



GRADUATE ENGINEERING SCHEME



ENGINEERING
EXCELLENCE
UNDERWATER

ABOUT SMD

As the subsea division of CRRC Times Electric, SMD will be the most advanced supplier of subsea remotely operated and autonomous power and control solutions, worldwide.

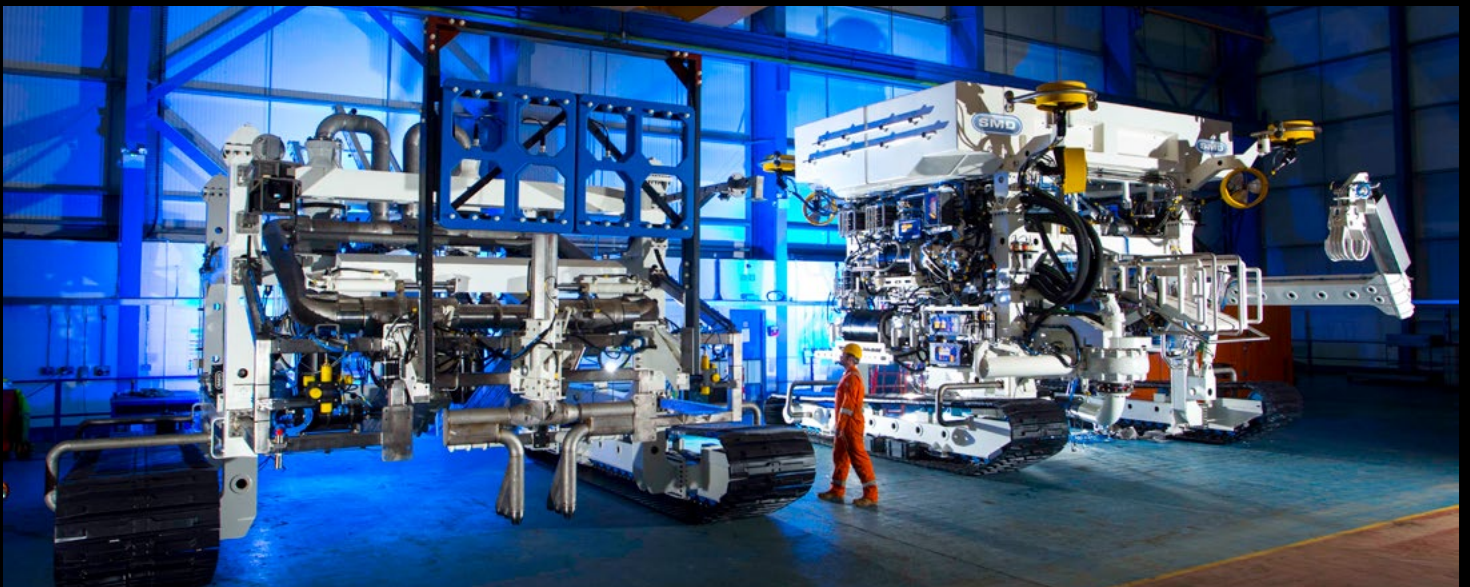
Soil Machine Dynamics Ltd (SMD) is a world leading manufacturer of remote intervention equipment operating in hazardous environments around the globe. With a strong and unique heritage in subsea engineering, we have pioneered the design of specialist trenching equipment such as ploughs, tractors and jetting machines and have grown to be the world's largest independent designer and manufacturer of work class and specialist subsea Remotely Operated Vehicles (ROVs).

FAST FACTS

- Subsea group of CRRC Times Electric
- Winner of five Queen's awards
- Over 50 years of experience in subsea engineering
- Pioneered the first subsea plough
- Delivered 7 world first projects
- Largest range of work class rovs on the market
- Accredited by Investors in People

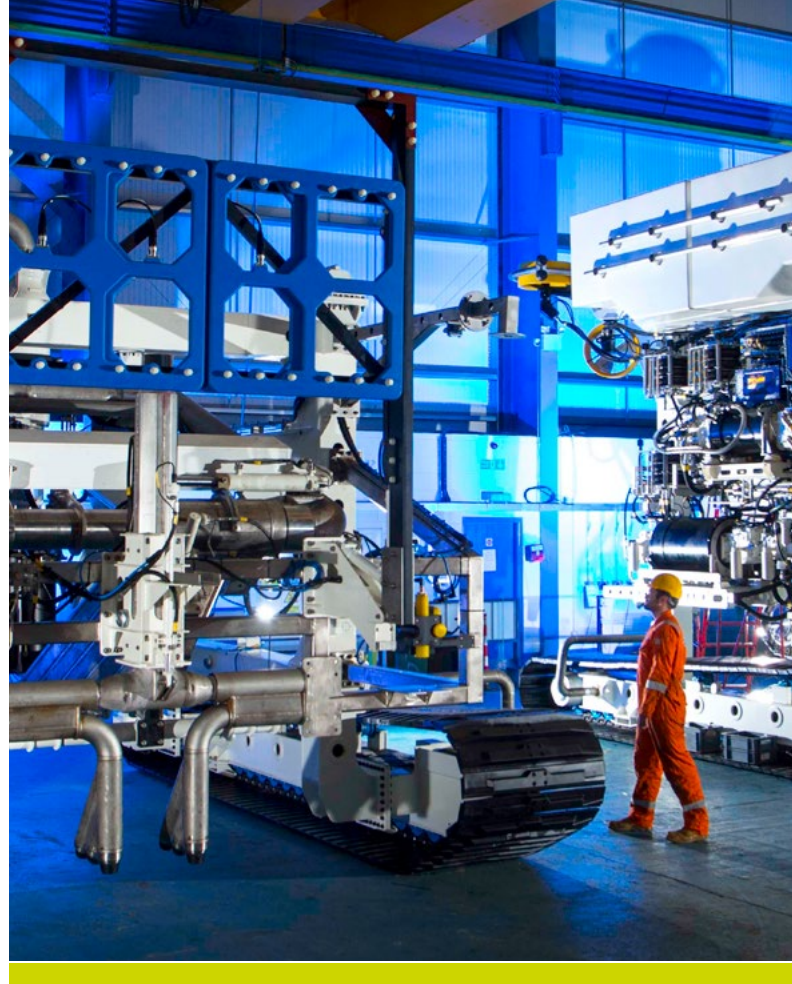
We're the power behind subsea pioneers. We collaborate with future-thinking companies to draw knowledge, wealth and prosperity from underwater environments.

Together, our teams invent and engineer the answers to the toughest challenges in under water industry and science. Allowing for safe and efficient operations, while harnessing the potential of the most challenging subsea locations on the planet.



INNOVATE
WITH US.

ENGINEER
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WHAT'S IN IT FOR YOU?

- Competitive starting salary
- Opportunity to be involved in world-first engineering
- Dedicated mentor and support to achieve Incorporated/Chartered Engineer status
- Varied programme offering training opportunities in a range of areas
- Hybrid working options
- Opportunity to travel and partner with other stakeholders globally
- Free onsite catering facilities, Bupa private healthcare, contributory pension scheme and flexible benefits scheme.

WHY CHOOSE A CAREER WITH SMD?

If you share our values, our ambition and our energy, then SMD is a great place to work. As a world leading manufacturer of subsea remotely operated vehicles and marine surface equipment, we can promise you a career at the cutting-edge of some of the biggest and most innovative markets in the global economy. And our offer is about so much more than a competitive salary and excellent benefits package. If you join SMD, you'll enter a hard-working environment where you will be part of an outstanding team. You'll have the opportunity to progress and thrive. We enjoy what we do... and we think you will too.

SMD's Graduate Engineering Scheme is focused on developing engineers that wish to be involved in manufacturing the heart of our vehicles. We are looking for graduates with an analytical mind that can think outside of the box.

The duration of the scheme is two years after which permanent employment may be offered in a variety of engineering disciplines.

Graduates joining the business will experience a scheme enriched with an understanding of complete product life cycle, from bespoke design for a client through to manufacture, commissioning and customer support.

In addition to spending time in Engineering and Design departments, Graduates will be given an opportunity to add value through experience in one or more of the following areas:

- Quality/Health and Safety
- Supply Chain Management
- Customer Support and Training
- Commercial/Contract Management
- Sales/Business Development
- Planning/Operations Management
- Project Management and Project Engineering

In addition to on-the-job training delivered by qualified, experienced engineers, you will be assigned a mentor and supported to achieve Incorporate (IEng) or Chartered (CEng) status with the Institution of Engineering & Technology (IET) through our accredited MPDS scheme.

SMD is looking for graduates with a passion for engineering excellence who wish to grow their talent and realise their potential, to become SMD's next generation of innovative engineers and contribute to the company's continued success.

If you think this is you, please submit your CV to jobs@smd.co.uk

Please check our website for more information on the closing date for applications.

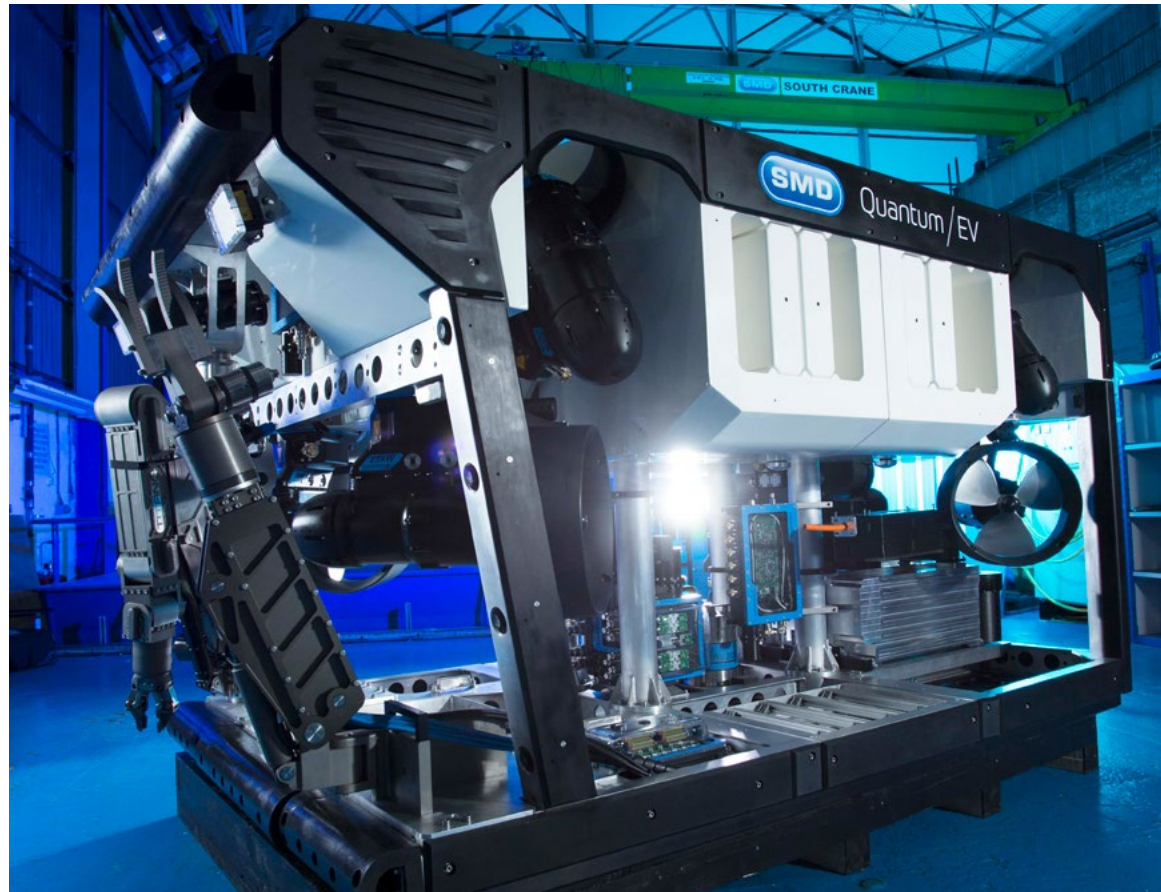
WHAT TO EXPECT AS AN ELECTRICAL ENGINEER

As an Electrical / Electronics engineer you will work on:

- Communication systems including audio and radio links through to GB Ethernet, high speed RS232/485 and bespoke serial protocols (CANOpen, MODBus etc.).
- Electric motors and drive systems for hydraulics, propulsion and winch drives.
- Safety systems for interlocks, E-Stop protection and circuit overloading.
- Video display and distribution technology alongside digital storage.
- Interfacing to subsea equipment such as cameras, lamps, scientific sensors, survey sonars and instrumentation.
- Learn to understand schematics, line drawings, bills of materials and how to put these together using CAD software (2D/3D) into real products.

To be a part of the electrical engineering team, you will be tested from the minute you start. You will be asked to design anything from 5V TTL electronics on a PCB to 6.6kV 3 phase power delivery on one of our biggest most complex systems. Engineering is at the heart of our dynamic business and we need competent, passionate engineers to help us to move forward and to keep delivering state-of-the-art, one-of-a-kind systems to meet increasingly challenging demands from our customers.

If you think you have what it takes, join our team and come on an exciting journey with us, you won't regret it.



WHAT TO EXPECT AS A MECHANICAL ENGINEER

As a Mechanical Engineer you will work on:

- Vehicles from a small car sized ROV up to a 300 tonne subsea tractor.
- High strength steel structures for subsea plough frames and ship deck launch and recovery systems. Lightweight aluminium chassis for subsea swimming vehicles.
- Thruster propulsion systems.
- Hydraulic motor drive and actuator systems.
- Water power systems for seabed trenching.

To be part of the mechanical engineering team you must have a passion for problem solving. You will be at the forefront of new product design and you will have the opportunity to watch your designs grow from a concept to a reality. You will have the opportunity to take new product offshore and see them in operation. As the industry continues to face challenges, our customers expect the best from our products, and our people.

If this sounds like you apply today to join our dynamic team and help up to provide customers with excellently engineered solutions.



WHAT TO EXPECT AS A SOFTWARE ENGINEER

As a Mechanical Engineer you will work on:

- Software protocol driver (NMEA, TCP/IP, CAN, MODBUS).
- Control theory.
- User experience design (UX).
- Interface graphics.
- Database storage and analysis.
- 3D Virtualisation

To be part of the software team you must have an enthusiasm for technology and best practice. Our software team create the backbone to our complex and diverse systems, you will be tested on your creativity, your ability to integrate complex pieces of equipment and your problem solving skills as technology continues to change. As we strive forward and continue to grow to stay at the forefront of technology, you must be able to adapt and evolve to face new challenges in this ever changing market.

Join SMD and make a difference, help develop new and exciting subsea technology.



GRADUATE TESTIMONIAL

SORENA AZARIPOUR
GRADUATE ELECTRICAL
ENGINEER



We know it's always nice to hear from someone who's "been there and done that" so meet Sorena, one of our recent graduates. Here's what he has to say...

I graduated from Newcastle University in 2018 with a degree in electrical engineering and decided I wanted to get a job in engineering straight away which led me to apply for SMD's graduate scheme.

I chose SMD because of the opportunities that were available to me and also because I would be able to get a range of experience from different areas of the business. Each area offers opportunities to learn about different products, functions and processes which helps you develop as a well-rounded Engineer. As a company, SMD have been supportive and eager to help me develop.

When I started at SMD I had little practical experience in the engineering world, so for me one of the best things about SMD was the friendly and welcoming staff. Not only this, everyone I have worked with has been happy to share all of their experience and knowledge with me whenever I've had any questions or have been unsure about anything. This would be one of my key bits of advice for any graduate entering full time employment - ask as many questions as you can and learn from the experts around you. No one expects you to know everything and it accelerates with your development!

One of the highlights of my career so far at SMD has been working on their research and development projects. It is exciting to be involved in new product development because you get to see an idea develop from a concept to reality and to know you have been part of that process is really rewarding, not to mention that it gives you really good experience! In September 2022 I am getting the chance to work away at our Shanghai office for six weeks which is exciting and will be great for my career progression.

The best piece of advice I could give to a new graduate who wants to work at SMD is to do your research. Be aware of what the company does and the type of direction the company could take you in. Plus, to make the most out of your career, you have to be passionate about what you do so don't be afraid to let that come across in interviews.

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