



UAV Principal Design Engineer

Grade: Principal

Salary: Negotiable

Location: Bedford, United Kingdom

Do you aspire to progress your career in Design Engineering? Are you ready to step up a level to work at the forefront of innovation for a first-in-class organisation in a pivotal role?

Blue Bear are a leading supplier of innovative research and product-based solutions in the field of unmanned systems, mission systems, avionics, sensor payloads and data exploitation. Our capabilities include design and development of entire unmanned systems, fully autonomous guidance systems, Ground Command & Control Systems, flight service provision, flight safety case delivery, advanced modelling & simulation and unmanned system certification.

Ideal Candidate

Will be intrinsically self-motivated. We recognise that we can only achieve our vision with the dedication and collaboration of our world-class employees. A background in Aerospace or Mechanical Engineering (min BEng/CEng) backed up by substantial experience, ideally within the Aerospace industry is required.

As a Mechanical Engineer you know how things work and can understand a vehicles operation from first principles and explain this to technical and non-technical audiences.

You are proficient with CAD software (Solidworks), preferably including related engineering analysis packages (e.g. FEA, CFD, etc). Strong knowledge of Design For Manufacturing (DFM) and Design To Cost (DTC) is highly desirable.

Ideally, you will have significant experience gained in the design of safety-critical systems and knowledge of the AS9100 quality processes and change management (ECN). Detailed knowledge of some or all of current manned aviation codes of practice and CAA/MAA/FAA certification standards, airworthiness regulations and statutory requirements would be advantageous.

Your Role

Is to support the Head of Engineering in leading all Mechanical Design activities relating to defined technology areas and airframe systems on new unmanned vehicles. This represents an exciting opportunity to develop the mechanical and structural side of the business, fostering technical expertise and innovation.

The focus will be on the creation and implementation of best practice engineering vision and lightweight structure design, Composite Part Design and Assemblies, primary and secondary actuation systems, Generative Surface Design and Additive Manufacturing. Experience of developing complex injection moulded or vacuum-cast components, mechanisms and products combined with expert knowledge of a range of manufacturing processes from low volume prototyping to high volume production would be an advantage.

Essential requirements:

- BEng / CEng in aerospace engineering and substantial experience in aerospace or high-end niche automotive industry.
- Proficient in CAD (Solidworks), related CAE (e.g. FEA) and CAM (e.g. Vericut) tools.
- Deputy for Head of Engineering.
- Strong Design Leadership competencies.
- Ability to create full detailed design drawings, including geometric tolerancing.
- Ability to support design decisions with appropriate hand calculations.
- Good attention to detail - 'right first time' quality work.
- Financial acumen with ability to balance material usage.
- Excellent communication and organisational skills.

Desirable:

- MSc / PhD in Aerospace or Mechanical Engineering.
- Experience of AS9100 Quality System.
- Experience in CFD / Wind Tunnel testing.
- Member of an Industry related Professional Body.
- Strong people management and leadership skills, able to coach, mentor, and develop staff.
- Mechatronics and/or Robotics literate.
- Production Engineering skills.
- Health and Safety qualification (IOSH or NEBOSH).
- Understanding of DFMEA and risk assessment techniques in aerospace environment.

The above is not an exhaustive list of duties. You will be expected to perform different tasks as necessitated by your evolving role within the company and the overall business objectives of the company.

Due to the nature of this role the successful candidate will be required to undertake security clearance to a minimum SC level with Blue Bear support.