

## BeAndge BA1003

# BeAndge STEM Robotics Science Kits

## MODEL: BA1003 - INSTRUCTION MANUAL

### 1. Introduction

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Welcome to the world of BeAndge STEM Robotics Science Kits! This manual provides detailed instructions for assembling, operating, and maintaining your 5-in-1 robot building kit. Designed to foster innovative thinking, enhance hand-eye coordination, and stimulate interest in science, technology, engineering, and mathematics (STEM), this kit offers an engaging and educational experience for children aged 6 to 14 years.

### 2. Safety Information

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**WARNING: CHOKING HAZARD - Toy contains small parts, small balls, and functional sharp edges/points. Not for children under 3 years. Adult supervision is required during assembly and operation, especially for younger children (ages 6-8).**

- Always ensure all parts are securely fastened before operating the robots.
- Keep batteries away from small children and dispose of them properly.
- Do not modify the electrical components or wiring.
- Use the provided screwdriver carefully to avoid injury.

### 3. What's in the Box

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Your BeAndge STEM Robotics Science Kit includes components to build five distinct robots. Each robot's parts are individually packaged with its own instruction manual.



Figure 1: Overview of the kit contents, including individual robot packages and tools.

The complete kit contains:

- 5 individual robot assembly kits:
  - Rope-Climbing Robot
  - Solar Robot Car
  - Gear Gecko Robot
  - Dancing Crab
  - Walking Robot
- 5 detailed instruction manuals (one for each robot)
- Motors and DC motors
- Wires and gears
- 1 screwdriver
- Other necessary tools and small parts

**Note: AA batteries are required for operation and are NOT included in the kit.**

## 4. Assembly Instructions

Each robot comes with its own dedicated instruction manual. Follow these general steps for successful assembly:

1. **Browse the Manual:** Carefully read through the entire instruction manual for the specific robot you wish to build. Familiarize yourself with the components and steps.
2. **Check Accessories:** Verify that all parts listed in the manual are present in the individual robot's package.
3. **Install Step-by-Step:** Follow the illustrated steps in the manual to assemble the robot. Pay close attention to wiring connections and screw placements. Younger children (6-8 years) may require adult assistance, especially with small screws and intricate connections.
4. **Check Function:** Once assembled, insert the required AA batteries (not included) and test the robot's functionality according to the manual's instructions.



Figure 2: General assembly process for the robots.



Figure 3: Children engaging in the assembly process, developing hands-on skills.



Figure 4: Adult supervision and assistance can enhance the building experience for younger participants.

## 5. Operating Instructions

Each robot has unique operating mechanisms. Refer to the specific manual for detailed instructions on how to power and control each model.



Figure 5: The Rope-climbing Robot operates via wired remote control, and the Solar Robot is powered by a solar panel.

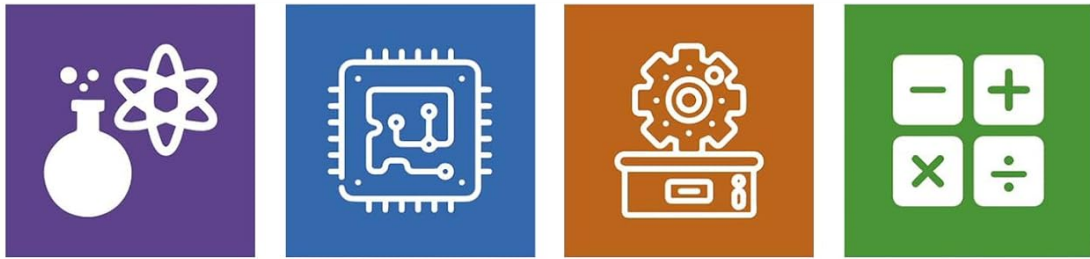


Figure 6: Examples of other robots in the kit, including the Dancing Crab, Walking Robot, and Little Gecko.

### 5.1. Rope-Climbing Robot Operation

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Video 1: Demonstration of the Rope-Climbing Robot in action, moving along a suspended rope.

### 5.2. Dancing Crab Robot Operation

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Video 2: The Dancing Crab robot demonstrating its unique walking motion.

### 5.3. General Robot Assembly and Play

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Video 3: A child assembling one of the robots, showcasing the hands-on building experience.

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Video 4: An overview of the STEM robot kits, showing the box and several assembled robots.

## 6. Maintenance

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- **Cleaning:** Use a soft, dry cloth to clean the robots. Avoid using water or cleaning solutions directly on electronic components.
- **Storage:** Store the robots and unused parts in a cool, dry place, away from direct sunlight and extreme temperatures. Keep small parts in their original bags or a designated container to prevent loss.
- **Battery Care:** Remove batteries from the robots if they will not be used for an extended period to prevent leakage.
- **Inspection:** Periodically check for loose connections, damaged wires, or worn-out parts. Replace or repair as needed.

## 7. Troubleshooting

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- **Robot Not Moving:**
  - Ensure batteries are correctly inserted and have sufficient charge.
  - Check all wire connections to ensure they are secure.
  - Verify that the motor is properly installed and not obstructed.
- **Parts Missing:** While the kit is designed to include all necessary parts, including some extras, if you believe a critical component is missing, please contact customer support.
- **Difficulty with Assembly:** Refer to the detailed step-by-step instructions in each robot's manual. For younger users, adult assistance is highly recommended for intricate steps like screwing small parts.

## 8. Specifications

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<b>Product Dimensions</b>	8.42 x 5.66 x 2.04 inches
<b>Item Weight</b>	13.4 ounces
<b>Item Model Number</b>	BA1003
<b>Manufacturer Recommended Age</b>	6 - 14 years
<b>Manufacturer</b>	BeAndge

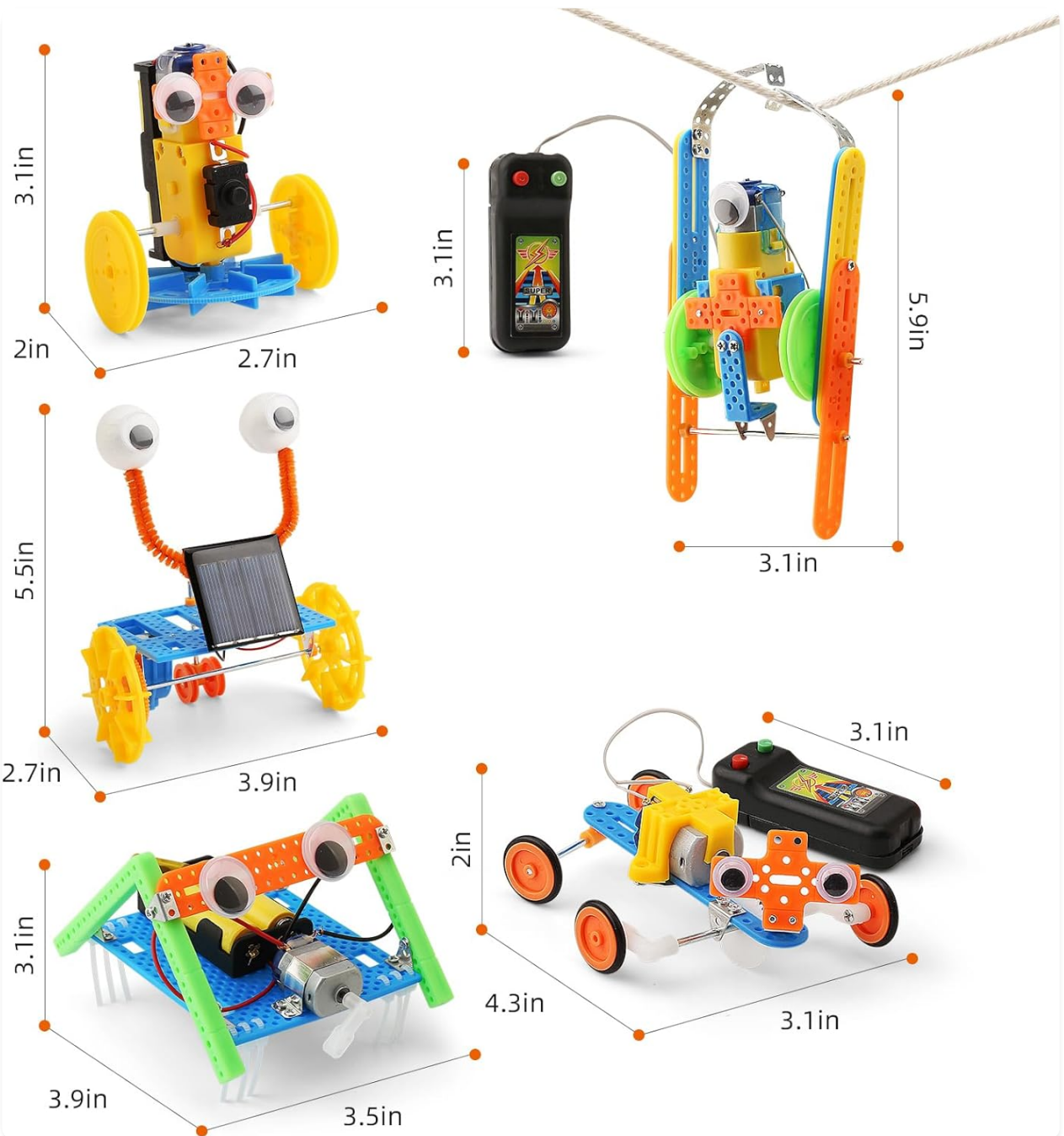


Figure 7: Approximate dimensions of the assembled robots.

## 9. Warranty and Support

For warranty information, please refer to the product packaging or the official BeAndge website. If you encounter any issues or have questions regarding your STEM Robotics Science Kit, please contact BeAndge customer support for assistance.