

## Mechanical Engineer, Rapid Prototyping, Entry Level

### March 2019

At Roswell, we are on mission to make genome sequencing dramatically cheaper and faster--now, not in the distant future. Our technology is powered by molecular electronics, and we are the global pioneers in developing this new field that integrates CMOS chips, nanotechnology, and biochemistry. The leadership of Roswell have unmatched experience in developing high-impact, high-value, high-tech devices for the Life Sciences, and bringing them to market, globally. Our goals are big, our timelines are short, and we are building the team that will make it happen.

The **Entry Level Rapid Prototyping Mechanical Engineer** is responsible for supporting the R&D program needs for rapid instrument prototyping. The Engineer will work under the supervision of the senior mechanical engineer, as part of the Instrument Team. This position plays an important role in our agile development program, by providing quick-turn part production and testing for our internal R&D instruments. Primary responsibilities consist of creating functional parts, using in-house CNC Mill, 3D Printer, and general machine shop tools, and the testing and deployment of parts into internal R&D instruments for running sensor chips. Secondary responsibilities include operating tools that support rapid prototyping for nanofabrication, such as in-house AFM and nanoimprint lithography systems.

Specific responsibilities include:

- Machining a variety of parts to specified tolerance with CNC mill and general machine shop tools
- 3D printing components for R&D instruments and other lab equipment or processes
- Designing parts to requested specifications for machining or 3D printing
- Creating part renderings for feedback from the R&D team and company presentations
- Supporting instrument development to assess and evaluate instrument needs and design parts to meet those needs
- Responding rapidly for iterative prototyping on a same-day basis
- Assisting in tracking machine, tooling, and shop maintenance requirements
- Assisting in custom instrument build-out and maintenance
- Operating an AFM imaging system, for nanoscale characterization of test chips
- Operating a nanoimprint lithography system, for production of nanodevices
- Maintaining a safe, clean and orderly working environment

The ideal candidate can thrive in an extremely fast-paced, dynamic environment, as part of a team of highly skilled, highly focused and highly motivated people who believe in changing the world by creating disruptive technology.

**Qualifications:** New and recent graduates are encouraged to apply. BS or MS in a relevant field, such as Mechanical Engineering, Manufacturing Engineering, Rapid Prototyping, Industrial Design, or Applied Physics. Experience with CNC milling and machine shop processes including programming, fixturing, operation, and verification best practices. Experience with CAD design (Autodesk or similar) and CAM (HSM or similar). Experience with 3D printing, especially SLS prints for functional use. Familiarity with electronic workbench equipment including oscilloscope, DMM, SMU meters, DAQs, etc. Familiarity or the desire to learn AFM operation and nanoimprint lithography, with opportunity to do AFM characterization of nanodevices, and nanoimprint lithography fabrication of nanodevices. The abilities to work quickly, communicate easily, and a passion for rapid prototype machining are essential for success.

U.S. Citizens, Green Card Holders, and those authorized to work in the U.S. for any employer will be considered. The position is located in the Sorrento Valley area of San Diego.