

# Algacraft LTD Engineering Contractor Brief



## Contract Details

Task Title: Bioreactor Engineering Support  
Contract Value: £8,000-£10,000 (to be negotiated)  
Timespan: March – September 2023  
Organisation: Algacraft LTD  
Location: ASCUS Laboratory, Summerhall, Edinburgh, EH9 1PL  
Reporting to: Daniel Budinov  
Task Manager: Dr Mate Ravasz  
Contract Manager: Dr Matjaz Vidmar

## Contract Scope

Contractor is free to determine their own workload allocation and work pattern, but we anticipate roughly 2 days per week engagement with our team and laboratory over the course of approximately 6 months. Contract value is to be negotiated commensurate with contractor knowledge and experience. Pending satisfactory performance and availability of further funding, this contract could be extended or converted into an employment contract.

## Contract Purpose

To lead on the assembly, testing and operation of three (photo)bioreactors designed by Algacraft LTD.

## Main Responsibilities

### Overall responsibilities

- Assemble and test the MOAR 25L photobioreactor. Suggest any fixes or improvements necessary. Provide remote deployment support to Algacraft LTD's clients. (Mar 2023) [70%]
- Assemble and test the ALBTS 5 x 25l pilot bioreactor. Suggest any fixes or improvements necessary. Install at location in Berwick-upon-Tweed and provide deployment support to Algacraft LTD's clients. (Apr 2023) [70%]
- Assemble and test the ALGA table-top R&D photobioreactor. Suggest any fixes or improvements necessary. Manufacture, test, install and operate a cluster of five to ten reactors. (May-Sep 2023) [70%]
- Support the work of the Algacraft R&D team in designing, testing, and optimising (photo)bioreactors. [20%]
- Write reports, documentation, presentations and other materials in support of R&D and business development at Algacraft LTD [10%]

### Specific responsibilities

- Review the reactor(s) design, bill of materials and assembly procedures and lead the, validation/testing and integration of all third-party components, including electronics (breadboards).
- Manufacture reactor(s) bodies using 3-d printing and light joinery.

- Characterise and install selected sensor systems, environmental control systems and power and system management systems within the reactor(s).
- Collect and analyse performance data and suggest alternatives, optimisation and re-design.
- Install reactors and supporting systems in-situ at our laboratory or client sites or support installation remotely.
- Operate, monitor and/or provide support to clients for operation and monitoring of reactor(s) and their support systems.
- Contribute images, data and analytical findings to reports, slides/presentations, video content, etc.

### Knowledge, Skills and Experience Required

- € University degree in some combination of mechanical, electrical and/or electronics engineering or equivalent professional experience
- € Track record of design and manufacturing engineering within any high-tech industry
- € Familiarity with photobioreactor design and manufacture and/or biotechnology engineering, especially in the context of algae cultivation
- € Experience in working with a diverse team and external stakeholders in professional manner
- € Ability to work independently and take responsibility for organising activities and managing allocated resources
- € Excellent command of language and interpersonal and team-work skills

### Contract Context

Algacraft LTD is an Edinburgh-based biotechnology start-up established in August 2019. We help the expanding algae industry optimise microalgal growth processes. This is based on our novel photobioreactor design, which automates laboratory work and allows for better analysis, delivered faster and at a lower cost.

The company is made up of four experienced team members: Dr Mate Ravasz (CEO) is the chief biologist, both with extensive track record of academic research and application development. Electrical engineer Daniel Budinov is CTO and leads the engineering and manufacturing effort, whilst Dr Stephan Matthiesen is looking after software development and Dr Matjaz Vidmar is our business development manager and CFO.

Our reactors are developed for a variety of uses and for both laboratory as well as application deployment settings.

### How to apply?

Interested candidates, please, email the following to [vacancies@algacraft.com](mailto:vacancies@algacraft.com):

- Cover letter, explaining your motivation to take on this contract and how you would approach fulfilling it.
- Short CV demonstrating essential and desirable skills and experience
- A binding quote for the contract.

If you have any questions, please, email us to the address above.