

Honda Racing Development UK Ltd

PERMANENT VACANCY

JOB TITLE: High Voltage System Engineer

REPORTING TO: Electronics Engineering Group Leader

DEPARTMENT: ERS Development – Electronics Engineering

APPLY TO: hondaracingjobs@uk.hrdeu.com

ROLE:

The role of High Voltage System Engineer is based within the Energy Storage System (ESS) development project. The main purpose of the role is to take responsibility for the system level design and development of the primary power electronics units including inverter, converter (high voltage DC to low voltage DC) other subsystems (e.g. contactor, fuse that in HV circuit) as well as fault investigation and setting countermeasures during the ESS pack production stage or sign-off process.

HV System Engineer is also responsible for fault analysis and investigation of the ESS pack at factory after races or test use, addressing any consequent countermeasures and conducting the following action within the team.

MAIN RESPONSIBILITIES:

- Primary point of contact for power electronics units specification, requirement and supplier liaison
- Working as an interface between Honda Japan and UK and Power module supplier and inverter supplier
- High voltage system architecture design of ESS system
- Organization of ESS pack system test from the point of power electronics units (especially the inverter and DCDC converter)
- Management of development of status and test items (both internally and externally (e.g. suppliers of Honda))
- Investigate any fault on ESS pack at development, production, sign-off process, and used on the race car.
- Address the countermeasure for the faults and conduct following process
 - Analyse the battery or power electronics test data on ESS pack with supplier and sub-contractor. - Feedback the test data to ESS development team to improve the performance and reliability of ESS pack.
- Define the Specification / design of test equipment as required
- Organize and overseeing of equipment for ESS production
- Analysing the technology, and trends of current/post power electronics and create technical reports
- Provide evaluation and recommendation of screened companies
- Document, report, prepare presentations on findings, evaluation, recommendation, and on-going project updates
- Facilitate, support meetings, and collaborations with companies and suppliers
- Responsible for 3rd party project deliverables (testing, research milestones, etc) and reporting
- Facilitate technology evaluation including contactor, fuse, etc at 3rd party labs as needed
- Attend conferences to report trends and technology updates
- Support other ESS pack related projects where a power electronics expert is needed, examples include EMC R&D test
- Any other tasks as reasonably required by the Company

KNOWLEDGE, SKILLS AND EXPERIENCE:

- ESS / high voltage circuit analysis, monitor and development experience
- Power Electronics units (inverter or converter) development experience
- Project management experience with supplier
- Coordination skill of the development and test schedule with members and supplier
- EMC analysis experience for high voltage system
- Knowledge of high voltage switching noise principal and analysis
- Knowledge of power devices (especially wide gap device)
- Knowledge of high voltage sub system (fuse, contactor, switches, etc)
- Experience of making the specification based on requirement from the user point of view
- Strong fault finding and diagnostic abilities
- Design and specify production tools and equipment of ERS / Power electronics
- ERS testing methodologies
- Excellent document presentational skills
- An adept communicator, be able to build good relationships across all cultures both internally and externally
- Fluency in spoken & written English is essential. Competence in Japanese or another European language is desirable
- Domestic Travel and Travel overseas will be required
- Full Driving license and competence to drive in the UK
- PC literate

PERSONAL COMPETENCIES:

- Strong technical ability and problem solving skills
- High level of attention to detail
- Enthusiastic and self-motivated with high levels of initiative
- Excellent communication and teamwork skills
- Ability to plan and manage own workload/projects
- Able to work autonomously under pressure and meet tight deadlines

All employees must ensure compliance with the Company Health and Safety Policy, and all relevant other statutory Health and Safety legislation.

Please note that shift working and weekend working may feature as part of this role. Domestic Travel and Travel overseas may be required.

This job description may not detail some less major duties allocated to the post holder, nor cover duties of a similar nature, commensurate with the role, which may from time to time be reasonably required by the relevant manager.