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› HEXBUG VEX Robotics Ball Challenge - Bank Shot Instruction Manual

HEXBUG 406-8308

HEXBUG VEX Robotics Ball Challenge - Bank Shot Instruction Manual

Model: 406-8308

INTRODUCTION

The HEXBUG VEX Robotics Ball Challenge - Bank Shot kit provides an engaging construction experience, allowing users to build a complex course designed to launch and maneuver a ball through various obstacles. This manual provides detailed instructions for assembly, operation, and care of your VEX Robotics Bank Shot kit.

This kit is designed to promote basic engineering skills and understanding of different mechanisms through hands-on, skills-based play.

SAFETY INFORMATION

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

- Always supervise children during assembly and play.
- Keep all small parts away from young children and pets to prevent choking.
- Do not aim the launcher at people or animals.
- Ensure all connections are secure before operating the challenge.
- Recommended for ages 8 and up.

PACKAGE CONTENTS

The HEXBUG VEX Robotics Ball Challenge - Bank Shot kit includes over 220 easy-connect snap pieces and 2 balls. A STEM guide is also included to enhance the educational experience.

Refer to the back of the product packaging for a visual representation of included components and their functions.



Back of the product box, illustrating key components and their operational principles.

SETUP AND ASSEMBLY

Follow the included STEM guide for detailed, step-by-step assembly instructions. The kit utilizes snap-in-place connectors for easy construction.

1. Unpacking

Carefully remove all pieces from the packaging. Organize components by type to facilitate assembly.

2. Identifying Components

Familiarize yourself with the various pieces, such as base plates, gears, axles, beams, and specialized modules like the Conveyor Belt, Bank Shot Launcher, and Rail Slide.



Product box illustrating the assembled challenge and its main features.

3. Connecting Base Plates

Begin by connecting the base plates to form the foundation of your challenge course. Ensure they are securely interlocked.

4. Assembling Modules

Assemble the individual challenge modules according to the STEM guide. This includes:

- **Conveyor Belt:** Construct the conveyor belt mechanism, ensuring the belt moves freely.
- **Bank Shot Launcher:** Assemble the launcher, paying attention to the elastic components for proper ball propulsion.
- **Rail Slide:** Build the rail slide section, ensuring a smooth path for the ball.



Detailed view of the launcher and conveyor belt sections of the assembled course.

5. Finalizing the Course

Connect all assembled modules to the base plates to complete the challenge course. Verify that all moving parts operate smoothly and that the ball can travel through the entire course without obstruction.



Overhead view of the complete assembled VEX Robotics Bank Shot course.

OPERATING INSTRUCTIONS

Once the course is fully assembled, you can begin the Ball Challenge.

1. Loading the Ball

Place one of the included balls at the designated starting point of the course, typically near the launcher mechanism.

2. Launching the Ball

Operate the Bank Shot Launcher by pulling back and releasing the mechanism to propel the ball onto the course. Adjust the force as needed to navigate the obstacles.

3. Utilizing Course Elements

- **Conveyor Belt:** Turn the gear to activate the conveyor belt, moving the ball forward or backward along that section of the course.

- **Rail Slide:** The ball will roll down the rail slide, potentially triggering gears or other mechanisms.
- **Bank Shot:** Aim the ball to hit the bank shot target, redirecting its path towards the goal.



The bank shot target and goal area in the assembled course.

MAINTENANCE

To ensure the longevity and optimal performance of your HEXBUG VEX Robotics Ball Challenge - Bank Shot kit, follow these maintenance guidelines:

- **Cleaning:** Wipe down components with a dry or slightly damp cloth. Do not use harsh chemicals or abrasive cleaners.
- **Storage:** Store the kit in a cool, dry place away from direct sunlight. Disassemble the course into its main modules for compact storage if desired.
- **Inspection:** Periodically check all connections and moving parts for wear or damage. Replace any broken pieces if possible.

TROUBLESHOOTING

If you encounter issues with your VEX Robotics Ball Challenge kit, consider the following:

- **Ball not launching effectively:** Ensure the launcher mechanism is fully engaged and released. Check for any obstructions in the ball's path. Verify elastic bands are properly attached and not stretched out.
- **Ball getting stuck:** Inspect the course for misaligned pieces or loose connections. Ensure all gears and moving parts are free from debris.
- **Modules not connecting:** Apply firm, even pressure when connecting snap pieces. Ensure the correct pieces are being used as per the STEM guide.
- **Missing pieces:** Double-check the packaging and assembly area. If pieces are genuinely missing, contact customer support.

SPECIFICATIONS

Model Number	406-8308
Brand	HEXBUG
Manufacturer	Innovation First Trading SARL
Material Type	Plastic
Recommended Age	8+ years (96 months minimum)
Number of Pieces	Over 220
Item Dimensions (L x W x H)	10 x 3 x 11 inches (assembled, approximate)
Educational Objective	STEM (Science, Technology, Engineering, Mathematics)
Operation Mode	Manual
Number of Players	1

CUSTOMER SUPPORT

For further assistance, missing parts, or warranty inquiries, please visit the official HEXBUG website or contact their customer service department. Refer to the product packaging for specific contact details or visit www.hexbug.com.

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

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