JING-TONG, TZENG

✉ roger37890426@gmail.com 📞(+886)978-472-577 🔗 sites.google.com/view/rogertzeng

EDUCATION

National Tsing Hua University, Hsinchu, Taiwan *Sep. 2017 - Jan.2022*
Bachelor of Power Mechanical Engineering (Minor in Electrical Engineering)
- Overall GPA:3.71/4.3
National Tsing Hua University, Hsinchu, Taiwan *Feb. 2022 - Present*
Master of College of Semiconductor Research

HONORS AND AWARDS

Formula SAE(Society of Automotive Engineers) Japan 2020 *Oct. 2018 - Sep. 2019*

- Awarded 9th place out of 97 teams(2nd place out of 27 Electric Vehicle teams)

Intelligent Automated Food Distribution using Robot Arm *Jul. 2020 - Feb. 2021*

- Awarded college student research fellowship by Ministry of Science and Technology (MOST) for excellence of the proposal

RESEARCH PROJECT

Behavioral Informatics & **InteractionComputation Lab.** **National Tsing Hua University, Taiwan**

Advisor: Prof. Lee, Chi-Chun

Topic: Respiratory Sound Classification *Feb. 2022 - Present*

- Classified respiratory sound for Normal, Wheeze, Coarse using deep learning.

- Maintained the respiratory sound file collecting website cooperating with National Taiwan University Hospital (NTUH) by using Django.

Vibrations, Mechatronics & **Robotics Lab.** **National Tsing Hua University, Taiwan**

Advisor: Prof. Chang, Jen-Yuan

Topic: Development of Dexterous, Perceptive Dual-Hand Bionic Robot for AI-Chip Enabled Human Skills Transfer
Team Member *Mar. 2021 - Jul. 2021*

- Developed an automation hanger production line for Aerospace Industrial Development Corporation (AIDC).

- Designed the automation system consisting of designing grippers and controlling UR10 collaborative robot arm to optimize the cycle time.

Topic: Intelligent Automated Food Distribution using Robot Arm
Team Leader *Jul. 2020 - Feb. 2021*

- Developed a 5 degrees of freedom SCARA-type robotic arm consisting of 2 microcontrollers, 2 cameras, 3 DC motors and 2 servo motors for food preparation.

- Implemented PID controllers, inverse kinematics, and trajectory planning to control the manipulator reaching the accurate position (error $\leq$10 mm) smoothly.

EXTRACURRICULAR ACTIVITIES

NTHU Racing **Taiwan/Japan**
Aerodynamics Team Member *Oct. 2018 - Act. 2021*

- Designed Front Wing to improve the dynamic performance of the car by increasing the total down force and reach the aerodynamic balance.

- Designed mounting parts of Rear Wing by using Topology Optimization and decrease 22% of weight.

- Analyzed the feasibility of self-manufacturing of different carbon fiber manufacturing processes to improve the strength of workpieces and lighten the vehicle weight.