

Job Description	
Department: Sensors manufacturing	Location: Southampton area
Post Title: Sensor manufacturing technician	Grade: Dependent on applicant profile Guide salary £25k-£32k depending on experience, 8 public holidays + 25 days annual leave
Post responsible to: Head of Product Development	Posts responsible for (and grade): None

Context or Background (optional):

Clearwater Sensors Ltd. (www.clearwatersensors.com), a startup founded in 2019, develops and manufactures environmental sensors including Lab on Chip based microfluidic analysers for water chemistry analysis. Examples of applications for the sensing technologies include measurements of nutrients or pH on autonomous underwater vehicles. Clearwater Sensors Ltd. licensed in IP from the University of Southampton and the National Oceanography Centre in 2020 and within 10 months had delivered first product to customers. The team has since seen further sales with strong growth and has benefitted from three research / innovation grants that expand our product offer and enable improvements.

We seek a collaborative and adaptable professional sensor manufacturing technician who is also able to: i) assemble sensors which are complex electromechanical, fluidic and optical devices; ii) learn and use quality assessment, management and control techniques to optimise quality and feedback on challenges, iii) assist with manufacturing and workshop tasks, iv) repair, test, calibrate and service sensor systems. The candidate will get the best from the role if they are willing to work in collaboratively in multidisciplinary team including in areas outside their current experience.

Job Purpose:

To work as a team member in the production team providing expert technical skills the following areas:

- Assembly of chemical sensor systems and associated product quality management.
- General workshop manufacturing tasks
- Repair, test, calibration and servicing of sensor systems

You are a practically minded individual capable of following protocols, and have good practical skills

You should have a qualification in an engineering or technical discipline. We are willing to consider applications from a variety of educational backgrounds (degree, apprentice, BTEC, HNC/HND, or equivalent experience)

In addition, you will be expected to develop and apply specialist skills in the following areas:

- Microfluidic systems
- Lab-on-chip bonding
- Chemical preparation
- Data processing

To learn skills as above and adapt to new requirements as required.

Expectations of the role:

To take personal responsibility for the work assigned to them.
 To always look for high quality and robust as well as novel solutions to optimise product and company competitiveness.
 To create documentation and provide training on analytical approaches developed by the team.

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To keep a detailed logbook documenting your analytical contribution, write procedure guides, user manuals and work with users to develop analytical and operational requirements.

To perform sound experiments / tests demonstrating the suitability of the developed solution.

The post holder will be self-motivated and able to tackle complex problems independently as well as excelling in a multidisciplinary team. They will be enthusiastic to learn new skills in a range of engineering and science disciplines and willing to make the extra effort to ensure they quickly become an expert.

They will have excellent mechanical and system assembly technique, as well as computer skills including Windows and MS Office. Experience of spreadsheets or analytical software such as Matlab would be an advantage.

Key Accountabilities/Primary Responsibilities:

% Time

1	Assembly of chemical sensor systems	45
2	Manufacturing task in workshop	10
3	Repair, test, calibration and servicing of sensor systems	15
4	Use quality assessment, management and control to optimise quality	10
5	Maintain: documentation on standard operating procedures, data quality and methods; and log book	10
6	Develop best practice and skills in the group and yourself.	5
7	Assist with maintaining labs, equipment, supplies and infrastructure in the team.	5

Expectations of all staff:

- At all times comply with, and ensure that duties are carried out in accordance with, relevant Clearwater Sensors Ltd. business aims, contracts, service agreements, policies, procedures and guidance.
- Promote and demonstrate a personal commitment to equality, diversity and inclusion and working with respect.
- Attend relevant training, maximise learning opportunities and maintain professional development by completing continuous professional development appropriate to the role.
- Maintain a safe working environment by attending Health and Safety training as required and follow local codes of safe working practices and actively contribute to embedding a safety culture across Clearwater Sensors Ltd..
- Adopt and promote awareness of Clearwater Sensors Ltd.'s ethical and environmental aims and other initiatives.
- Carry out other duties within the scope, spirit and general purpose of the post and adopt a flexible approach to work.
 - As duties and responsibilities change this job description will be reviewed and revised in consultation with the post holder.
 - Undertake such other duties within the scope of the post as may be reasonably requested by your Manager.

Personal Specification				
		<u>Essential criteria to be measured for shortlisting purposes</u>	<u>Essential criteria to be measured for interview purposes</u>	<u>Desirable criteria to be measured where candidates may otherwise score equally on essential criteria.</u>
Qualifications and Knowledge:				
1	degree, apprentice, BTEC, HNC/HND, or equivalent experience	✓		
Experience related to position:				
1	Experience in technical and engineering tasks, for example: <ul style="list-style-type: none"> • Assembly of mixed electronic 	✓	✓	

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	<ul style="list-style-type: none"> and mechanical systems • Assembly and test of sensors • Calibrations • Workshop tasks and related manufacturing 			
2	<p>Willing to work within a multidisciplinary analytical systems / sensor development team and to undertake:</p> <ul style="list-style-type: none"> • Assembly, test and calibration of sensors and analytical systems • Multidisciplinary analytical system problem solving. 	✓	✓	
3	<p>Knowledge of quality management, complex metrology systems test, fault finding and remedy</p>			✓
4	<p>Experience of the deployment of autonomous underwater instruments or microfluidic systems for environmental applications</p>			✓
5	<p>Computer skills with Windows and Office</p>	✓	✓	
6	<p>Experience of the following or similar:</p> <ul style="list-style-type: none"> - Polymer and metal manufacturing - Drilling - Milling - Turning - Lapping - Bonding - Gluing - Polishing - Toolmaking - jig manufacture - soldering - wiring - Sensing using: Colourimetry, electrochemistry, titrations, fluorometry, luminescence, conductometric, spectrophotometry, spectroscopy, or gas transfer. - Oceanographic and limnology best practice - Measurement of nitrate, nitrite, phosphate, silicate, ammonia, iron, pH, Total Alkalinity, Dissolved Inorganic Carbon, oxygen, salinity and other environmental chemistry targets. 			✓
Skills:				
1	<p>Proven ability to solve sensing and multidisciplinary device problems.</p>	✓	✓	

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2	Able to take initiative and to respond to opportunities		✓	
3	Ability to manage and deliver on multiple projects and work packages running in parallel	✓	✓	
4	Ability to plan own work and the interface with others: including commissioning work for completion by other teams and organisations		✓	
Behaviours:				
1	Ability to get the best out of colleagues and co-workers as a member of a team.		✓	
2	Ability to manage own time effectively		✓	
3	Ability to provide training and constructive feedback to colleagues		✓	
Other requirements:				
1	Willingness to work off-site and outside of normal hours from time to time as required			✓
2	Willingness to work at sea for short periods, very occasionally, this will require mandatory training in Personal Survival Techniques and the ability to pass an ENG1 medical examination			✓
3	Ability to meet the requirements of UK 'right to work' legislation ¹	✓	✓	

¹ In accordance with Home Office guidance and the Asylum, Immigration and Nationality Act 2006 ClearWater Sensors Ltd. has a responsibility to ensure all employees are eligible to work in the UK. Prior to commencing employment, the successful candidate will be asked to provide documentary evidence to this effect. For those who do not have a right to work in the UK, ClearWater Sensors Ltd. will need to apply to become a sponsor and support a visa application: success is not guaranteed. See further information about UK immigration requirements and working in the UK on the Home Office website www.gov.uk/skilled-worker-visa
 Clearwater Sensors Ltd. 2021