

## Job Posting: 189954 - Position: Robotics Engineering Co-Op Student

**Co-op Work Term Posted:** 2020 - Fall  
**App Deadline** 08/11/2020 10:00 AM  
**Application Method:** Employer Website  
**Posting Goes Live:** 07/28/2020 12:39 PM  
**Job Posting Status:** Approved

### ORGANIZATION INFORMATION

**Organization** Sanctuary AI  
**Division** Vancouver office

### JOB POSTING INFORMATION

#### Special Job Requirements

**Work Duration: 4 or 8 months** (An 8 month employment period is registered as 2 separate, consecutive work terms.)

Please state **CLEARLY** in your cover letter whether you are available for 4 and/or 8 months.

**For Engineering Undergraduate Students:** Before applying to this posting, it is your responsibility to have completed the appropriate pre-requisite courses for this length of work term, and to understand how this length of work term affects your academics. If this means you will be registered in a 5th or higher work term, the full co-op tuition fee (equal to two installments) will be charged for each additional work term above the mandatory four. See links below for more details.

- Engineering Tuition - installments (two installments per work term). <https://web.uvic.ca/calendar2019-09/undergrad/info/tuition/engineering-tuition.html>
- Undergraduate Tuition - the complete co-op fee (**for those doing a 5th or higher work term**). <https://web.uvic.ca/calendar2019-09/undergrad/info/tuition/undergrad-tuition.html>

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**Students are urged to apply a.s.a.p. to this opportunity. The company does not wait until the Learning In Motion closing date to begin reviewing applications; rather, they review apps as they appear. The earlier you apply, the better!**

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\* You are also required to click "**EXPRESS INTENTION TO APPLY**" for this posting if you are submitting an application to their online portal

**Co-op Work Term** 2020 - Fall  
**Position Type (Disclaimer: not all types available in all programs)** Regular Co-op, Full Time  
**Co-op Work term Duration** 4 Months or 8 Months, but 8 Months Preferred  
**Job Title** Robotics Engineering Co-Op Student  
**Job Location** Vancouver  
**Region** BC-Greater Vancouver  
**Number of Positions** 1  
**Work Abroad** No  
**Job Description**

Sanctuary's mission is to create general purpose robots that can autonomously perform most economically valuable work. Members of the Sanctuary team founded D-Wave (created the quantum computing industry), Kindred (first use of reinforcement

learning in a production robot) and the Creative Destruction Lab (created in excess of \$5B in shareholder value). The team has experience launching market defining innovations rooted in deep, unsolved scientific problems. The company is based in Vancouver, Canada.

We are seeking exceptional Robotics Engineering Co-Op Students to support cycle testing, electrical engineering activities, prototype assembly, and 3D printing activities.

Your primary role will be to manage cycle testing and support electrical engineering activities. This is expected to take up 30% - 80% of the role. The remaining time will be allocated based on interest and proficiency but will focus primarily on mechanical design in onshape and / or sensor design and integration. A successful applicant should be a self-starter who can learn new skills on the job, and has excellent attention to detail. The ideal applicant has prototyping experience, and examples of past work.

**Primary Responsibility: Cycle Testing**

- Design and build cycle testing hardware
- Work with engineers to create a test plan
- Write cycle testing software
- Analyze and organize test data
- Present results
- Work on streamlining and modularizing testing setup

**Primary Responsibility: Electrical Engineering Support**

- updating and maintaining component libraries (including footprint and schematic generation)
- design of simple boards such as testers and adapters and other small boards (take on bigger projects with more experience)
- work on nice-to-have projects such as the universal cycle test platform
- minor revisions of more major designs such as Great(er) Mesh
- PCB assembly and testing
- sensor ideation, prototyping and testing
- staying up to date with current sensing technologies, look for solutions/companies that are/could be useful to us
- basic firmware drivers to verify hardware functionality (can be more in depth depending on interest)

**Secondary Responsibility: Prototype Assembly**

- Light soldering
- Dyneema cable assembly
- Add threaded inserts, tap holes
- Press in bearings
- Take notes on assembly issues
- Test for functionality
- Create Design Assembly Documentation

**Secondary Responsibility: 3D Printing**

- Export appropriate files
- Load Files into correct orientation
- Place supports or fibres manually
- Keep printer area clean
- Wash & cure parts
- Remove supports and post process
- Keep an up-to-date printer queue and estimate for job completion
- Handle print outsourcing as needed

**About Sanctuary**

Founded in 2018 by Geordie Rose, Suzanne Gildert, Olivia Norton and Ajay Agrawal, Sanctuary is a Vancouver, Canada based mission driven company. Sanctuary's mission is to create general purpose robots that can autonomously perform most economically valuable work.

## Qualifications

### About You

- You are highly competitive with a track record of success
- You are organized, learn quickly, attend to detail, are excited by challenges, are naturally curious and have good mechanical aptitude

### Minimum Qualifications

- Experience in using onshape or other CAD tool
- Related technical projects in a portfolio or personal website
- Excellent practical skills, including soldering, use of hand and power tools, use of 3D printers, and proficiency in programming

### Preferred Qualifications

- Experience in testing complex mechanical systems
- Experience with Altium or circuit design
- Good familiarity with Python and C

**For relevant employers as defined by the BC Criminal Review Act: Will this position require a co-op student to complete a Criminal Records check?** No

**Minimum Academic Year Completed** 1

**Minimum Work terms Completed** 0

**Are there any restrictions that would hinder hiring of non-Canadian students with a valid work permit?** No

## APPLICATION INFORMATION

**Application Procedure** Employer Website

**If by Website, go to** <https://jobs.lever.co/sanctuary/61ece967-1b31-4e33-b938-60bad4ed412e/apply?lever-source=LinkedIn>

### Additional Application Information

Please submit a design portfolio or personal website with your resume. If you do not have a design portfolio, pictures of your design projects with short descriptions are required.

**APPLICATIONS WITHOUT A DESIGN PORTFOLIO OR EQUIVALENT WILL NOT BE CONSIDERED.**

**All Degrees and Disciplines** No