

# SPIDER 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 scannen 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. Escanea 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.

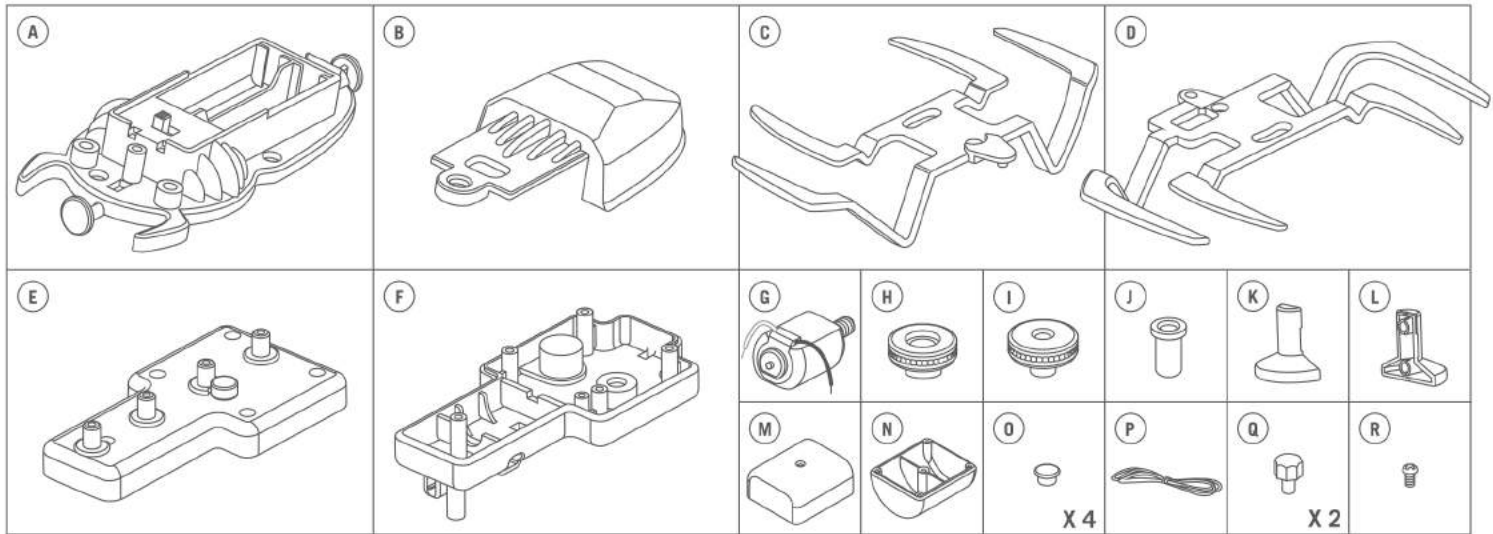
## A. SAFETY MESSAGES

1. Adult supervision and assistance are required at all times. 2. This kit is intended for children over 8 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. To prevent possible short circuits, never touch the contacts inside the battery case with any metal objects. 5. Only install batteries after you have assembled the product. Adult supervision is required.

## B. USE OF BATTERIES

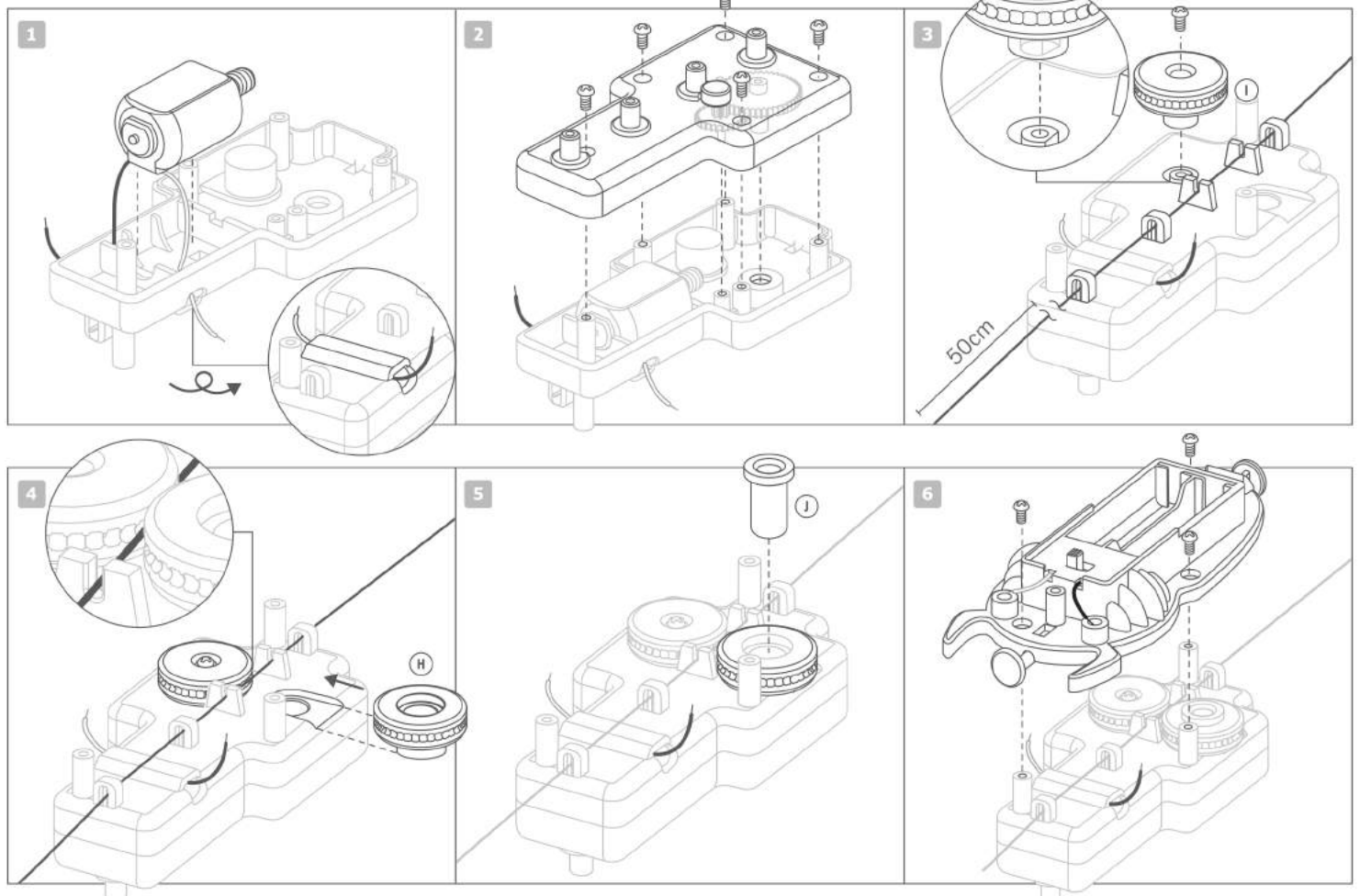
1. Requires two 1.5V AAA batteries (not included). 2. For best results always use fresh batteries. 3. Make sure you insert the batteries with the correct polarities. 4. Remove the batteries from the kit when not in use. 5. Replace exhausted batteries straight away to avoid possible damage to the kit. 6. Rechargeable batteries must be removed from the kit before recharging. 7. Rechargeable batteries 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 batteries. 10. Do not mix old and new batteries. 11. Do not mix alkaline, standard (carbon-zinc), or rechargeable batteries.

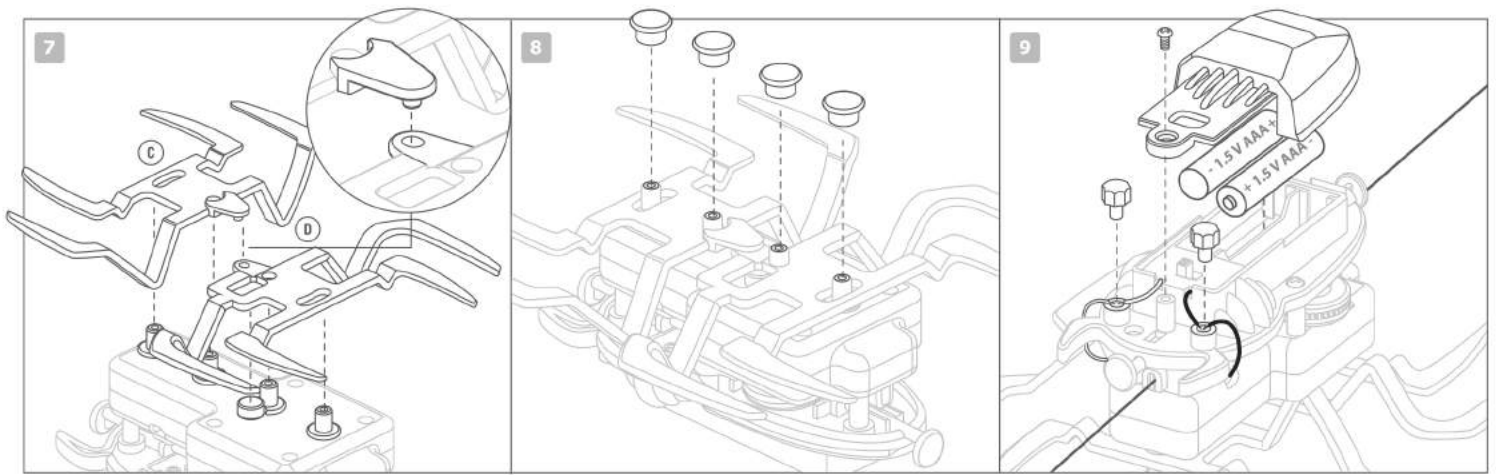
## C. CONTENTS



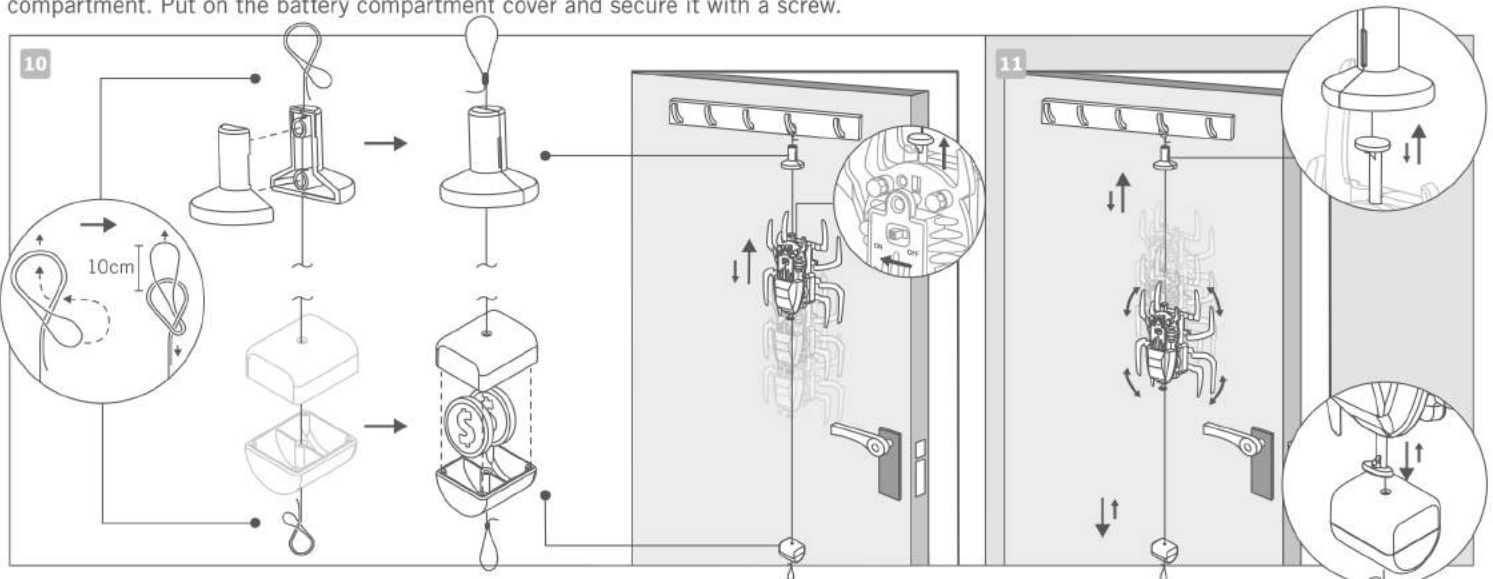
Part A: Battery compartment with gears installed x 1, Part B: Battery cover x 1, Part C: Front leg x 1, Part D: Rear leg x 1, Part E: Upper gear box x 1, Part F: Lower gear box x 1, Part G: Motor x 1, Part H: Plain wheel x 1, Part I: Wheel with axle x 1, Part J: Axle x 1, Part K: Left buffer x 1, Part L: Right buffer x 1, Part M: Weight lid x 1, Part N: Weight base x 1, Part O: Spindle caps x 4, Part P: String, Part Q: Terminal cap x 2, Part R: Screws. Also required, but not included in the kit: a small crosshead screwdriver, 2 x 1.5V AAA batteries and some small coins.

## D. ASSEMBLY





1. Place the lower gearbox on a tabletop. Place the motor into it and feed the motor wires through the slots as shown.
2. Add the upper gear box and secure it with five screws. Make sure that the axles of the two gears in the upper gear box slot correctly into their holes in the lower gear box.
3. Turn the gearbox over. Insert the wheel with axle into the hole in the gearbox. Secure the wheel with a screw. Trim both ends of the string to make neat ends. Feed the string through the guides in the gearbox, making sure at least 50 cm of string hangs out at each end.
4. Slot the plain wheel into place from the side. Make sure that the string is trapped centrally between the two wheels.
5. Slot the axle into the plain wheel.
6. Place the battery compartment into its position on top of the gearbox and secure it with three screws.
7. Turn the gearbox and battery compartment over. Slot the rear legs over their spindles, and then slot the front legs over their spindles, making sure that the pin on the front legs fits into the hole on the rear legs.
8. Push the four spindle caps onto the spindles to trap the legs in place.
9. Put the bare ends of the black wire from the motor and the black wire from the battery compartment into one of the terminals. Push in a terminal cap to secure the wires in place. Repeat with the red wire from the motor and the red wire from the battery compartment in the other terminal. Insert two 1.5V AAA batteries into the battery compartment, with the flat end of the battery against the coiled spring inside the compartment. Put on the battery compartment cover and secure it with a screw.



10. At one end of the string, double over the end and tie an overhand knot to make a loop about 10 centimeters long. Clip the two halves of the buffer together onto the string, just below the knot you have just made. Feed the other end of the string through the weight lid, and then through the weight base. Tie a knot in the end of the string as you did previously. Put a few small coins in the weight base and clip the lid to the base. Hang the Spider Robot on hooks or door knobs (ask an adult to help you with this). Push the shaft that runs through the battery compartment up or down, making sure it's not left in the middle position, and switch on the robot.
11. Congratulations! Your Spider Robot is ready to go. The Spider Robot will climb up or down the string, with its legs moving from side to side. When it reaches the buffer at the top or the weight at the bottom, it will change direction.

## E. HOW IT WORKS

- The worm gear on the motor turns one of the wheels, which turns the other wheel, too. The string is trapped between the wheels, so that when the wheels turn, the Spider Robot pulls itself along the string.
- There is a two-way switch in the battery compartment, operated by the pins on the ends of the compartment. The switch reverses the direction of the electric current to the motor, making the motor change direction. When the Spider Robot hits the buffer or the weight, the switch is operated, so the Spider Robot changes direction.

## F. TROUBLESHOOTING

If the motor does not run: • Check that the middle shaft of the battery compartment is not in the middle. If it is, switch OFF the Spider Robot and slide the shaft to one end. Wait a few minutes and restart. • Check that you are using fresh batteries. • Check that the batteries are inserted the correct way round in the battery case. • Check that all the wires are touching the metal terminals. If the Spider Robot does not reverse correctly: • Make sure you have matched the wire colours correctly in the terminals.

## G. QUESTIONS & 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 package. You are also welcome to contact our Marketing Support Team: Email: [infodesk@4m-ind.com](mailto:infodesk@4m-ind.com), Fax (852) 25911566, Tel: (852) 28936241, Web site: [WWW.4M-IND.COM](http://WWW.4M-IND.COM)