

# Must-read before use - learning route

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The tutorial of microROS balance car is divided into four parts, one is the installation and configuration of the robot course, the second is the practical course, the third is the theoretical course, and the fourth is the STM32 control board course.

First install and configure the microROS balance car according to the first part, and then proceed to the second part of the practical course to make the car run and run through all the cases, and then go to the third part of the theoretical course.

The fourth part of the course is the STM32 control board course, including the basic gameplay of the expansion board and the gameplay of the STM32 balance car. Burning the firmware of the STM32 balance car will clear the factory firmware program of the STM32 control board, so this part of the course is studied last. If you need to reuse the previous course content, please burn the factory firmware to the STM32 control board according to the [Preparation before development] -> [Burn the factory firmware] tutorial before using it.

## 1. Install and configure the robot course

This part of the course includes:

- Assembly tutorial
- Preparation before development

This part of the course is a necessary course. Please follow the process to install and configure the robot.

## 2. Practical courses

This part of the course includes:

- Quick start control
- Robot control
- Image transmission module visual gameplay
- LiDAR gameplay
- Multi-machine function gameplay

Before this part of the course, you need to read all the contents of [Preparation before development] to run normally.

## 3. Theoretical courses

This part of the course includes:

- Linux operating system
- Docker development environment
- ROS2 basic course

This part of the course is a theoretical course, and you can choose to study according to your needs.

## 4. STM32 control board course

This part of the course includes:

- STM32 control board development environment construction
- STM32 control board entry basic routine
- STM32 balance car balance theory routine
- STM32 balance car gameplay routine

This part of the course is an extended course, and you can choose to study it according to your needs.