E7 Pro WhalesBot Coding Robot for Kids Instruction Manual

Contents

WhalesBot

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Product Information

The product is called WhalesBot Explorer. It is a robot developed by WhalesBot Technology (Shanghai) Co., Ltd. The robot is designed to provide interactive experiences and educational programming challenges. It features touch sensors, programming capabilities, and the ability to detect and avoid obstacles. The robot can be controlled using the WhalesBot mobile app.

Contact Information:

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- **Address:** Floor 7, Tower C, Weijing Center, No. 2337, Gudai Road, Shanghai

Product Usage Instructions

WhalesBot Explorer:

To use the WhalesBot Explorer, follow these steps:

Step 1: Download and Install the Mobile App

Scan the provided code to download the WhalesBot app on your mobile device.

Step 2: Select the Corresponding Model/Robot

Open the app and select the WhalesBot Explorer as your chosen model/robot.

Step 3: Download and Build the Project

Download the project for the Explorer and follow the building guide to assemble the robot.

Step 4: Enter Programming Interface

After completing the construction, click on the programming icon in the app to enter the programming interface.

Challenge Tasks

The WhalesBot Explorer offers several programming challenges. Here are some examples:

Challenge One:

Program the Explorer to move forward for a specified number of seconds, then turn left for a specified number of seconds and finally continue moving forward for another specified number of seconds.

Challenge Two:

Program the Explorer to move forward until it encounters an obstacle. When it encounters an obstacle, it should stop.

Challenge Three:

Program the Explorer to move forward. When it encounters an obstacle, it should move backward for a specified number of seconds, turn left to avoid the obstacle, and then continue moving forward. If it encounters another obstacle, it should repeat the backward and left-turn actions.

More Tricks:

When the touch sensor on a specific port is pressed, the Explorer can be programmed to perform certain actions, such as moving forward or backward for a specified number of seconds.

Penguin:

The product also includes a robot called WhalesBot Penguin. It is designed to investigate the transmission of bevel gears. The Penguin has similar features to the Explorer but focuses on different educational challenges.

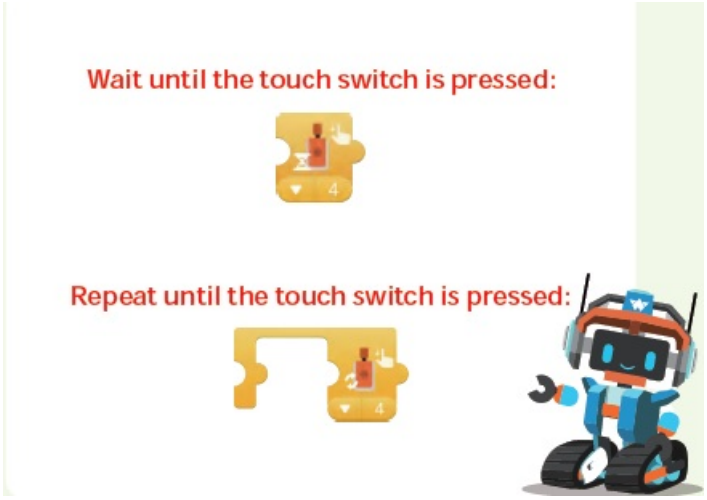
For detailed instructions on using the WhalesBot Penguin, follow the same steps provided for the WhalesBot Explorer.

Note: The specific programming challenges for the Penguin may differ from those of the Explorer. Please refer to the provided reference program and challenging tasks for the Penguin in the user manual.

KNOWLEDGE CARD

Understanding Sensors.

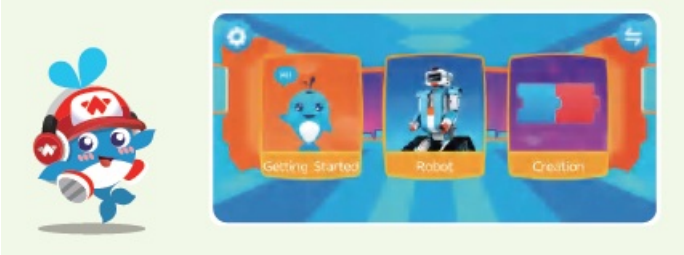
Touch sensor: When the button is pressed, it transmits information to the host for controlling subsequent programs. In the program, it is generally used as a judgment condition in wait until command or repeat until command.



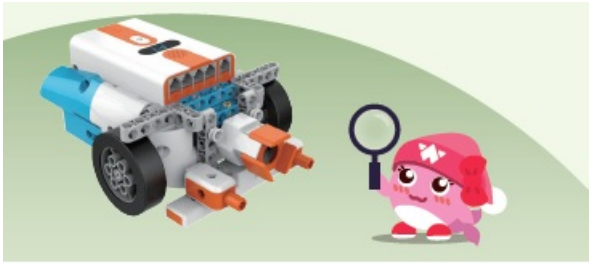
BUILDING GUIDE

- Download / Install / Open Register the mobile app

- Select the corresponding model / Robot

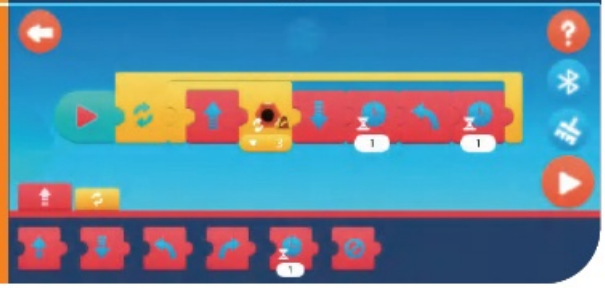


- Download the project and build it



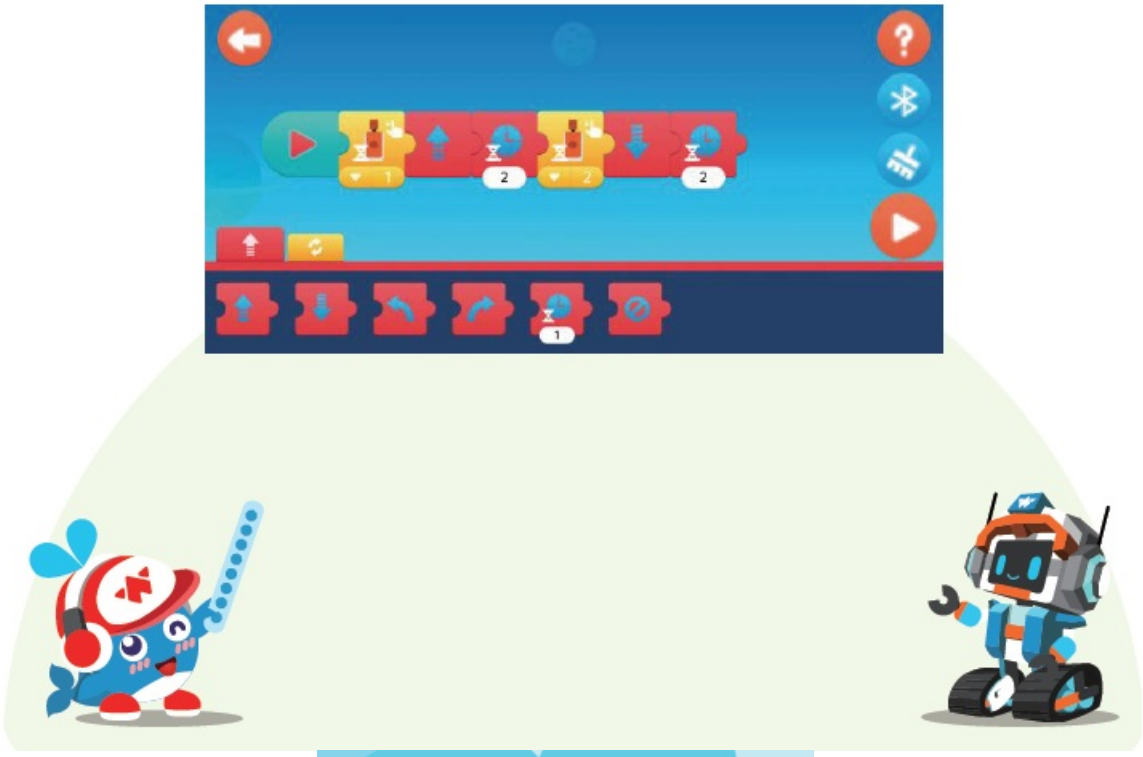
PROGRAMMING CHALLENGE

After completing the construction, click the icon  to enter the programming interface.

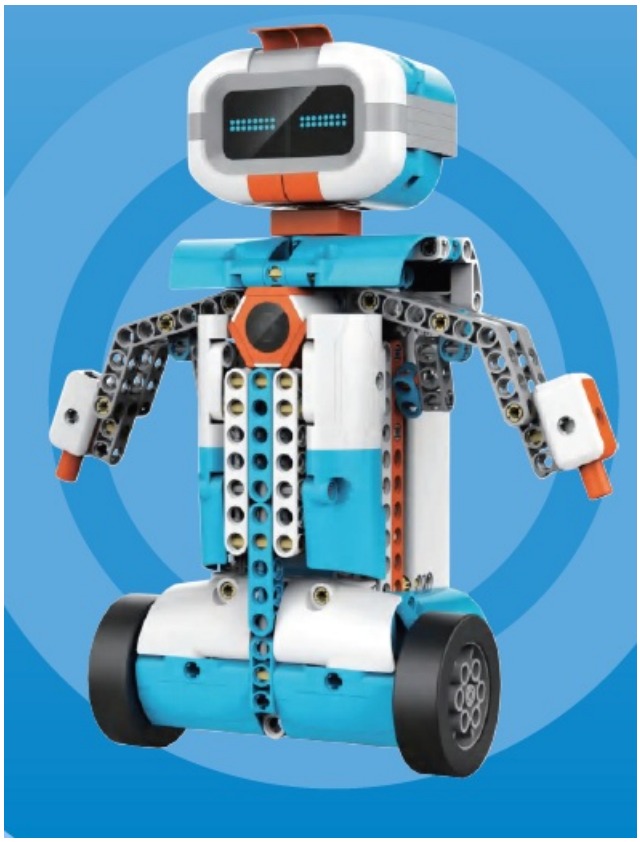
Challenge Tasks	Reference Program
Challenge One: Let the Explorer move forward for 3 seconds, turn left for 1 second, and continue to move forward for 1 second.	
Challenge Two: Let the Explorer continue to move forward until it encounters an obstacle, at which point it stops.	
Challenge Three: Let the Explorer continue to move forward. When it encounters an obstacle, it moves backward for 1 second and turns left to avoid the obstacle before moving forward again; if it encounters an obstacle again, it repeats the backward and left-turn actions.	

MORE TRICKS:

When the touch sensor on port 1 is pr essed, the E xplorer moves f or ward for 2 sec onds; when the t ouch sensor on port 2 is pr essed, the E xplorer mo ves b ackward for 2 seconds.

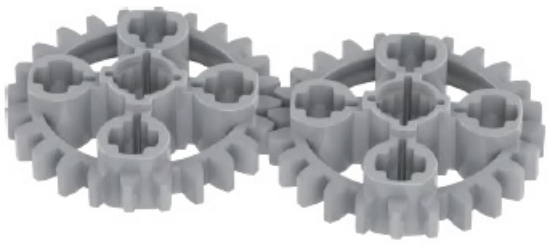


Penguin Project Launch



KNOWLEDGE CARD:

Investigating the Transmission of Bevel Gears.

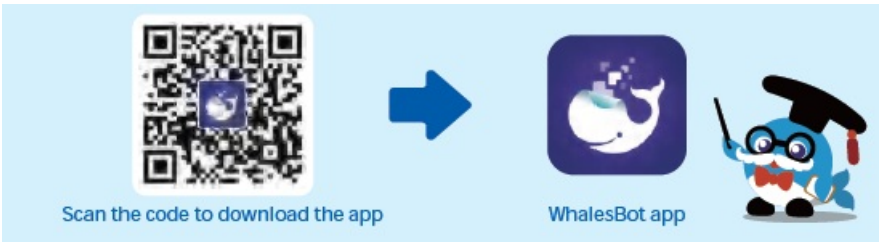


Transmission of Ordinary Gears

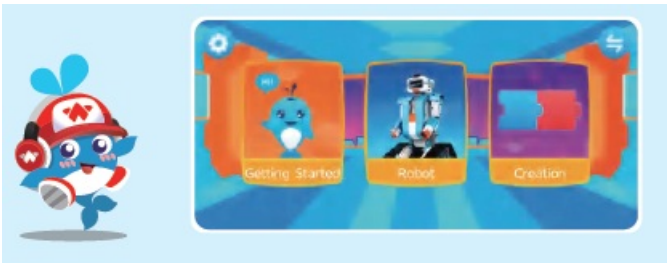
When two gears mesh together, if one gear moves, the other will also move, this is called transmission. Because of its peculiar shape, the bevel gear can only transmit at specific angles, and w e c all this hypoid tr ansmission.

BUILDING GUIDE:

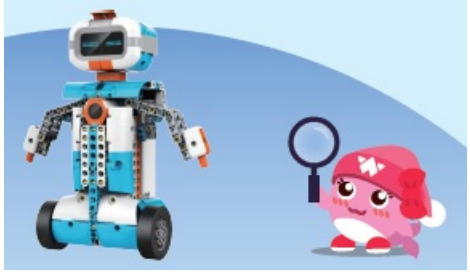
Download / Install / Open Register the mobile app



Select the corresponding model / Robot

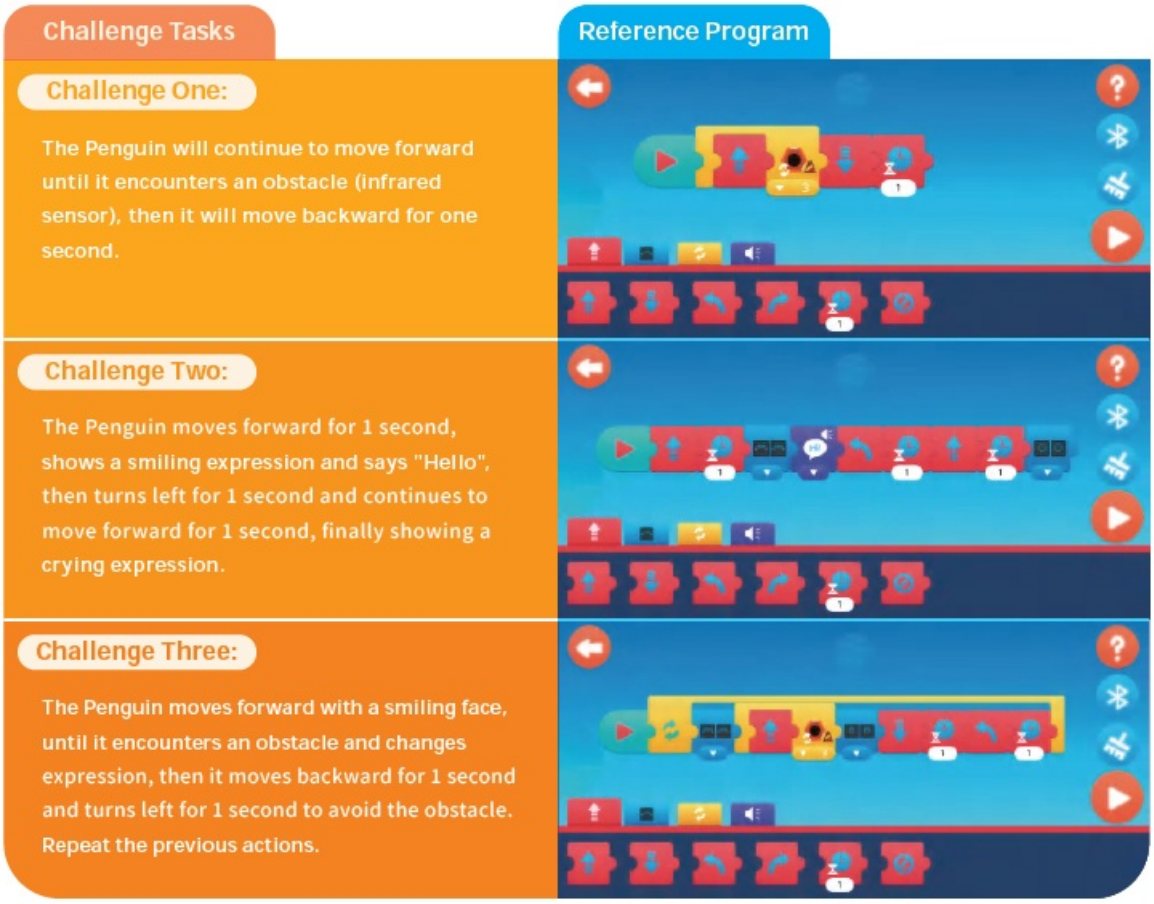


Download the project and build it Penguin



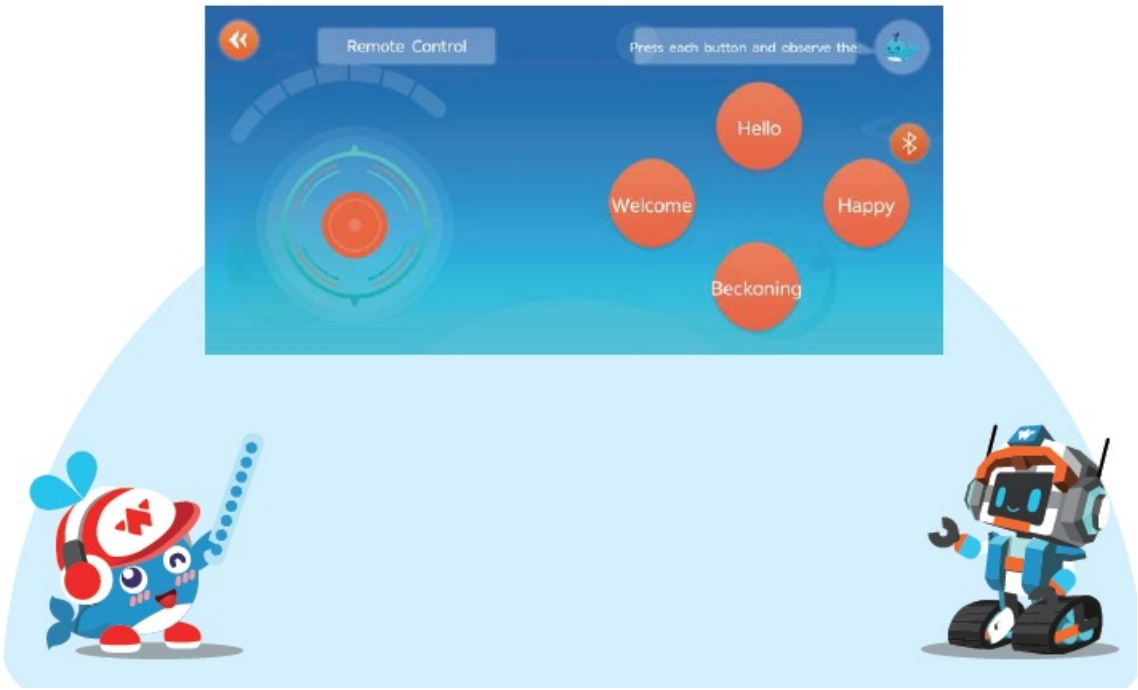
PROGRAMMING CHALLENGE:

After completing the construction, click the icon  to enter the programming interface.



MORE TRICKS:

Return to the construction interface, click the icon to enter the remote control interface. The left side of the interface controls the Penguin's movements, and the right side controls the Penguin's speech. Control the Penguin to navigate around obstacles and greet people.

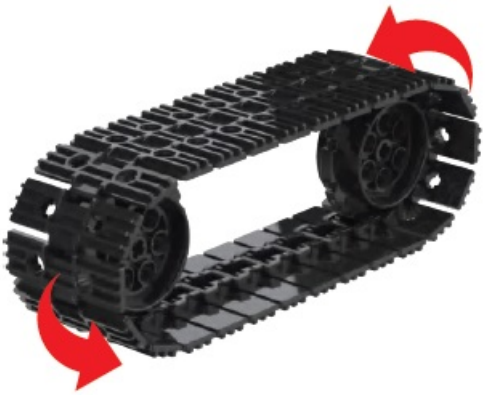


Wall Project Launch

KNOWLEDGE CARD:

Unveiling the Crawler Structure.

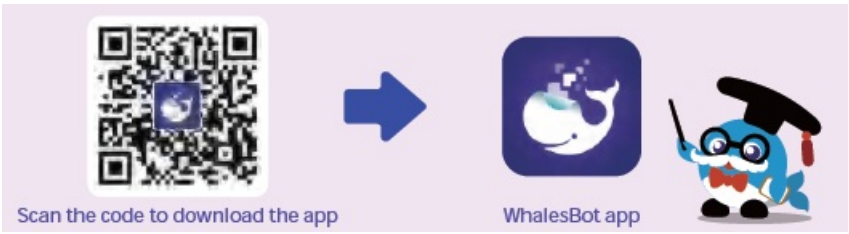
At least two wheels are required in a crawler. As long as one wheel moves, the other will follow and rotate in the same direction. However, having only two wheels can easily deform the crawler.



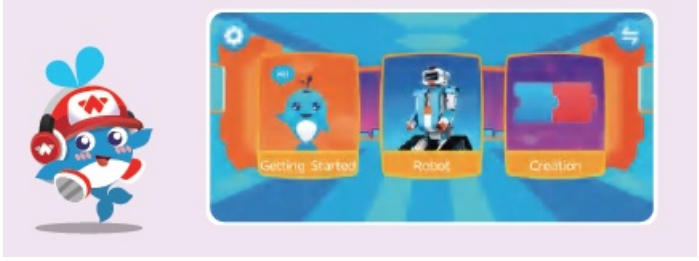
Therefore, many crawler structures involve three wheels. The top one is called the band-supporting wheel, which mainly functions to lift and keep the crawler taut.

BUILDING GUIDE:

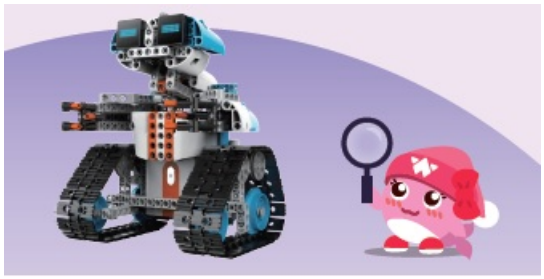
Download / Install / Open Register the mobile app



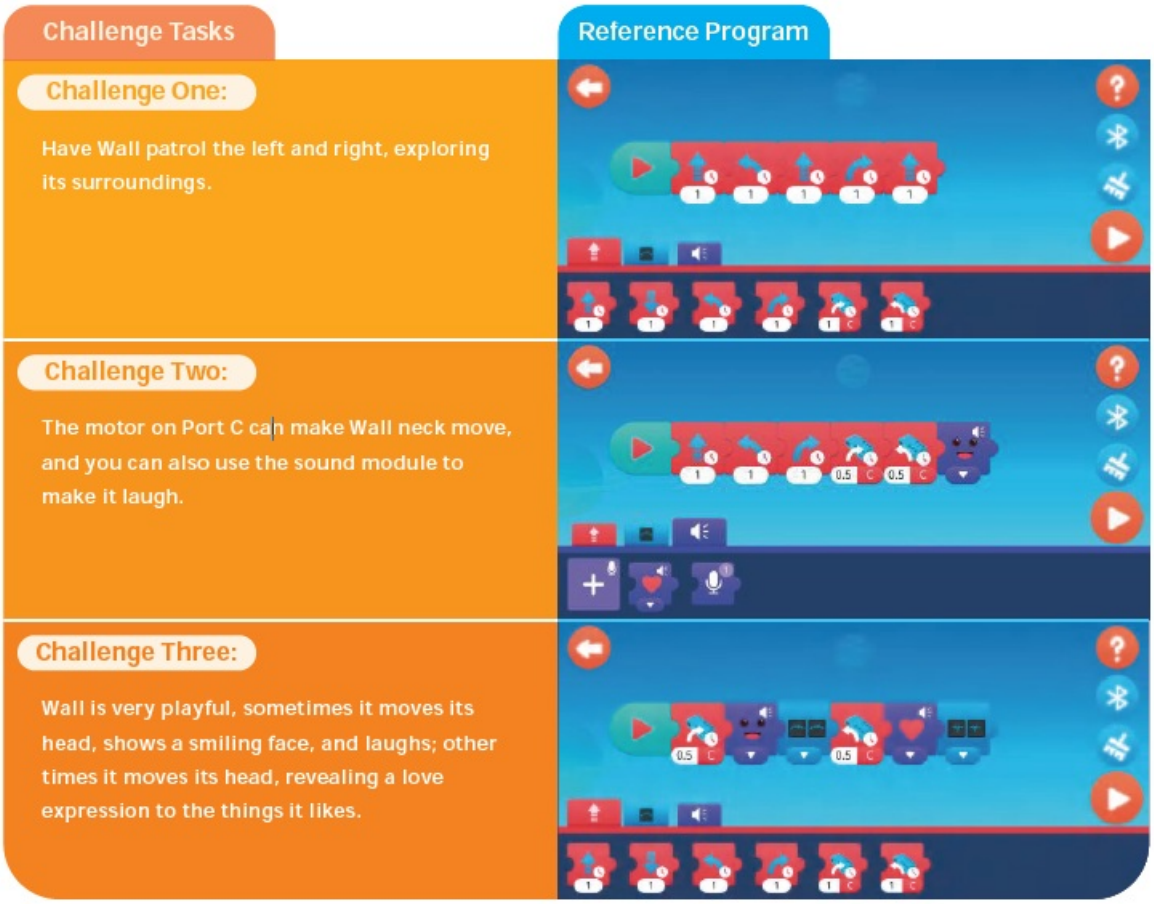
Select the corresponding model / Robot



Download the project and build it Wall

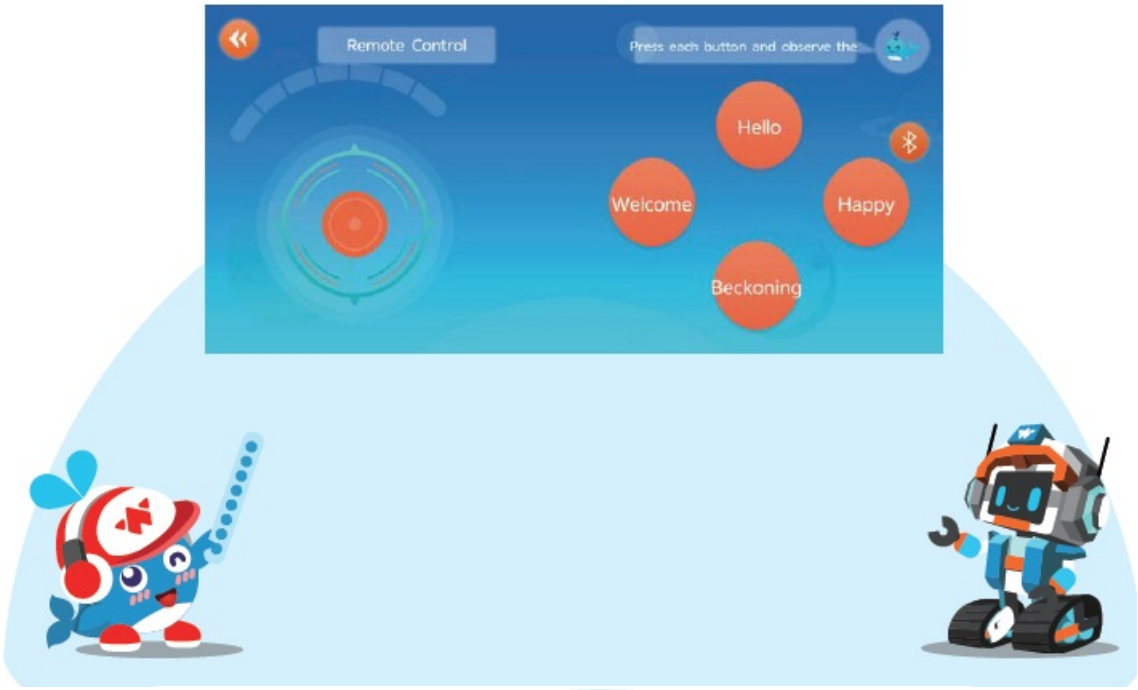


PROGRAMMING CHALLENGE: After completing the construction, click the icon  to enter the programming interface.



MORE TRICKS:

Wall will move its head to observe when turning, then show a smiling face and move forward after turning. Can you complete the program?

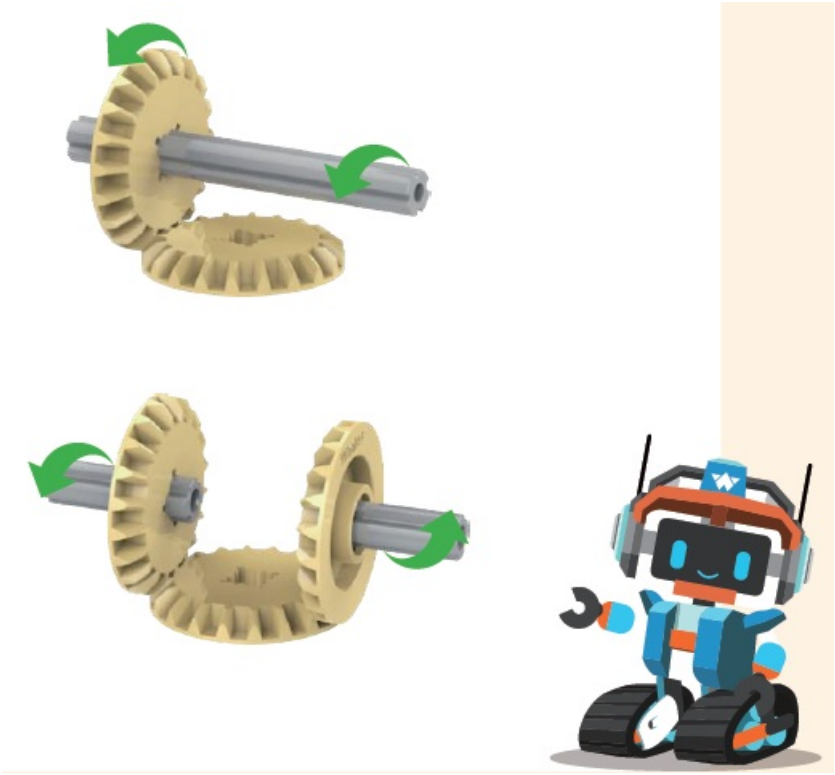


The Duke Project Launch

KNOWLEDGE CARD:

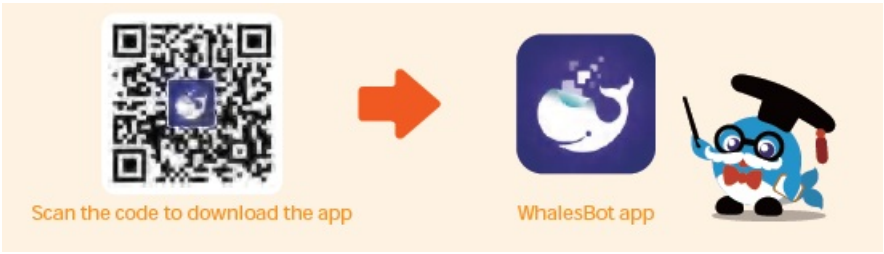
Direction of Bevel Gear Transmission.

We can use one bevel gear to drive one or more bevel gears. If the two driven bevel gears are placed face to face, then their rotation directions will be opposite.

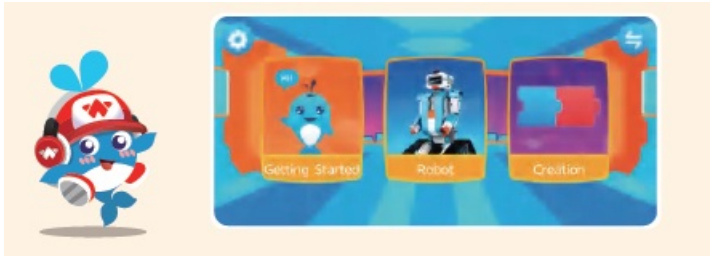


BUILDING GUIDE:

1. Download / Install / Open Register the mobile app



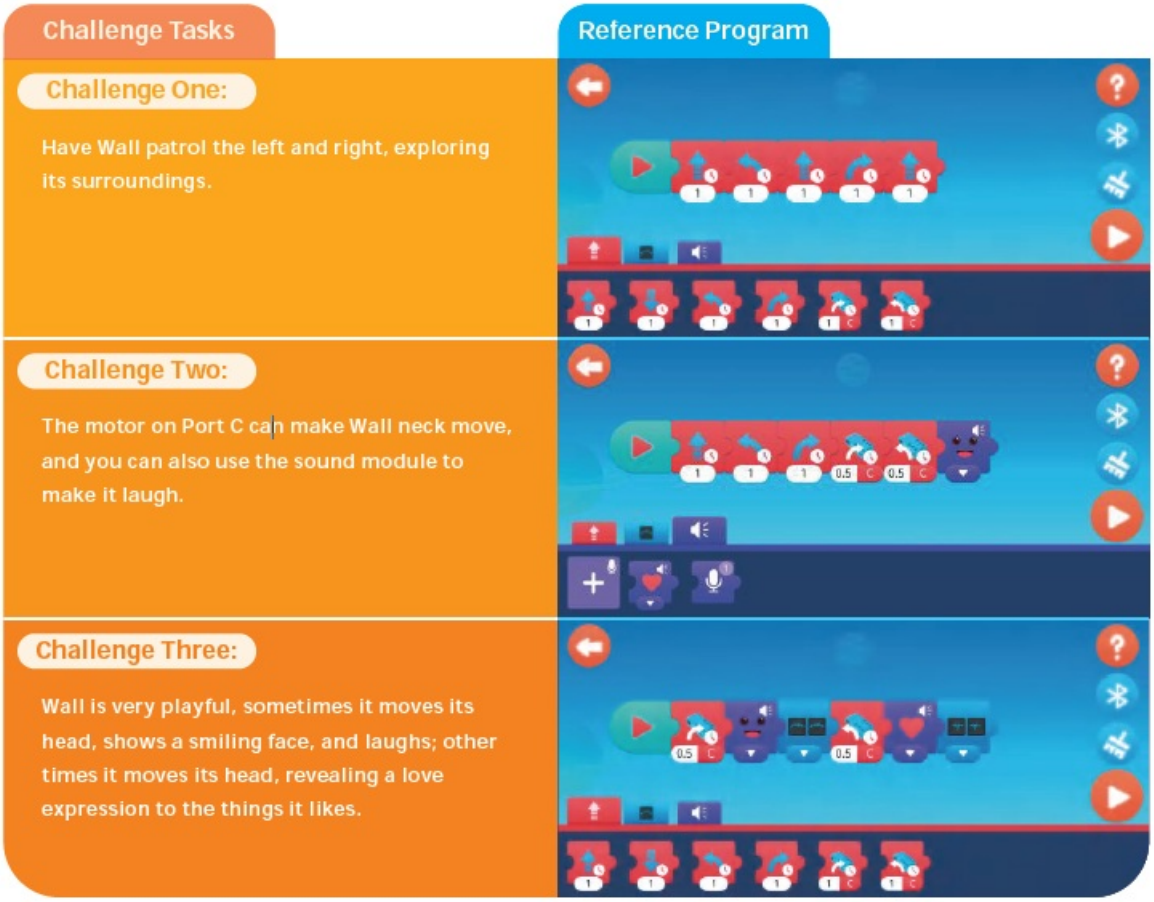
2. Select the corresponding model / Robot



3. Download the project and build it

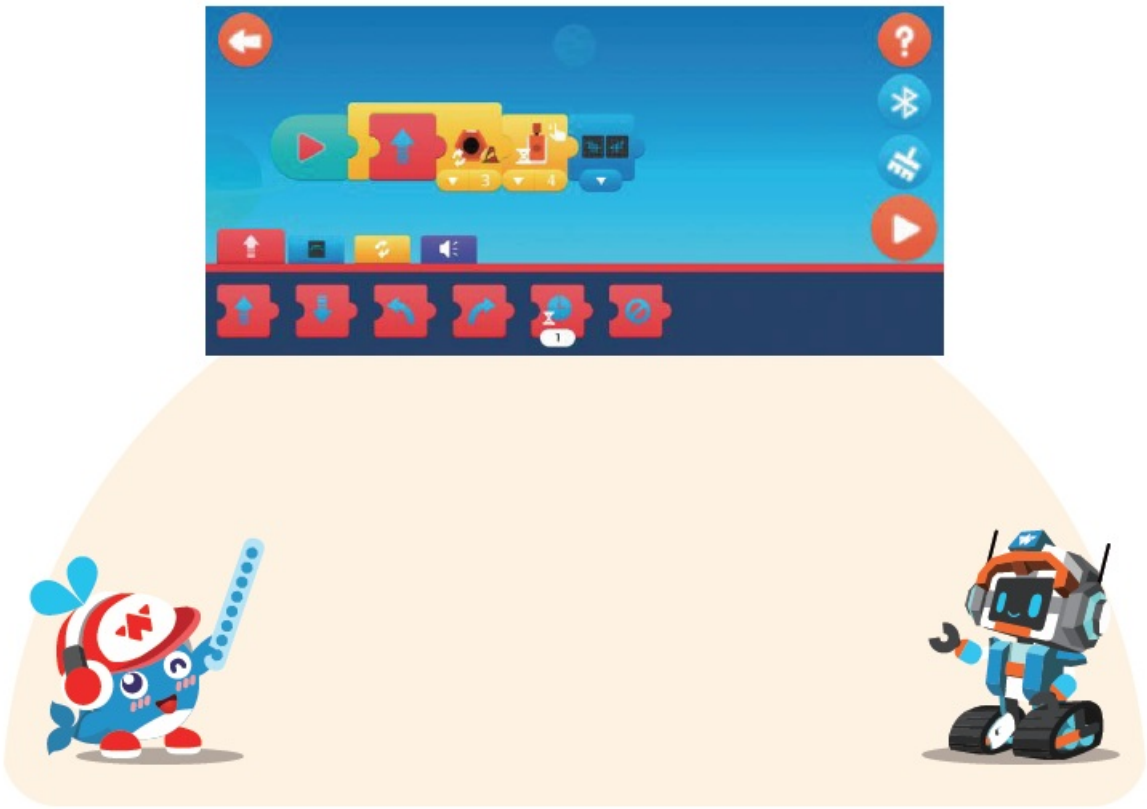
PROGRAMMING CHALLENGE:

After completing the construction, click the icon  to enter the programming interface.



MORE TRICKS:

The Duke will keep moving forward until it encounters someone and stops. When someone touches its hand (touch sensor), it will show an angry expression.



Goal: Become the No .educational robotics brand worldwide

Contact

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Documents / Resources

	WhalesBot E7 Pro WhalesBot Coding Robot for Kids [pdf] Instruction Manual E7 Pro WhalesBot Coding Robot for Kids, E7 Pro, WhalesBot Coding Robot for Kids, Coding Robot for Kids, Robot for Kids

References

- WhalesBot | 3-22 STEM Toys, STEM Eduction, Coding Robots, Robotics
- User Manual