



## Mechatronic Engineer (Automation): Job Description

Location: Reading, RG30 1DZ

Salary: Competitive, plus share options

Reports to: VP of Engineering

### About BigSis

BigSis (<http://bigsis.tech>), a UK start-up, is applying robotics and artificial intelligence to transform the production of sterile male insects, which are used for chemical-free control of pest insects. BigSis has developed a pilot automated production line and is now focused on scaling this from thousands to millions of insects per week in preparation for the 2023 crop growing season.

### Purpose and responsibilities

The Mechatronic Engineer will join a small but fast-growing team and make an important contribution to the development of BigSis automated production systems. Whether taking the lead on a specific component, contributing to a larger project or troubleshooting an existing system, the work will be varied and provide significant scope for personal growth.

This challenging hands-on role combines designing unique components – principally the means for handling and processing individual insect containers – and integrating them mechanically and electronically with the rest of the processing module.

Given the time pressures of a start-up, the chosen person must be able to deliver ‘good enough’ operational solutions as a priority and then work to refine the system.

### Qualifications and experience

#### *Essential*

- 2:1 degree in a relevant engineering discipline
- Hands-on experience designing and implementing functional mechanisms and electronic controls using rapid prototyping
- Solution orientated with an ability to think outside the box
- At least 3 years’ in a relevant commercial or consulting role
- General understanding and hands on experience with workshop equipment
- Completed projects using rapid prototyping technologies such as 3D printing

#### *Desirable experience*

- Design of low power automated systems and/or equipment, e.g. animatronics, vending machines or kitchen appliances
- Python/C++ coding and previous use of embedded microcontrollers/IDEs, e.g. Raspberry Pi
- Experience with stepper motors, servo motors, automatic material handling systems

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- Project management skills or certification
- Design and assembly of electronic circuits, electrical panels and/or PCBs
- Work in an environment with hygiene and/or regulatory requirements, such as the food, cosmetics or medical sectors
- Competent with SolidWorks software

### Personal attributes

To thrive in the unstructured and fast-changing environment of a start-up, important personal qualities are:

- energy, ambition and commitment to ensure the job gets done;
- honesty, integrity and openness to ensure we build a great company culture;
- flexibility to changes in priorities and adaptability to new ideas.

You need to be comfortable working with live insects, including spending time in the hot and humid insect storage/growth area. Insects and their growth cells are very small, so you need good fine work skills.

### Application Process

To be considered for this role, please send a CV and cover letter to [info@bigsis.tech](mailto:info@bigsis.tech) explaining why you think you are the right person for this job. Please include information about your education, work experience and current salary.

BigSis is an equal opportunities employer. Applicants will be considered without attention to age, sex, race, disability, pregnancy, marital status, sexual orientation, gender reassignment and religious background.