

Clean Room Engineer (m/w/d)

(100% Employment)

[Qnami](#) develops fundamental new technology using quantum mechanics. The control and measurement of the state of a single electron enables us to measure what could never be measured before. We call this quantum sensing and are enthusiastically developing this technique to improve people's lives and the world.

Qnami is a magnet for talents looking to join the quantum revolution at the pulse. Multicultural, open-minded, and highly-skilled, we come from all over the world and have a deep passion for our work. Both business and scientific minded, each of us contributes with our unique skills plus a strong work ethic and enthusiastic spirit – because we believe in what we do. We value diversity and have created a self-managed, flexible team culture that supports employees' development and enables us to live a healthy, well-balanced life.

We develop and commercialize applications of [NV Quantum Sensors](#) (Nitrogen-Vacancy), leveraging proprietary technology and unique know-how. Our first commercial product, the Qnami ProteusQ is a complete quantum microscope system. It is the first scanning NV microscope (nitrogen-vacancy) for analysis of magnetic materials at atomic-scale, and features state-of-the-art electronics and software. The core element of the microscope is our patented sensor – the Quantilever™, which was developed by our [Quantum Foundry](#) based on our deep expertise in the design and fabrication of quantum sensors made out of diamond.

We are further expanding and improving our Quantilever product line as well as increasing our services capabilities of the Quantum Foundry. For this, we are seeking a

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As the Clean Room Engineer, you will play a critical role in the development and improvement of diamond fabrication recipes and R&D of new diamond-based sensors. You will contribute to the design, testing and quality control of such sensors using different technologies available in-house and through international collaborations.

In this position, your responsibilities will include:

- Working closely with the Quantum Foundry team to develop and execute research and development projects and prototyping to push the boundaries of our knowledge and product portfolio
- Liaising with early adopters of prototype quantum sensors to address their needs and ensure Qnami can provide them with the highest quality quantum sensors
- Ensuring timely progress of products from R&D through production
- Controlling and managing existing processes to ensure continuous production of portfolio diamond sensors
- Defining and implementing robust process documentation and protocols



- Diagnosing and resolve processing problems in the Foundry to deliver robust fabrication flow of different products
- Characterizing process outputs, making sure the quantum properties of our sensors meet our customer's standards
- Suggesting routes for the creation of Intellectual Property based on your results to strengthen Qnami's product pipeline
- Contributing to the Quantum Foundry team goals to develop state-of-the-art diamond quantum sensors and processes, allowing Qnami to provide diamond expertise to our own product lines and customers.

Qnami offers you a great working environment and a chance to learn and grow:

- Be the person actively contributing to the production and development of novel quantum sensors made of diamond in the Quantum Industry 1.0
- Be a core part of a motivated and energetic startup team which values both scientific free climbing and human connection

You are a passionate and creative physicist/engineer. You value working in a multi-disciplinary team, like to share ideas and tackle complex challenges. You bring:

- PhD in physics, engineering, or nano-science
- 5 year + experience in a clean-room environment with a track record, e.g. scientific publications, patents, etc., of innovative results .
- Excellent knowledge of e-beam and optical lithography, plasma etching, wet chemistry and material depositions techniques.
- Effective organization skills and ability to document complex processes
- Good communication and writing skills
- Experience in the fabrication of other semiconductor materials and CMOS is a plus
- Experience with Integrated Circuits (design and fabrication) is a plus

You will have responsibilities and a direct contribution to the growth of Qnami and the emergence of a quantum industry 1.0. Your salary will be based on your experience. You will join part of the Qnami team at lab space in the Paul Scherrer Institute (PSI), the largest research center for natural and engineering sciences within Switzerland. You will get to travel to Qnami's headquarters near to Basel on a regular basis.

Qnami was founded in 2017 in Basel, at the cross-roads of Switzerland, Germany and France, and builds on the work of Professor Patrick Maletinsky from the University of Basel who still works in an advisory role to Qnami. We explore implementation and application of quantum nitrogen-vacancy (NV) color center in diamond for high-performance sensing devices.

Please send your application (CV, motivation letter and examples of previous projects in English) to jobs@qnami.ch.