

CREATE A SMART AGE WITH STUDENTS



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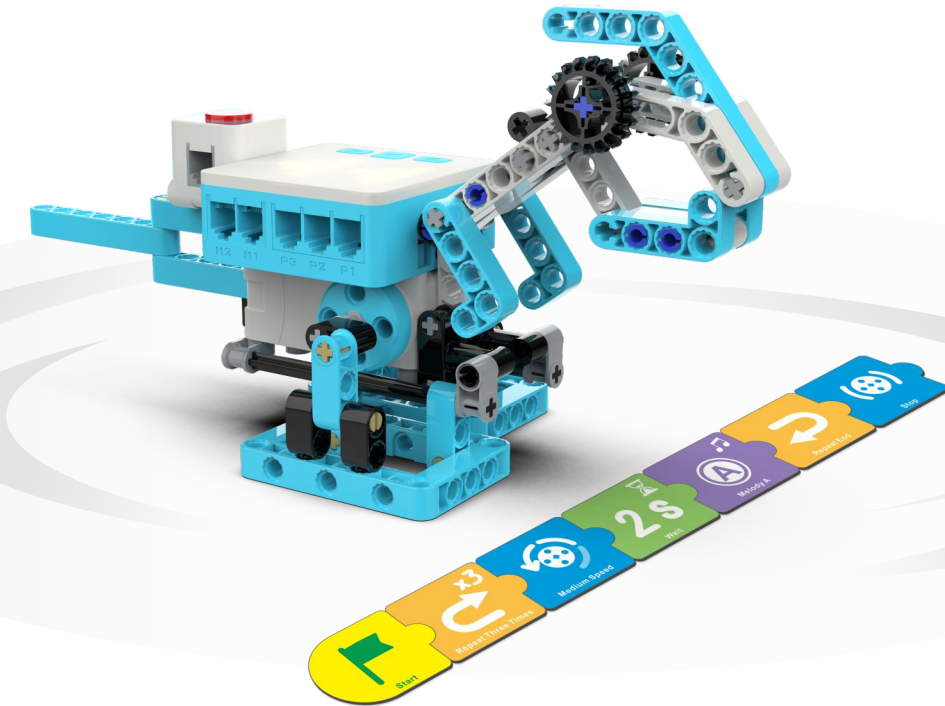
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ZMROBO
ROBOT

User's Guide For **α SERIES**

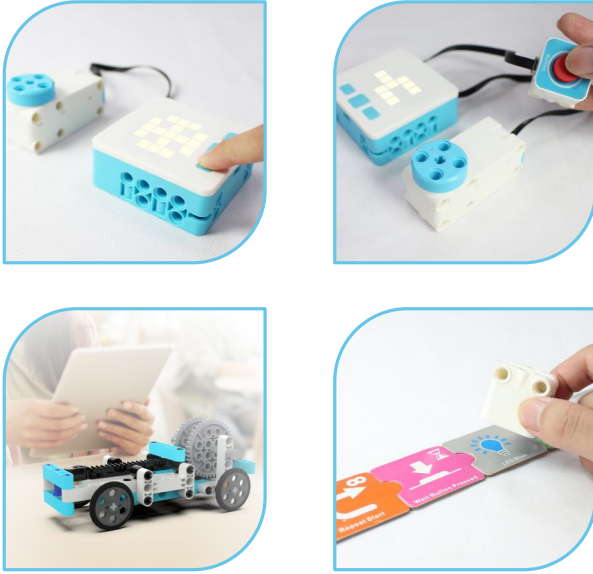
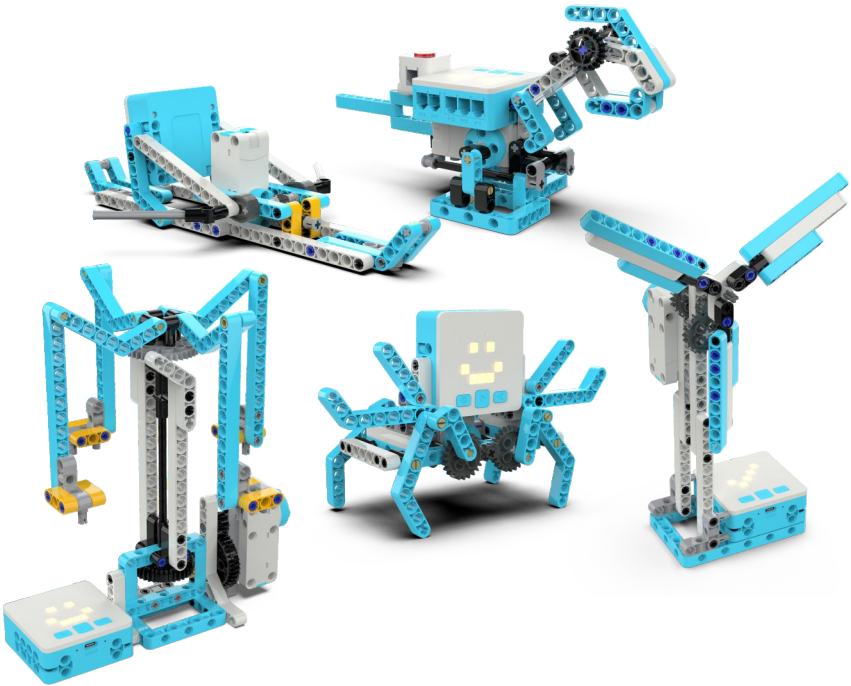


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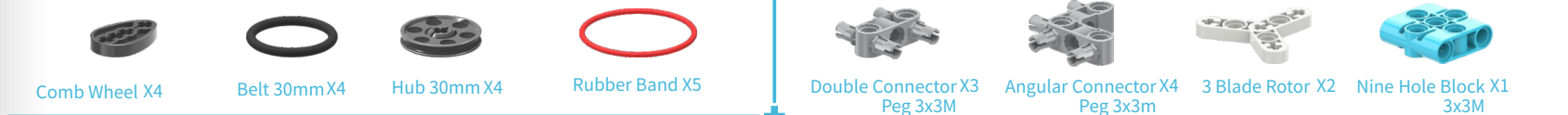
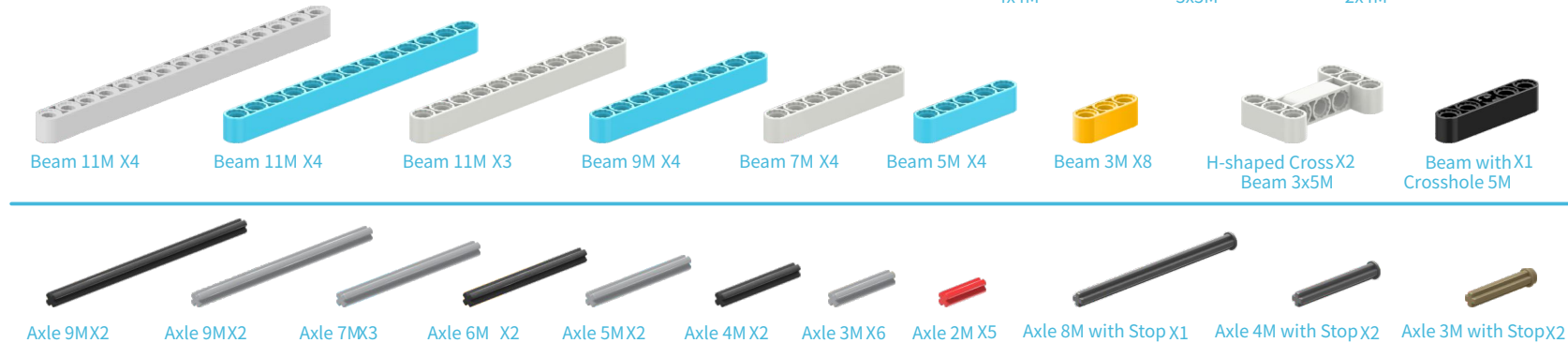
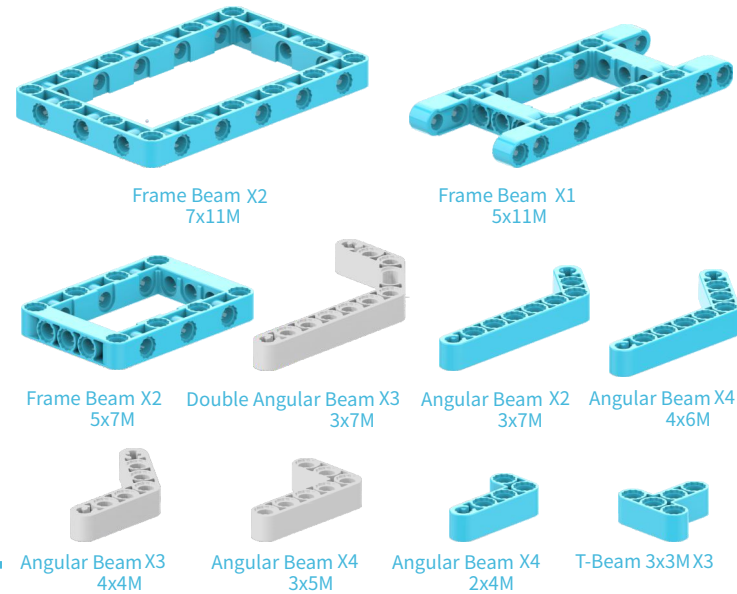
1 Introduce the α Series

Children need to be prepared for the intelligent world in the future, which is difficult to achieve if they only rely on the traditional and single form of building blocks, which can no longer satisfy their curiosity and thirst for knowledge, so we decide to let the blocks become dynamic, perceptive and thoughtful.



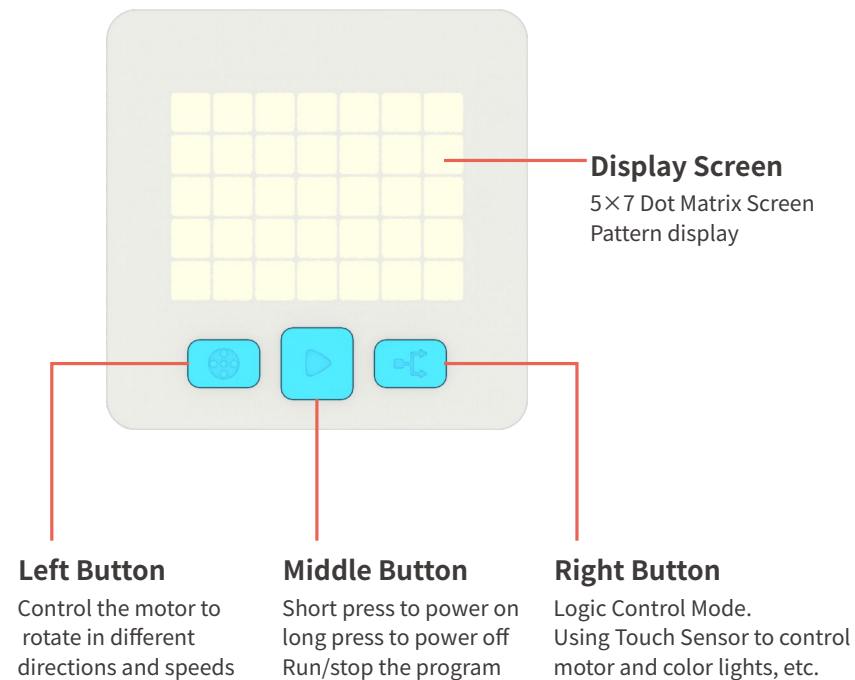
Children enable to learn programming through scanning coding cards, turning our previous perception towards programming over. α Series Kit encourages children to unleash their creativity and imagination, and motivates them to foster logical thinking skills.

Parts list

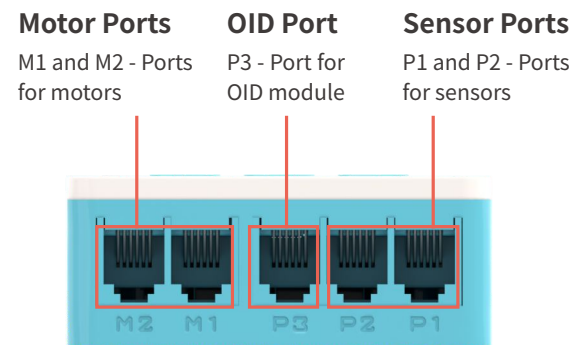


2 Explore α Series

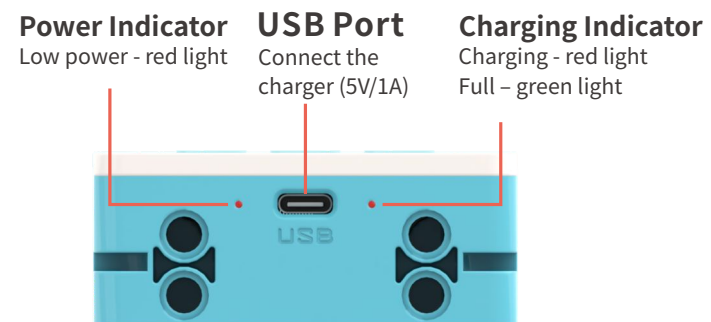
2.1 Controller



Front Side of The Controller



Top Side of The Controller



Bottom Side of The Controller

2.2 Motor



2.3 Sensors



OID Module
Scan coding cards
Input programs



Color Lights
Emits red, yellow, green, blue and white lights



Touch Sensor
With two states of press and release

2.4 Coding Cards



Start programming
Start to input program commands



Run the program
Start running the previously inputted program



Stop the program
Stop running the current program



Wait 1 sec
Stop and wait 1 second



Wait 2 sec
Stop and wait 2 seconds



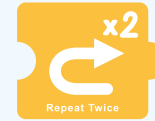
Wait 3 sec
Stop and wait 3 seconds



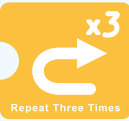
Repeat Start
Put in front of the program to start an infinite loop



Repeat End
Put at the end of the program to end the infinite loop



Repeat Twice
Put in front of the program to repeat two times



Repeat Three Times
Put in front of the program to repeat three times



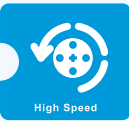
Repeat Four Times
Put in front of the program to repeat four times



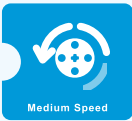
Repeat Five Times
Put in front of the program to repeat five times



Repeat End
Put in front of the program to stop the repeated loop



Motor Reverse Rotation (Fast)
High speed rotation in counterclockwise



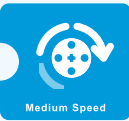
Motor Reverse Rotation (Medium)
Medium speed rotation in counterclockwise



Motor Reverse Rotation (Slow)
Low speed rotation in counterclockwise



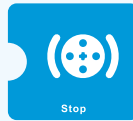
Motor Forward Rotation (Fast)
High speed rotation in clockwise



Motor Forward Rotation (Medium)
Medium speed rotation in clockwise



Motor Forward Rotation (Slow)
Low speed rotation in clockwise



Stop the Motor
Motor stops rotating



Note - Do
Play "Do" for 1 second



Note - Re
Play "Re" for 1 second



Note - Mi
Play "Mi" for 1 second



Note - Fa
Play "Fa" for 1 second



Note - So
Play "So" for 1 second



Note - La
Play "La" for 1 second



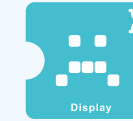
Note - Si
Play "Si" for 1 second



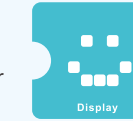
Melody A
Play Melody A and wait for it to end



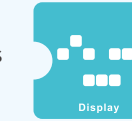
Melody B
Play Melody B and wait for it to end



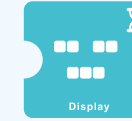
Sadness Icon
The screen displays the sadness icon for 1 second



Smile Icon
The screen displays the smile icon for 1 second



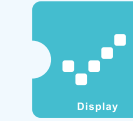
Naughty Icon
The screen displays the naughty icon for 1 second



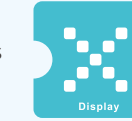
Expressionless Icon
The screen displays the expressionless icon for 1 second



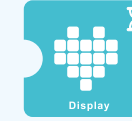
Note Icon
The screen displays the note icon for 1 second



Tick Icon
The screen displays the tick icon for 1 second



Cross Icon
The screen displays the cross icon for 1 second



Heart Icon
The screen displays the heart icon for 1 second



White light
Color light module lights up white for 1 second



Red light
Color light module lights up red for 1 second



Yellow light
Color light module lights up yellow for 1 second



Green light
Color light module lights up green for 1 second



Blue light
Color light module lights up blue for 1 second



Lights Turn-Off
Color light module off for 1 second

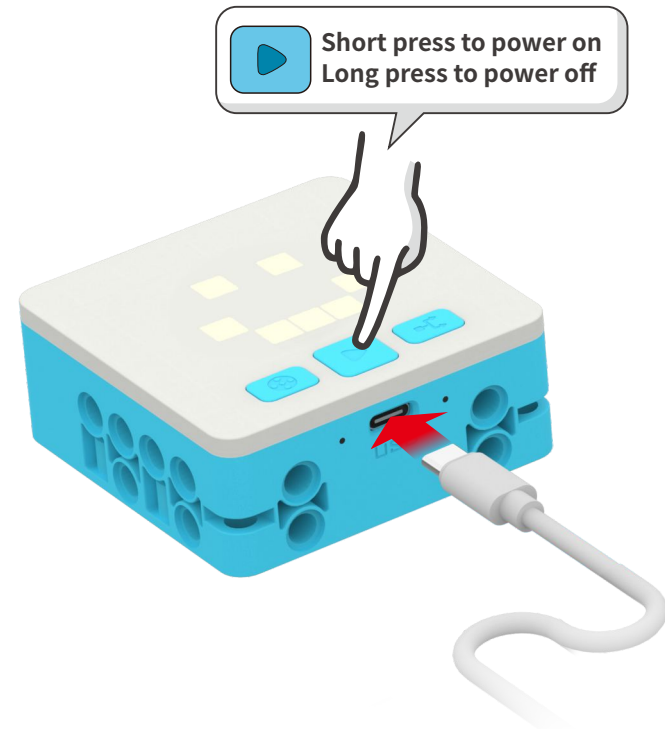


Waiting for Pressed
Waiting for the Touch Sensor to be pressed and executing the program



Waiting for Released
Waiting for the Touch Sensor to be released and executing the program

3 Switching & Charging



3.1 Power On / Off

Power On

Short press the middle button (Run), the screen lights up and displays a smile icon, which means the power is on.

Power Off

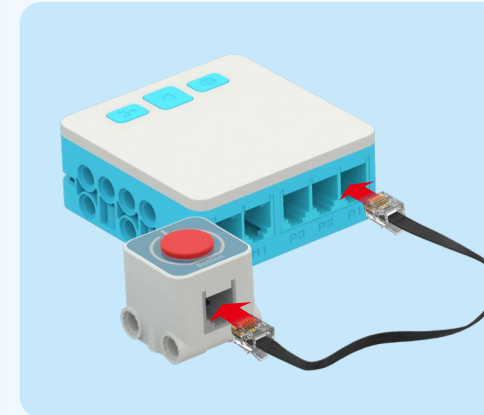
Long press the middle button (Run), the screen turns off which means the power is off.

3.2 Charging

When the power indicator lights up red, it means the device is low on power, please connect the Type-C cable of the kit to the adapter (provided) for charging.

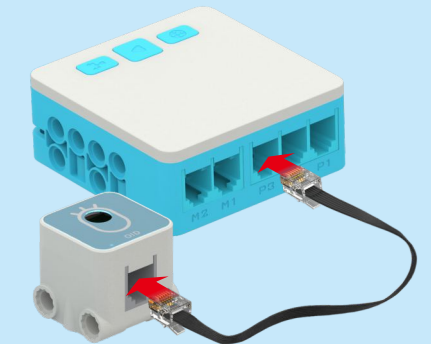
When charging, the indicator will light up red, and when it turns green, it means the device is fully charged.

4 Types of Connection



4.1 By Sensors

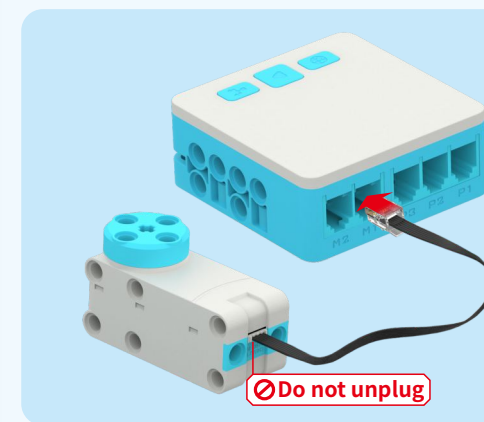
By using the sensor cable, connect the sensor to the P1 or P2 port and a "click" will be heard during the connection.



4.3 By OID Module

By using the sensor cable, connect the OID Module to P3 port and a "click" will be heard during the connection.

⚠ Note: The OID module can only be connected to the P3 port. In the power-on state, every time you reconnect the OID module, press the middle button to activate it.



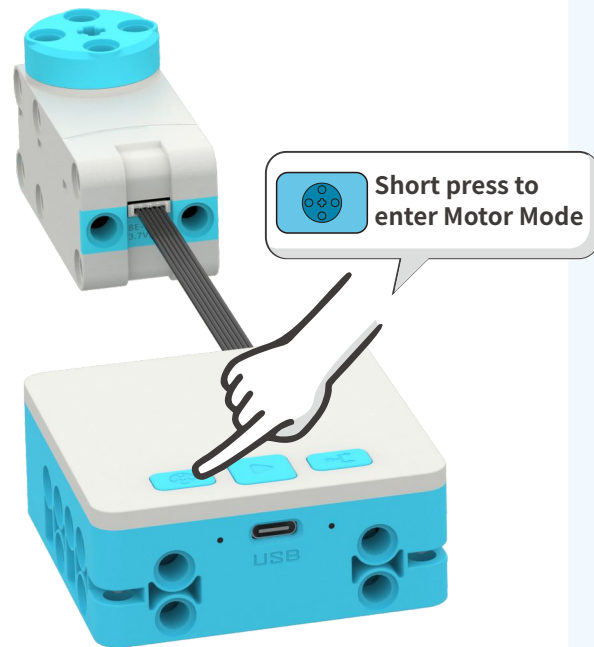
4.2 By Motor

By using the motor cable, connect the motor to the M1 or M2 port and a "click" will be heard during the connection.

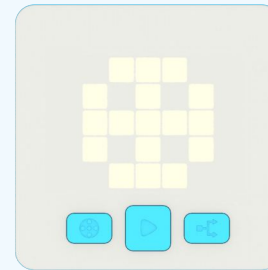
⚠ Note: When arranging the equipment, do not unplug the cable at the end of the motor to prevent damage to it.

5 How to use

5.1 Motor Mode



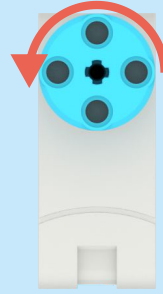
When the motor is connected (to M1 port), short press the left button after power on, the screen will display the motor turntable icon (as below), which mean the machine has entered the motor mode.



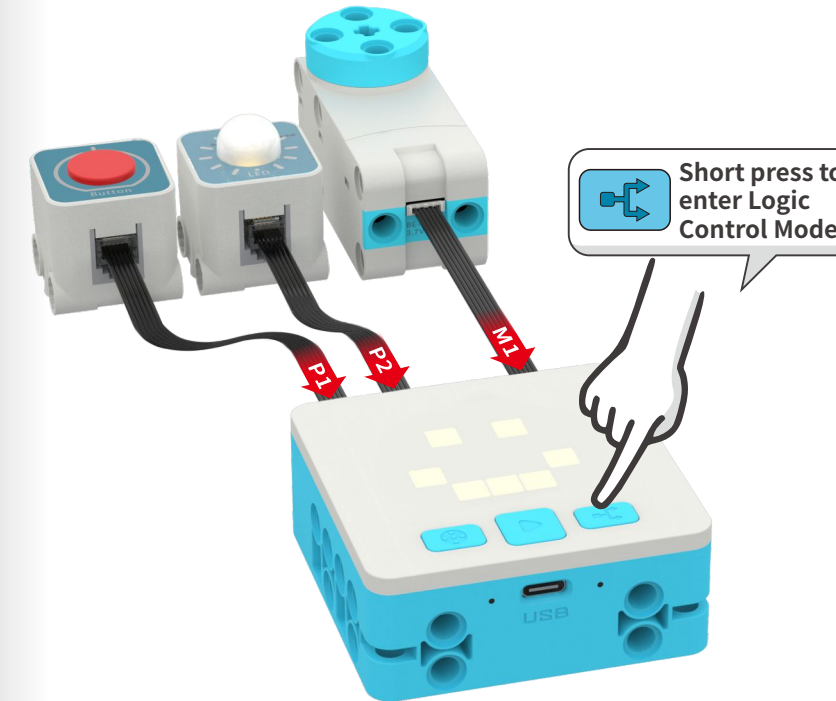
Short press the left button 1 to 3 times, the motor rotates clockwise (forward rotation) at different speeds, and the motor turntable icon will change accordingly.



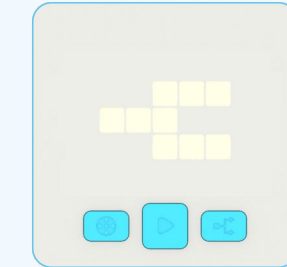
Short press the left button 4 to 6 times, the motor rotates counterclockwise (reverse rotation) at different speeds, and the motor turntable icon will change accordingly.



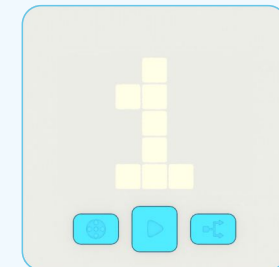
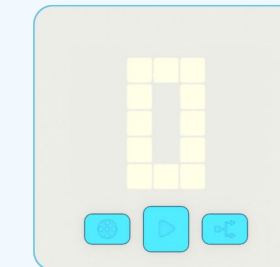
5.2 Logic Control Mode



After connecting the Touch Sensor (to P1 port), color light module (to P2 port) and motor (to M1 port), turn it on and press the right button for a short time, the screen will display the logic icon, which means it has entered the logic control mode.



If the Touch Sensor is not pressed, the screen will display the number "0" and the color light module will be red; if the key sensor is pressed, the screen will display the number "1" and the color light module will be green, while the motor will start to rotate.

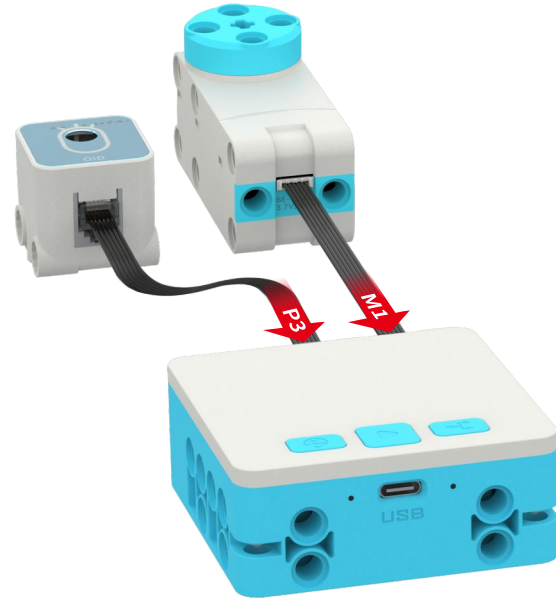


Similarly, other sensors are available in the logic control mode for more types of simple control.

⚠ Once in logic control mode, the operation of the output hardware is directly controlled depending on the input conditions of the sensor.

5.3 Scanning Mode

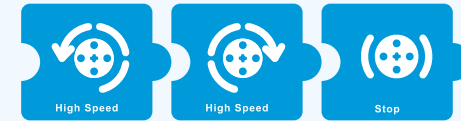
5.3.1 Programming Test



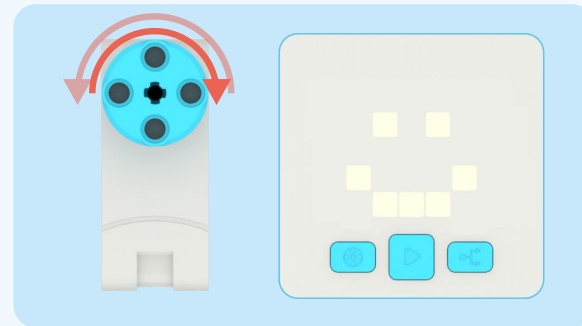
Connect the OID module (to P3 port) and the motor (to M1 port), and turn on the power.

Use the OID module to scan coding cards in sequence:

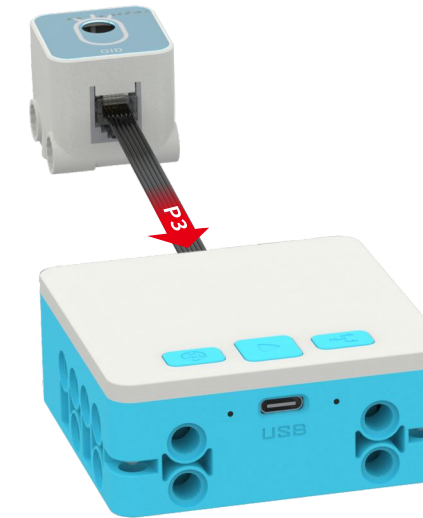
[Motor Reverse Rotation (Fast)] → [Motor Forward Rotation (Fast)] → [Stop the Motor].



It can be observed that after each successful scan, the motor starts to move as programmed by coding cards.



5.3.2 Run the Program

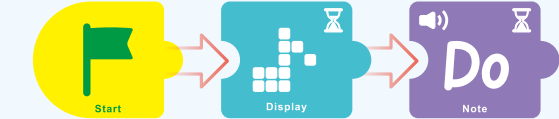


Case 1

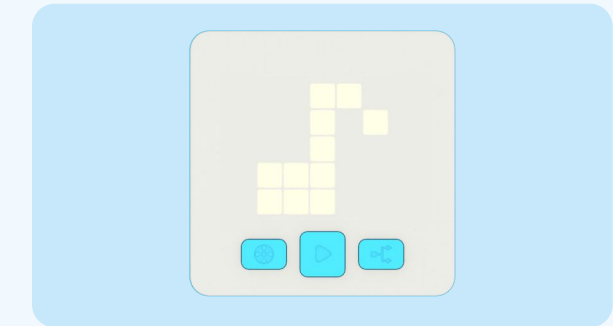
Connect the OID module (to P3 port), and turn on the power.

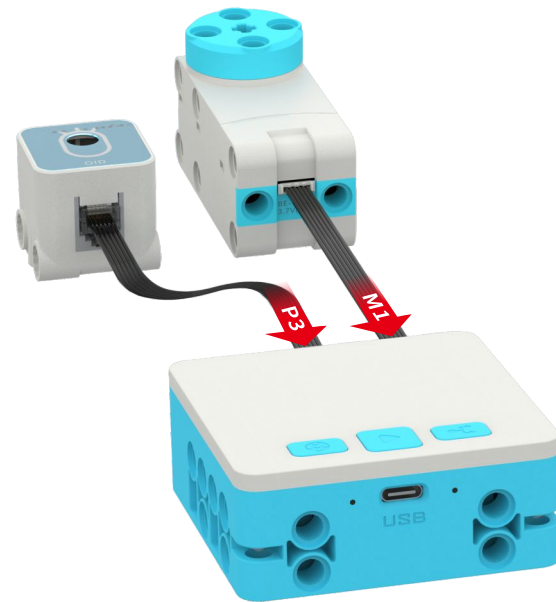
Use the OID module to scan coding cards in sequence:

[Start programming] → [Note Icon] → [Note Do]



After pressing the middle button, the program will run, then the screen will display the "Note" icon and the "Do" sound will be played after 1 second.





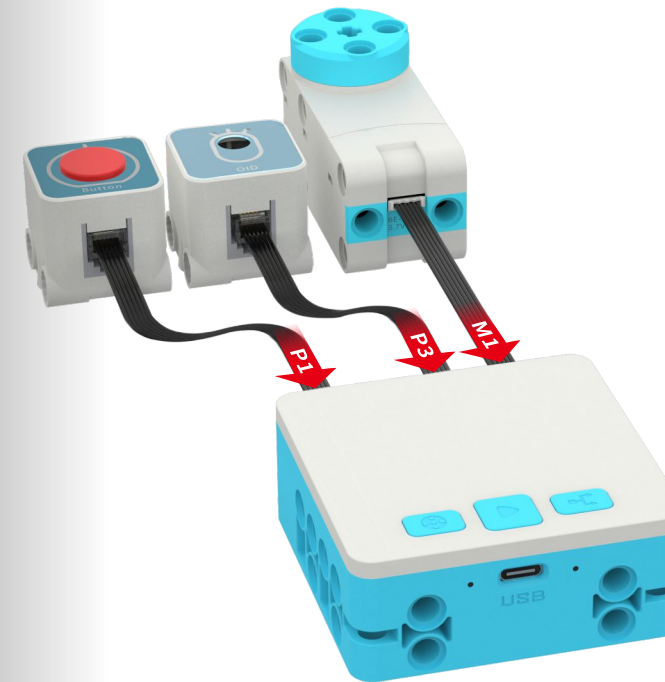
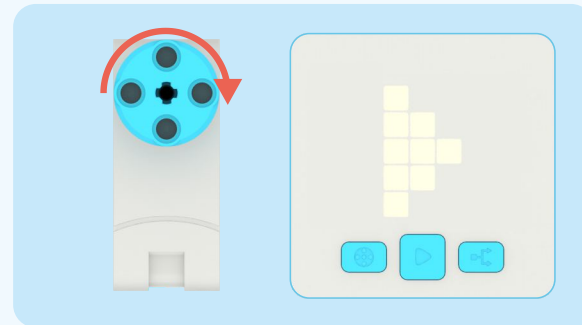
Case 2

Connect the OID module (to P3 port) and the motor (to M1 port), and turn on the power.

Use the OID module to scan coding cards in sequence:
[Motor Reverse Rotation (Fast)] → [Motor Forward Rotation (Fast)] → [Wait 1 sec] → [Stop the Motor].



After pressing the middle button, the program will run and the motor will stop after 1 second of rotation.

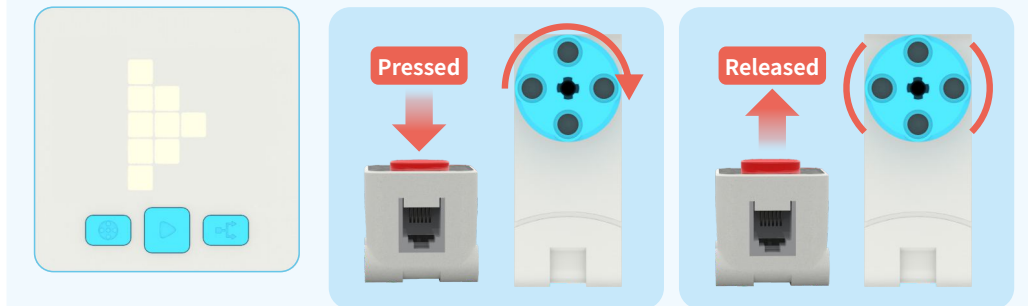


Case 3

Connect the Touch Sensor (to P1 port), the OID module (to P3 port) and the motor (to M1 port), and turn on the power.



After pressing the middle button, the program will run; as soon as the Touch Sensor is pressed, the motor will rotate, and it will stop when the Touch Sensor is released.



6 Precautions and After-Sales Service

6.1 Precautions for Battery Usage

1. Power supply: using the 3.7V lithium battery included in the set.
2. The rechargeable battery can only be charged under the supervision of an adult;
3. The power supply end must not be short-circuited;
4. Do not use liquid to clean this product, disconnect the charging connection before cleaning;
5. The product is recommended to use a 5V/1A USB charger. When using it, you must regularly check whether the plug, shell and other parts are damaged. If any damage is found, stop using it;
6. Please do not disassemble or throw damaged batteries and battery packs into fire or water to avoid accidents;
7. During the charging process, the battery will be slightly warm, which is a normal phenomenon;
8. When the product is idle, please fully charge it before placing it for storage, and it needs to be charged at least once every three months;
9. This product should not be used by children under the age of 6.

6.2 Maintenance and Care

1. Keep the controller dry. Rain, moisture, and various liquids or moisture can contain minerals that corrode electronic circuits. If the controller is wet, please do not power on it, and wait until the controller is completely dry before using it again.
2. Do not store the controller in an overheated place. High temperatures can shorten the life of electronic equipment and deform or melt some plastic parts.
3. Do not store the controller in a place that is too cold. Otherwise, when the temperature of the controller rises to normal temperature, moisture will form inside it, which will destroy the circuit board.
4. Do not throw or hit the controller. Rough handling of the controller can damage internal circuit boards and delicate structures.
5. Do not clean the controller with strong chemicals, cleaning agents or strong detergents.
6. Do not paint the controller. The painted material may form clogging debris in the removable parts and thus interfere with proper operation.