EWA Eco-Wood-Art FERDINAND

EWA Eco-Wood-Art Ferdinand Retro Car 3D Wooden Mechanical Puzzle

Model: FERDINAND

Brand: EWA Eco-Wood-Art

1. Introduction

This manual provides detailed instructions for the assembly, operation, and maintenance of your EWA Eco-Wood-Art Ferdinand Retro Car 3D Wooden Mechanical Puzzle. This model is a meticulously designed replica of a 1920s-1940s era automobile, featuring a functional wind-up mechanism and intricate details.
The kit consists of 278 high-quality plywood parts designed for glue-free self-assembly. Upon completion, the assembled model measures approximately 280 x 96 x 90 mm.



Figure 1.1: The fully assembled EWA Eco-Wood-Art Ferdinand Retro Car, showcasing its classic design and intricate details.

2. Safety Warnings

WARNING:

- This product contains small parts that can be swallowed. Keep out of reach of small children.
- Recommended age for assembly is 14 years and older.
- Exercise caution when handling wooden parts to avoid splinters.

3. Package Contents

Your EWA Eco-Wood-Art Ferdinand Retro Car kit includes:

- 278 precision-cut plywood pieces for assembly.
- Detailed graphical assembly instructions.
- A metal spring for the wind-up mechanism.
- A suitcase-shaped key for winding.



Figure 3.1: Example of a wooden component during the assembly process.

4. Setup and Assembly Instructions

The Ferdinand Retro Car is designed for glue-free assembly. Follow the included detailed graphical instructions carefully for the best results. Assembly typically takes approximately 4 hours, but this can vary based on individual experience.

1. **Unpack Components:** Carefully remove all plywood sheets from the packaging. Identify the different sheets and parts.
2. **Prepare Parts:** Gently detach each piece from its wooden frame. Use a small tool or your fingers to carefully push them out. If a piece is stubborn, a craft knife can be used with caution.
3. **Follow Instructions:** Refer to the step-by-step diagrams in the provided instruction booklet. Each step illustrates which pieces to connect and how.
4. **Connect Pieces:** Align the tabs and slots of the wooden pieces and press them together firmly. Some connections may require a gentle wiggle or slight pressure.
5. **Mechanical Components:** Pay close attention when assembling the internal gear system and the wind-up mechanism. Ensure all gears rotate freely before proceeding to the next step.

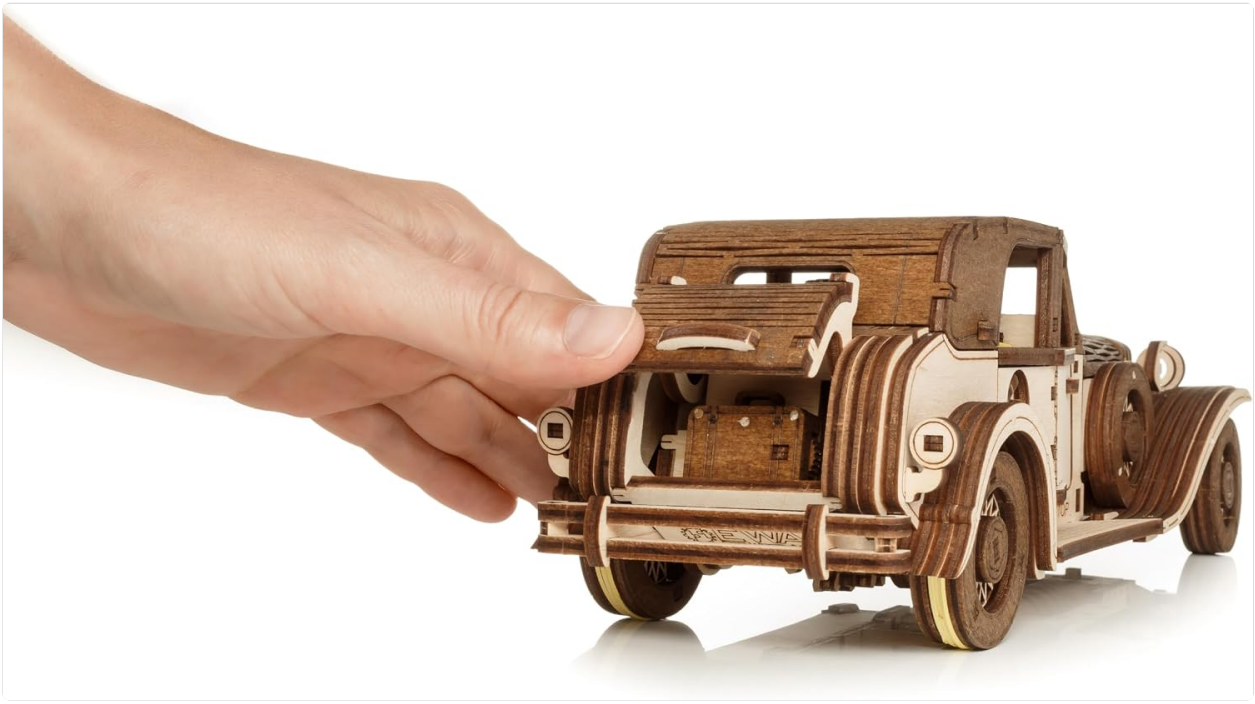


Figure 4.1: The intricate gear system and mechanical components visible from the underside of the model.

Tip: Keep a small piece of sandpaper handy for any rough edges, though the pieces are generally well-finished. Do not force pieces together; if they don't fit, double-check the instructions and the orientation of the parts.

5. Operating Instructions

The Ferdinand Retro Car features a functional wind-up mechanism that allows it to move independently.

1. **Winding the Mechanism:** Locate the winding key on the side of the car. Insert the suitcase-shaped key and turn it clockwise to wind the metal spring. Do not overwind.
2. **Activating Movement:** Once wound, place the car on a flat, smooth surface. Release the mechanism to allow the car to move forward.

3. **Front Wheel Positions:** The front wheels have three fixed positions, allowing for straight movement or gentle turns. Adjust them manually before winding the car.
4. **Engine Detail:** The hood can be opened to reveal a detailed four-cylinder engine model. This is for display and does not affect the car's movement.

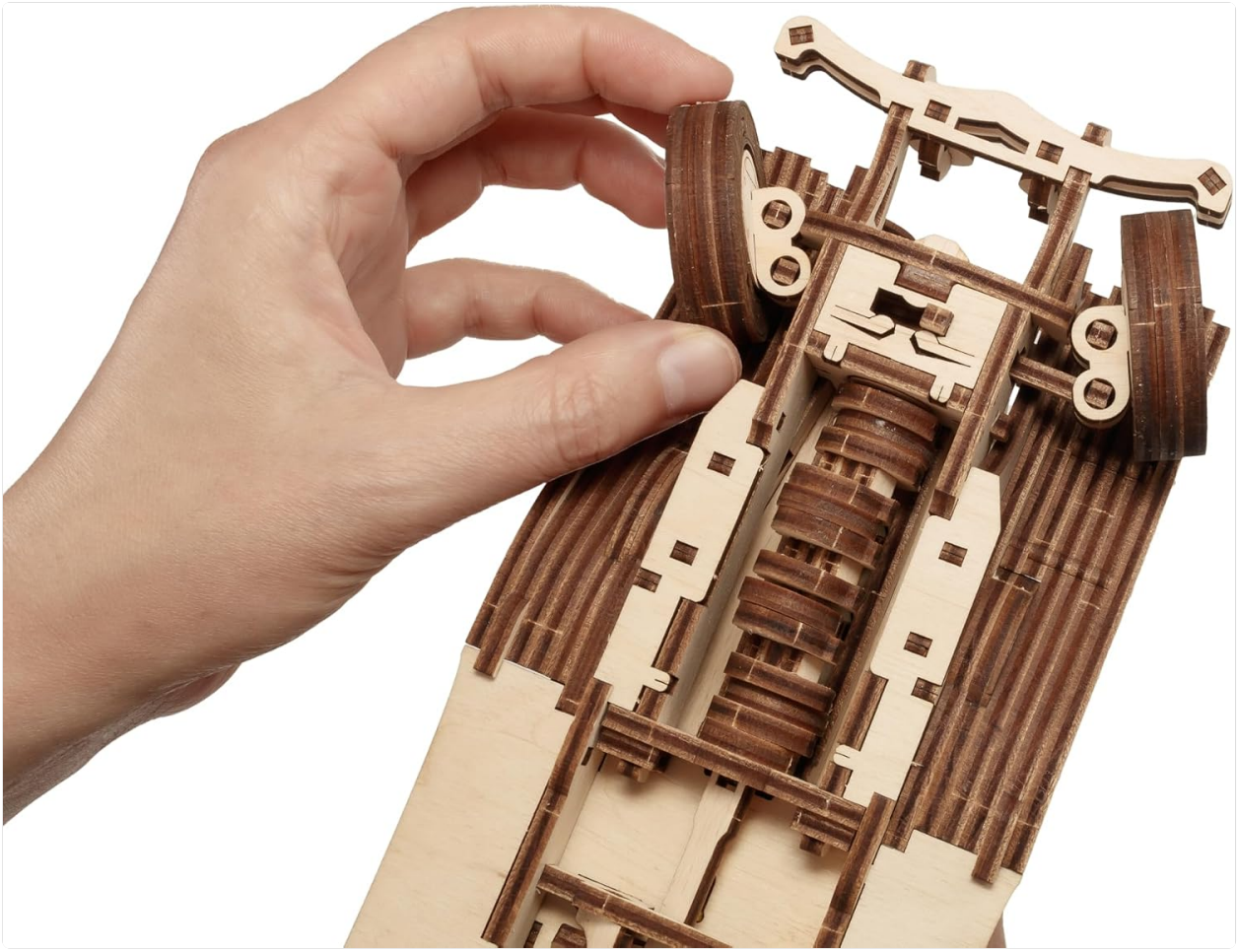


Figure 5.1: Winding the mechanical spring using the provided key.

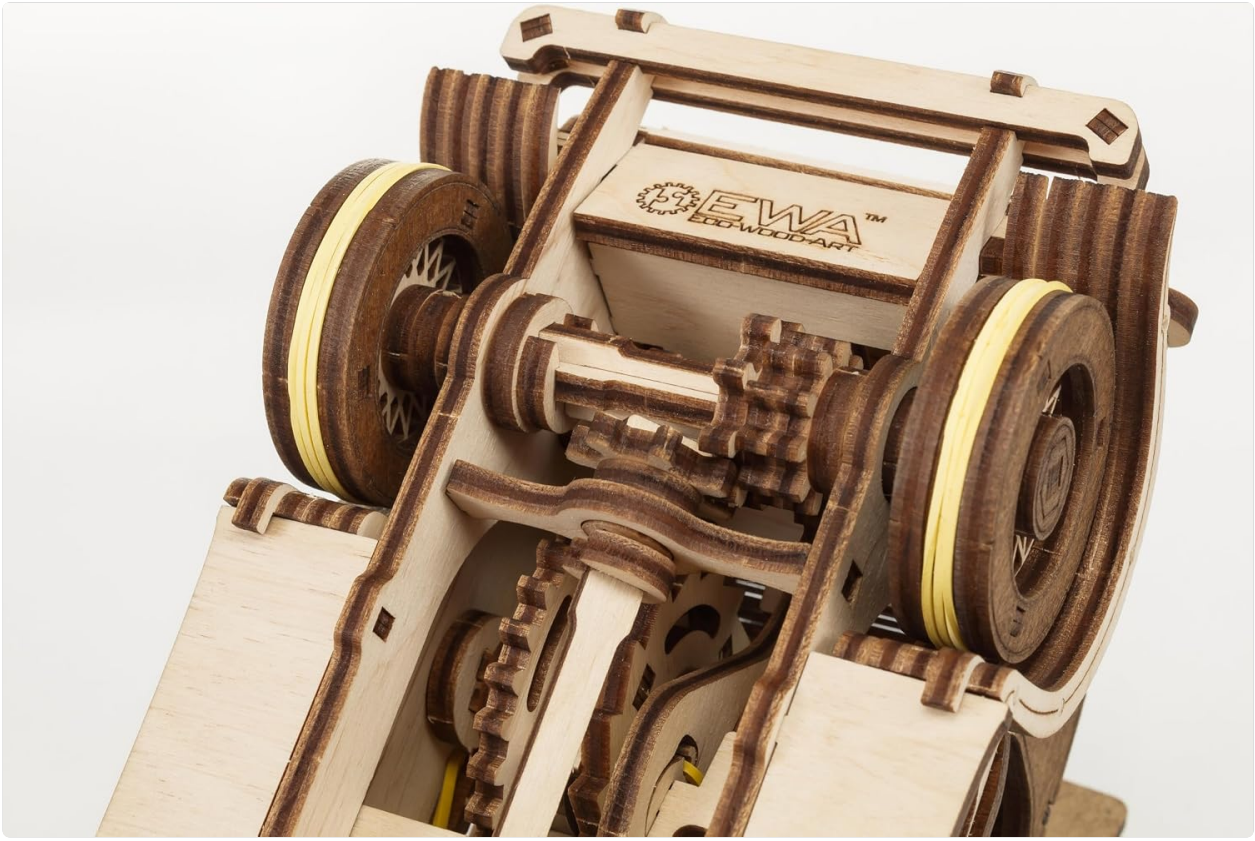


Figure 5.2: The detailed four-cylinder engine under the hood.

6. Maintenance

- **Cleaning:** Dust the model regularly with a soft, dry cloth. Avoid using water or chemical cleaners, as they may damage the wood.
- **Storage:** Store the model in a dry environment, away from direct sunlight and extreme temperature fluctuations, to prevent warping or damage to the wood.
- **Moving Parts:** Ensure all moving parts, especially gears and axles, remain free of dust and debris to maintain smooth operation of the mechanism.

7. Troubleshooting

If your Ferdinand Retro Car is not functioning as expected, consider the following:

- **Mechanism Not Moving:**
  - Ensure the spring is fully wound (but not overwound).
  - Check for any obstructions in the gear system or wheels.
  - Verify that all parts of the mechanism are correctly assembled and aligned according to the instructions.
- **Parts Not Fitting:**
  - Double-check the instruction diagrams to ensure you are using the correct pieces and orientation for each step.
  - Do not force pieces. If a piece is too tight, gently sand the edges slightly.

8. Specifications

Feature	Detail
Model Name	FERDINAND
Brand	EWA Eco-Wood-Art
Material	High-quality Plywood
Number of Pieces	278
Assembly Required	Yes (Glue-free)
Batteries Required	No
Assembled Dimensions (L x W x H)	280 x 96 x 90 mm (11.02 x 3.78 x 3.54 inches)
Recommended Age	14 years and older
Educational Goals	Memory skills, Logical thinking, Pattern recognition, Problem-solving, Spatial awareness

9. Warranty and Support

For information regarding warranty, replacement parts, or further support, please refer to the documentation included with your product or visit the official EWA Eco-Wood-Art website.
Official Website: Eco-Wood-Art Official Website
YouTube Channel: EWA Eco-Wood-Art YouTube Channel

10. Additional Product Views



Figure 10.1: Front view of the Ferdinand Retro Car.



Figure 10.2: Rear view with detachable suitcase.



Figure 10.3: Interior view with steering wheel.



Figure 10.4: Opening the trunk to reveal the suitcase.

11. Packaging Details



Figure 11.1: Front view of the product packaging.



Figure 11.2: Back view of the product packaging, showing assembly details and other models.

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