fresh water and can provide a much more sustainable alternative to land farming.

The demand for seaweed is increasing by about 8% per year worldwide, all the reason to cultivate it responsibly and professionally.

Hortimare BV is the supplier of high-quality starting material (seed) for seaweed farmers. Our mission is to contribute to a sustainable future, by making seaweed a competitive alternative for land-based products. To accomplish this we advise, support, and collaborate closely with seaweed farmers. In addition, we contribute to (international) research projects with our scientific knowledge of breeding and propagating various species of seaweed.