

# FREQUENCY

A MCMASTER ENGINEERING SOCIETY PUBLICATION

DECEMBER 2023

HOW TO GET INVOLVED?

THE ULTIMATE HOUSING GUIDE

WHAT ARE ENG STUDENTS LISTENING TO?



## Note From Editors

Dear Fireball Family,

The Frequency is back and it'll leave you on the edge of your seat wanting more. In this edition, we have exclusive tips and tricks about how to get involved with the engineering community at McMaster! Want to sharpen your technical skills but don't know where to start? A summary of clubs can be found on page 9. Stressed about snagging up a co-op? Page 17 is your guy!

For this edition, academics isn't just all we're about. We also have a surprise engineering personality quiz, eng stream horoscopes, and a page dedicated to what music fellow engineers are listening to!

We hope you enjoy! If you have any concerns or comments please reach out to our email at [frequency@macengsociety.ca](mailto:frequency@macengsociety.ca)

Sincerely,  
Afsheen, Huong, and Keshavi

# IN THIS ISSUE

about: content - Microsoft Internet Explorer

//ARTICLES..	PAGE
WHAT'S EVERYONE LISTENING TO?	3
THE ULTIMATE HOUSING GUIDE FOR MCMASTER STUDENTS	4
WHAT'S YOUR TRUE ENG STREAM?	8
BUILDING TECH EXPERIENCE	9
ENGINEERING HOROSCOPES	11
PHENOMENAL PROTOTYPES AND PROJECTS	13
INTERVIEW WITH A CO-OP STUDENT & CO-OP POSITIONS	17

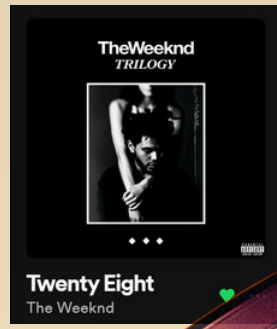
Commodore 1084S  
VIDEO MONITOR



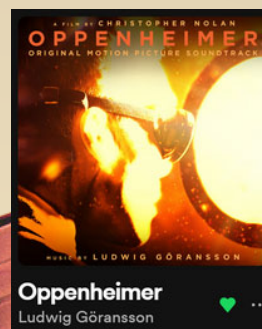




Shayna, Civil & Society



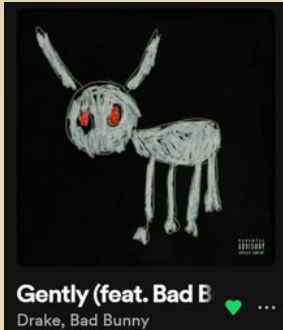
Afsheen, Mechanical



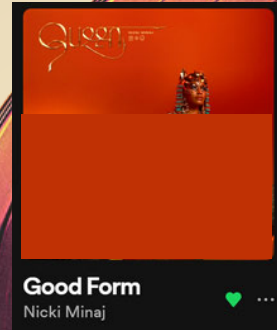
Lucas, Eng Phys & Society



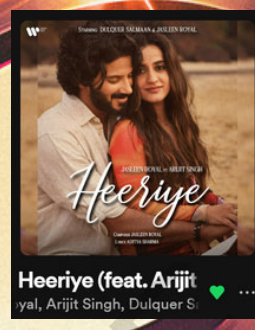
Ailish, ENG I



Derek, HESE



Mia, Civil & Society



Zara, Mechanical & Management



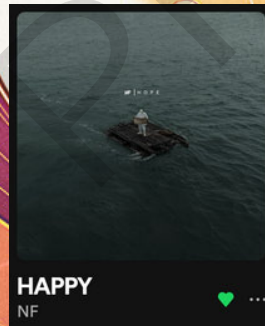
Christy, Electrical

# WHAT'S EVERYONE LISTENING TO?

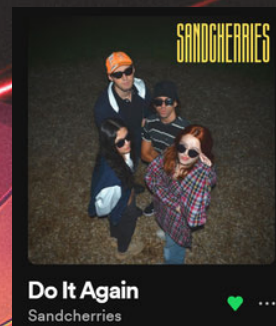
Are you curious what fellow engineering students are listening to this semester?  
Let's see if you have some shared tastes with other MacEng students!



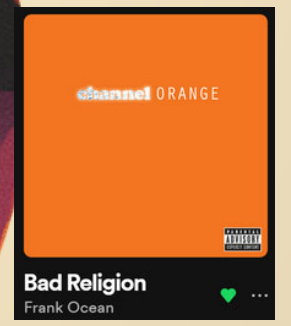
Adelaide, Mechanical



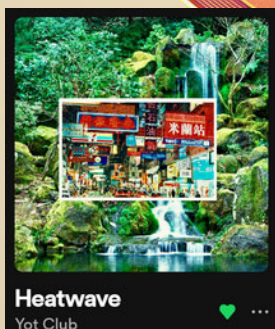
Sylvie, Mechanical & Society



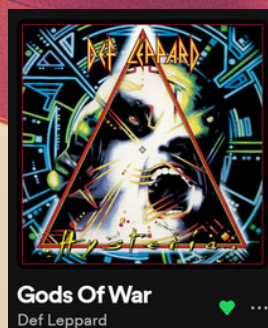
Simone, Electrical & Society



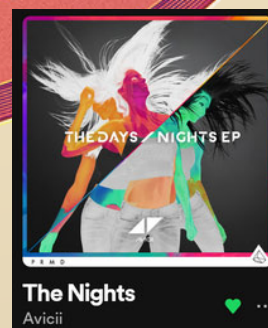
Rasan, Civil & Society



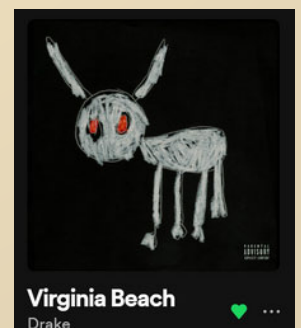
Elizabeth, Electrical & Society



Lucas, Civil & Management



Connor, Mechatronics & Society



Fatima, ENG I





**These groceries are gonna put  
me on the brink of eviction**

**Are you a McMaster student  
looking for a place to live and  
are unsure on how to start your  
search? If you answered yes,  
then give this guide a read!  
This article will provide plenty  
of valuable tips and insights to  
help you, a first-time renter,  
find your ideal home away from  
home.**



# The Ultimate Housing Guide for McMaster Students

## 1. Start Early

The sooner you begin your search for accommodation, the better your chances of finding a perfect home that meets your needs. The demand for housing is high, with a busy and competitive rental market — remember to start your search well in advance and stay proactive. Don't wait until the last minute!

## 2. Determine Your Budget

Before diving into the housing hunt, it is crucial to establish a clear budget and adhere to it. Make sure to consider all expenses, such as rent, utilities, and groceries. Be realistic about your financial limitations and consider sharing accommodations with a couple of roommates to cut down costs.

## 3. Location

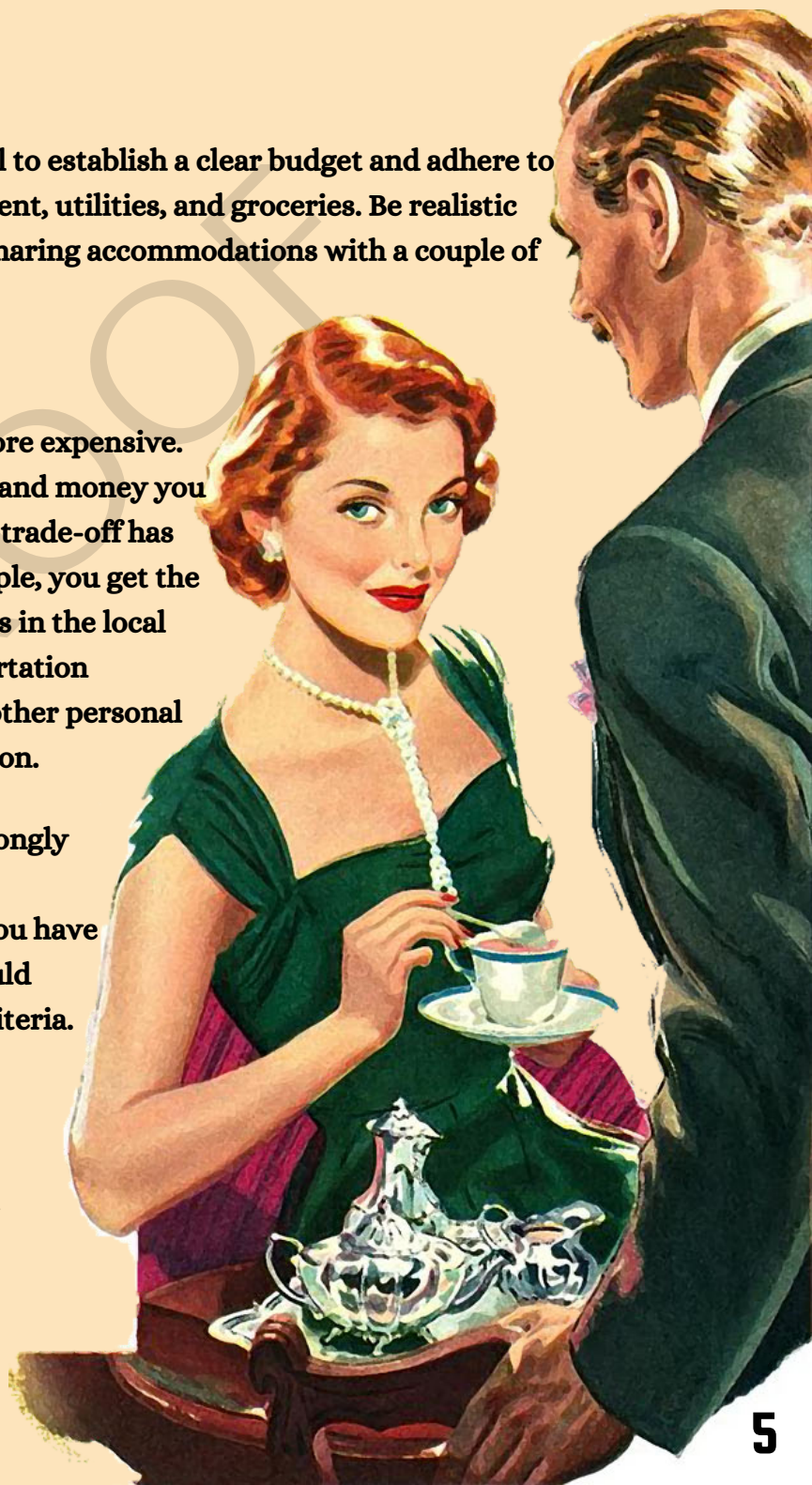
If you want to live near campus, rent will be more expensive. However, living near campus reduces the time and money you might otherwise spend on your commute. This trade-off has noteworthy advantages for students. For example, you get the chance to form connections with other students in the local community. Additional factors such as transportation accessibility, proximity to grocery stores, and other personal amenities should also be taken into consideration.

Therefore, when selecting where to live, we strongly advise you to consider the advantages and disadvantages that matter most to you. Once you have carefully reviewed all of these factors, you should make a list of neighborhoods that meet your criteria.

## 4. Safety

We also suggest that you visit the neighborhood in person to get a sense of how it would feel to live there. Please prioritize your safety by properly checking the locks and surveillance systems.

*It's always better to be safe than sorry.*



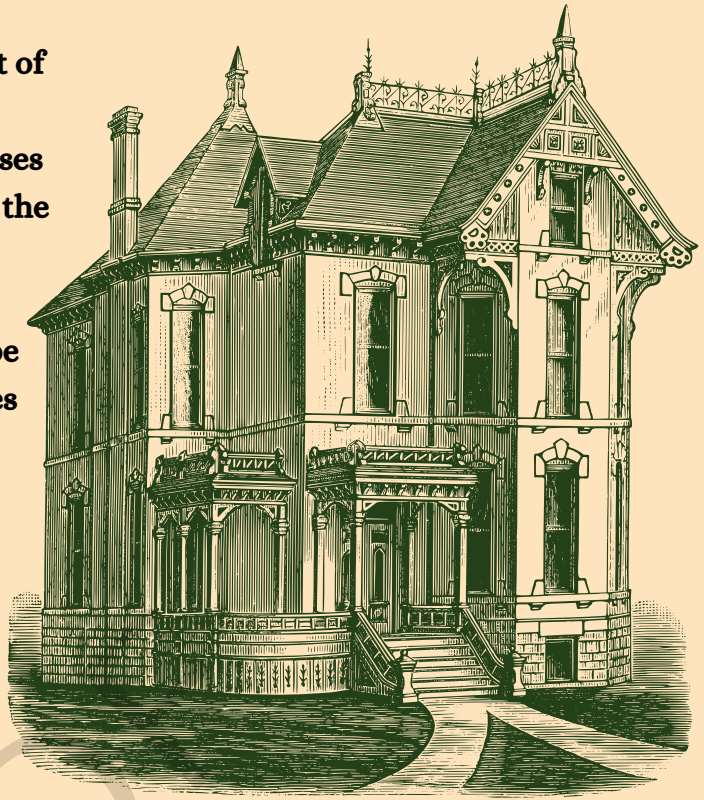


## 5. Types of Housing

Once you've established a budget and narrowed down a list of neighborhoods, it's time to explore your options. Students typically opt for either shared housing or apartments. Houses are usually larger and more affordable, since you will have the option to split rent with housemates. Alternatively, if you prefer to live alone and have access to amenities such as fitness centers and swimming pools, an apartment might be right for you. Remember, it all depends on your preferences and needs!

## 6. Finding Compatible Roommates

If you intend to live with roommates, make sure to take your time locating the right people. McMaster has a designated platform for finding roommates called McMatch. Please keep in mind that domestic expectations regarding rent, household chores, or other shared responsibilities should be discussed to ensure a harmonious co-living experience.



**The following advice can assist you in finding the right roommate:**

- ➔ Seek out a companion with a similar lifestyle.
- ➔ Living with friends or acquaintances can be a more enjoyable experience.
- ➔ Communicate openly and discuss expectations regarding household chores and shared responsibilities before moving in together.
- ➔ **Trust your instincts.**






## 7. Understand Lease Agreements

Before signing a lease agreement, make sure you understand the terms and conditions. Pay attention to details such as the cost of rent, lease duration, maintenance responsibilities, utilities, and any additional fees. You may need to pay for heat, hydro, and water. These utilities can be charged at a flat rate, or a rate that varies with usage, per your agreement with the landlord. You may also need to pay for laundry, which may be charged per use, as well as internet seeing as not all accommodations will have it installed (I have to get my own Wi-Fi XD).

Finally, please keep in mind that most landlords demand a one-year lease; however, if you are unsure about committing long-term, you can try negotiating a shorter term, such as a month-to-month or six-month deal. Make sure to ask the landlord about any alternatives for renewing the lease and confirm whether subletting is permitted. If you have to relocate before the lease expires, it would be convenient to have the option of subletting rather than having to continue paying rent.



Navigating the off-campus housing scene can be challenging, but don't worry! McMaster has resources to help you find suitable off-campus housing. These resources can be accessed at [offcampus.mcmaster.ca](http://offcampus.mcmaster.ca). Also, make sure to check out the McMaster Off Campus Housing Facebook Group Good luck finding your ideal accommodation!



WE DO EXTRAORDINARY EVENTS

Whether it's a wedding, a corporate gathering, or an intimate social celebration, LIUNA Station creates the most memorable events. LIUNA Station is where classic style and impeccable service meet.

*Come see how we can make your next event, extraordinary.*



**LIUNASTATION**  
EXTRAORDINARY EVENTS

Visit us at [LiunaEvents.com](http://LiunaEvents.com)



# QUIZ!

## What's your true eng stream?

START HERE:





# BUILDING TECH EXPERIENCE

**A place to start for people who suck with  
technology.**

Are you new to McMaster Engineering, or have you spent years here, socially isolated from your peers? Whatever the case may be, you're probably looking for ways to get socially involved while building your technical portfolio.

Whether your resume is overflowing with professional experience, or is barren enough to suspect you of identity fraud, McMaster Engineering has a technical club for you!

**By: Philo**





# So, here's some clubs you might be interested in.

With so many technical clubs to get involved with at McMaster, it can be challenging to find a club that suits your interests. It can take a lot of time and energy to investigate clubs that interest you, making it difficult to access information such as necessary prerequisites or application deadlines.

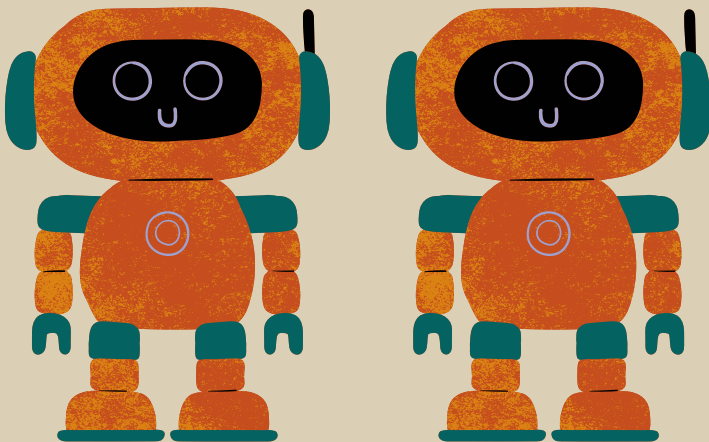
If you have little to no experience and still want to join a technical team, I'd look into Sumobots. It's essentially a competition where you and a team design a robot that is meant to push other teams' robots outside of a ring. It's a great place to start since they have competitions for both beginners and people with a bit more experience. The Competition date is January 13th, 2024.

It's also a great place to build new skills because they host workshops for the CAD and programming aspects of your robot. Are you interested? Check out their Instagram **@McMasterSumobot** to get more information about registration and recorded help sessions.

Want more CAD experience? Then McMaster Design League is for you. It's where User Interface and User experience problems are tackled in their UI/UX designathon. From January 20th-21st, the annual CAD designathon is being held. Competitors will apply their CAD skills to a current industrial problem and will be evaluated by a panel of judges. Looking for something less formal? The design league also holds numerous workshops in SolidWorks, Autodesk Inventor, and Graphic Design throughout the year. To get involved check out their Instagram **@mdlmcmaster**.

If AI piques your interest, consider looking into the McMaster Artificial Intelligence society. McMaster AI Society hosts tutorials, workshops, and open discussions through mediums ranging from networking to symposiums, projects, and competitions to help develop your AI skills. Do you enjoy solving hardware and software problems under a competitive time crunch? Consider joining the MacHacks Hackathon held for beginners and experienced "hackers". Join workshops to help gain any skills necessary for the competition! Check out their website **mcmasterai.com**.

Now that you know some of your options, the next step is picking a club you're interested in. You can find more information about the registration process on **eng.mcmaster.ca**.





# Eng Horoscopes

By: Mia

With the winter semester approaching, there will be a new set of fortunes for each of the streams in Mac eng... here is your horoscope for semester 2 based on your stream!

CIVIL



Awesome!! This summer you will be lucky enough to snag your top co-op or internship! With this incredible news, don't get too excited, you may find that all of your tests and exams are in T13...aww man!

ELEC



Just your luck! You will soon find out that one of your midterms is open book. On another note... be careful when you think it's time for a haircut, it could backfire (the hairdresser may cut all your hair off by accident)... brutal!

MECH



Love is in the air... your crush will talk to you outside of class! But while your love life blossoms, you will forget to save your assignment and it will be deleted at 11:58 pm... oops!!

ENG PYHS



Oooh just in time for Valentine's Day you will find yourself a 10/10!! But nothing comes without a price, you may get roped into being a IPI3 TA...tough!

MATLS



Finally!! You will find that you no longer struggle with MATLAB, it all makes sense (you're practically a calc TA). Although, you will have a class taught by a professor "for the first time". Good luck!



## CHEM/CHEM&BIO

Woohoo! You're in luck for second semester, all your course material makes sense and you are thriving!! However, don't get too smug... all of your classes will see a return of iClicker (ID03/IE03 style), jeez!

## COMP

For the first time in ages you will see a month straight of good sleep!! However... you will find that the most dreadful midterm in all of existence doesn't get curved...uh oh!

## TRON

To your surprise, your lowest midterm will be dropped! Yippee!! However, somehow you lose your McMaster standard calculator... and have to go without a calculator for the rest of your exams!! There are not enough extras...help!

## SOFTWARE

Never before seen... every time you enter Thode second floor you will be happy to find a magical free chair awaiting you. But... be careful... your group chat gets leaked by an anonymous source...yikes!

## HESE

Congratulations! This semester you will meet your favourite celebrity! The downside... the excitement from meeting your idol throws you off course, you need to pull an all-nighter every week for 2 months to catch up!! Tiring...

## SOCIETY

Yay! You find out you get a summer research opportunity with your favourite professor! But don't get ahead of yourself... you will be humbled by getting called on in class when you are online shopping or playing solitaire on your laptop! Embarrassing!

## MGMT

Good news, you find out one of your classes has no midterms! There's always a catch... you accidentally find out your assignment was due at 11:59 am not 11:59 pm... a little too late. That's unfortunate!

With these horoscopes, good and bad, don't take it toooooo seriously!

Do your best, and prioritize that sleep schedule, and everything will be alright.



# PHENOMENAL PROTOTYPES AND PROJECTS

By: Keshavi

Throughout the year, Engineering, Biotechnology, and iBioMed students work on various design projects to address different challenges in their respective fields. Each year, these dedicated students craft prototypes to address real-world issues in healthcare and engineering. We had the privilege to ask some of these students about their projects. They have shared information about the challenges they sought to address, the design process, and the specific nature of their solutions.

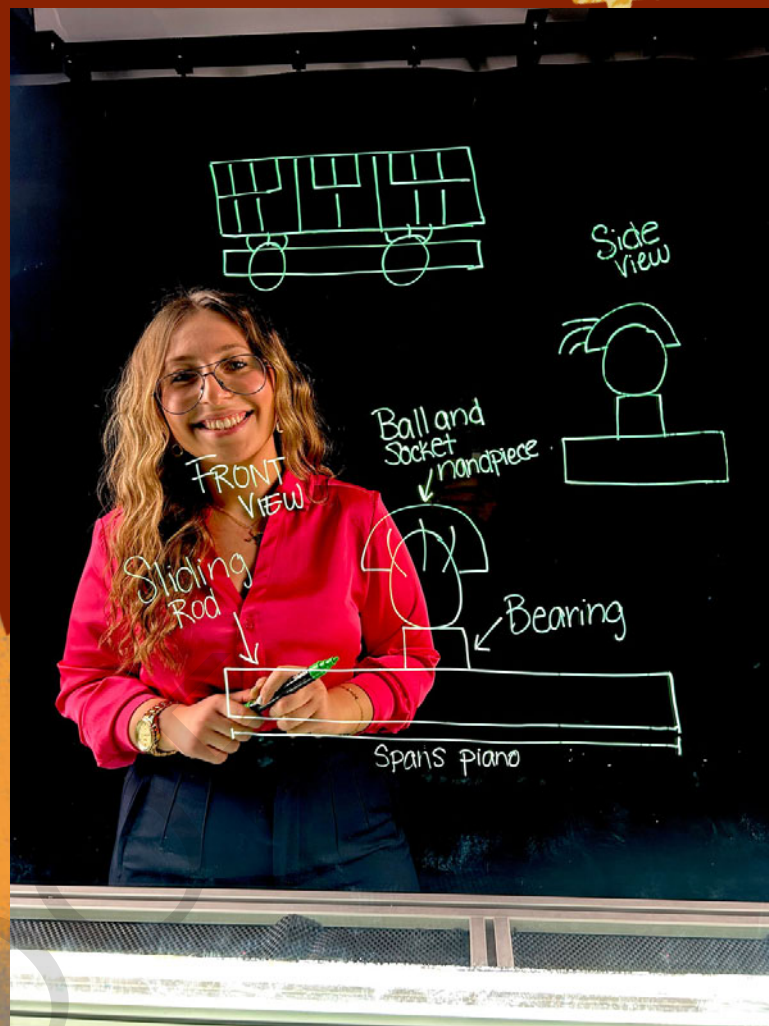
THESE PROJECTS PROGRESS ONTO THE  
NEXT FEW PAGES





**“HARMONEASE IS CREATING AN ASSISTIVE DEVICE THAT LOWERS THE BARRIERS FOR INDIVIDUALS EXPERIENCING LIMITED FINGER DEXTERITY AND HAND MOBILITY TO BE ABLE TO ENGAGE IN PIANO PERFORMANCE” DEENA STATES.**


Starting with some low-fidelity prototypes using basic dollar store supplies, Deena created her first prototype. This was made out of two styrofoam balls and three wooden paint brushes helping Deena visualize her ideas and test the core principles of the design. Eventually, more sophisticated models were created with a 3D-printed handpiece and prosthetic fingers which Deena began co-designing with patients and occupational therapists.



Deena Al-Sammak, 3rd Year HESE and iBiomed Student, inventor of HarmonEase Innovations

**“OUR INITIATIVE MAKES A POSITIVE CONTRIBUTION BY TURNING A CROSSROAD OF ENGINEERING PRINCIPLES AND HEALTHCARE NEEDS INTO A REALITY, CATERING TO A DEMOGRAPHIC THAT IS OFTEN OVERLOOKED”**





**FIRST-YEAR IBIOMEDS RECENTLY COMPLETED THEIR FIRST PROJECT OF THE YEAR, WHICH INVOLVED DESIGNING A DEVICE TO ADDRESS SOME COMMON CHALLENGES WITH OSTOMY BAGS.**

*The ostomy bag attachment designed by Midhousha Anura and her DP1 group, as first year iBioMed students.*

*“Our project creates a positive impact in the biomedical engineering field by introducing an innovative solution to address a common yet overlooked challenge in ostomy care. “*

*“Our project targets ostomy users facing limitations in physical activities due to conventional ostomy systems, aiming to provide a seamless solution to address the issue of frequent detachment and loosening of the ostomy bag.”*





## **CHEMICAL ENGINEERING STUDENTS VISIT BARTEK, A CHEMICAL PLANT IN HAMILTON.**

Knowing the works of Bartek allows chemical engineering students to apply their real world engineering skills, and manufacturing knowledge to improve the current system.

*“We are introducing the manufacturing of a new process to an existing chemical plant”*

*“Through the use of piping and instrumentation diagrams, economics relating to the process design, and problem solving to improve the plant design, a full scale analysis is completed to replicate a real life scenario”*

*- Sharmiga, 5th year Chemical Engineering Student*



# The Transformative Power of Co-op Education in Engineering:

## A Conversation with a McMaster Student

Hi, my name is Sam, I'm a second-year student in iBioMed and electrical engineering at McMaster University and I'll be sharing my experience in finding and working a co-op! If you're considering it but don't know if its worth it, keep reading to hear about my experience.

### What's your school life like? Are you a part of any clubs?

Balancing my academic responsibilities with extracurricular activities is a challenging yet fulfilling part of my school life. I'm involved in the McMaster cheer team and the McMaster Engineering Society (MES). Getting involved in the community helps a lot to gain connections for potential co-op opportunities.

### What drove you to opt for the co-op route?

My decision to pursue co-op was driven by the desire to gain practical experience in different engineering fields. I wanted to see if I was truly interested in what I thought I liked career-wise.







**What was the process of securing a co-op placement like?**

Landing my first co-op placement as a first-year student was challenging due to my lack of specialized experience. I overcame this by leveraging my network and reaching out to my connections for potential job opportunities. Although it may seem like you should start to form connections the second you step into university, it's never too late to start!

**What have you learned on the job?**

This experience gave me a firsthand look at the daily responsibilities and problem-solving methods used by engineers. It significantly altered my view of the engineering profession and highlighted the practical applications of my academic studies.

**How does this help in deciding your career?**

My co-op role helped me realize my lack of interest in the manufacturing process of engineering. It led me to discover my passion for electrical engineering, especially at the intersection of coding and hardware. I'm now aspiring to work on prosthetics, blending my interests in biomedical and electrical engineering.







**Have you developed any skills from your co-op?**

During my co-op, I developed various skills, from mastering formal documentation, writing proposals, to leading meetings. It made me realize that time management is key.

**What was a day at the job like?**

I would work on creating process flow diagrams for the plants. I would also join in on meetings, walk around the plants, meet with my boss, and help around the office when needed.

**Is there anything you would liked to have done differently in regards to your co-op?**

I have no specific regrets, but I think I would have sought out more guidance when applying for co-op placements. While I tried to use OSCARplus, my connections were the main reason I found a placement in the end.







**Do you have any advice for prospective co-op students?**

Get out there and connect with other engineering students at McMaster. Working a co-op is not just about gaining work experience; it's also an excellent way to explore what you like and dislike in a job.

**What will you do with this co-op experience?**

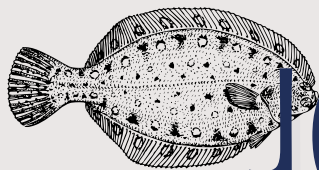
As I progress in my career, I plan to apply the skills and insights I've gained. I aspire to work in healthcare, focusing on prosthetics, possibly in settings like Sick Kids.

**How do you feel about the co-op program at McMaster?**

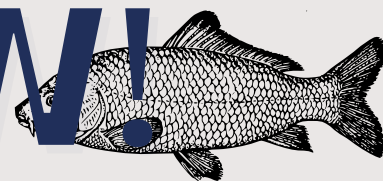
Co-op education at McMaster is more than an addition to an engineering degree; it's a transformative experience. It enriches learning and provides clarity on career goals. My experience is a testament to the program's value in shaping the future of engineering students.



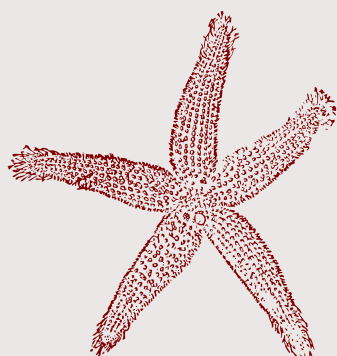




# JOIN NOW!



Engineering CO-OP positions and companies which may suit your interest



## Baylis MEDICAL

Role: R&D Engineering Associate

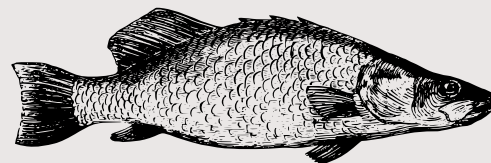
Company: Baylis Medical Company

Division: Baylis Medical Company Inc.

Duration: 12-month

Location: Mississauga, Ontario, Canada

Applications: 38



## Canadian Natural

Role: Multiple Student Opportunities at  
CNRL (4 and 8 months)

Company: Canadian Natural Resources  
Limited

Division: Calgary Office

Duration: 4-month

Location: Alberta

Applications: 1

## Qualcomm

Role: FY24 Intern - GPU Compiler  
Development Internship - Canada (4  
Months)

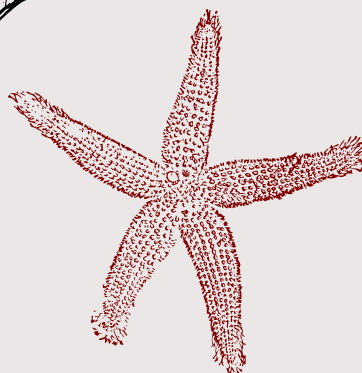
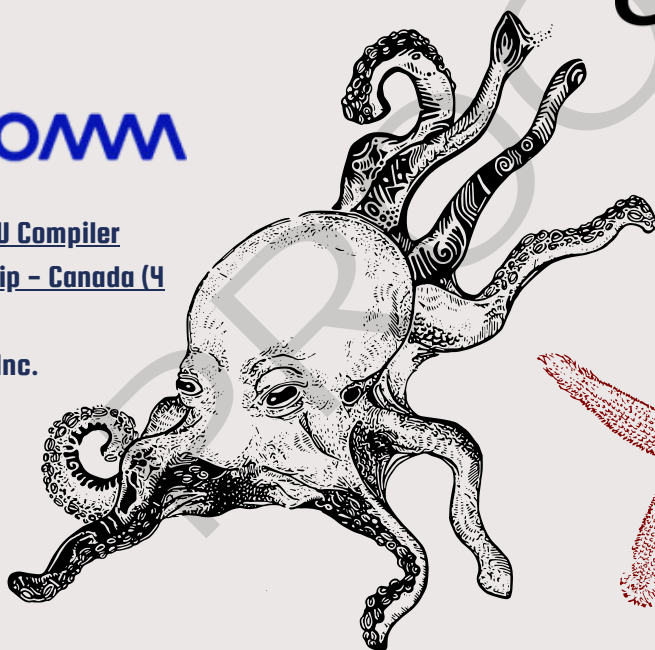
Company: Qualcomm Inc.

Division: Qualcomm

Duration: 4-month

Location: Ontario

Applications: 15



## Honeywell

Role: Intern Bachelors Software Engineer

Company: Honeywell

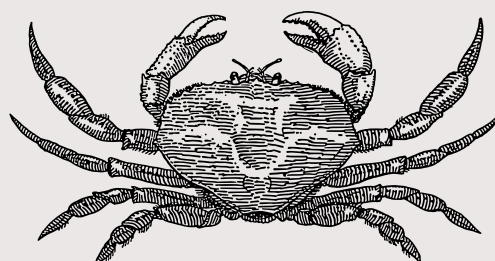
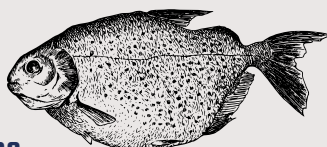
Division: Honeywell

Duration: 16-month

Location: Kanata, ON K2V 1B8 CAN

Applications: 20

Deadline: Dec 31, 2024 11:59 PM



Role: Intern, Fleet Engineering - 11590 (May - August 2024)

Company: Canadian National Railway Company (CN Rail)

Division: Human Resources - Talent Acquisition

Duration: 4-month

Location: QC

Applications: 1

**This edition would not be possible without our wonderful team**

**Editors:**

**Afsheen**

**Huong**

**Keshavi**

**Writers:**

**Mia**

**Philo**

**Derek**

**Main**

**Graphic**

**Designer:**

**Simone**

**Read the online edition of the  
Frequency at the MES website!**

**If you would like to submit an  
article for the Frequency or join  
our team, send us an email at  
[frequency@macengsociety.ca](mailto:frequency@macengsociety.ca)**



