Hyungsup (Harry) Park

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Education

University of Toronto

September 2019 – Present

Bachelor of Applied Science, Mechanical Engineering | CGPA: 3.91 /4.00

- Minor in Robotics and Mechatronics, Minor in Engineering Business
- Subjects of Interests: Manufacturing, Mechatronics
- Relevant Course: Manufacturing Engineering, Engineering Analysis, Mechanics of Solids I

Technical Skills

- Programming Language : Python, MATLAB
- Software: SolidWorks, ANSYS, AutoCAD, Fusion 360, 3DS MAX, Adobe Illustrator, Minitab, LabView
- Proficient Language: English, Korean

Relevant Experience

University of Toronto

Team Leader, Flood Mitigation Project — September 2019 – December 2019

- Led 6 team members to mitigate communication barriers in the Toronto Islands by investigating the Toronto Island's current communication system and emergency plans.
- Using **AutoCAD**, designed and simulated a theoretical communication device, "Speaker & Screen", which is accessible to 99% of the residents of Toronto Islands, non-invasive to the residential areas, and has a lifespan of at least 4 years.

Team Leader, Gearbox Design — November 2020 – December 2020

- Using **SolidWorks**, led 4 team members to design a right-angle gearbox with a 3 : 1 gear ratio, where the shafts and gears were press-fitted, and the clamps that positioned the shafts were assembled using pegs and holes.
- Calculated dimensions and clearance levels for the shaft diameters and peg sizes in the clamps.
- **3-D printed** the components of the gearbox using plastic filaments and assembled the parts.

CAD & Design Lead, 3D Printer Design — September 2020 – December 2020

- Using **SolidWorks** and SolidWorks Drawings, in a team of 6, designed a professional FDM 3D printer "MindCraft3D", featuring an auto-levelling pressure sensor and a liquid cooling device.
- Using SolidWorks, generated CAD models for components of MindCraft3D such as frames, cooling device, and filament extruders.

Human Powered Vehicles Design Team (HPVDT)

Mechanical Design Member, Project: Kiwi — January 2021 – Present

- In a team of 6+, I designed an aircraft "Kiwi" using **SolidWorks**, and performed stress analysis using **Ansys**.
- Personally, I designed the fuselage of the aircraft with surface modelling.

University of Toronto Design League (UTDL)

Mechanical Design Lead, MASKORA — February 2021

- In a team of 4, using **SolidWorks** and **AutoCAD**, designed an anti-fog mask "MASKORA", featuring a flexible silicone liner and a triangular crease in the mask to direct airflow away from user's glasses.
- Generated real-life simulations and renders of the mask using **AutoCAD Fusion 360** & **3DS MAX**

Awards & Certificates

Certificate of Distinction, Euclid Contest — 2018, 2019
Dean's List, University of Toronto — 2019 Fall-2021 Winter (4 terms)
Certified SolidWorks Associate (CSWA) — 2020 December