

GoolRC 6401-C

GoolRC WLtoys 6401-C Mini RC Car User Manual

Model: WLtoys 6401-C

Brand: GoolRC

1. INTRODUCTION

This manual provides essential instructions for the safe operation, setup, and maintenance of your GoolRC WLtoys 6401-C Mini RC Car. Please read this manual thoroughly before using the product to ensure proper function and to prevent damage.

The WLtoys 6401-C is a 1:64 scale FPV (First Person View) remote control car equipped with a 720P camera, offering both remote control and smartphone app control options. It features LED lights and adjustable speed for various driving experiences.

2. PACKAGE CONTENTS

Verify that all items listed below are included in your package:

- 1 x WLtoys 6401-C Mini RC Car
- 1 x Remote Controller
- 1 x Phone Holder (for remote controller)
- 1 x USB Charging Cable
- 1 x User Manual (this document)
- 1 x Storage Bag



Figure 2.1: Package Contents. The image displays the GoolRC WLtoys 6401-C Mini RC Car, its remote controller with an attached phone holder, a USB charging cable, and a storage bag.

3. PRODUCT OVERVIEW

The WLtoys 6401-C is designed for compact and versatile operation. Key features include:

- **Compact Size:** Ideal for indoor use and navigating tight spaces.
- **Detachable Magnetic Camera:** Easy to install and remove, providing 720P HD video recording with a 120° wide-angle view and stabilization.
- **Dual Control Modes:** Operate using the included 2.4GHz remote controller or via a smartphone application with real-time WiFi transmission.
- **Adjustable Speed:** Speed settings from 1.7 Km/h to 3 Km/h for precise control or dynamic action.
- **LED Lights:** Enhances visibility and provides an immersive experience, especially in low-light conditions.



Compact size

Suitable for shuttle in indoor space (such as desktop, floor, furniture gap), easy to complete turning, U-turn and other actions.

Adapts to various terrains

Despite its small size, the 6401 is equipped with good tires and suspension to drive smoothly on a variety of indoor surfaces such as carpets, wood floors, and tiles.

Camera function adds fun

The magnetic camera can transmit the picture in real time, and the user can control the vehicle through the first perspective, explore the bottom of the furniture, corners and other places that are usually difficult to observe, and increase the fun of exploration.

Highly interactive

Suitable for multiple people to play together, you can set up obstacle courses or speed races, cameras can also record the race process, enhance the interactive experience.

Creative gameplay

Combined with the camera function, users can use it to shoot creative videos or photos, such as simulating movie scenes or making mini-films.

Figure 3.1: Compact Design. The image illustrates the small scale of the RC car, held easily in a hand, emphasizing its portability and suitability for various indoor environments.

High Performance Camera



SELF-STABILIZING
FUNCTION



APP CONTROL



TRANSMISSION
WITHOUT DELAY



WIFI HD IMAGE
TRANSMISSION



Figure 3.2: High Performance Camera. This image highlights the camera unit mounted on the RC car, indicating its self-stabilizing function, APP control capability, and WiFi HD image transmission without delay.



Figure 3.3: Camera Specifications. The image details the camera's features, including a 120° wide-angle lens, 720P resolution, 2.4G single antenna for WiFi, and recording formats (1920x1080 @25FPS MP4 H264 encoding, 1920x1080 JPG format).

4. SETUP

4.1. Remote Controller Battery Installation

The remote controller requires 4 AAA batteries (not included).

1. Locate the battery compartment on the back of the remote controller.
2. Open the battery compartment cover.
3. Insert 4 AAA batteries, ensuring correct polarity (+/-).
4. Close the battery compartment cover securely.

4.2. Charging the RC Car Battery

The RC car has a built-in 3.7V 20C 100mAh battery.

1. Connect the USB charging cable to the charging port on the RC car.
2. Connect the other end of the USB cable to a standard USB power source (e.g., computer USB port, USB wall adapter).

3. The charging indicator will show the charging status. A full charge takes approximately 30 minutes.
4. Disconnect the charging cable once charging is complete.

Note: *Do not overcharge the battery.*

4.3. Attaching the Magnetic Camera

The camera unit attaches magnetically to the top of the RC car.

1. Align the camera unit with the designated magnetic area on the roof of the RC car.
2. The camera will snap into place securely due to the magnetic connection.
3. Ensure the camera is firmly attached before operation.

MAGNETIC CAMERA



Magnetic design - combined with non-slip material, ensure that the camera is stable and does not fall off, while being able to withstand a certain amount of vibration.

Through magnetic adsorption, there is no need for complex fixing, and it can be quickly installed or disassembled, saving time and effort.

Figure 4.1: Magnetic Camera. This image demonstrates the magnetic attachment mechanism of the camera unit to the RC car, highlighting its ease of installation and secure fit.

4.4. Smartphone App Installation (Optional)

For app control and FPV functionality, download the dedicated smartphone application.

1. Scan the QR code provided in the quick start guide (if available) or search for the "WLtoys FPV" app in your device's app store (iOS/Android).
2. Install the application on your smartphone.

5. OPERATION

5.1. Powering On and Pairing

1. Ensure the remote controller has fresh batteries and the RC car battery is charged.
2. Turn on the power switch on the RC car.
3. Turn on the power switch on the remote controller.
4. The remote controller and RC car will automatically pair. An indicator light on the remote will confirm successful pairing.

5.2. Remote Control Functions

Familiarize yourself with the remote controller layout:



Figure 5.1: Remote Control Layout. This diagram labels the key functions of the 2.4G remote controller, including Pilot Lamp, Steering Fine-tuning, Light Control Button, Turn Left and Right Switch, Gyroscope Fine-tuning, Speed Control Key, Cruise Control Button, and Power Switch. The remote control distance is up to 30 meters.

- **Steering Wheel:** Controls left and right steering.
- **Trigger:** Pull to move forward, push to brake/reverse.
- **Steering Fine-tuning (2):** Adjusts steering trim to ensure the car drives straight.
- **Speed Control Key (6):** Adjusts the car's speed (1.7-3 Km/h).
- **Light Control Button (3):** Toggles the LED lights.

- **Gyroscope Fine-tuning (5):** Adjusts gyroscope settings for stability.
- **Cruise Control Button (7):** Activates/deactivates cruise control.
- **Power Switch (8):** Turns the remote controller on/off.

5.3. App Control and FPV Functionality

1. Ensure the RC car is powered on.
2. On your smartphone, enable Wi-Fi and connect to the Wi-Fi network broadcast by the RC car (usually named "WLtoys_FPV_XXXX").
3. Open the installed WLtoys FPV application.
4. Within the app, you will see the real-time video feed from the car's camera.
5. Use the on-screen controls in the app to drive the car, adjust speed, steer, and control camera functions (recording, photos).



Figure 5.2: App Control. This image shows a smartphone displaying the FPV app interface, demonstrating how users can control the RC car's movement, view real-time camera footage, and adjust settings via a Wi-Fi connection.

5.4. Speed Adjustment

The car's speed can be adjusted between 1.7 Km/h (low gear) and 3 Km/h (high gear) using the Speed Control Key on the remote or through the app.

- **Low Speed:** Recommended for precise control, especially in complex indoor environments or for stable video recording.
- **High Speed:** Suitable for dynamic action shots and faster driving.

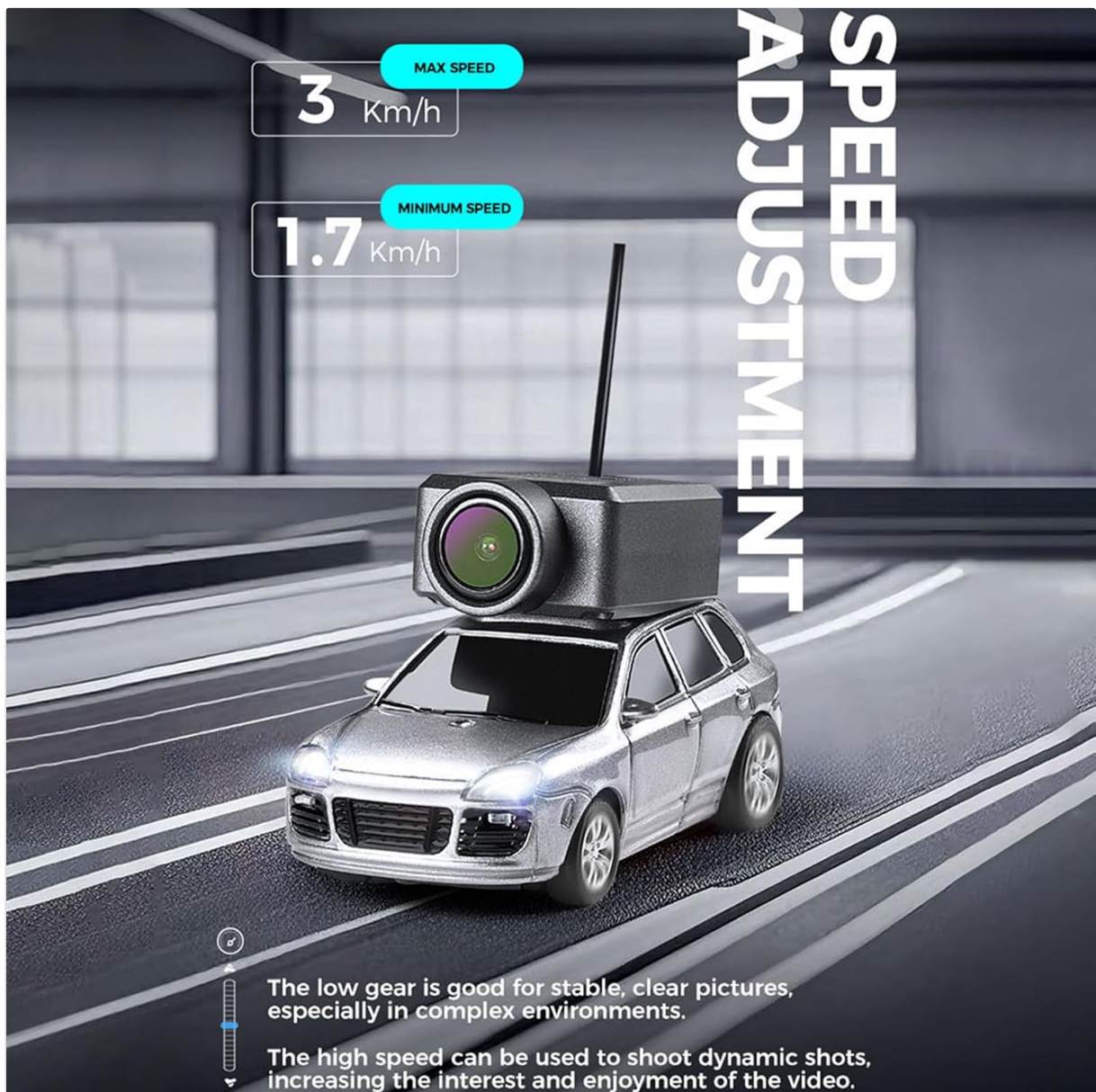


Figure 5.3: Speed Adjustment. The image illustrates the adjustable speed settings for the RC car, showing a minimum speed of 1.7 Km/h and a maximum speed of 3 Km/h. It notes that low gear is for stable pictures in complex environments, while high speed is for dynamic shots.

6. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the car and remote controller. Avoid using water or chemical cleaners.
- **Storage:** When not in use for extended periods, remove batteries from the remote controller and store the RC car and accessories in the provided storage bag in a cool, dry place.
- **Battery Care:** Do not leave the car battery fully discharged for long periods. Charge it periodically if not in use.

7. TROUBLESHOOTING

- **Car not responding:**

- Ensure both the car and remote controller are powered on.
- Check if the remote controller batteries are correctly installed and have sufficient power.
- Ensure the RC car battery is charged.
- Re-pair the remote controller and car if necessary (power cycle both devices).

- **Poor FPV video quality or connection issues:**

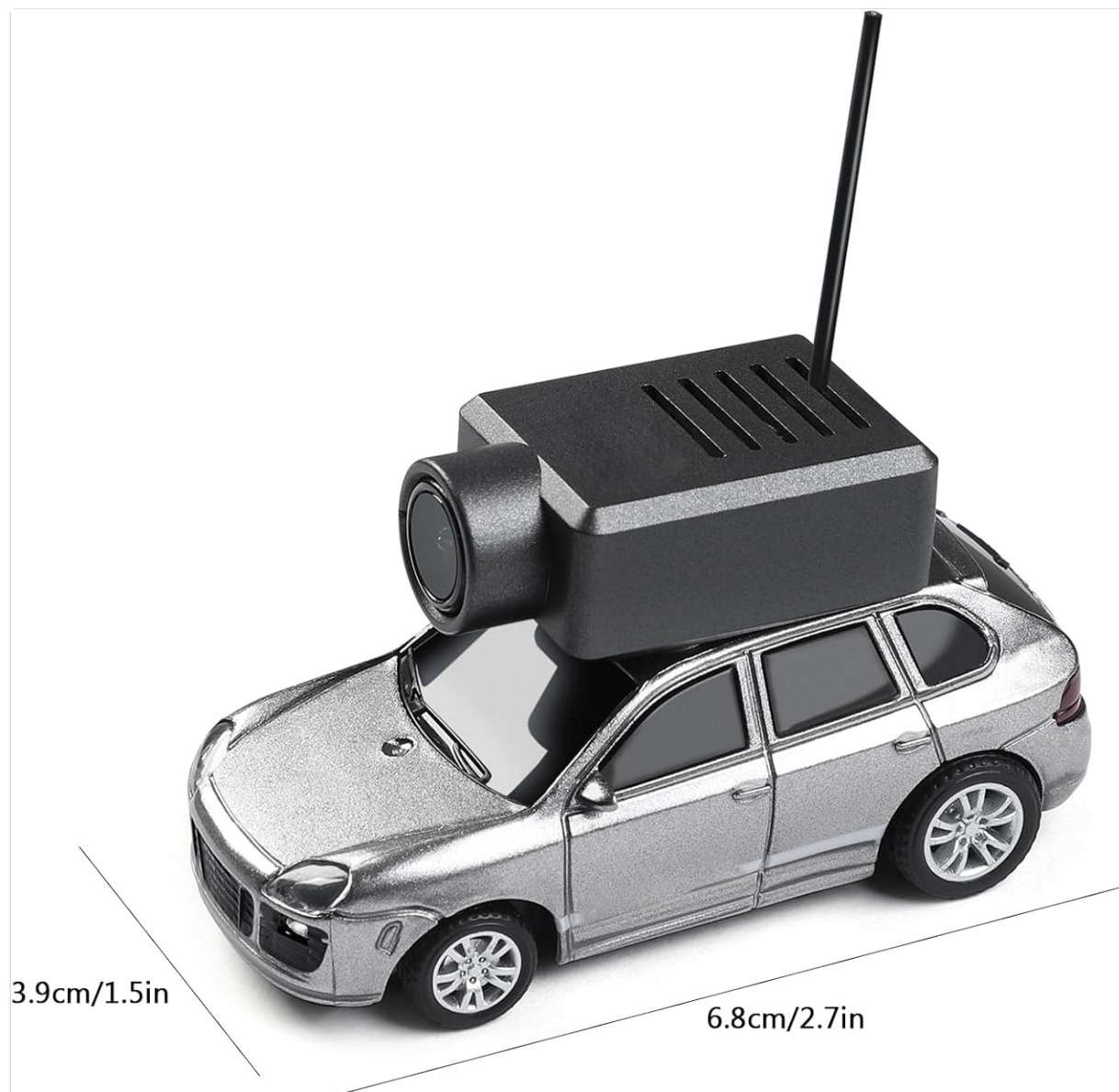
- Ensure your smartphone is connected to the car's Wi-Fi network.
- Reduce the distance between the car and your smartphone.
- Avoid areas with strong Wi-Fi interference.
- Check if the camera is securely attached.

- **Car not driving straight:**

- Use the Steering Fine-tuning knob on the remote controller to adjust the trim.

8. SPECIFICATIONS

Item Type	Remote Control Camera Car
Material	Plastic
Car Battery	3.7V 20C 100mAh (Built-In)
Charging Time	Approximately 30 Minutes
Usage Time	Approximately 15 Minutes
Remote Control Battery	4 x AAA batteries (Not included)
Remote Control Distance	Up to 30 meters (98.43 feet)
Product Size	6.8 x 3.2 x 3.9 cm (2.7 x 1.3 x 1.5 inches)
Camera Resolution	720P HD (1920x1080 @25FPS video, 1920x1080 JPG photo)
Camera Angle	120° Wide-Angle
Speed Range	1.7 - 3 Km/h
Recommended Age	16 years and up



Note:1. This product contains small parts, there is a suffocation hazard. Not suitable for children under 3 years old.
2. Do not put this product into water or fire sources (such as stoves, gas stoves, etc.) to avoid accidents.

Figure 8.1: Product Dimensions. The image shows the physical dimensions of the RC car, indicating a length of 6.8 cm (2.7 inches) and a height of 3.9 cm (1.5 inches).

9. SAFETY INFORMATION

- This product contains small parts and poses a choking hazard. It is not suitable for children under 3 years old.
- Do not expose this product to water or fire sources (such as stoves, gas stoves, etc.) to prevent accidents and damage.
- Ensure batteries are installed with correct polarity.
- Adult supervision is recommended for users under the age of 16.
- Operate the RC car in open areas, away from people, pets, and obstacles to avoid collisions.

10. WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the contact details provided with your purchase or visit the official GoolRC website. Keep your purchase receipt as proof of purchase.