# LAILA HASHI

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Website

## **SKILLS**

**C++/RobotC:** Applied through creating a Plotter Bot which takes in user input and writes a word

**Effectively Read and Understand an Electrical Schematic:**Demonstrated through constructing circuit boards using TraxMaker pro 3

Efficient use of Soldering Skills: Applied through the careful assembly

of PCB boards used in the Sumo and Firefighter bot projects

**Strong Understanding of Various Electronic Components:** such as capacitors, resistors, transistors, infrared sensors, voltage regulators, potentiometers, microchips etc.

**4 Consecutive Years of Experience with Power Tools:** such as drill press, belt sander, vertical and horizontal band saws etc.

### **PROJECTS**

#### **Portfolio Website**

- Designed portfolio website using HTML and CSS
- Created sections which include: About, Projects and Contacts

#### **Plotter Bot**

- Designed a robot with the ability to plot a word inputted by the user with a brush pen
- Used C++ to produce a word file which contained the vector coordinate systems for each letter in the word, this word file was read and interpreted by RobotC so that the word could be plotted by the robot

#### FireFighter Bot

- Designed, constructed and programmed a working robot that has the ability to navigate through a 4 room maze, detect a flame and blow it out
- Incorporated various electronic systems during construction including: motors and sensory (line, wall, and flame)

#### **Sumo Bot**

- Constructed a working robot that has the ability to sense and push other robots out of a ring with some constraints on design
- Implemented various electronic sensors including line and robot detection

## **WORK EXPERIENCE**

## **SUMMER CAMP COUNSELOR | MAC Enricht**

- Team Lead of the Daily Experience sector
- Organized enjoyable and challenging STEM related activities for children ages 4-12 including:
  - Constructing robots using the EV3 Lego robotics kit
  - Creating lava lamps using concepts of chemical reactions
  - Building bridges with the knowledge of various different types of structures
- Implemented and maintained a non-hazardous environment for the safety of the children while working in labs

# **TECHNOLOGIES**

C++, RobotC, HTML/CSS, java, Microcode Studio, AutoCAD, SolidWorks, 3D Printing, TraxMaker

## **EDUCATION**

## **University of Waterloo**

BASc Mechatronics
Engineering 2017-2022

### **AWARDS**

EMAAN Awards –
First Place in Academics
DECA MVP for written
proposal

# **ACTIVITIES**

Best Buddies Model UN DECA

Federal Provincial Simulation
Cross Country