

Friedrich Schiller University is a traditional university with a strong research profile rooted in the heart of Germany. As a university covering all disciplines, it offers a wide range of subjects. Its research is focused on the areas Light-Life-Liberty.

The research project maQuer.Space has been funded by the Federal Ministry of Education and Research (BMBF) since the 1st January 2021 as part of the "Quantum aktiv - intuitive outreach concepts for quantum technologies". The aim is to bring quantum technologies closer to as many people as possible and make them understandable. maQuer.Space is incorporated in the Lichtwerkstatt – the Makerspace located at the Abbe Center of Photonics where citizens, researchers and companies with an interest in optics and photonics can gain free access to modern technical equipment and the necessary know-how to realize their own ideas. In a collaboration with the Lichtwerkstatt Jena the maQuer.Space-Team will develop hands-on quantum photonics experiments and teaching materials for the interested general public.

The project maQuer.Space seeks to fill the position of a

Student or Scientific Assistant (m/f/d) – Electrical Engineering “Hands-on Quantum Communication”

at the [Lichtwerkstatt Makerspace](#) with a work volume of **20 to 40 hours per month**.

Your tasks

- You will support the maQuer.Space research project in building an experimental setup for quantum communication. Your challenge hereby is to design components in such a way, that the experiment can be replicated at home or in classrooms with low-cost materials and typical tools in a DIY-manner. Develop creative ideas for building the last missing piece: a single photon detector based on an electrical driven avalanche photodiode.

Your profile

- B.Sc. or M.Sc. student in a related research discipline (e.g. physics, photonics, electronics).
- Basic knowledge of analog electronics or electrical engineering.
- Experience in the design and implementation of electrical circuits.
- Enjoy experimenting and trying new approaches.
- Independent work and the ability to work in a team.
- First experiences or willingness to develop skills in SMD soldering, Simulation (e.g. LTSpice) and PCB design (KiCAD).
- Interest in quantum optics and quantum computing.

We offer

- An exciting, international and nice working environment.
- Opportunities to develop and advance scientific networks.
- Participation in the promising and groundbreaking research topic of quantum technology.
- Access to the Lichtwerkstatt Makerspace equipped with modern rapid prototyping technologies (e.g. 3D printing).
- Flexible working hours and places of work (e.g. Homeoffice, Makerspace).
- Attractive monetary compensation in accordance with the standards of the Friedrich Schiller University Jena.

Are you eager to work with us? Kindly send your application (CV, motivation letter) until **30th April 2021** via email to johannes.kretzschmar@uni-jena.de