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# User Manual



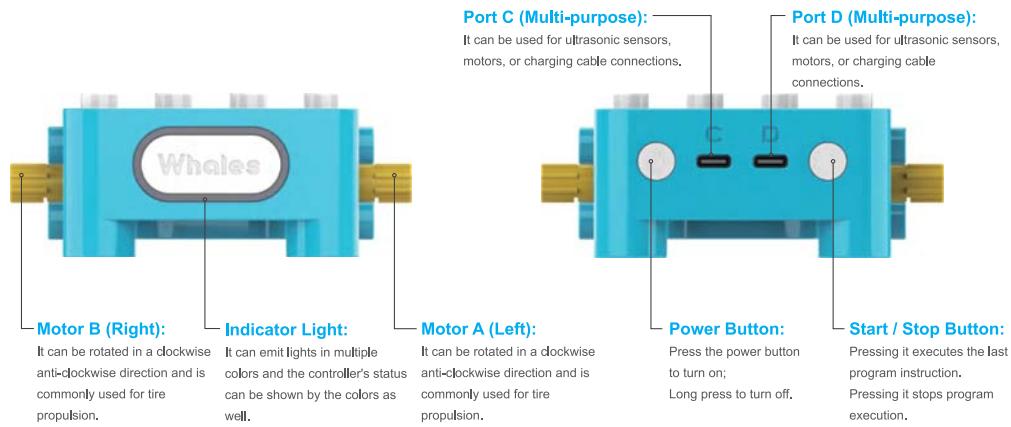
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\* More projects available at [www.whalesbot.ai](http://www.whalesbot.ai)



# Controller



# Coding pen

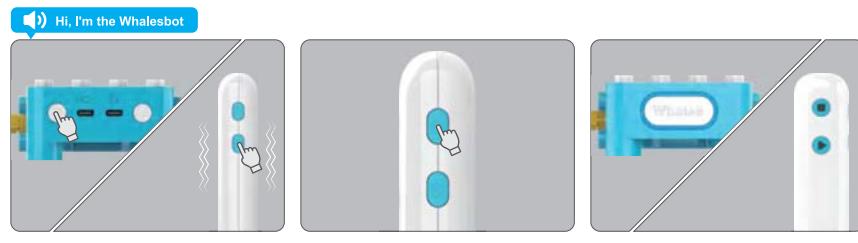


## Intelligent motor



## Pairing method

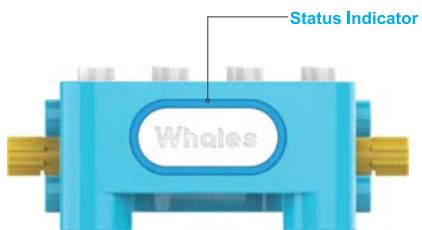
1. Turn on the controller by pressing the power button briefly. You'll hear "Hi, I'm the Whalesbot" to confirm it's on.
2. Power on the coding pen and you'll feel a noticeable vibration.
3. Bring the coding pen close to the controller.
4. Long press the pairing button on the coding pen until the start button indicator light alternates between red and blue.
5. When you hear the controller play the sound "pairing succeeded" and both the controller and coding pen indicator lights turn blue, the pairing is complete.
6. If you hear the controller play the sound "pairing failed," repeat the above steps to retry the pairing process.



1 Turn on the controller and coding pen  
2 Long Press to Pair (3 sec)  
3 Pairing Succeeded



## Indicator light description



Red Breathing Light	Charging
Green Light	Fully Charged
Red Light	Low Power
Blue Light	Pairing Succeeded
Blue Light Flashing	Unpaired
Light Off	Running Program/ Controller Power Off



Run Button Emits Red Breathing Light	Charging
Green Light	Fully Charged
Red Light	Low Power
Blue Light	Pairing Succeeded
Run Button Light Alternates Between Red And Blue Flashing	Pairing with Controller
Run Button Light Flashing In Blue	Unpaired

## Coding cards

 x1	<b>Repeat Forever Starts</b> A card to start a repeating sequence. Place it before the coding cards to be repeated	 x2	<b>Move Forward</b> Control the controller's motors (after installing wheels) to move forward. Default: one unit (20 cm)	
 x1	<b>Repeat Forever Ends</b> A card to end a repeating sequence. Place it after the coding cards to be repeated	 x1	<b>Move Backward</b> Control the controller's motors (after installing wheels) to move backward. Default: one unit (20 cm)	
 x2	<b>Wait</b> Pause execution for a specified duration (default: 1 second). Followed by a number parameter card	 x1	<b>Turn Left</b> Rotate the controller to the left. Default: 90 degrees	
 x1	<b>Run Program</b> Execute the current program	 x1	<b>Turn Right</b> Rotate the controller to the right. Default: 90 degrees	
 x1	<b>Stop Program</b> Stop the current program	 x1	<b>Start Motor</b> Rotate an external motor clockwise. Default: 1 second	
 x2	<b>Start Program</b> Enter coding cards to begin creating a new program	 x1	<b>Reverse Motor</b> Rotate an external motor counterclockwise. Default: 1 second	
 x2	<b>Number 2</b> Parameter card for adjusting speed, time, or repeat times	 x2	<b>Number 4</b> Parameter card for adjusting speed, time, or repeat times	
 x2	<b>Number 3</b> Parameter card for adjusting speed, time, or repeat times	 x2	<b>Number 5</b> Parameter card for adjusting speed, time, or repeat times	
			 x1	<b>Controller Green Light</b> Turn the controller's indicator light green
			 x1	<b>Controller Red Light</b> Turn the controller's indicator light red
			 x1	<b>Controller Blue Light</b> Turn the controller's indicator light blue
			 x1	<b>Controller Light Off</b> Turn off the controller's light



## How to program with a coding pen

There are two ways to control the robot with the coding pen



The first is to directly use the coding pen to scan the coding cards such as "forward", "turn right" and "aircraft sound", and the controller will directly execute the corresponding commands.

The second way is to prearrange the coding cards. Please use the coding pen to click on the "Start Program" coding card, then tap the arranged coding cards in order. Finally, it is best to press the "Run" button on the coding pen.

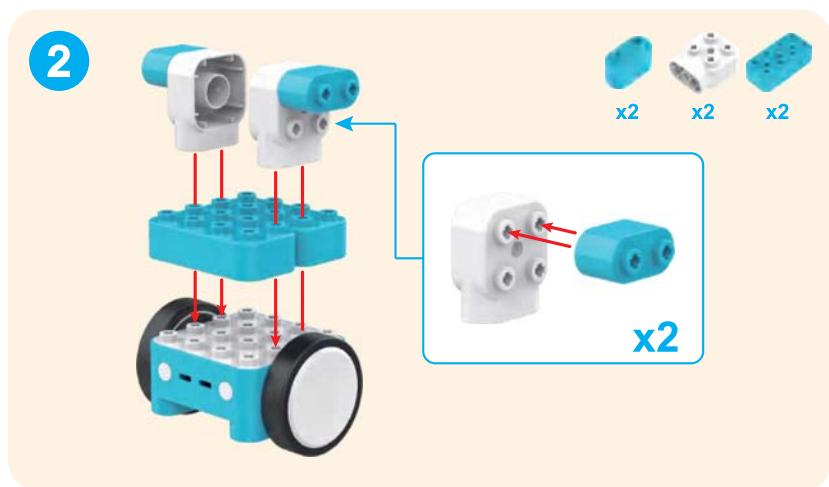


## Sample project

Let's make a cool motocross bike and make it move

1





4



x2

x1

5

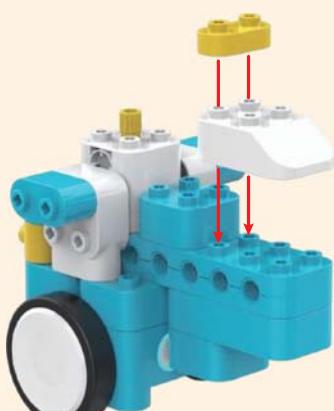


x2

x1



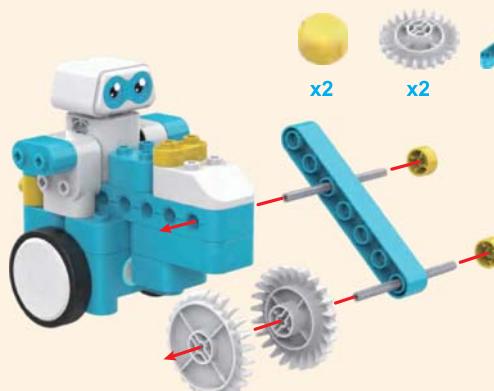
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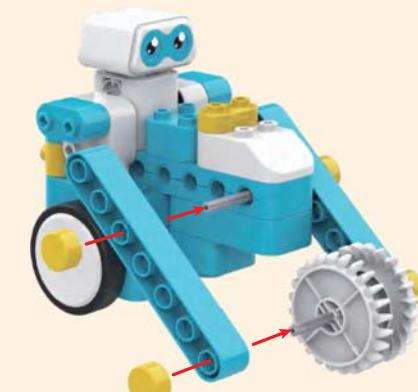
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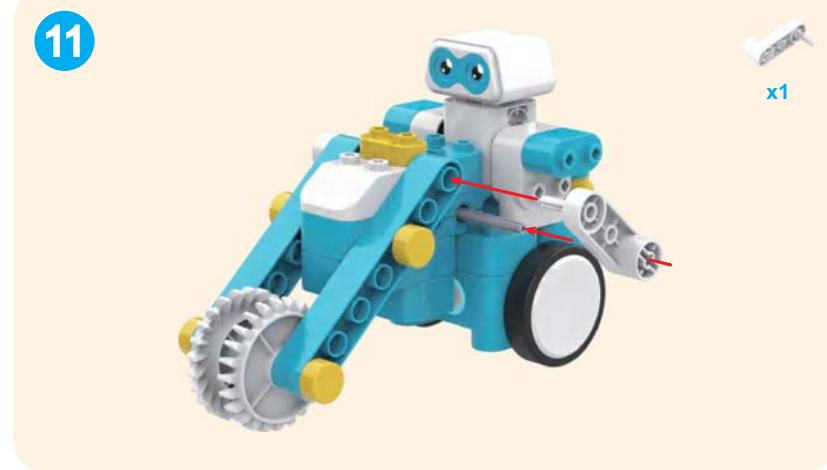
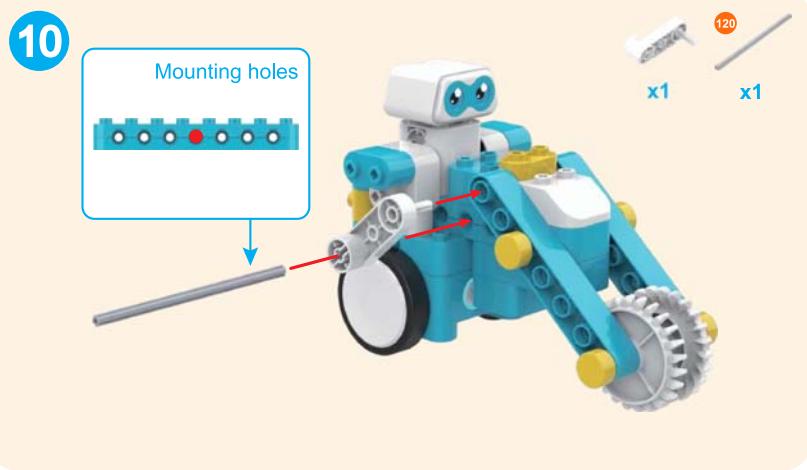


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Let's program a motocross bike to move

12



Scan the "forward" coding card and the motocross bike will move forward



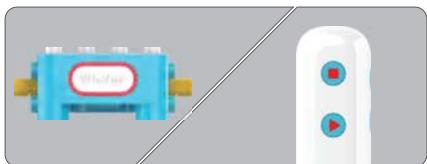
Scan each coding card sequentially, then press the run button.  
The motocross bike will first turn left



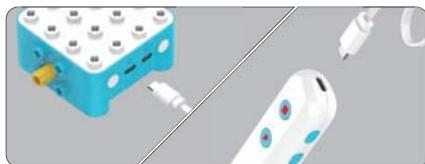
**Unable to Input Coding Cards:** When running a program that uses forever repeat, if you need to enter a new coding card, you need to press the stop button on the coding pen or enter the stop program card to stop the running program; otherwise, if you try to enter the new coding card with the coding pen, the coding pen will vibrate, but it can not enter coding cards as usual. In other cases, the coding cards can not be entered as usual, please check whether the connection between the coding pen and the controller is normal.

# Charging method

When the indicator light on the controller or coding pen turns red, it signifies that the device's battery power is low. To recharge, simply connect one end of the included Type C charging cable to either port C or D on the controller or the charging port of the coding pen. Then, connect the other end of the cable to a USB adapter (not included) for charging. The charging process typically takes approximately 2 hours for the controller and 1.5 hours for the coding pen.



**1 Power Low**  
Controller: Red light  
Coding Pen: Red light



**2 Connect Charging Cable**  
Controller: Connects to port C or D  
Coding Pen: Connects to charging port



**3 Connect USB Adapter**  
Connects to adapter with USB interface for charging



**4 Start Charging**  
Controller: Takes about 2 hours to fully charge  
Coding Pen: Takes about 1.5 hours to fully charge



## Description of Usage and Replacement of Lithium Batteries

1. The controller of the device is powered by a fixed and non-detachable 3.7 V/430 mAh lithium battery;
2. The lithium battery of this product must be charged under the supervision of an adult. It should be charged according to the method or equipment provided by the company. It is forbidden to charge without supervision;
3. Charging the battery without proper supervision is strictly prohibited. It should be charged using the specified method or equipment provided by the company;
4. Avoid using the controllers, coding pen, motor, and other components in a wet environment to prevent any liquid from flowing into the components, as it may lead to a short circuit of the battery power supply or power terminals;
5. When the product is not in use, it is recommended to charge it before storage. Regularly charge the product at least once every three months, even if it is not being used frequently;
6. To ensure proper charging, it is advised to use the recommended adapter with 5 V/1 A adapter;
7. If the lithium battery is unable to charge or exhibits signs of deformation, heating, or any other unusual behavior during the charging process, it is crucial to disconnect the charging immediately and contact us for assistance. Please refrain from attempting any private disassembly as it is strictly prohibited;
8. Caution: Do not expose the battery to flames or dispose of it in fire. Recycle or dispose of lithium batteries separately from household garbage.



# Precautions

## ⚠ | Warning

- Regularly check the product for any damage to wires, plugs, housing, or other parts. If any damage is found, discontinue use and have the product repaired before using it again;
- Children should use this product under the supervision of an adult;
- To prevent product failure and personal injury, please refrain from disassembling, repairing, or modifying this product on your own;
- Please avoid placing it in water, fire, humidity, or high-temperature environments to prevent product failure or safety accidents;
- Refrain from using the product in environments that exceed its specified operating temperature range of 0-40°C.

## ⊗ | Maintenance

- If not in use for a long time, please store it in a dry and cool environment;
- When cleaning it, please turn off the product and wipe it with a dry cloth or disinfect it with less than 75% alcohol.

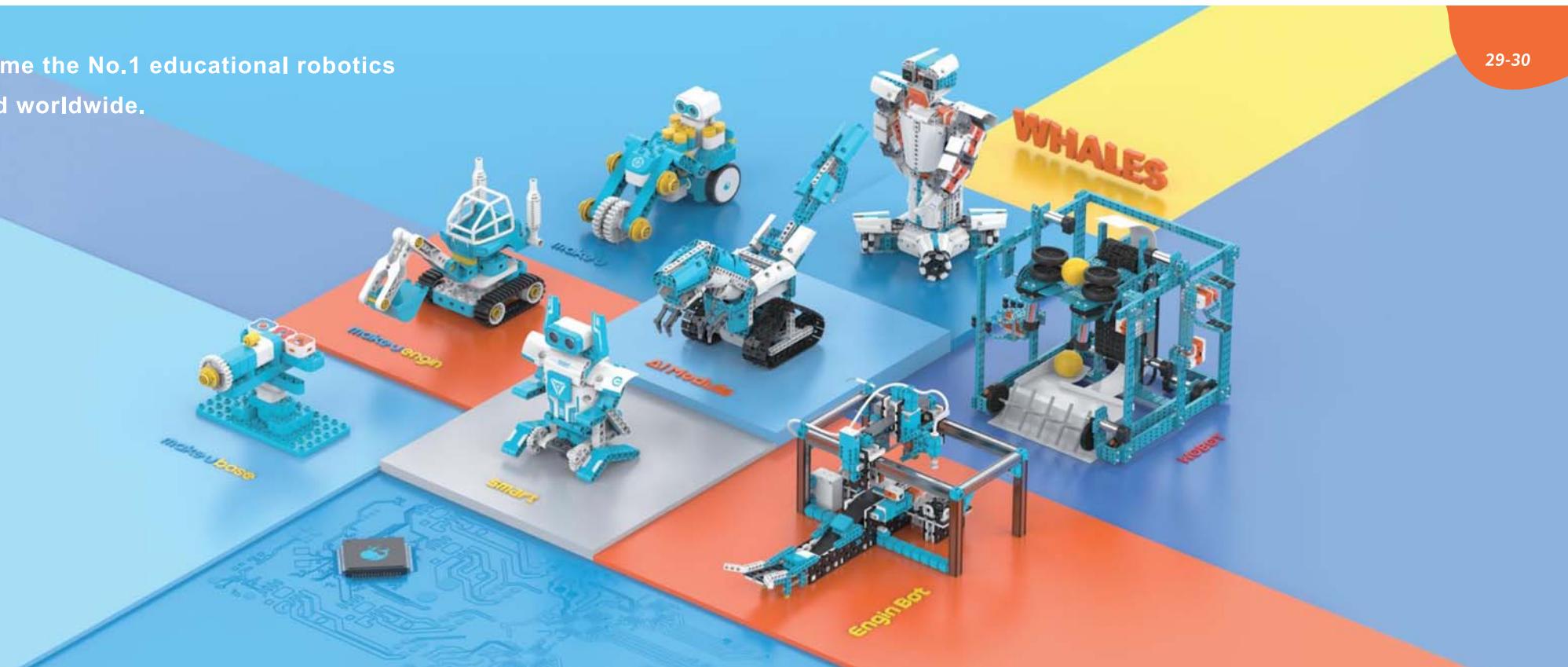
# Specification Parameters

## Controller & Coding Pen Specification Parameters

Battery (Controller)	1500 mAh Lithium Battery
Type C Input Voltage (Controller)	DC 5V
Type C Input Current (Controller)	1A
Battery (Coding Pen)	430 mAh Lithium Battery
Type C Input Voltage (Coding Pen)	DC 5V
Type C Input Current (Coding Pen)	1A
Transmission Mode	2.4 GHz
Effective Usage Distance	Within 10 m (Open Environment)
Usage Temperature	0°C ~ 40°C



**Goal: Become the No.1 educational robotics brand worldwide.**



#### FCC Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: Reorient or relocate the receiving antenna.

- . Increase the separation between the equipment and receiver.
- . Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

. Consult the dealer or an experienced radio/TV technician for help.

Cations to this device not explicitly approved by manufacturer could Caution:

. Any changes or modivoid your authority to operate this equipment. RF Exposure Information

The device was evaluated to meet general RF exposure requirements. This equipment should be installed and used with a minimum distance of 0 mm between the radiator and your body.