

WEIHENG WANG

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🎓 EDUCATION

Karlsruhe Institute of Technology, Karlsruhe 2024 – Present

Master's Candidate in Mechatronics Engineering, Expected graduation: August 2025

Zhejiang University, Hangzhou 2018 – 2022

Bachelor's Degree in Control Science and Engineering

👥 INTERNSHIP/PROJECT EXPERIENCE

Robotics Practice, Karlsruhe April 2024 – July 2024

Course Project Laboratory: H2T / Supervisor: Tamim Asfour

Basic experiments on humanoid robots using the ArmarX platform

- Point cloud segmentation and scene understanding
- Robot situational memory system
- Modeling and inverse kinematics of humanoid robots
- Motion planning and grasp planning
- Teach programming
- ArmarX robot development framework

Humanoid Robots –Locomotion and whole-body control, Karlsruhe April 2024 – Present

Course Project Supervisor: Katja Mombaur

Generating legged robot gait using Reinforcement Learning and MPC methods

- Training gait generation using Reinforcement Learning with Isaac Gym
- Training gait generation using MPC algorithms with Gazebo
- Evaluating gait generation performance using Benchmark

Zhejiang University Huzhou Institute, Huzhou July 2022 – September 2022

Research Assistant Laboratory: FastLab / PI: Yanjun Cao

MPC control of unmanned vehicle platform

- Testing the performance of unmanned vehicles
- Improving the path tracking capability of unmanned vehicles

Human-Robot Collaboration Tea Ceremony Robot Based on Gesture Recognition, Hangzhou

September 2021 – July 2022

Graduation Project Supervisor: Yiping Feng

Human-Robot Collaboration Tea Ceremony Robot Based on Gesture Recognition

- Using Google machine learning model framework MediaPipe
- Proficient in using the collaborative robot platform UR3e
- Mastering basic processing methods of point clouds and camera calibration
- Implementing gesture-controlled robotic arm to complete designated tea ceremony actions

⚙️ ENGINEERING SKILLS

- Programming: Python & C++ & MATLAB
- Simulation Platforms: ROS & Gazebo & ArmarX & Isaac Gym
- Development: MediaPipe, Google Machine Learning Model Application Framework