

# Brian Hou

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## OBJECTIVE

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Seeking a dynamic internship position as a mechanical/mechatronics engineer, specializing in designing, analyzing, and building mechanical equipment focused on automation

## EDUCATION

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### Robotics Engineering, BSE

Sophomore, 2022-2026 (Expected)

Arizona State University Ira A. Fulton School of Engineering

Cumulative GPA: 4.0

## WORK EXPERIENCE

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### Robotics Engineer (Internship)

3H. Grand Enterprise Co., LTD.

May 2023 – August 2023

- Delivery robot CAD, planning, prototyping, construction
- In charge of all the computer software/hardware issues

**Skills:** Solidworks, Computer Technician, Robotics Engineering

## PROJECT EXPERIENCE

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### Mechanical/Design Lead

May 2022 – Present

PYRO Robotics

- Mechanical head of the Rossum Rumlbers and PYRO robotics team
- 3D design using SolidWorks for complex mechanisms such as PTO drivetrain
- Responsible for 2 robot designs, testing, construction, and troubleshooting
- Programming/debugging using C/C++

**Skills:** Mechanical Design, Solidworks, Robotics Engineering, 3D Printing, C++

### Custom Macro Keypad

May 2022 – May 2023

Personal Project

- 6-key keypad designed using Solidworks, Arduino Pro Micro, custom PCB
- A YouTube streamer uses it daily as a macro pad for better stream quality and ease of life
- Sold out in the span of 2 weeks
- Reprogrammable to any desired key using the Arduino IDE

**Skills:** Solidworks, Embedded Systems, PCB Design, 3D Printing, Arduino, C++

### Team Founder & Mechanical/Design Lead

June 2019 – May 2022, Taiwan

VEX Robotics Varsity in KCIS (High School)

- Won the National Champion of Taiwan for two years
- Led the varsity team to win awards in various national and international competitions
- Successfully promoted VEX as one of the most popular clubs in the school
- Founded a VEX Discord group and answered members' questions.
- Continued to mentor newcomers after graduation

**Skills:** Leadership, Mentoring, Mechanical Design, Solidworks, Robotics Engineering, C++

## SKILLS

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- 3D Mechanical Computer-Aided Design: Solidworks, Fusion, OpenSCAD
- Mechanical Technologies/Construction: Working knowledge with machinery and hand tools
- Programming languages (C/C++, Java, Python, Arduino, HTML & CSS)

## CERTIFICATIONS

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- Titans of CNC Titan 1-6M CAD Solidworks Certification
- Certified in Emergency First Response (P.A.D.I. 2022)