YUAN-HUNG LO

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EDUCATION

University of California, Los Angeles — Los Angeles, CA
M.S. in Mechanical Engineering — Sept. 2023 - Jun. 2025(exp)

- Design, Robotics, and Manufacturing Program
- Selected coursework: Kinematics of Robotics, Flexible Structure and Soft Robots

National Tsing Hua University — Hsinchu, Taiwan
B.S. in Power Mechanical Engineering — Sept. 2019 - Jan. 2023

- Overall GPA: 3.78, Last 60 credits: 4.0
- Outstanding Academic Achievement award *2
- Selected coursework: Control System, Design and Implementation of Robot, Introduction to Artificial Intelligence, Introduction to Programming in Python, Mechanical Design

RESEARCH EXPERIENCE

Development of Automatic Malabar Chestnuts Braiding Machine — Undergraduate Research
Advisor: Prof. Rong-Shun Chen — Feb. 2022 - Dec. 2022

- Lead the hardware design and coordination of this project.
- Designed a epicyclic mechanism that braids 5 strand plants with a single motor, doubling efficiency.
- Designed a transmission system that simplifies complex motion to single DOF, enhancing system rigidity.
- Utilized a system of sensors and a feedback control loop to reach finer braiding results.
- Ranked first in project presentation.

Underactuated Pneumatic Anthropomorphic Robotic Finger — Undergraduate Research
Advisor: Prof. Jen-Yuan Chang — Sept. 2022 - Apr. 2023

- Utilized simulation software to monitor the complex dynamic characteristics of an underactuated finger.
- Constructed a mathematical dynamic model to evaluate and optimize design parameters.
- Completed part of a research paper and proposal.

PROJECT EXPERIENCE

Bend-free Toenail Clipper — Mar. 2022 - Jun. 2022

- Built a device that allow seniors or pregnant women to easily clip their toenails without bending over.
- Designed a mechanism with multiple joints and hinges that allows distanced clipper control.
- Proposed a complete commercial plan and market analysis.
- Ranked first in project contest and presentation.

Sand Drawing Robot — Mar. 2022 - Jun. 2022

- Created programs that process coordination data into motor movements that draws shape and letters.
- Built a algorithm that fine tune motor speed, increasing synchronization to allow better image quality.
- Ranked first in course final project presentation and competition.

Spring Making Machine & Pull-back Car — Mar. 2021 - Jun. 2021

- Designed a mechanism that automatically shape metal sheets into torsion springs with connection points.
- Designed and built a 3D printed pull-back car powered by the torsion spring.
- Ranked first in course project competition.

SKILLS

- **Programming Languages**: Python, C, Matlab, Arduino
- **Computer Aided Design/Engineering**: Inventor, AutoCAD, MSC Adams, Keyshot
- **Technical Skills**: 3D Printing, Laser Cutting, CNC Machining