



## Principal/Senior Engineer – Flight Dynamics and Simulation

Sora Aviation

Job Title: Principal/Senior Engineer – Flight Dynamics and Simulation

Location: Bristol, UK

Term: Permanent, full time

### About us

Sora is Bristol, UK based start-up developing a 30-seat electric Vertical Take-Off and Landing aircraft (eVTOL) to deliver affordable, sustainable and scalable Advanced Air Mobility services. The S-1 is currently in preliminary design and Sora is rapidly growing its engineering team.

We believe in an open and honest culture that espouses freedom of expression and creativity from all of our employees. If you would like to be a part of an agile team at the cutting edge of zero emissions aviation, see below.

### Role summary

The S-1 is a battery electric tilt-rotor aircraft with multiple tilting “proprotors” (combination propellers and rotors). We are looking for an experienced systems engineer to lead modeling of the flight dynamics and development of a flight simulator for the aircraft. The role will also support the design of the Flight Control System (FCS) and fly-by-wire (FBW) systems of the aircraft.

This role is advertised at multiple experience levels.

### Key responsibilities

- Develop flight dynamics models of the aircraft in both “helicopter mode” (vertical flight) and “airplane mode” (cruise flight)
- Assess static and dynamic stability in different operating conditions as well as controllability in these conditions
- Support conceptual and preliminary design of overall Flight Control System architecture including both hardware and software
- Support modelling and simulation of the aircraft flight control system for different flight modes including fly-by-wire (FBW) and autonomous flight
- Support the design and selection of flight control hardware including buy vs make trade studies
- Support the integration of different aircraft systems with the FCS
- Support definition of overall vehicle architecture including aircraft control schemes

### Requirements

#### Essential

- Degree in Aerospace Engineering or other relevant field
- Experience in modelling aircraft or rotorcraft flight dynamics
- Experience in designing aircraft flight control systems, especially fly-by-wire systems
- Detailed understanding of aircraft stability and control



- Proficient in systems modelling and flight simulation for novel architectures
- An innovative mindset and approach to problem solving focused on generating new ideas

#### Desirable

- Experience in working on electric aircraft (preferably eVTOLs)
- Experience in working on helicopter/tilt-rotor systems
- Knowledge of electric propulsion control systems

#### Diversity and Inclusion

Sora is an equal-opportunity employer and we encourage you to apply even if you may not have all the experience listed above. We recognise that talent comes in many different forms and we are committed to providing opportunities that create an environment of growth, diversity, and inclusion for everyone. We proudly reject discrimination in all forms.

#### Apply

You will need the right to work in the UK to be considered for this role.

To apply, please email your CV and a cover letter to [careers@soraaviation.com](mailto:careers@soraaviation.com). Your data will only be used for the purposes of this application and will be used fairly and lawfully as required by the Data Protection Act 2018.