The Robot Dexterity Lab (DexLab) at Duke University, led by Dr.Xianyi Cheng, has multiple PhD positions starting Fall 2025.

Our Research

The research goal of the DexLab is human-level dexterity in robotic manipulation. In the DexLab, we believe that dexterity is a crucial manipulation capability that all robots will have in the future. Dexterity is not just manipulation with complex, high-DoF hands; it is the motion intelligence with vast complexity that still awaits more understanding. Our research focuses on robotic manipulation and dexterity, and the topics include but are not limited to:

- Dexterous skills generalizable across tasks and embodiments
- Robustness in manipulation
- Contact interactions and compliance in robotic manipulation
- Uncovering new forms of robot dexterity, like whole-body, tool-use, and collaborative dexterity

About the PI

Xianyi Cheng (https://xianyicheng.github.io/) is an incoming Assistant Professor (starting Dec 2024) at Duke University in the Mechanical Engineering and Material Science Department. She received her P.h.D in Mechanical Engineering and M.S. in Robotics from Carnegie Mellon University, advised by Professor Matthew T. Mason.

How to Apply

Please apply to the Duke Mechanical Engineering and Material Science PhD program (https://mems.duke.edu/admissions/phd/#apply) and select me as the faculty you wish to study with. The application deadline is 12/12/2024. After you apply, you are welcome to email me at xianyi.cheng@duke.edu and include your CV, research interests, application number, and the keyword "prospective student 2025". While I may not be able to respond to individual emails, I will review all applications.