



# What can we develop together?

## 1. ABOUT CRUX

Crux are world-leaders in the design, simulation and analysis of medical devices and consumer products; working as a trusted partner to many medical companies and household brand names, our projects touch lives by delivering a vast array of products to global markets.

## 2. ADVANCED APPLIED SCIENCES ENGINEER

We're on the lookout for exceptionally talented individuals with a relevant engineering degree (mechanical, aerospace, materials) or similar (applied physics, data science, maths etc.) to join our Applied Sciences team. We use a mix of physics-based models and machine learning techniques to design and improve technologies for the real world.

This role is a unique opportunity to help change the face of engineering within the medical devices & pharmaceutical industry. The role involves test rig design and lab experiments for those who like a mix of computer-based modelling and hands-on experimentation.

Check out what our Applied Sciences team is all about: [Crux - Applied Sciences](#)

## 3. PRINCIPAL RESPONSIBILITIES

- Performing advanced CFD simulations using Star-CCM+.
- Executing detailed FEA studies using Abaqus, focusing on structural integrity, material behaviour, and stress analysis.

- Demonstrate complex mathematical modelling and simulation expertise across diverse projects.
- Rapid prototyping, lab testing, and design of experiments to validate and refine engineering solutions.
- Generating concepts in CAD, detailed design of components, and creating technical drawings and manufacturing specifications.
- Preparing high-quality technical reports and comprehensive design documentation.
- Confidently communicate project value to clients and stakeholders, demonstrating technical authority.
- Collaborating with the marketing and sales teams to develop presentation materials and participate in client pitches.
- Staying ahead of industry innovations, sharing new insights and techniques within the team.

#### 4. WHAT WE'RE LOOKING FOR...

##### 4.1 Essential:

- Achieved a first or high 2:1 classification in a relevant accredited degree program.
- Strong understanding of engineering & design (including maths and physics).
- Experience in computational modelling such as FEA or CFD.
- Coding (particularly Python and Matlab).
- Proficient in CAD.
- Knowledge of engineering materials.
- Experimental and/or prototyping skills.
- Appetite for solving difficult and unusual problems.
- Ability to work within multiple cross-disciplinary teams and be client facing.

#### 5. WHY YOU'LL LOVE WORKING HERE

We're a dynamic and fast-growing engineering consultancy that takes pride in its outstanding work and supportive work environment.

As a member of our team, you'll collaborate with a diverse group of skilled professionals who excel in their respective fields. Our strong community is built upon effective communication and happy employees, collaboration in project work and regular social events are the norm.

Check out what an opportunity at Crux offers you: [Life at Crux](#)

If you're interested in working on multidisciplinary design projects, tackling some of the toughest briefs in the medical and consumer goods sectors, then we want to hear from you!



Interested? Email your CV and covering letter to [careers@cruxproductdesign.com](mailto:careers@cruxproductdesign.com) and add 'Advanced Applied Sciences Engineer' as the email subject.

For our privacy notice please see the following link: [Crux Privacy Policy](#)