

Introduction to 4WD Smart Car

1. About 4WD Smart Car

The 4WD Smart Car, as an open-source intelligent robot product, comes in two versions:

Mecanum wheel and Ordinary wheel. It is specially designed for enthusiasts and students in the fields of artificial intelligence and robotics. It is also an open-source robot development platform based on the Raspberry Pi, with many features:

- **Easy Assembly:** It adopts a modular structure design and is equipped with an open hardware list and detailed assembly tutorials, allowing for easy completion of assembly.
- **Easy Learning:** It provides complete and detailed development tutorials on algorithms and applications, along with sample code for assistance, facilitating learning.
- **Rich in Functions:** It not only features core functions such as automatic obstacle avoidance, color recognition, moving object detection, video line tracking, 3-channel line tracking, light tracking, and web-based remote control, but also is equipped with a matrix screen and an OLED screen for real-time display of status information.
- **Robust Structure:** It adopts an acrylic structure, which is strong and durable and can adapt to various usage scenarios.
- **Highly Extensible:** Its structure is extensible and supports do - it - yourself (DIY) by users, meeting personalized needs.
- **Convenient Remote Control:** It can be remotely controlled via mobile phones, tablets, computers, on Windows, Linux, and Mac OS systems, using the Google Chrome browser.

- **Compatible with Multiple Versions:** It supports different versions of the Raspberry Pi, such as Raspberry Pi 3B, Raspberry Pi 3B+, Raspberry Pi 4, and Raspberry Pi 5.
- **Programming Support:** It supports the Python language, making it convenient for developers to write programs and expand functions.

2. Safety and Precautions

Please follow the following safety precautions when using or storing this product:

- Keep this product out of the reach of children under 6 years old.
- This product should be used only when there is adult supervision present as young children lack necessary judgment regarding safety and the consequences of product misuse.
- This product contains small parts and parts, which are sharp. This product contains electrically conductive parts. Use caution with electrically conductive parts near or around power supplies, batteries and powered (live) circuits.
- When the product is turned ON, activated or tested, some parts will move or rotate. To avoid injuries to hands and fingers, keep them away from any moving parts!
- It is possible that an improperly connected or shorted circuit may cause overheating. Should this happen, immediately disconnect the power supply or remove the batteries and do not touch anything until it cools down! When everything is safe and cool, review the product tutorial to identify the cause.

- Only operate the product in accordance with the instructions and guidelines of this tutorial, otherwise parts may be damaged or you could be injured.
- Store the product in a cool dry place and avoid exposing the product to direct sunlight.
- After use, always turn the power OFF and remove or unplug the batteries before storing.

3. About The Tutorials

This documentation is for software installation and operation guide for the Python robot product. It describes every detail of the whole process of fulfilling the robot project by Python and Raspberry Pi from scratch as well as some precautions. Hope you can get started with the Raspberry Pi robot on Python and make more creations with this documentation.

4. Resources Links

[RobotName]: [Aadept 4WD Smart Car](#)

[Item Code]: [ADR036](#)

[Official Raspberry Pi website]: <https://www.raspberrypi.org/downloads/>

[Official website]: <https://www.aadept.com/>

[GitHub]: [https://github.com/aadept/Aadept 4WD Smart Car for RPi](https://github.com/aadept/Aadept-4WD-Smart-Car-for-RPi)

5. Getting Support or Providing Advice

Aadept provides free and responsive product and technical support, including but not limited to:

- Product quality issues
- Product use and build issues

- Questions regarding the technology employed in our products for learning and education
- Your input and opinions are always welcome

We also encourage your ideas and suggestions for new products and product improvements

For any of the above, you may send us an email to:

Technical support: support@adeept.com

Customer Service: service@adeept.com

6. About Adeept

Adeept was founded in 2015 and is a company dedicated to open source hardware and STEM education services. The Adeept technical team continuously develops new technologies, uses excellent products as technology and service carriers, and provides comprehensive tutorials and after-sales technical support to help users combine learning with entertainment. The main products include various learning kits and robots for Arduino, Raspberry Pi, ESP32 and BBC micro:bit.

Adeept is committed to assist customers in their education of robotics, programming and electronic circuits so that they may transform their creative ideas into prototypes and new and innovative products. To this end, our services include but are not limited to:

- Educational and Entertaining Project Kits for Robots, Smart Cars and Drones
- Educational Kits to Learn Robotic Software Systems for Arduino, Raspberry Pi and micro: bit
- Electronic Component Assortments, Electronic Modules and Specialized Tools
- Product Development and Customization Services

7. Copyright

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