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Mechanical Design Engineer

Hands-on opportunity to work on innovative new climate technology, to help solve one of the most important problems of our time through carbon removal. Small team environment in a highly innovative company with flexible working arrangements available.

1. About AspiraDAC

[AspiraDAC](#) is a spin-out from [Corporate Carbon](#) focusing on developing the world's first solar-powered Direct Air Capture (DAC) project and then commercialising the technology at scale. It was awarded a A\$4million grant from the Federal Government in 2021 to develop a 1tpd demonstration project, extracting CO₂ directly from the atmosphere for permanent geological storage. Since then, AspiraDAC has successfully secured a contract to sell the first carbon credits to Frontier, a US\$1,000M buying group for carbon removal. AspiraDAC's long term vision is to become a key player in the market for carbon removal, estimated at being worth US\$1trillion by 2050.

AspiraDAC's parent company, Corporate Carbon, is one of Australia's largest multi-sector carbon project developers. Corporate Carbon creates new solutions for carbon market participation from carbon abatement and sequestration project activities. Our involvement ensures emissions reductions and co-benefits for the environment, individuals and businesses. Corporate Carbon also owns a property portfolio of over A\$100million on which it is optimising agricultural activities and nature-based carbon projects.

Corporate Carbon's vision is: Sustainable planet. Better future. Our purpose is to reduce emissions by the gigatonne by accelerating global transformation and transition to a decarbonised economy. We demonstrate leadership in carbon project development, leveraging technology, innovation and navigating complexities – through multiple methodologies in multiple sectors.

We value respect, leadership, excellence, collaboration and flexibility.

2. The role

The Mechanical Design Engineer will play a leading technical role in the development and deployment of an innovative new technology to extract CO₂ from the atmosphere for permanent geological sequestration. The key task is the detailed design, development and build of a working prototype DAC system. Following successful testing, manufacture of approximately 170 modules will commence and the Mechanical Design Engineer will be a key driver in this effort.

Specific KPIs are to design, develop and build the first working DAC module at 2tpa capacity and assist in developing plans for large scale manufacture of the modules.

The role requires a passion to directly tackle the problem of climate change using an established set of technical skills, mainly engineering and detailed design, and with the experience and desire to work in small, nimble, innovative companies.



The role will require close working relationships with AspiraDAC's CEO and Senior Project Engineer. You will contribute to meeting Australia's climate change targets and solving one of the most important problems of our time. Your work environment will be agile, engaging and flexible.

You will receive significant industry experience and professional development. Work will predominantly be based at AspiraDAC's Revesby workshop in Sydney, however, flexible working arrangements are available.

3. About you

- **Imaginative** - Look for possibilities and opportunities for creative solutions, show curiosity and openness to new ideas, and think outside the box.
- **Adaptable**– Embrace change and flexibility, demonstrate comfort with ambiguity and complexity, and support others through transition. Maintain calmness and persistence in the face of challenge or adversity, adjust and bounce back from challenging experiences.
- **Accountable** – Takes responsibility for own performance, initiative, actions, impact on others and team performance - and encourage this in others.
- **Striving** – Shows drive and motivation in the interests of the business and clients, identify opportunities, are proactive around improvements, focus on goals and prioritise work for the greatest impact. Takes reasonable and well calculated risks in the interest of the business and within parameters and seek out boundaries when unsure.
- **Growth mindset** – Invite challenge, encourage genuine debate, be able to make difficult decisions and take bold actions. Commit to life-long learning and personal growth, develop self-awareness, and be proactive in seeking improvement and feedback.

4. Knowledge and experience

- Tertiary qualification in mechanical engineering and at least five years related work experience in an engineering role.
- Experience in detailed mechanical design with packages such as AutoCAD or Solidworks.
- Experience in a design office, including with automotive, refrigeration/HVAC, hydraulics and FEA would be an advantage.
- Previous experience in R&D, innovation and Design for Manufacture would be viewed highly.
- Self-starter and ability to work autonomously.

5. More information and how to apply

You can find out more by reading our [overview](#) of what it's like to work for AspiraDAC and review the detailed [role description](#). If you meet the criteria and think AspiraDAC could be the right place for you, email us your resume and application at info@aspiradac.com.