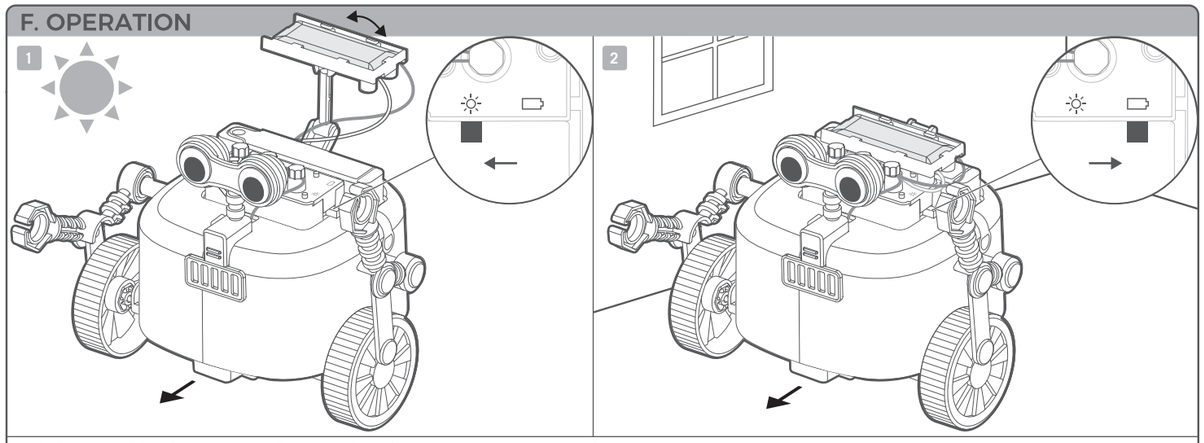
F. OPERATION



This is a hybrid solar-powered Rover Robot. It can be powered by solar energy or battery.
1. When there is sunlight, push the switch to the "sun ☼ " sign to make the wheels turns using solar power. Twist and tilt the solar panel so that it faces the sun, as this allows the panel to collect as much sunlight as possible. Your Rover Robot is now ready for action!
2. When there is not enough sunlight, slide the switch to the "battery ▭" sign to power up the motor. Your Rover Robot is now ready for action without sunlight! When the robot is not in use, move the switch to the "sun ☼" sign to power off.

G. HOW IT WORKS

• Sunlight is a form of energy. When sunlight falls on the solar panel, the solar cells in the panel convert some of this light energy into electricity. Electric current flows from the cells to the motor, making the motor turn. Switching to battery power allows electricity from the battery to flow to the motor.
• The gears on the gearbox reduce the speed of the motor so that the Robot moves at a slower speed.

H. TROUBLESHOOTING

If the robot does not move in solar-powered mode or battery mode:
• Check that you have made the correct connections on the terminal blocks (see section E, step 8).
• Check that the bare metal on all the wires is in contact with the metal terminals.
If the motor does not run in solar-powered mode:
• The sunlight may not be strong enough. Adjust the angle of the panel so that it directly faces the sun.
• Check that the gears are lubricated. Friction between the gear wheels will affect the performance of the motor.
• Try giving the Rover Robot a gentle push to get it started.
If the motor does not run in battery mode:
• Check that you have a fresh battery and that the battery is inserted into the battery holder the correct way round.
• Check that the gears are lubricated. Friction between the gear wheels will affect the performance of the motor.
• Try giving the Rover Robot a gentle push to get it started.

I. FUN FACTS

• The word 'hybrid' means a mixture of two different things. The Rover Robot uses a hybrid power system that combines solar power and battery power.
• Hybrid solar / battery power systems are used in many small devices, such as calculators, radios and watches.
• In many hybrid solar / battery systems, spare energy from the solar cells is used to recharge the battery.
• There are many robots that use solar energy to power their motors or recharge their batteries, including solar-powered robotic lawnmowers.
• There's even a solar-powered farming robot that can measure how well crops are growing. It's called the Ladybird because it looks like a giant spotty bug.

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QUESTIONS AND COMMENTS: We value you as a customer and your satisfaction with this product is important to us. If you have comments or questions, or you find any part of this kit missing or defective, please do not hesitate to contact our distributor in your country. You will find the address printed on the packaging. You are also welcome to contact our Marketing Support Team: Email: infodesk@4m-ind.com, Fax (852) 25911566, Tel: (852) 28936241, Web site: WWW.4M-IND.COM

HYBRID SOLAR-POWERED ROVER ROBOT

PLEASE SCAN THE QR CODE FOR VIEWING MULTI-LANGUAGE INSTRUCTIONS.

FR. Veuillez scanner le code QR pour afficher les instructions multilingues pour ce kit. **DE.** Bitte scanne den QR-Code, um die mehrsprachige Anleitung für dieses Set anzusehen. **NL.** Scan de QR-code om de instructies voor deze set in verschillende talen te bekijken. **IT.** Scansiona il codice QR per visualizzare le istruzioni multi-lingua per questo kit. **ES.** Escanee el código QR para ver instrucciones en varios idiomas para este kit. **JA.** QRコードをスキャンして、本キットの多言語説明書をご覧ください。

⚠ WARNING:
CHOKING HAZARD - Small parts.
Not for Children under 3 years.

TO PARENTS: PLEASE READ THROUGH THESE INSTRUCTIONS BEFORE GIVING GUIDANCE TO YOUR CHILDREN.

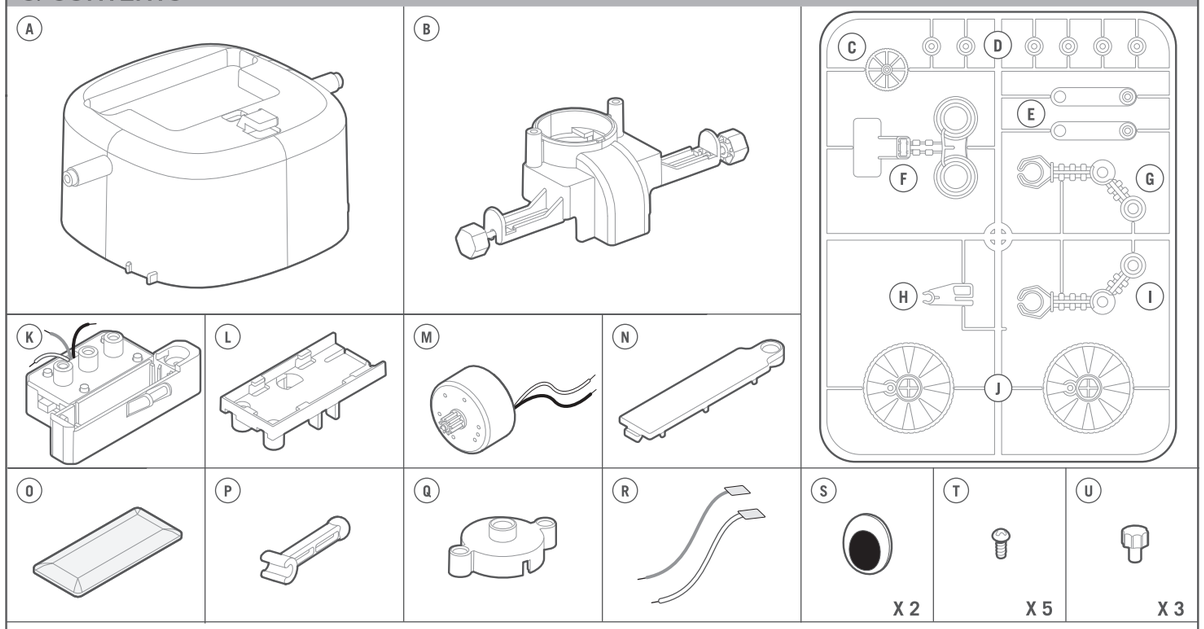
A. SAFETY MESSAGES

1. Adult supervision and assistance are required at all times.
2. This kit is intended for children over 5 years of age.
3. This kit and its finished product contain small parts which may cause choking if misused. Keep away from children under 3 years old.
4. Do not attempt to take the solar panel apart.
5. To prevent possible short circuits, never touch the contacts inside the battery case with any metal objects.
6. Only install battery after you have assembled the product. Adult supervision is required.

B. USE OF BATTERY

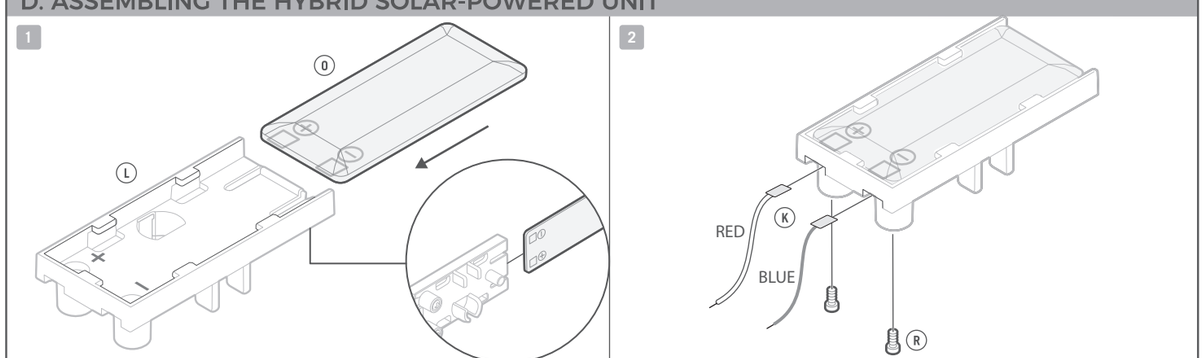
1. Requires one 1.5V AAA battery (not included). 2. For best results always use fresh battery. 3. Make sure you insert the battery with the correct polarities. 4. Remove the battery from the kit when not in use. 5. Replace exhausted battery straight away to avoid possible damage to the kit. 6. Rechargeable battery must be removed from the kit before recharging. 7. Rechargeable battery should be recharged under adult supervision. 8. Make sure that the supply terminals in the battery case are not short circuited. 9. Do not attempt to recharge non-rechargeable battery.

C. CONTENTS

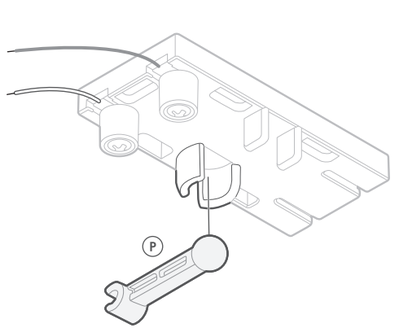


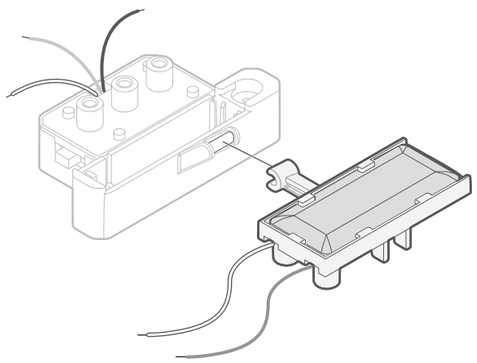
Part A: Body x 1, Part B: Gearbox x 1, Part C: Rear wheel x 1, Part D: Joint plugs x 6, Part E: Cranks x 2, Part F: Eye support x 1, Part G: Left arm x 1, Part H: Rear wheel support x 1, Part I: Right arm x 1, Part J: Large wheel x 2, Part K: Battery holder x 1, Part L: Solar panel holder x 1, Part M: Motor x 1, Part N: Battery cover x 1, Part O: Solar panel x 1, Part P: Solar panel support arm x 1, Part Q: Motor cover x 1, Part R: Pair of wires x 1, Part S: Eyes x 2, Part T: Screws x 5, Part U: Terminal caps x 3. Also required but not included in this kit: Small crosshead screwdriver, one 1.5V AAA battery.

D. ASSEMBLING THE HYBRID SOLAR-POWERED UNIT



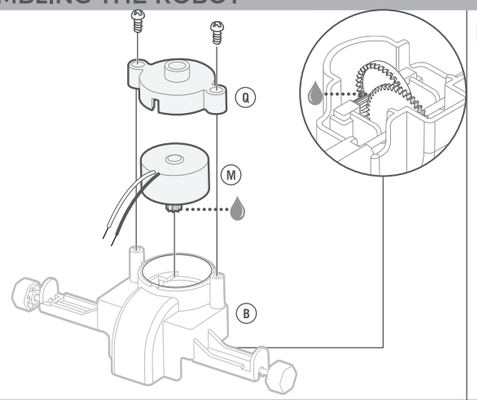
1. Examine the solar panel. At one end of the bottom side (the flat side) you will find a "+" and "-" sign. With the "+" and "-" signs facing forwards, slide the panel into its holder until it clicks into place.
2. On the underside of the solar panel holder, there are two connections for wires with screw holes. Refer to the position as shown, slide the tab on the blue wire into the right-hand connector. Secure it with one of the screws. Slide the tab on the red wire into the left-hand connector and secure it with a screw.

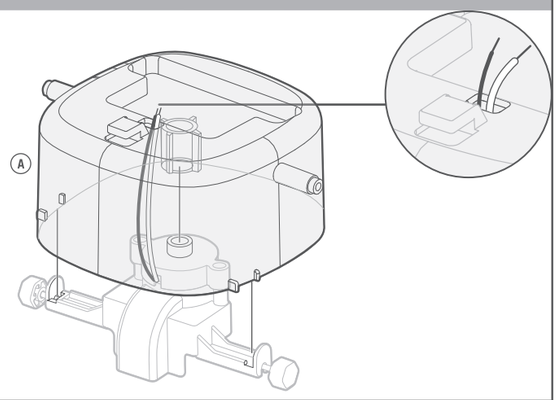


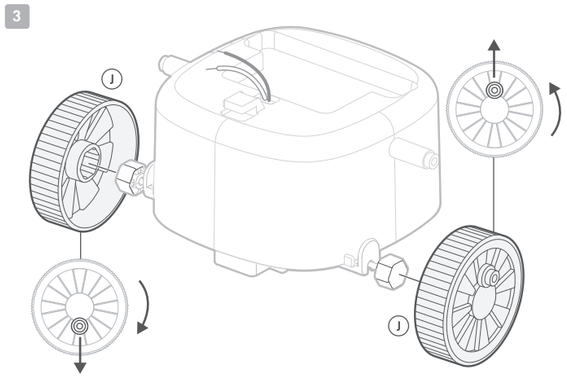


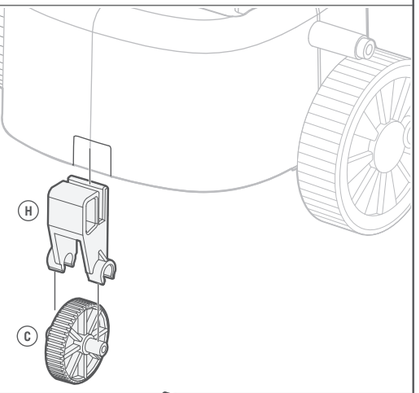
3. Clip the solar panel holder onto the top joint of the supporting arm.
4. Clip the solar panel holder onto the battery holder.

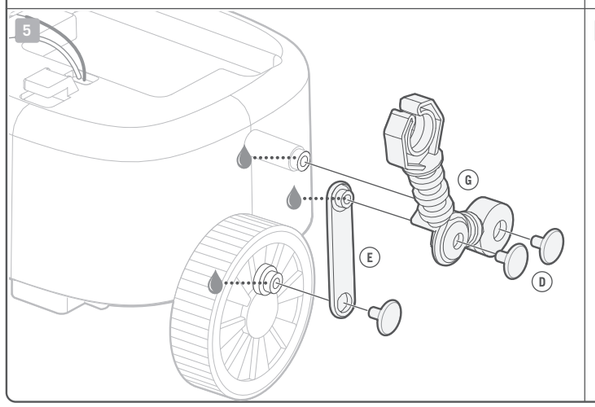
E. ASSEMBLING THE ROBOT

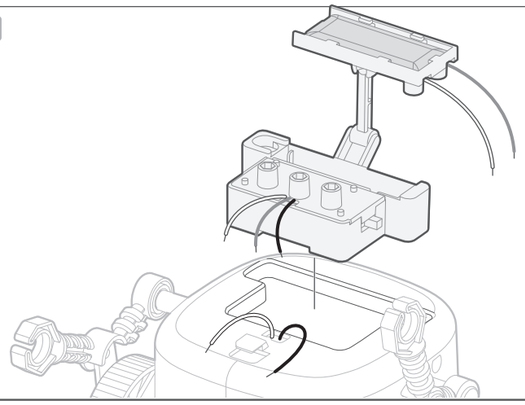


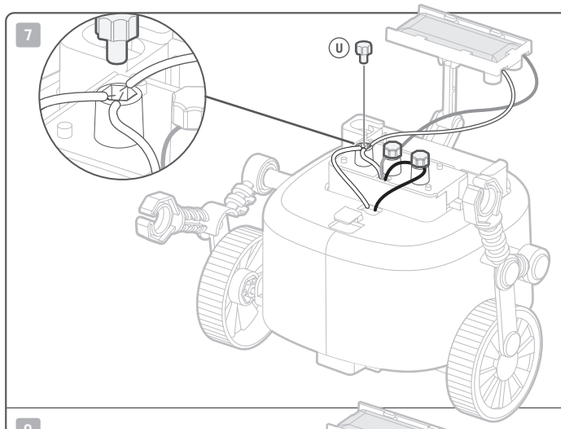


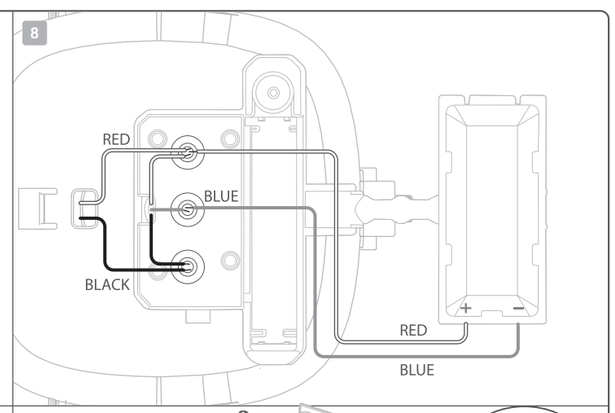


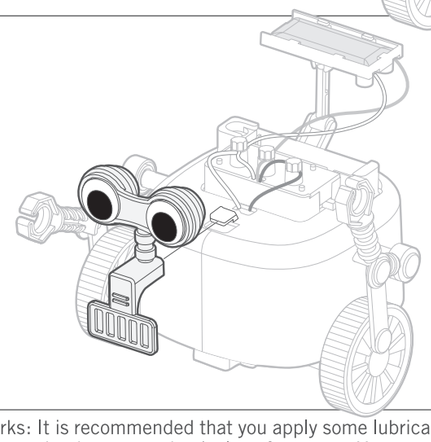


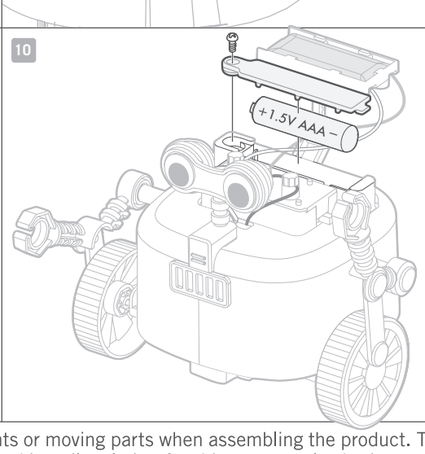


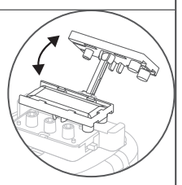












Remarks: It is recommended that you apply some lubricant to the joints or moving parts when assembling the product. This helps to reduce friction and enhance mechanical performance. You may use some cooking oil or lotion for this purpose. In the instructions, the "oil drop symbols 💧" indicate the areas which may require lubrication.
1. Slot the motor into the gearbox. Add the gearbox cover and secure it with screws.
2. Thread the two wires from the motor up through the hole in the top of the body. Now push the gearbox into place inside the body. The pin on the top of the gearbox must fit into the recess inside the body. The ends of the axles on the gearbox must clip over the sides of the body.
3. Push the two large wheels onto the hexagons at each end of the axle on the gearbox. When you arrange the pins on two wheels in opposite directions, one arm will move up as the other arm moves down.
4. Clip the rear wheel into its support and push the support into the small slot under the rear of the body.
5. Push the end of one crank (the end with the pin rather than the hole) onto the middle joint of the left-hand arm. Insert a joint plug to secure the crank in place. Now place the other end of the crank (the end with the hole) onto the pin on the left wheel and secure it with a joint plug. Finally, push the shoulder of the arm onto the pin on the body and secure it with another joint plug. To assemble the right-hand arm, repeat the steps on the other side.
6. Place the Hybrid Solar Power Unit (assembled in section D) with the solar panel holder attached into the recess on the top of the body.
7. Find the three red wires (one from the Hybrid Solar-Powered Unit (assembled in section D), one from the solar panel, and one from the motor). Push the bare metal ends of these wires into one of the terminals and insert a terminal cap to keep them in place. Repeat with the two blue wires in the central terminal and the two black wires in the remaining terminal.
8. Follow the diagram to ensure the wires are connected correctly.
9. Stick the two eyes onto the eye holder and slot it onto the body.
10. Insert a 1.5 V AAA battery into the battery compartment and secure the battery cover with a screw. You can pivot the solar panel out of the way if you need to.