

(647) 993-9044

isdhillon3@gmail.com

https://jasdeepdhillon13.github.io/website/

Work Experience

UAV Field Technician

Drone Delivery Canada

Assembled a drone for training new pilots

- (Ĉ) Simulated and created flight paths in MicroPilot Horizon and programmed drone to adjust speed around corners
- Integrated new sensors onto drones and field test drones

Research Assistant

May 2017-August 2017

Sept 2017-Dec 2017

University of Waterloo

- Assembly and testing of Spatial Atomic Layer Deposition (SALD) system
- (Ĉ) Redesign of reactor stand in SolidWorks and machining of stand
- (Ĉ) Designing thermoelectric cooling for the reactor stand

R&D Engineer

Sept 2015 - Dec 2015

Magna International

- Designed a PLC to monitor pressure and temperature data of paint booths
- Ô Researched air balancing paint booths and controlling paint trajectory solutions

Projects

Autofuel (Capstone project)

- Designing and constructing a Cartesian robot to automate the vehicle refuelling
- Responsible for mechanical and electrical assembly, SolidWorks design and machining

Search and Recovery Robot (University)

Designed an automated vehicle to traverse and locate a base in a defined course

Light Painting Robot (University)

Programmed a Fanuc robot to recreate a user's path to produce a light painting

Smart Lock System (Personal)

- Developed secure keyless entry lock and allows you to see who is at the door
- Schematic capture Pi based PCB to interface with low voltage peripherals and minimize power usage

Line Following Robot (University)

- Designed and soldered multiple circuits on PCB to create a line following and magnet sensing robot
- Programmed microcontroller in C

Bicycle Gloves (Personal)

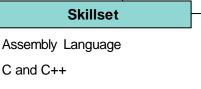
Gloves that provide direction to a cyclist through haptic feedback

Education

Bachelor of Applied Science Honors Mechatronics Engineering, University of Waterloo, Sept 2012 –May 2018

Interests

Design | Technology | Robots | Badminton | Hockey | Biking | Anime | Gaming



Java and Python Keil RTX RTOS

C and C++

Keil MCB1700 Evaluation Boards

FPGA and VHDL

Altera Cyclone II

Matlab and Simulink

Labview

PSIM, LTspice and EagleCad

PCB Design

Soldering & Circuit Assembly

Arduino and Raspberry Pi

AutoCAD and Unigraphics NX

SolidWorks

3D Printer and Milling Machine

Band saw and Drill Press

Oscilloscopes and DAQ

Digital Multimeter

CAN, I2C and SPI

Hardware & Design Prototyping

Material Selection & Fabrication