

## Simulation software developer job specification

Magdrive is looking to hire an experimental plasma physicist to help develop a revolutionary, next-generation spacecraft propulsion system. The Magdrive propulsion system delivers an unmatched level of thrust ( $>100$  mN/kg) with extraordinary efficiency ( $>2000$  s) that will unlock new capabilities for spacecraft and enable entirely new industries in satellite servicing, orbital assembly and interplanetary transport.

You will play a pivotal role as one of the first employees of Magdrive, which brings enhanced freedom, responsibility and potential for career growth. The solutions you develop will directly shape the development of the Magdrive propulsion system and have a significant impact on the future of space travel. You will be responsible for the development key simulation software to model the complex plasma physics and electromagnetic phenomenon inside the thruster. A strong analytical background is required to compare experimental data to simulations in order to identify potential issues and improve the thruster design.

### Responsibilities

- Developing simulation code to model plasma dynamics
- Benchmarking simulations against experimental data and other codes
- Performing simulations of the plasma dynamics inside the thruster
- Identifying and modelling improvements to the thruster design

### Essential

- Degree in physics, computer science or similar
- Experience with plasma simulations (PIC or MHD)
- Experience with C++, Python
- Passion for space travel and for taking a bold approach to a transformational technology
- Fast and effective problem solving skills
- Ability to work under pressure to tight deadlines
- Strong communication and interpersonal skills

### Desirable

- Experience working in agile development environments
- PhD in computational plasma physics
- Experience working with electric propulsion

### Benefits

- Salary £30k - £50k per annum (DOE)
- 25 days annual leave + bank holidays
- Flexible and remote working
- Support for home office setup
- Generous share options scheme