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LEGO 42100

LEGO Technic Liebherr R 9800 Excavator 42100 Instruction Manual

Model: 42100 | Brand: LEGO

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1. INTRODUCTION

This manual provides comprehensive instructions for the assembly, setup, operation, and maintenance of your LEGO Technic Liebherr R 9800 Excavator (Model 42100). This advanced building kit offers a detailed replica of the Liebherr R 9800 Excavator, featuring sophisticated app-controlled functions and realistic mechanical movements. Please read this manual thoroughly before beginning assembly or operation to ensure proper use and to maximize your experience with this complex model.

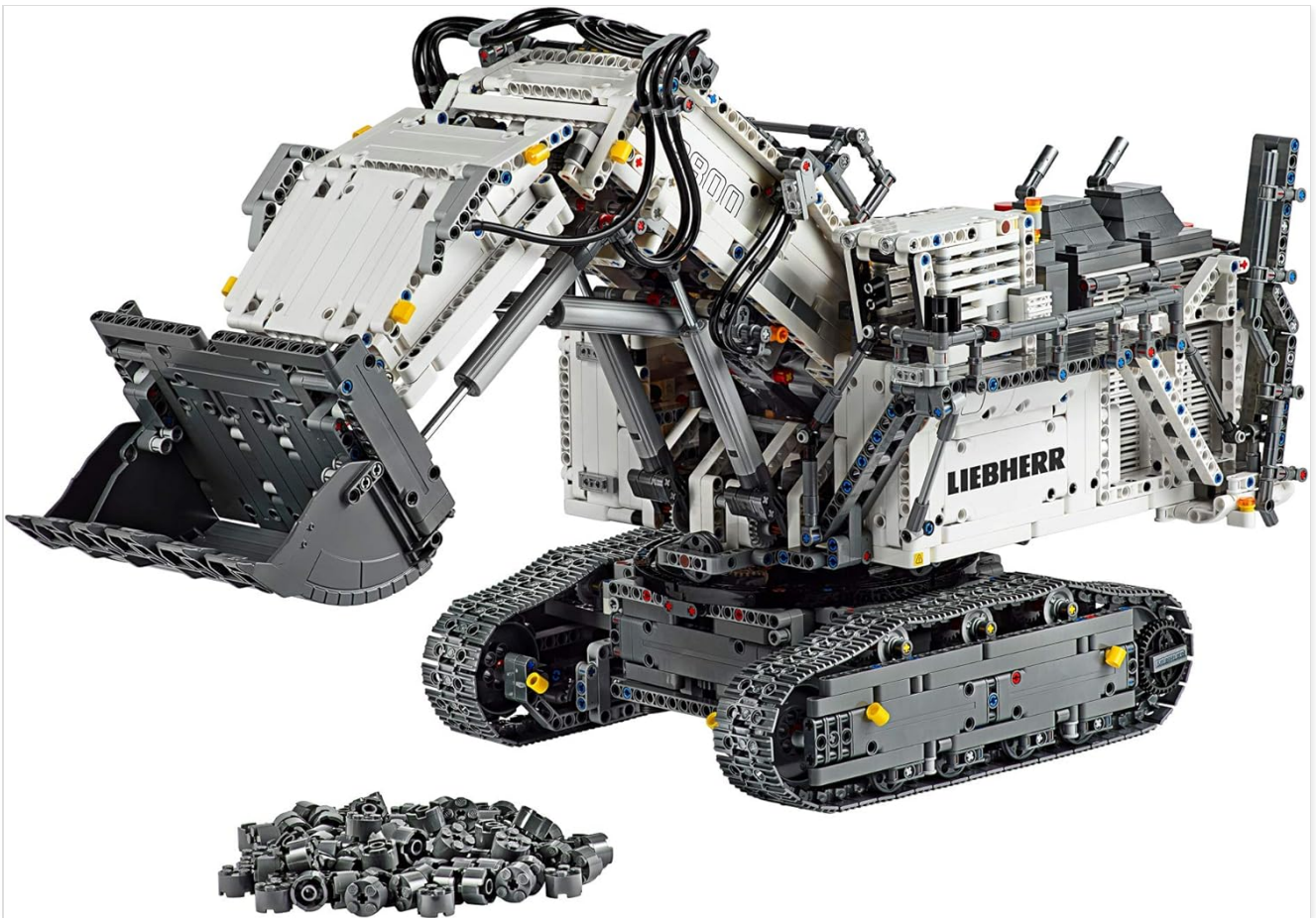


Figure 1.1: The fully assembled LEGO Technic Liebherr R 9800 Excavator model.

2. ASSEMBLY

The LEGO Technic Liebherr R 9800 Excavator kit consists of 4,108 pieces. Assembly is a multi-stage process that requires careful attention to detail. Refer to the dedicated instruction booklets provided in your kit for step-by-step visual guides. It is recommended to sort pieces by type and color before starting each section of the build.

2.1. Building Stages

The assembly is typically divided into several main stages, focusing on different sections of the excavator:

1. **Chassis and Track System:** This forms the base of the excavator, including the heavy-duty tracks and initial gearing for movement.
2. **Superstructure and Turntable:** Construction of the main body that houses the Smart Hubs and motors, allowing for 360-degree rotation.
3. **Boom and Bucket Mechanism:** Assembly of the complex arm and bucket, incorporating hydraulic-like elements and precise articulation.
4. **Detailing and Finishing:** Adding aesthetic elements, ladders, and other true-to-life details.

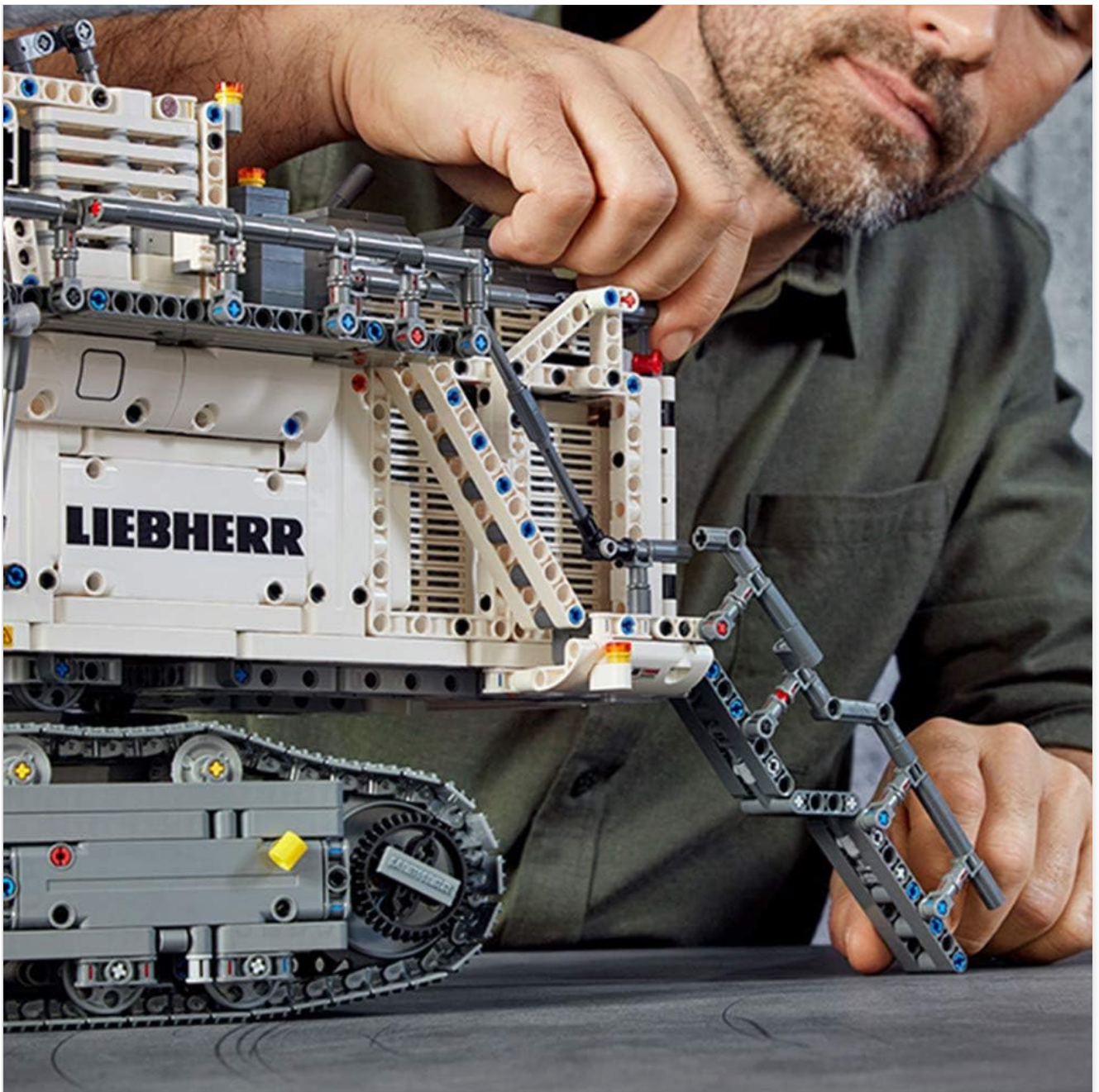


Figure 2.1: A builder carefully assembling a section of the excavator, demonstrating the intricate nature of the build.

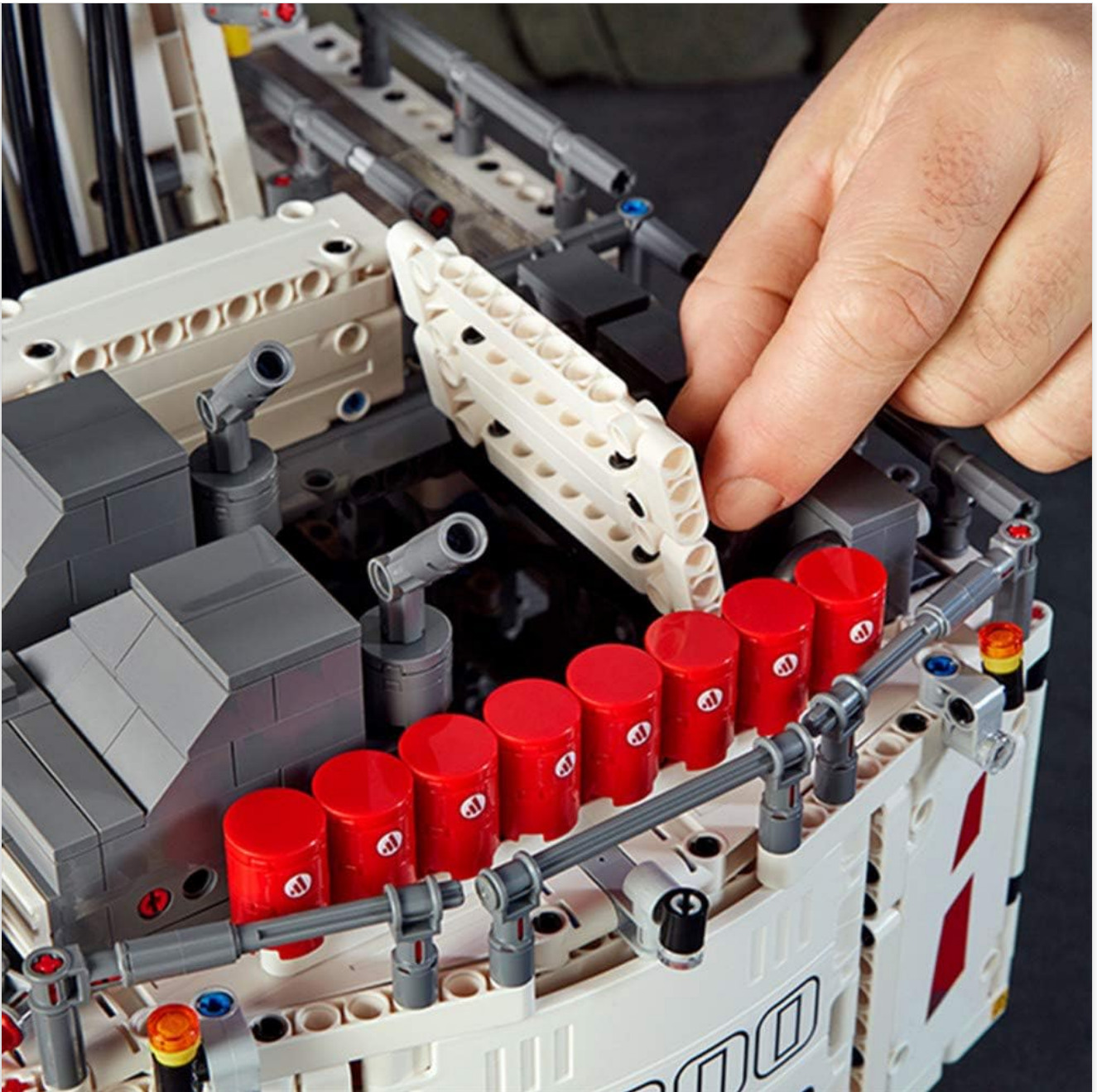


Figure 2.2: Close-up of a hand placing a small component, highlighting the precision required during assembly.

During assembly, it is crucial to ensure all connections are secure and gears are properly aligned to guarantee smooth operation of the model's functions.

3. SETUP

Before operating your Liebherr R 9800 Excavator, follow these steps to prepare the model and connect it to the CONTROL+ app.

3.1. Battery Installation

The model requires 12 AA batteries (6 per Smart Hub). Ensure you have fresh batteries for optimal performance.

1. Locate the battery compartments on the two Smart Hubs within the excavator's superstructure.
2. Open the battery covers.
3. Insert 6 AA batteries into each Smart Hub, observing the correct polarity (+/-) as indicated inside the compartment.
4. Securely close the battery covers.

3.2. App Installation and Connection

The LEGO Technic CONTROL+ app is essential for operating this model. It is available for download on compatible iOS and Android devices.

1. Download and install the "LEGO Technic CONTROL+" app from your device's app store.
2. Ensure Bluetooth is enabled on your smart device.
3. Turn on the excavator by pressing the power button on each Smart Hub. The indicator lights will begin to flash.
4. Open the CONTROL+ app and select the Liebherr R 9800 Excavator model.
5. The app will automatically search for and connect to the Smart Hubs. Follow any on-screen prompts for pairing.
6. Once connected, the indicator lights on the Smart Hubs will turn solid.

Note: For best performance, ensure your device's operating system and the CONTROL+ app are updated to the latest versions.

4. OPERATING INSTRUCTIONS

The LEGO Technic Liebherr R 9800 Excavator is controlled entirely through the intuitive CONTROL+ app, offering precise and realistic movements.

4.1. Control Screens Overview

The app features four distinct control screens, each designed for specific functionalities:

- **Multi-function Control Screen:** Provides comprehensive control over driving, superstructure rotation, boom extension, and bucket operation. Real-time feedback on boom position, power usage, and drive distance is displayed.
 - **One-touch Screen:** Allows for simplified control of the boom, arm, and bucket using drag patterns.
 - **Custom-built Movements Screen:** Enables users to program and record complex sequences of movements for automated operation.
 - **Challenges & Achievements Screen:** Offers interactive challenges to complete, unlocking reward badges and enhancing the play experience.
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Figure 4.1: A user operating the excavator using the CONTROL+ app on a smartphone, demonstrating the remote control capability.

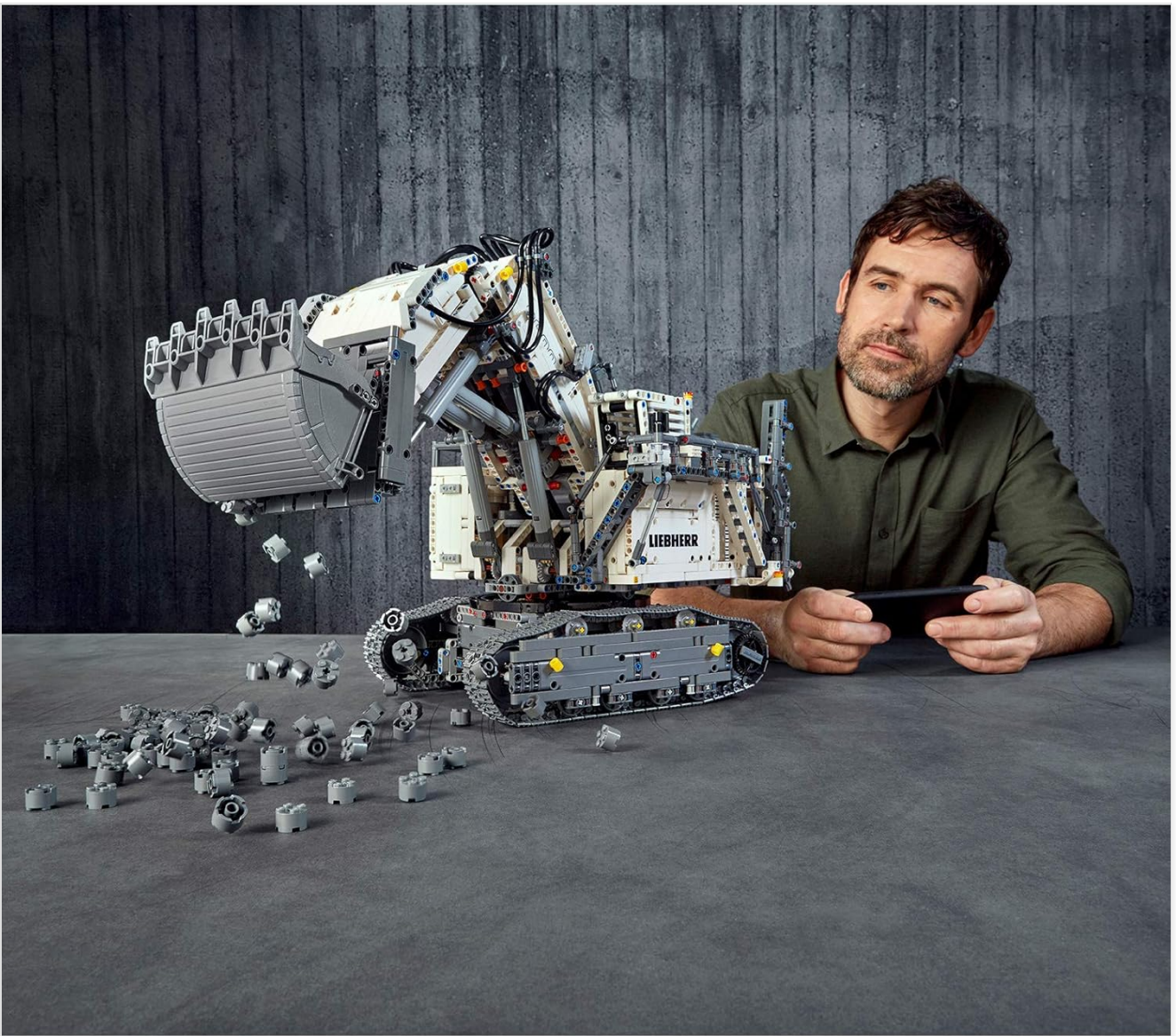


Figure 4.2: The excavator model performing a digging action, controlled via the app.

4.2. Basic Movements

Using the Multi-function control screen:

- **Driving:** Use the on-screen joysticks to move the excavator forwards, backwards, and to turn.
- **Superstructure Rotation:** Control the rotation of the main body to position the boom.
- **Boom and Bucket:** Independently control the extension, raising, lowering, opening, and tilting of the bucket.

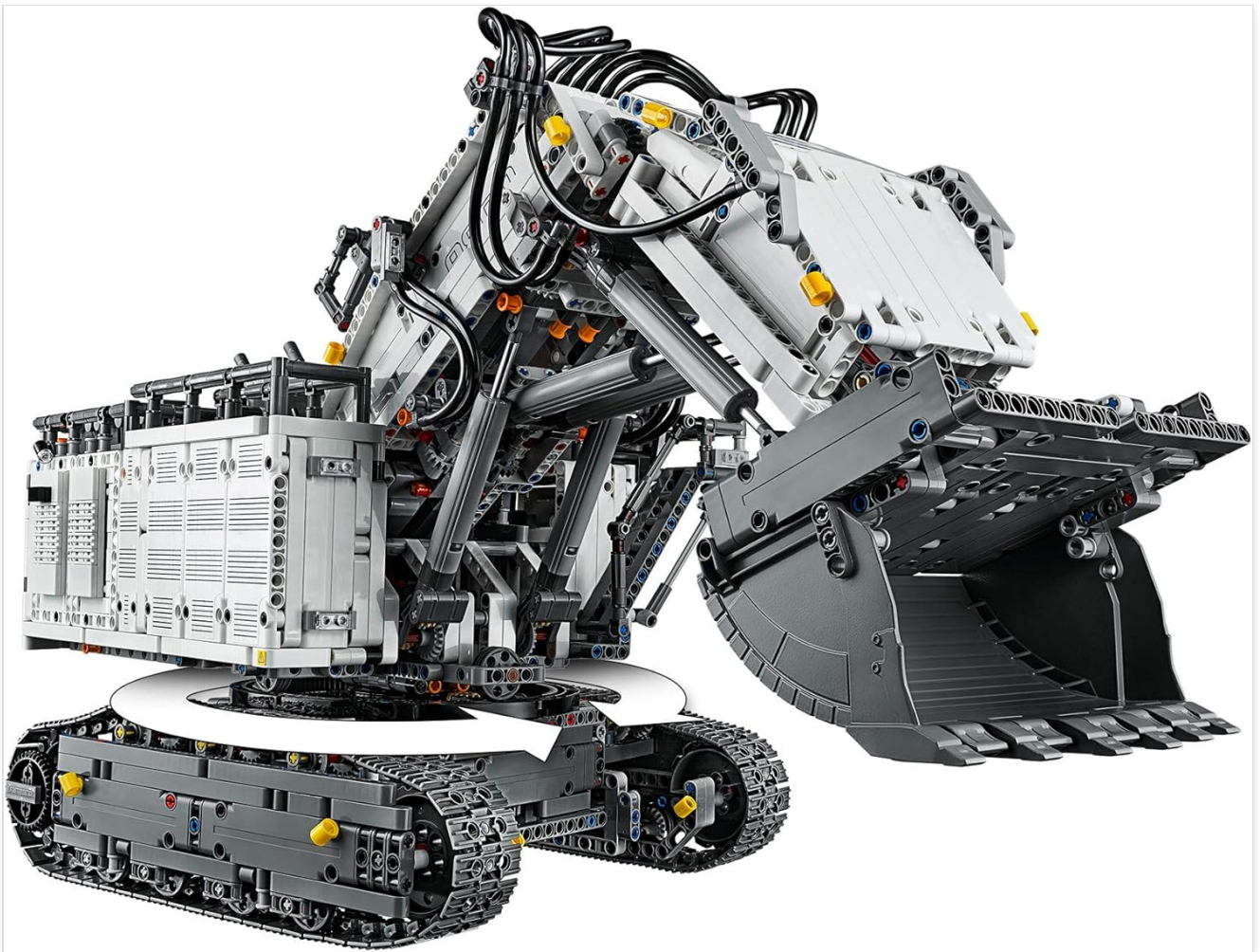


Figure 4.3: The excavator model illustrating its 360-degree rotation capability.

4.3. Official Product Video

Watch the official product video for a demonstration of the excavator's features and app control:

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Video 4.1: Official demonstration of the LEGO Technic Liebherr R 9800 Excavator's app-controlled functions and realistic movements.

5. KEY FEATURES

The LEGO Technic Liebherr R 9800 Excavator is engineered with several advanced features:

- **App-Controlled Operation:** Full control via the LEGO TECHNIC CONTROL+ app for precise movements.
- **Smart Hubs and Motors:** Powered by 2 advanced Smart Hubs and 7 motors for robust functionality.
- **Realistic Design:** Authentic color scheme and true-to-life detailing, including walkways and a driver's cabin.
- **Complex Gear Mechanisms:** Intricate internal gearing for realistic movement of the boom, bucket, and tracks.
- **Interactive Play:** Challenges and achievements within the app provide an engaging experience.

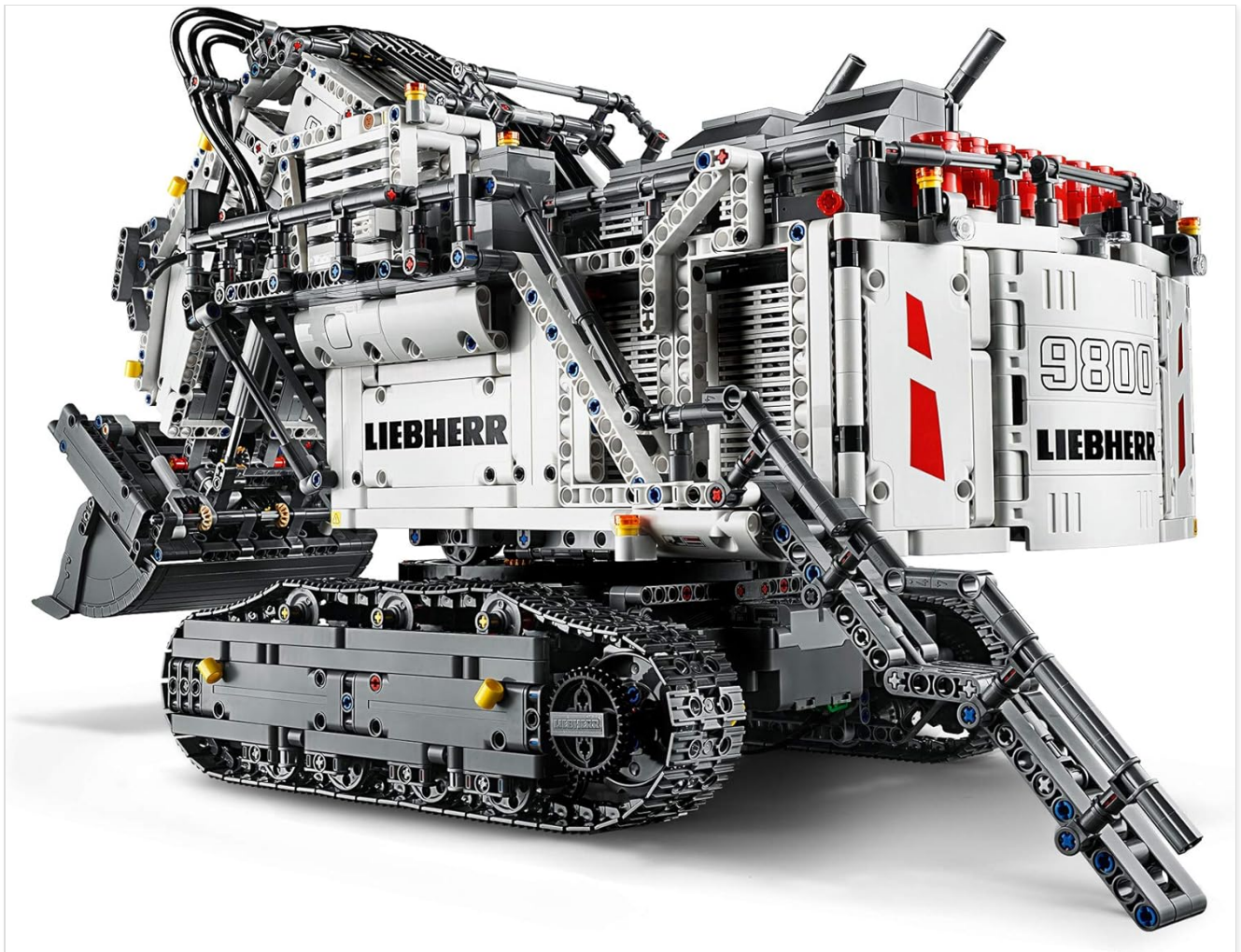


Figure 5.1: Side view of the excavator showcasing its detailed design and extended access ladder.

6. MAINTENANCE

Proper maintenance will ensure the longevity and optimal performance of your LEGO Technic Liebherr R 9800 Excavator.

6.1. Cleaning

- Use a soft, dry cloth to gently wipe down the model and remove dust.
- For stubborn dirt, a slightly damp cloth can be used, but ensure no water enters the electronic components (Smart Hubs, motors).
- Avoid using harsh chemicals or abrasive cleaners, as these can damage the plastic.

6.2. Storage

- Store the model in a cool, dry place away from direct sunlight to prevent discoloration or warping of plastic elements.
- If storing for an extended period, remove all AA batteries from the Smart Hubs to prevent leakage and damage.

7. TROUBLESHOOTING

If you encounter issues with your LEGO Technic Liebherr R 9800 Excavator, refer to the common problems and solutions below.

Problem	Possible Cause	Solution
Model does not respond to app commands.	<ol style="list-style-type: none"> 1. Batteries are low or incorrectly installed. 2. Bluetooth connection lost. 3. Smart Hubs are not powered on. 	<ol style="list-style-type: none"> 1. Replace batteries with fresh ones and check polarity. 2. Restart the app and re-establish Bluetooth connection. Ensure device is close to the model. 3. Press the power button on both Smart Hubs until indicator lights are solid.
Specific functions (e.g., boom movement) are not working.	<ol style="list-style-type: none"> 1. Motor connection loose or incorrect. 2. Gears are jammed or misaligned. 	<ol style="list-style-type: none"> 1. Check all motor connections to the Smart Hubs as per assembly instructions. 2. Inspect the relevant mechanical sections for any jammed pieces or misaligned gears. Refer to the assembly manual for correct placement.
App crashes or freezes.	<ol style="list-style-type: none"> 1. App or device operating system is outdated. 2. Insufficient device memory. 	<ol style="list-style-type: none"> 1. Update the CONTROL+ app and your device's operating system. 2. Close other applications running in the background to free up memory.

If the problem persists after attempting these solutions, please contact LEGO Customer Service for further assistance.

8. SPECIFICATIONS

Attribute	Detail
Model Number	42100
Number of Pieces	4,108
Dimensions (Assembled)	Over 15 inches (39cm) high, 25 inches (65cm) long, and 10 inches (27cm) wide
Item Weight	3.52 ounces (Note: This seems to be the package weight, not the assembled model weight, which would be significantly higher for 4108 pieces. Using provided data.)
Power Source	12 x AA batteries (6 per Smart Hub)
Control Method	LEGO Technic CONTROL+ App (Bluetooth)
Recommended Age	12 years and up

9. WARRANTY AND SUPPORT

For information regarding product warranty, missing pieces, or technical support, please visit the official LEGO website or contact LEGO Customer Service directly. Details can typically be found on the LEGO packaging or their

official online support pages.

[Visit LEGO Customer Service](#)