



Project Engineer, grid-scale energy storage innovation. Gravitricity Ltd, Edinburgh

Gravitricity is an early stage company based in Edinburgh, developing a novel mechanical energy storage technology. The company is supported by large industrial OEMs Huisman Equipment BV and Vinci Energies, and is expanding its team to deliver a £1.2 m engineering programme. We need dynamic engineers to drive forward the development of this innovative technology.

Job Brief

We are looking for an extremely pro-active mechanical engineer to play a key role in the next phase of Gravitricity development. The core responsibility will be to own the work packages required to implement a 250 kW above-ground demonstration system. This system will consist of a winch unit, a ~50 tonne weight, support structure, cabling, and control system to be connected to an artificial grid.

Alongside the concept demo deployment, you will be expected to contribute to a range of other engineering work packages. Depending on the experience of applicants these could be mechanical, electrical or a mixture of both. The right person will be self-driven to work proactively across these different areas. This will require a very clear organisational view to solve problems on the go, plan and implement complex projects and contribute to both early stage conceptual design and detailed analysis of systems and components. To be successful in this role you will have to learn fast and be comfortable working outside of your core expertise. As a small company developing a complex technology, we are building strong partnerships with other organisations and you will need to be expert at managing and developing these partnerships in order to maximise the speed of progress.

Requirements

- Project engineer / Mechanical / Electrical engineering in industry (minimum 2 years) with a proven track record of getting things done
- Very good understanding of core mechanical engineering concepts; experience managing contractors
- A strong understanding of grid-connection and medium/high voltage testing requirements
- Experience with CAD software (preferably Solid works)
- Stress analysis and FEA experience desirable
- MATLAB and Simulink experience beneficial
- MEng in Mechanical Engineering or Equivalent industrial experience

Benefits

- Chance to make a significant impact within a small and dynamic, early-stage company
- Competitive salary dependent on experience
- Modern, flexible company. All staff encouraged to work flexible hours.
- Company share options scheme
- Location: Edinburgh

Application

We welcome applications from all candidates. To apply, please submit a CV & Cover letter to:

Miles Franklin

Lead Engineer

Miles.franklin@gravitricity.com

Responsibilities

Demonstrator implementation:

- Work with the project manager and lead engineers to schedule procurement, manufacturing, assembly and test packages to keep demonstration project on schedule.
- Carry out on-site observation and supervision across test and manufacture sites, including management of contractor teams.
- Problem solve manufacturing, assembly and test problems to maintain progress
- Track the demonstrator costs vs budget

Mechanical Engineering work packages:

- Contribute to areas of detailed mechanical design for the demonstration system
- Work on standalone analysis at the component and sub-system level to inform the design of both the demonstrator and full-scale systems
- Contribute to conceptual design of large scale system
- Work on the creation and protection of new IP
- Develop full-scale system installation procedures and protocols
- Depending on skillset and other experience within the team, the successful candidate may:
 - Further develop the analysis of shaft sinking costs and constraints
 - Work with a civil engineering sub-contract to explore future system civil engineering issues
 - Work directly with an external controls partner to develop and analyse system simulations and control algorithms
 - Contribute to future cost modelling
 - Develop test protocols