



## Senior RF Coil Engineer

### The Basics

- This is a full-time position.
- In-office work will be required at least 2 days per week, with some variation based on project needs.
- Work hours are flexible, but meetings are typically scheduled between 9 am and 6 pm Eastern Standard Time.
- We will share the salary range for this position during the intro call. You can see all of the stages of our interview process on our career page [here](#).
- The hiring manager for this position is Stephen McFadyen, and you can see his LinkedIn profile [here](#).

In this role, we'll expect you to:

- Apply low noise design techniques and best practices to RF signal filtering, board, and mechanical layout.
- Utilize novel techniques from academic literature and potentially improve upon them for our specific applications
- Run finite-element simulation tools for the analysis and design of highly sensitive NMR coils.
- Prototype, build, and test NMR coils, iterating designs based on test results.
- Collaborate closely with other teams for seamless integration and functionality of the coils.
- Manage coupling effects and circuit matching for near-ideal performance.

In the first 90 days, you will work on optimizing a coil targeted to our existing spectrometers, starting with a detailed understanding of current designs. You'll be expected to develop new designs based on research and simulations, fabricate and test these designs, and benchmark them against existing coils. Collaboration with the electrical engineering team and inputs from the NMR department will be crucial to your success.

You might be right for this role if you:

- Have a deep understanding of electromagnetic theory, RF engineering, and NMR technology.
- Are very familiar with the use of Finite Element Analysis (FEA) tools for simulation and design.
- Have experience with prototype building, testing, and iterative design improvement of various hardware devices.
- Understand how NMR coils integrate into the broader NMR system, including interfacing with other components and ensuring compatibility and optimal performance
- Have experience working within quality standards and testing protocols to ensure that the coils meet all required specifications and performance criteria.
- Are familiar with Altium and SolidWorks for design and schematic purposes
- Can convey complex ideas clearly to a variety of audiences.

## Additional Details

### About Synex Medical

Synex Medical was founded by CEO Ben Nashman in 2017 with a simple yet powerful vision - to provide people with real-time insights into their body's day-to-day functioning.

Since then, we've been on a mission to revolutionize healthcare by making predictive health monitoring the norm. Our compact, non-invasive device, powered by miniaturized magnetic resonance technology, will enable real-time monitoring of critical metabolites such as glucose and lactate and empower individuals to take control of their health.

We're supported by VC firms such as [Accomplice](#) and [Radical Ventures](#), and we're headquartered in Toronto, Ontario. We hire employees in both Canada and the United States. In the U.S., most of our employees are located near the Boston area.

We value excellence, ambition, curiosity, accountability, and communication in our workplace culture, and we seek exceptional colleagues who put the team first and deliver outstanding results.

For us, stellar performance matters more than the amount of hours you work. We appreciate self-motivated, self-aware colleagues who act like leaders and embrace the freedom and responsibility of our working environment.

## Benefits

We're proud of the benefits package that we offer to employees, and we'll be expanding it further as we grow. It currently includes:

- Health, dental, and vision insurance - employee premiums are 100% paid for by Synex
- Flexible time off - No annual limits on vacation or sick time, with a 3-week vacation minimum each year
- Parental leave - 6 months fully paid leave for birthing, non-birthing, and adoptive parents
- Professional development reimbursement - up to \$1,500 each year

## Equal Opportunity

We believe that excellence isn't defined solely by qualifications, but also by the potential for growth and meaningful impact. Many highly capable people, especially those who identify as women or gender-nonconforming, may underestimate their abilities.

We encourage you to consider applying for this role if you believe you have the skills, experience, and passion to excel, even if you don't meet every single qualification. To assist you in this process, we recommend closely assessing your alignment with each job requirement rather than relying solely on your overall impression of the job. Your

unique background, skills, and experiences could be a key to our success, so please don't let self-doubt hold you back.

And just to make it extra clear - we are an equal-opportunity employer. We value the collaboration of people with diverse ideas, experiences, and points of view. A diverse team makes Synex an exciting and creative place to work, and we welcome individuals from all walks of life.

All of our hiring choices are strictly based on business needs, job qualifications, and individual abilities, rather than any [protected characteristics](#).

If you require accommodations for a disability during the interview process, please fill out our accommodations request form [here](#). Your information will remain confidential and be used solely to determine appropriate accommodations for the interview process.

## Apply Here:

[https://careers.synexmedical.com/jobs/3601068-senior-rf-coil-engineer?utm\\_campaign=jobs-wideget&utm\\_source=careers.synexmedical.com&utm\\_content=jobs&utm\\_medium=web](https://careers.synexmedical.com/jobs/3601068-senior-rf-coil-engineer?utm_campaign=jobs-wideget&utm_source=careers.synexmedical.com&utm_content=jobs&utm_medium=web)