

ROLE PROFILE SUMMARY

Role:	Mechanical Design Engineer
Reporting to:	Technical Manager Hardware
Reports within region:	Connected Energy Technical Centre, Unit 48 Hethel Engineering Centre, Chapman Way, Hethel, Norfolk NR14 8FB

Purpose of Role:	Work as part of a world leading multidisciplinary product development team in a rapidly growing business to undertake primarily mechanical design work in relation to electrical energy storage systems. The energy storage systems in question are unique in that they utilise 2 nd life electric vehicle batteries as their storage medium.
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ACCOUNTABILITIES

Listed:

1. Undertaking the construction of Mechanical and Electrical manufacturing drawings as part of a multi-function design team
2. Creation of complex 3D models to help deliver to the business the early product concepts and detailed Product Designs
3. Working as part of a team and working with the team to deliver solutions that meet with the wider requirements of the business.
4. Planning and delivering projects efficiently and effectively to meet with agreed timings
5. Maintaining good, professional and safe working practices within the business.
6. Complying with company policies

Role

As a mechanical design engineer, you will work as part of a multi-disciplined group, lead the design of containerised systems and mechanical assemblies for energy storage solutions. You will be expected to model assemblies, draught schematics and single line drawings and have the ability to create technical illustrations and 3D conceptual models.

Responsibilities

While the work will vary according to the project, you'll typically need to:

- Construct from rough sketches and specifications created by the technical and sales team
- Produce documentation and liaise with external suppliers, assemblers and manufacturers to ensure these designs are translated into high quality manufactured assemblies
- Provide technical expertise and support during manufacturing (FAT) and installation (SAT) of units
- Construct detailed 3D models and have the ability to incorporate and manipulate third party CAD assemblies
- Construction of Bill of Material using the schematics drawn and other sources of reference
- Knowledge of construction techniques to add details to electro-mechanical plans
- Specify dimensions, materials and manufacturing procedures for new products
- Sketch up various design concepts to assist the technical, product and sales team
- Produce product documentation for internal and external use, as well as technical reports
- Coordinate with other departments involved in the project, specially the technical team

Specific Skills Requirements:

You'll need to demonstrate:

- 3D modelling (Autodesk Inventor, SolidWorks)
- Working knowledge of machine design, ideally gained through hands on experience during your career
- Experience of mechanical manufacturing processes such as laser cutting, machining, folding, and welding.
- Capability to modify electrical schematics, layouts and single line diagrams using appropriate CAD packages (AutoCAD Electrical or similar)
- The ability to interpret a design brief and converse with mechanical component suppliers regarding component selection and specification
- A working knowledge of cable routing, cable management and busbar distribution systems.
- Experience creating technical content documentation
- Self-motivation and capability of delivering work tasks without a high dependency of additional resources
- Good verbal and written interaction with existing design team members and suppliers

Complementary skills:

- Experience in design for manufacture
- Competence in LV design between 240V and 1000V AC 3 Phase
- An analytical and problem-solving approach to work
- The ability to work in a multidisciplinary team, committed to continuing professional development
- An ability to multitask

Potential complimentary career backgrounds:

- Mechanical Engineer
- Electrical Machine Designer
- Design Draughtsman
- Design Engineer
- CAD Technician
- Electrical panel design and manufacturer

SKILLS, EXPERIENCE AND QUALIFICATIONS REQUIRED FOR JOB ROLE

	Essential	Desirable
Skills <i>e.g.</i> Computer literacy Project Management Interpersonal	<ul style="list-style-type: none"> ▪ Excellent planning and organising skills ▪ IT Literate (Microsoft Office) ▪ Numerate ▪ The ability to make decisions ▪ Self-starter and driven ▪ Ability to work independently ▪ Good verbal and written communication skills 	<ul style="list-style-type: none"> ▪ Presentation skills ▪ Excellent communication skills ▪ Relevant technical discipline and sector knowledge ▪ Graphic Design Skills
Job Related Experience <i>e.g.</i> Number of years' experience required to do the role. Does the experience need to be industry specific	<ul style="list-style-type: none"> ▪ 1+ years working within a relevant mechanical design/draughting role ▪ Advanced use of CAD 2D and 3D draughting tool (AutoCAD, SolidWorks or similar) ▪ Industry experience in an industrial design/fabrication/engineering environment 	<ul style="list-style-type: none"> • Presentable evidence relating to the draughting of LV electrical systems • Structural Analysis • Renewable energy experience • Knowledge on relevant BS, EN and/or UL standards
Industry Qualifications <i>e.g.</i> Professional Vocational, i.e. City and Guilds Educational (where appropriate)	<ul style="list-style-type: none"> ▪ Qualified Mechanical Engineering (NVQ/ HNC/ HND/ Degree) ▪ Competency certificate with AutoCAD Inventor 3D, SolidWorks or similar 	<ul style="list-style-type: none"> • IET Wiring Regulations 17th Edition (or knowledge of)

Additional Information

Immediate eligibility to work in the UK/EU

UK/EU Driving License

Yes

Mobility

Needs to be able to travel in line with role requirements and spend nights away from home when required. Internationally but mostly Europe. 10% travel max.

Please send your CV and Covering letter to the email address below stating which Vacancy you are applying for.

FAO: Rachel Sarginson

Rachel.Sarginson@c-e-int.com

Unfortunately, due to the volume of applications we receive, we are not always able to contact everyone, however if you are invited for an interview, you will be contacted directly by the manager for the position.

