Automation Engineer

BOSTON, MA  AUTOMATION  FULL-TIME

Our mission is to make biology easier to engineer. Ginkgo is constructing, editing, and redesigning the living world in order to answer the globe’s growing challenges in health, energy, food, materials, and more. Our bioengineers make use of an in-house automated foundry for designing and building new organisms. Today, our foundry is developing over 40 different organisms to make different products across multiple industries.

We’re looking for talented engineers who are excited by the challenges of scaling and improving our foundry. Because it touches nearly every part of the foundry, the Automation Team is integral to Ginkgo’s vision for the future. The Automation Team is creating integrated robotic workcells, designing processes around walk-up robotic systems, improving how data is handled, working with scientists on scaling their processes, and much more. All the work we do is in service of increasing Ginkgo’s capacity in terms of the number of strains engineered and the diversity of species and products we can handle. It’s an enormous challenge and we need people who are eager to get started. You’ll be working hand in hand with biologists, software developers, and other engineers to co-develop the wetware, hardware, and software infrastructure that underpin the foundry.

Responsibilities

- Developing automated experimental workflows for genetic engineering processes, strain cultivation, sample preparation, and multi-omics analysis
- Writing software to drive operation of laboratory instruments and robotics
- Validating and QC’ing automated protocols
- Writing software for data acquisition, retrieval, and processing
- Operating automation equipment with biologists
- Training automation users on workflows and best practices
- Supporting and maintaining automation hardware
- Designing and building integrated automation infrastructure

Requirements

- BS or MS in engineering or equivalent
- Experience with laboratory automation systems and experimental workflow development; experience in hardware development, integration, and testing
- Software development capability, especially pertaining to hardware control
- Practical knowledge of high-throughput biological processes