

YIDE LIU

Tsinghua University, Beijing, China

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[\[Homepage\]](#) [\[Google Scholar\]](#) [\[ResearchGate\]](#) [\[YouTube Channel\]](#)

EMPLOYMENT HISTORY

Postdoctoral

September 2023 - now

- Advisor: Prof. [Xin-Jun Liu](#)

EDUCATION

Ph.D., Zhejiang University in Mechanics

September 2018 - July 2023

- Thesis title: Structure design and bionic control of micro robots and assembly system
- Advisor: Prof. [Shaoxing Qu](#)

B.Eng., Harbin Institute of Technology in Mechatronics

September 2014 - July 2018

- GPA: 3.44/4, Rank: #2, Honors School - *150 selected from over 4200 students*
- Advisor: Prof. [Jihong Yan](#)

AWARDS, SCHOLARSHIPS, AND RECOGNITIONS

RSS Pioneers

July 2023

- One of the 30 top graduate students selected to participate in the RSS Pioneers Workshop (22% acceptance rate)
- Robotics: Science and Systems Conference

Zengqi Lu Outstanding Ph.D. students award

September 2021

- One of the 10 top graduate students
- State Key Laboratory of Fluid Power and Mechatronic Systems, Zhejiang University

Excellent thesis

July 2018

- One of the 100 students selected from over 4200 students
- Harbin institute of Technology

RESEARCH INTERESTS AND SKILLS

Interests: Robotic Insects / Multi-robot Systems / Central Pattern Generator / Small Parallel Robots

Skills: Solidworks, Adams, Abaqus, Python, Matlab, Mathematica, L^AT_EX

PUBLICATIONS

(# for co-first author, * for corresponding author)

[Yide Liu](#), Bo Feng, Tianlun Cheng, Yanhong Chen, Xiyang Liu, Jiahang Zhang, Shaoxing Qu, and Wei Yang. (2023). Singularity Analysis and Solutions for the Origami Transmission Mechanism of Fast-Moving Untethered Insect-scale Robot. *IEEE Transactions on Robotics*.

[Yide Liu](#), Yanhong Chen, Bo Feng, Dongqi Wang, Taishan Liu, Haofei Zhou, Hua Li, Shaoxing Qu, and Wei Yang. (2022) S²worm: A Fast-moving Untethered Insect-scale Robot with 2-DoF Transmission Mechanism. *IEEE Robotics and Automation Letters*, 7(3), 6758-6765.

Yanhong Chen #, [Yide Liu](#)#, Taishan Liu, Hua Li, Shaoxing Qu, and Wei Yang. (2022). Design and analysis of an untethered micro flapping robot which can glide on the water. *SCIENCE CHINA Technological Sciences*, 65(8), 1749-1759.

Yide Liu, Donghao Zhao, Yanhong Chen, Dongqi Wang, Zhou Wen, Ziyi Ye, Jianhui Guo, Haofei Zhou, Shaoxing Qu, and Wei Yang. BioARS: Designing Adaptive and Reconfigurable Bionic Assembly Robotic System with Inchworm Modules. (2020). In *2020 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)* (pp. 11681-11687). IEEE.

Yide Liu, Binhong Liu, Tenghao Yin, Yuhai Xiang, Haofei Zhou, Shaoxing Qu. (2019). Bistable rotating mechanism based on dielectric elastomer actuator. *Smart Materials and Structures*, 29(1), 015008.

Donghao Zhao, Yide Liu, Binhong Liu, Zhe Chen, Guodong Nian, Shaoxing Qu, and Wei Yang. (2021). 3D printing method for tough multifunctional particle-based double-network hydrogels. *ACS Applied Materials and Interfaces*, 13(11), 13714-13723.

Xiaocheng Hu, Yimou Fu, Yide Liu, Binhong Liu, and Shaoxing Qu. (2021). Acarid Suction Cup-Inspired Rapid and Tunable Magnetic Adhesion. *Advanced Materials Technologies*, 6(8), 2100004.

Yimou Fu, Xiaocheng Hu, Yide Liu, Peng Wang, Shuo Chen, Haofei Zhou, Honghui Yu, Shaoxing Qu, and Wei Yang. (2022). Impact-induced bubble interactions and coalescence in soft materials. *International Journal of Solids and Structures*, 238, 111387.

ACADEMIC SERVICES

- Reviewer for **IEEE T-RO** **IEEE RA-L**

WORK EXPERIENCE

DJI Technology Co., Ltd.

July 2017

- Leader of the mechanical design internship group - *the group consists of 100 interns selected from over 1000 students*
- **2017** Third Place of the DJI international internship robot competition