



ENGINEERING
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JOB DESCRIPTION

Job Title – Control Software Engineer

Reporting To – Lead/Principal Control Software Engineer

JOB SUMMARY

Some would say we know more about space than our deepest oceans. At Soil Machine Dynamics we are helping to change this by designing and manufacturing world leading remotely operated machines. Our technology is used for deep-sea intervention, exploration, cable and pipeline burial for wind farms, power, telecoms and oil and gas projects all over the world. Many of these machines are world firsts.

We are the World's leading independent supplier of this type of equipment and produce a variety of robotic systems for use by commercial, scientific and governmental organisations.

SMD is based in Newcastle-Upon-Tyne with all engineering disciplines under one roof including mechanical, hydraulic, electrical, electronic and software.

The primary role will be to develop, design and manage control system software to enable the Company to stay ahead in the market through its standard product range but also special one-off vehicles. Involvement will be through the full product life cycle from initial sales/requirements to after services support.

The software team is very much a supplier to the rest of the business to help the company to continue to push boundaries to meet customer requirements and new ways of working.

The role will report to the Lead or Principal Engineer to ensure the team objectives are aligned with the business goals going forward, and project requirements and delivery deadlines are achieved.

JOB DETAIL

Responsibilities

- Produce design documentation including functional design specifications, software design documents, test documentation etc
- Develop, test and implement new software to fulfil the functional specification.
- Involvement in the full product life cycle, design through to commissioning and customer acceptance testing.
- Continuous development of product software capabilities and functions to maintain our market position in leading customer requirements.
- Adherence to all SMD QA processes.
- Potentially working away to help support customers or part of system development (1 – 4 times a year).

Technical Competences

- At least 3 years' experience of software programming or capable of demonstrating relevant experience.
- Software scripting experience. (if/case statements)
- Software design in any of these areas to then cross over:
 - PLC software design.
 - SCADA software design.
 - Application software design.
- At least 3 years' experience in machine control/automation
- Communication Networks (Ethernet, RS232, RS485)
- Minimum 2nd class upper degree qualification in a relevant subject or relevant experience.
- Training will be provided to fill product knowledge gaps.

Core Competences

The individual must demonstrate the following:

- Customer focus.
- Highly performance-driven.
- Professional passion for quality.



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- A pragmatic hands-on approach to problem-solving
- Meticulous attention to detail.
- A positive and proactive approach.
- Flexible and the ability to multi-task and prioritise.
- Good team player.
- Good communication skills, both verbal and written.

Additional Desirable Competencies

- Understanding hydraulic schematics
- Understanding electrical schematics
- Understanding of electrical standards
- Rockwell PLC experience
- Intouch SCADA experience
- Jmobile (EXOR) experience
- C/C++/C#/VB/Python programming experience
- Mathworks Simulink
- QNX experience
- Unity experience
- ROS experience
- SQL/MySQL experience
- Experience of Ethernet networks
- Experience of RS485 networks
- Experience of RS232 communications
- Experience in fibre optics
- Data analysis
- Image recognition
- Robotics
- Dynamic modelling
- Control theory

If you are hoping to join a great team and interested in the above role, please use our [CV submission link](#) on our website.