Shahad Alhusain

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EDUCATION

Mechatronics Engineering (COOP) II — *McMaster University*, 2021

PROJECTS

Line Follower and Obstacle Avoidance Robot — Arduino, C
Designed, built and programmed robot using circuitry knowledge.

Door Alarm— Arduino, C
Created a door alarm device using ultrasonic sensors as the main detector.

Prosthetic Hand Device — Autodesk
In a team of 4, designed and 3D printed a gear train as the operational mechanism of a hand prosthetic.

Garbage Removal Device
In a team of 4, developed a device for a client with cerebral palsy to help her transport garbage bags.

COMPETITIONS

Designathon — Autodesk
In a team of 4, redesigned an epipen and 3D printed a model of it.

McMaster Engineering Competition — Python
In a team of 4, designed an app to allow individuals with difficulty speaking to communicate using text-to-voice implementation.

Sumobots — Arduino, C, Autodesk
In a team of 4, created a small autonomous robot whose goal was to push opponents out of the ring.

WORK EXPERIENCE

Budget Car Rental, Agent — *London ON*, MAY-AUG 2018
· Dealt with customer enquiries about the availability and cost of vehicles
· Registered bookings and explain terms of rental or leasing agreements
· Completed paperwork with customers regarding payments
· Provided ongoing service and sales support

SKILLS

Languages

Python, C, Swift

Software

Autodesk Inventor, Linux, Xcode
Maple, MATLAB simulink
Arduino, Multisim, MS Office

Equipment

Multimeter, Function Generator
Oscilloscope, Soldering Iron

EXTRACURRICULARS

Women in Engineering — Mentor to first year student

National Society of Black Engineers — Help increase the involvement of minority students in STEM

War Child — Fundraising and spreading awareness

Ark Aid Street Mission — Serve food to homeless population in a timely manner while delivering exceptional customer service

RELEVANT COURSES

Engineering Economics

Microeconomics

Programming for Mechatronics

Data Structures and Algorithms

Analog and Digital Circuits

Introduction to Sustainability

CERTIFICATES

DELF B2 — Bilingualism in French