

INTERNSHIP: Electrical Engineer (m/w/x)

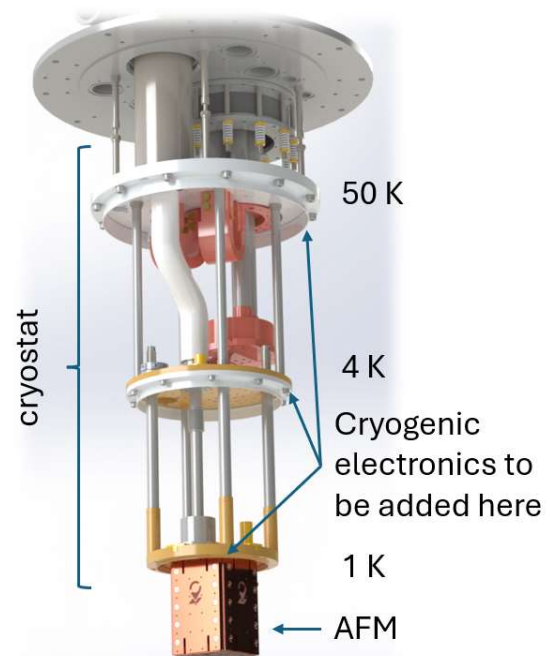
Minimum duration is 5 months

Develop a cryogenic amplifier for a new diagnostic tools that will enable the quantum revolution at a fast-growing startup

Quantum computing will allow the world to tackle problems that are currently impossible to solve. Manufacturing quantum chips is extremely complex and they often don't fully work as intended. When this happens, there is no way to find out why, which component failed, and how to improve the production processes. This is one of the major road-blocks towards scaling quantum chip production. Our novel microscope, based on SQUID-on-tip sensing, will provide a solution to this problem and therefore will help unlock the quantum revolution.

As a Electrical Engineering intern you will develop cryogenic electronics for our microscope. The AFM and sensor are read out using very small electrical signals. Consequently, filtering and amplification should happen as close as possible to the sensor and thus at cryogenic temperatures. Since the cooling power is very limited at the lowest temperature, a trade-off between signal quality and allowed heat load from the circuits is critical.

You will help making this trade-off, design the electronic circuit, build and test it together with the rest of the design team. We believe in fast iterations and you will produce and test at least two versions of your design on the actual tool during your internship.



Impact of the role:

Our company is developing one-of-its-kind technology that can solve one of the most important problems in the quantum industry. You will be a key member of the team developing this technology, and your talent and hard work will have an impact on the quantum industry as a whole. You will become a key part of our small, but fast-growing team, and you will join us during a very exciting time: We are currently assembling our commercial prototype (target operation is Q1 2025) and are talking to first customers.

Ideal Candidate

We will support you to during your internship at QuantaMap, and ideally you start with:

- appetite to take responsibility and make an impact in a small, growing team,

- demonstrated dedication and perseverance, consistently striving for excellence and motivating others to achieve shared goals,
- MSc in electrical engineering, signal processing, or similar,
- hands-on experience in designing electrical circuits, ideally for high-tech environments.

Please do highlight other experience such as:

- knowledge of cryogenic technology,
- semiconductor manufacturing,
- team-based design challenges.

This role requires you to be an independent problem solver, to make things work, to have grit and a passion for building things. You'll be working closely with a small and very supportive team, so close communication and shared team goals will be part of daily life.

In a dynamic start-up, the environment and goals can change fast and you'll be someone who enjoys this. In parallel though, your work will be of high integrity and completed with scientific rigour.

Please do not hesitate to apply if you think this could be the right opportunity for you, even if you do not tick all of the boxes.

What we have to offer

We offer you a challenging internship (minimum internship duration is 5 months) with ample opportunity to learn and grow. You will join a young and diverse team extremely motivated to solve hard problems that do not have solutions yet.

At Quantamap, we are committed to diversity and to creating an open and inclusive environment where everyone can speak up, learn and thrive. We explicitly welcome applicants from all backgrounds and identities to further our inclusive workplace. We value mentorship, trust, kindness, and ambition as key to achieving our ambitious goals together.

How to apply

Please send us your CV and a short message why you want to intern at QuantaMap to join-us@quantamap.nl and we will suggest an interview date.