

## Discovery 1015770

# Discovery #Mindblown STEM 12-in-1 Solar Robot Creation Kit

Model: 1015770 - Instruction Manual

## INTRODUCTION

This manual provides detailed instructions for assembling and operating the Discovery #Mindblown STEM 12-in-1 Solar Robot Creation Kit. This kit allows users to construct 12 different types of robots using a 197-piece set, powered by a solar-powered motor. It is designed to introduce principles of science, technology, engineering, and mathematics (STEM) through hands-on building.

## SAFETY INFORMATION

- **Age Recommendation:** This kit is recommended for children aged 8 years and up. Adult supervision is advised during assembly and operation.
- **Small Parts Warning:** The kit contains small parts which may pose a choking hazard for young children. Keep all components out of reach of children under 3 years old.
- **Solar Panel Care:** Do not look directly into the sun through the solar panel. Avoid exposing the solar panel to extreme temperatures or moisture.
- **Assembly:** Follow the assembly instructions carefully. Do not force parts together.
- **Disposal:** Dispose of packaging materials responsibly.

## PACKAGE CONTENTS

The Discovery #Mindblown STEM 12-in-1 Solar Robot Creation Kit includes 197 easy-build pieces necessary for constructing various robot models. These components include:

- Assorted gears, plates, tires, and shafts
- Solar panel
- Motor unit
- Detailed blueprints for 12 robot designs
- Instruction manual

# Discovery™

## #MINDBLOWN

AGES 8+

POWERED  
BY THE SUN  
NO BATTERIES  
NEEDED!



## SOLAR VEHICLE CREATIONS

197 EASY-BUILD PIECES



Image: All 197 pieces of the solar robot kit laid out, including the solar panel, motor, gears, and structural components.

### SETUP AND ASSEMBLY

Follow the included blueprints for step-by-step assembly of your chosen robot model. The general process involves:

1. **Unpack and Sort:** Carefully remove all components from the packaging. It is recommended to sort the pieces by type to facilitate assembly.
2. **Identify Parts:** Refer to the parts diagram in the blueprint to identify each component.
3. **Assemble the Motor Unit:** The motor unit is the core of the robot. Assemble it according to the specific blueprint instructions.
4. **Connect Solar Panel:** Attach the solar panel to the motor unit using the positive and negative cables as indicated in the instructions. Ensure a secure connection.
5. **Build Robot Structure:** Follow the blueprint to connect the gears, plates, and other structural components to form the desired robot model. Pay close attention to gear alignment for proper movement.
6. **Attach Wheels/Legs:** Securely attach the wheels or leg mechanisms to the robot's structure.

## SOLAR VEHICLE CREATIONS

197 EASY-BUILD PIECES

## FASCINATING FACTS PREHISTORIC SOLAR PANELS

The plates on the back of a stegosaurus are not attached to their spines. The big, bony-looking plates were imbedded in the dinosaur's thick skin and were covered with a network of small veins. Some scientist think they were used as "solar panels" to help regulate temperature.



BUDDY BOT



LOBSTER



HORSE



T-REX



PRAVING MANTIS



SCORPION



4X4



SPIN BOT



RACING TRIKE



DIAMOND CYCLE



HOT ROD



CENTAUR

MIX AND  
MATCH  
PIECES

Image: A close-up view of the robot assembly process, highlighting the connection of various plastic parts and gears.

## OPERATING INSTRUCTIONS

This kit utilizes a solar-powered motor, eliminating the need for batteries. For optimal performance:

- **Direct Sunlight:** The robot requires direct sunlight to operate. Place the solar panel directly under bright sunlight.
- **Outdoor Use:** For best results, operate the robot outdoors on a sunny day. Indoor lighting, even bright artificial light, may not provide sufficient power for the motor.
- **No Batteries:** The solar panel converts sunlight directly into electrical energy to power the motor. No batteries are required or included.



## **HANDS-ON LEARNING**

Explore the world of engineering with this 192-piece solar vehicle creation kit! Build 12 unique robots while learning about pivotal solar powered technology. Complete instructions make building fun and easy!

Image: A detailed view of the solar panel, demonstrating its function in converting sunlight into energy.

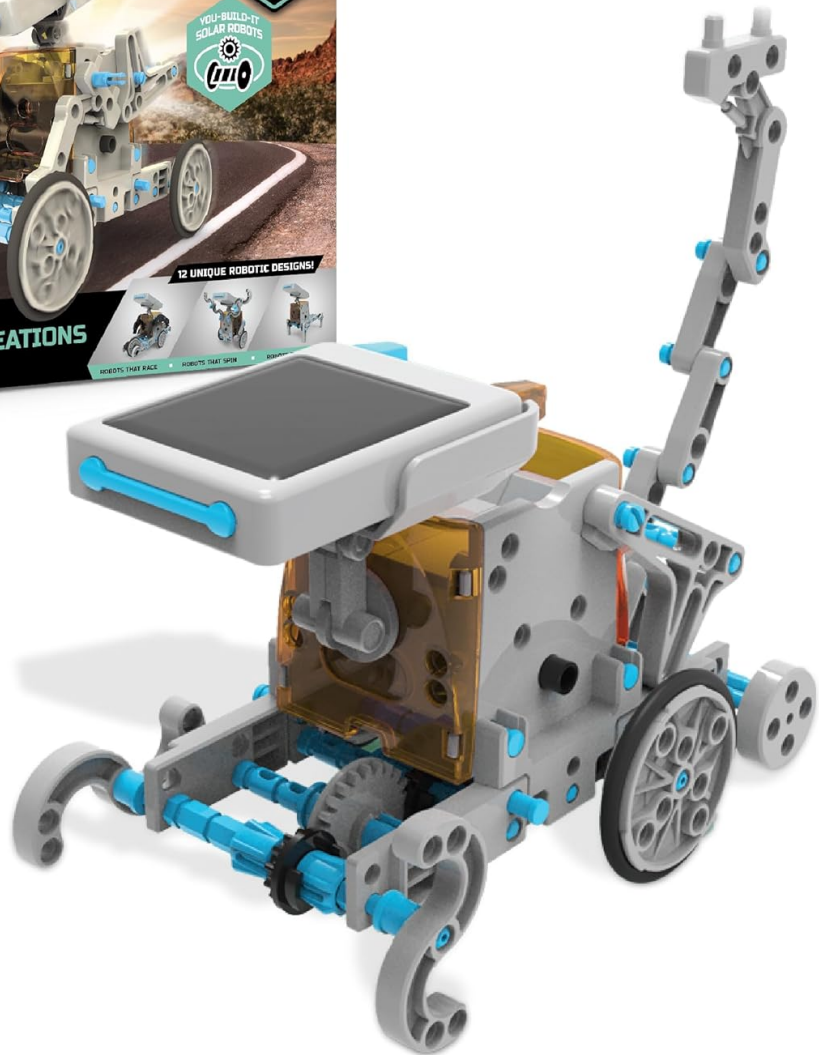


Image: A fully assembled solar robot, resembling a vehicle, operating outdoors under a bright sky.

## MAINTENANCE

- **Cleaning:** Wipe the robot and solar panel with a dry, soft cloth to remove dust and debris. Do not use water or cleaning solutions, as this may damage the electronic components.
- **Storage:** When not in use, store the kit components in a cool, dry place, away from direct sunlight and extreme temperatures.
- **Inspection:** Periodically inspect all connections and moving parts for wear or damage. Ensure gears are free of obstructions.

## TROUBLESHOOTING

- **Robot Not Moving:**
  - Ensure the solar panel is receiving direct, strong sunlight.
  - Check all electrical connections between the solar panel and the motor.
  - Verify that all gears are correctly aligned and mesh properly, without any obstructions.
  - Confirm that no parts are rubbing against each other, creating excessive friction.

- **Parts Not Fitting:**

- Refer to the specific blueprint for the model you are building.
- Ensure parts are oriented correctly. Some pieces may only fit in one direction.
- Do not force parts. If a part does not fit, re-check the instructions and the part's identification.

## SPECIFICATIONS

<b>Brand</b>	Discovery
<b>Model Number</b>	1015770
<b>Item Type Name</b>	Toy Solar Vehicle Construction Set 197pc
<b>Unit Count</b>	197 Count
<b>Material Type</b>	Plastic
<b>Item Dimensions (L x W x H)</b>	32 x 6.5 x 25 centimetres (12.6 x 2.56 x 9.85 inches)
<b>Item Weight</b>	0.63 Kilograms
<b>Age Range (Manufacturer Minimum)</b>	8 years (96 months)
<b>Educational Objective</b>	STEM
<b>Power Source</b>	Solar Powered (No Battery)
<b>UPC</b>	843479187281
<b>GTIN</b>	843479187281

## WARRANTY INFORMATION

No specific warranty information is provided with this product. For details regarding returns or product defects, please refer to the retailer's return policy or contact the point of purchase.

## SUPPORT

For further assistance, questions about assembly, or missing parts, please contact the retailer where the product was purchased. You may also visit the official Discovery brand website for additional resources or contact information.