

[Manuals.plus](#) /

› [JoyZin](#) /

› JoyZin 11-in-1 Solar Robot Kit User Manual

## JoyZin DIY 11-in-1 Solar Robot Kit (Model B09PBGDCDF)

# JoyZin 11-in-1 Solar Robot Kit User Manual

Model: DIY 11-in-1 Solar Robot Kit (B09PBGDCDF)

Brand: JoyZin

## INTRODUCTION

Welcome to the exciting world of STEM with the JoyZin 11-in-1 Solar Robot Kit! This comprehensive kit allows you to build 11 different types of robots, including both vehicle and animal models, fostering creativity and an understanding of science and technology. Designed for children aged 6 and up, this kit promotes hands-on learning and problem-solving skills.

The robots are primarily powered by solar energy, offering an environmentally friendly way to learn about renewable energy. For cloudy days or indoor play, a battery power option is also available (battery not included). This manual provides detailed instructions for assembly, operation, and maintenance to ensure a rewarding building and playing experience.



Image: The JoyZin 11-in-1 Solar Robot Kit packaging alongside one of the assembled robot models, showcasing the product and its box.

## PACKAGE CONTENTS

Before beginning assembly, please verify that all components listed below are present in your kit. The kit contains 231 unique accessories and plastic parts.

- 4 x Parts Boards (various colors for different components)
- 1 x Gear Parts Pack
- 1 x Solar Panel
- 1 x Hydraulic Transmission Unit
- 4 x Transparent Bags for distinguishing parts
- 1 x Assembly Instruction Manual

- Additional small parts (wires, shafts, connectors, etc.)

# PACKAGE LIST

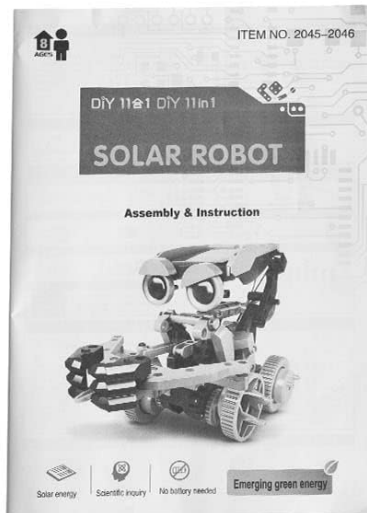
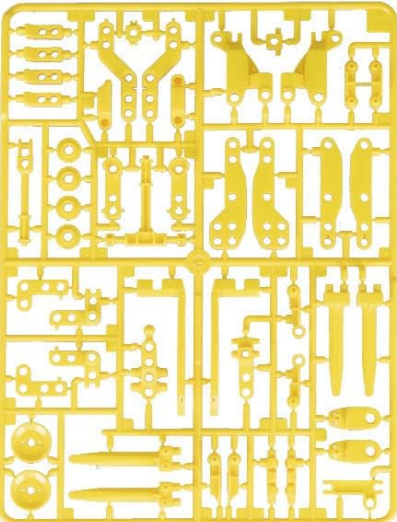
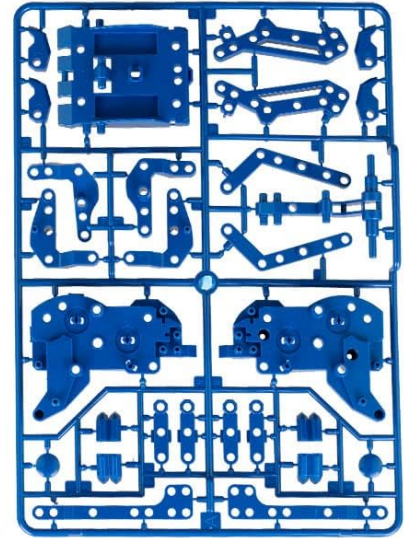
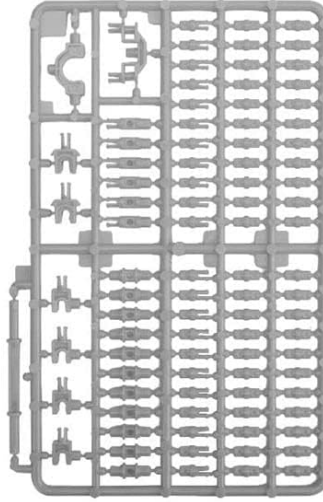
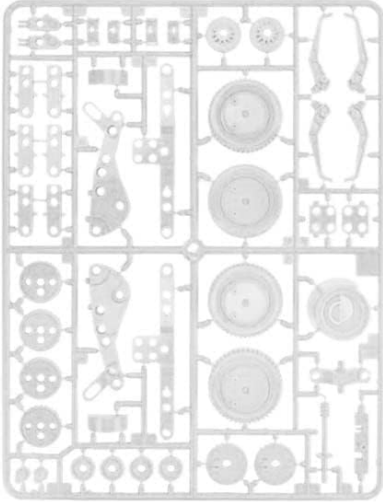


Image: A visual representation of the kit's contents, including molded plastic parts, the solar panel, hydraulic components, and the assembly manual.

## ASSEMBLY INSTRUCTIONS

Follow the detailed steps in the included assembly instruction manual to build your desired robot model. The process involves connecting various plastic parts, gears, and the solar panel/motor unit. Ensure all connections are secure for proper functionality.

1. **Preparation:** Carefully detach all parts from their sprues. Use a small file or sandpaper if necessary to smooth any rough edges. Organize parts by type or number as indicated in the manual.
2. **Robot Head (Solar Panel Module) Assembly:** Assemble the components that form the robot's head, which

typically integrates the solar panel.

3. **Robot Body (Gear Box) Module Assembly:** Construct the main body, which houses the gear box and motor. This is crucial for the robot's movement.
4. **Connecting Modules:** Attach the head and body modules, ensuring all wires (if any) are correctly connected.
5. **Adding Limbs/Wheels:** Assemble and attach the specific limbs, wheels, or other structural elements according to the chosen robot model.
6. **Final Check:** Before operating, ensure all parts are firmly connected and the motor rotates freely. Test the power source (solar or battery) to confirm movement.

## EASY TO BUILD YOUR OWN ROBOTS



1. Robot head (solar panel) module assembly



2. Robot body (gear box) module assembly



3. Check whether the motor is rotated in the sun or with a battery



4. Start to build robots

Image: Visual steps illustrating the assembly of the robot's solar panel head, gearbox body, and a final check of motor function.

The JoyZin Solar Robot Kit offers multiple power modes for operation:

### Solar Mode:

For optimal performance in solar mode, place the robot in direct, strong sunlight. The solar panel converts sunlight into electrical energy, which powers the motor and allows the robot to move. No batteries are required in this mode.

# Upgrade Power Modes



## Solar Mode

## Battery Mode

## Hydraulic Drive

Image: An illustration detailing the three power options for the robot: solar power, battery power, and hydraulic transmission.

### Battery Mode:

On cloudy days or when playing indoors, you can power the robot using a battery (not included). Refer to the assembly manual for instructions on how to connect the battery to the robot's motor circuit. Ensure correct polarity when inserting the battery.

### Hydraulic Transmission:

Certain models incorporate a hydraulic transmission system. This system uses fluid pressure to transfer motion, demonstrating basic principles of hydraulics. Follow the specific instructions for models that utilize this feature.



Image: A detailed view of the hydraulic transmission system, which uses fluid to transfer motion in some robot configurations.

## 11 ROBOT MODELS

The kit allows you to construct 11 distinct robot models, categorized into vehicle and animal types. Each model provides a unique building challenge and demonstrates different mechanical principles.

### Vehicle Models:

- Obstacle Avoiding Rover
- Buggy
- Excavator
- Forklift

### Animal Models:

- Elephant
- Crocodile
- Pterosaurs
- Dog-Walker
- Monkey
- Ostrich
- Scorpion

# 11 Different Solar Robot Kit

Pterosaurs



Ostrich



Forklift



Obstacle  
Avoiding Rover



Buggy



Monkey



Scorpion



Excavator



Dog-Walker



Elephant



Crocodile

Image: A comprehensive display of all eleven unique robot configurations possible with this kit, showcasing their diverse designs.

## MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to wipe down the robot parts. Avoid using water or harsh chemicals, as they may damage the electronic components or plastic.
- **Storage:** When not in use, store the robot and its components in a cool, dry place away from direct sunlight to prevent degradation of plastic parts and the solar panel.
- **Battery Removal:** If using battery power, remove batteries when the robot is not in use for extended periods to prevent leakage and corrosion.
- **Component Check:** Periodically inspect all connections and moving parts to ensure they are secure and free from obstruction.

## TROUBLESHOOTING

| Problem                               | Possible Cause                                                         | Solution                                                                                                                               |
|---------------------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Robot does not move in solar mode.    | Insufficient sunlight; solar panel obstructed; loose wire connection.  | Move to direct, strong sunlight; clear any obstructions from the solar panel; check all wire connections to the motor and solar panel. |
| Robot does not move in battery mode.  | Battery drained or incorrectly inserted; loose wire connection.        | Replace battery with a fresh one; ensure battery is inserted with correct polarity; check all wire connections.                        |
| Robot moves slowly or inconsistently. | Weak power source; gears are jammed or misaligned; excessive friction. | Ensure strong sunlight or fresh battery; check for any foreign objects in gears; re-assemble moving parts to reduce friction.          |
| Hydraulic system not functioning.     | Air bubbles in the system; leaks; incorrect assembly.                  | Bleed air from the system as per manual; check for cracks or loose connections in tubes; re-assemble hydraulic components carefully.   |
| Parts do not fit together.            | Incorrect part selection; burrs on plastic parts.                      | Refer to the assembly manual to confirm correct parts; gently file or trim any excess plastic from the parts.                          |

## SPECIFICATIONS

- **Product Dimensions:** 10.83 x 2.95 x 8.07 inches
- **Item Weight:** 1.08 pounds
- **ASIN:** B09PBGDCDF
- **Manufacturer Recommended Age:** 6 years and up
- **Power Source:** Solar power (direct sunlight) or 1 x AA battery (not included)
- **Material:** High-quality ABS plastic
- **Number of Models:** 11 (4 vehicle, 7 animal)
- **Manufacturer:** JoyZin

## SAFETY GUIDELINES

- **Small Parts Warning:** This kit contains small parts and is not suitable for children under 3 years old due to choking hazards. Adult supervision is recommended for all ages.

- **Battery Safety:** If using batteries, ensure they are inserted correctly. Do not mix old and new batteries, or different types of batteries. Remove exhausted batteries promptly.
- **Solar Panel Care:** Do not expose the solar panel to extreme temperatures or physical impact. Avoid submerging the solar panel or other electronic components in water.
- **Outdoor Use:** While solar-powered, avoid leaving the robot outdoors in adverse weather conditions (rain, extreme heat/cold).
- **Sharp Edges:** Although parts are designed for safety, always handle plastic components carefully, especially after detaching from sprues, to avoid any potential sharp edges.

© 2024 JoyZin. All rights reserved.

For support or inquiries, please refer to the contact information provided with your product packaging or visit the official JoyZin website.

## ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

### Name

Anonymous

### Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

### Question

Example: How do I reset this device or fix this error?

### Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

## Answered questions about this manual

### Where can I find the instruction manual for the JoyZin DIY 11-in-1 Solar Robot Kit (Model 2045 / B09PBGDCDF)?

You can find the online version of the JoyZin 11-in-1 Solar Robot Kit User Manual directly on Manuals+ at the following link: JoyZin 11-in-1 Solar Robot Kit User Manual. While the physical manual is...

[Read full answer](#)

---

Open the live page

<https://manuals.plus/asin/B09PBGDCDF>

More documents and user manuals: <https://manuals.plus/>