

Orbex Open Internship

Code: 20/36

Company: Orbex

Location: Forres, Scotland

Company Description:

Orbex is a leading micro launch company based in Scotland, and our 'Prime' launch vehicle is expected to launch from Scotland in early 2022. With over €30m of project financing, 6 customers already signed up, and backing from organisations including UKSA and ESA, Orbex is well placed to be one of the first micro-launch companies to launch in Europe. We are growing rapidly with staff located between our factories in Forres (Scotland) and Copenhagen (Denmark).

Our team have made cutting edge advances in rocket fuel technology that reduces Prime's carbon emissions by 90% compared to traditional launch vehicles, and has led to innovations in propulsion and tank structures. Our state-of-the-art re-flight system means we can recover and reuse our technology, and innovations in separation mechanisms mean we leave no debris in space. The successful SPINtern will be right in the heart of this fast-paced cutting-edge company, with a unique insight into what it takes to build a new launch vehicle for an exciting commercial market.

Orbex Forres is located at the foot of the Scottish Highlands, near Inverness. It's close to the spectacular coastline, wild beaches and amazing wildlife of the Moray Firth, as well as being a short distance from the world-famous Loch Ness, and Aviemore ski resort. If you enjoy adventurous outdoor pursuits in extraordinary natural environments, the coast and highlands around Forres offer an ideal location. If you enjoy drone flying, wildlife or landscape photography, some of the most spectacular vistas in the world are directly at your doorstep.

Project Description:

You will be working alongside some of the most experienced launch vehicle engineers in the industry, on a programme that challenges the way rockets are developed and manufactured in Europe today. Our aim is that our interns leave us at the end of their placement with:

1. A mix of design experience and hands-on practical skills that can be difficult to gain at university
2. An understanding of what it takes to build a start up company in the space industry
3. A willingness to embrace innovation that will inspire you to go on and make your mark in the space sector

For the right candidate this could be seen as an extended job interview with the opportunity to join Orbex in a permanent role in the future.

The internship is expected to cover 10 months (as an accredited sandwich year) and is suitable for undergraduates in either their second or third year at university. We anticipate taking 1 intern, giving them exposure to different departments in the company based on need, aptitude and individual preference of the candidate. Working with a supportive team and under the supervision of our Heads of Department, you will work on a number of projects during the internship, in one or

more of our technical departments, (propulsion, structures, avionics and software development). It is anticipated that the intern will be involved in a range of work at our engineering and production HQ, and at Orbex's private testing facilities.

Some examples of the projects you may get involved in include:

- Design of composite components
- Composite production
- Propulsion systems testing
- Additive manufacturing
- Ground segment component design
- Satellite interface design
- Avionics production
- Ground control infrastructure / software
- Sensor testing and integration
- Business / financial work

Applicant Specification:

You will ideally be studying in 2nd or 3rd year for an aerospace degree (or other relevant degree with a proven interest in aerospace application) on a recognized programme, or able to demonstrate significant experience in the area. Minimum and desirable requirements are provided below.

To help us get this right, when you apply tell us which kind of area interests you - avionics, structures, propulsion, mechanisms, GNC, ground segment - and explain why you are best suited to that area.

CV's are fine but visual materials are more helpful, so send us images of you with the rockets you have worked on, doing composite layups, soldering SMT chips to board, uploading GNC software to the flight computer. If you have a YouTube / Vimeo channel of your projects, we would be interested to see that too.

Minimum Requirements:

Orbex is a fast-moving company with a lot going on every single day. We are looking for colleagues who work hard, deliver reliably and put the team above themselves. You will hit the ground running, so we look for self-starters who can figure things out quickly. We will help you, but you have to show you have initiative.

Typically for the Intern role you will be:

- Willing to learn and adapt to new situations
- Academically proficient
- Able to translate theory into practice
- Flexible, dedicated, trustworthy
- Adventurous and team-oriented
- Demonstrable enthusiasm for the launch sector (e.g. participation in space launch degree/course, or participation in a rocketry club)
- Willingness to be located in Forres, Scotland for the duration of the internship, with occasional business travel to Copenhagen as required.

- You must be a UK/European citizen, from a country that is a signatory to the MTCR convention. You may be required to undergo security screening.
- Strong English language skills

Preferred Additional Requirements:

- Specific demonstrable skills in one or more of Orbex's core technical areas (propulsion, structures, avionics, software development).
- Interest in the commercial development of the micro-launch sector
- CAD experience with SolidWorks (ideally in relation to aerospace)
- For software roles, demonstrable C / C++ experience (ideally in relation to aerospace)

Further details:

The intern will be paid £1,500/mth gross for the duration of the internship (pro rata for any part months including statutory holidays). The intern will be responsible for finding their own accommodation in Forres (links to potential accommodation providers can be provided), and organising their own travel. Any requirement to travel outside of Forres for business (e.g. to our factory in Copenhagen) will be fully reimbursed.

All equipment required to complete the internship will be provided by Orbex (e.g. computer, required Health and Safety equipment).

Orbex does not take responsibility for organising or paying for work visas for internships. Orbex does not expect to pay for any additional training courses that the intern may wish to undertake during the period of the internship.

In light of the current Covid restrictions, the start date remains flexible, but likely to commence during the summer of 2020.

Closing Date for Applications: 5pm Thursday 18 June

Applications should be made through the online form attaching a CV, before the closing date. Please note that elements of the form left incomplete will be deemed to render the application ineligible. They will be checked for eligibility and forwarded to the employer.