

TAN YONG ZHUO

CONTACT

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🐙 <https://dragon2948.github.io/>

EDUCATION

Singapore Institute of Technology
Bachelor of Engineering in
Robotics Systems

Sep 2024 - Current

Nanyang Polytechnic
Diploma in Digital & Precision
Engineering

Apr 2019 - Mar 2022

ITE Collage East
Mechanical Engineering

Jan 2017 - Mar 2019

PROFILE

Passionate Robotics Systems Engineering student with hands-on experience in autonomous navigation, sensor integration, and real-time control using ROS 1. Skilled in building and deploying SLAM and path planning solutions on embedded robotic platforms like Agilex LIMO. Strong understanding of robotics middleware, simulation, and system-level design. Enthusiastic about contributing to open-source robotics and developing real-world autonomous systems.

TECHNICAL SKILLS

Programming Languages:

- Python, C/C++, Bash/shell

Robotics Frameworks

- ROS 1, Gazebo

Hardware Platforms:

- Agilex LIMO, Lidar Systems, Camera Systems

Development Tools:

- Git/GitHub, CMake, Catkin, Ubuntu
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PROJECTS

Multi-Sensor SLAM using RTAB-Map

- Integrated RGB-D camera and Lidar data in ROS for mapping and localization
- Tuned RTAB-Map and AMCL for real-world navigation accuracy on Agilex LIMO

Autonomous Navigation with ROS 1 and Agilex LIMO

- Configured move_base with AMCL, DWA Planner, and custom costmaps for indoor navigation
 - Tuned velocity and recovery parameters for smooth obstacle avoidance and path tracking
 - Successfully navigated through mapped environments using localization in the map frame
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