Precision Walking

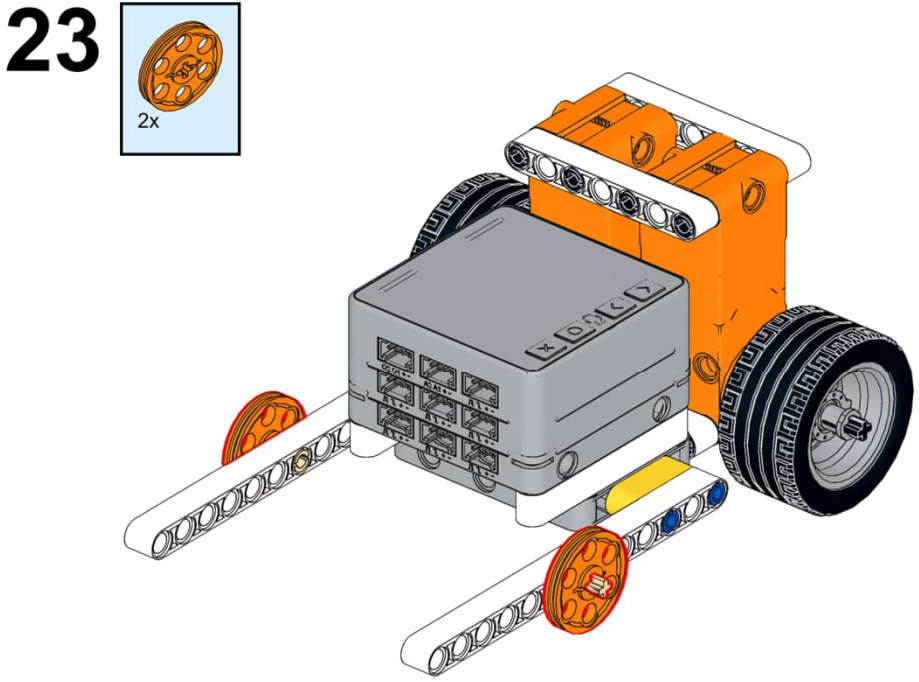
Target

- Learn distance walking and angle walking.
- Understand the speed control.
- Complete precise walking control of the robot moving forward and backward.

01 Assembly

Assembly

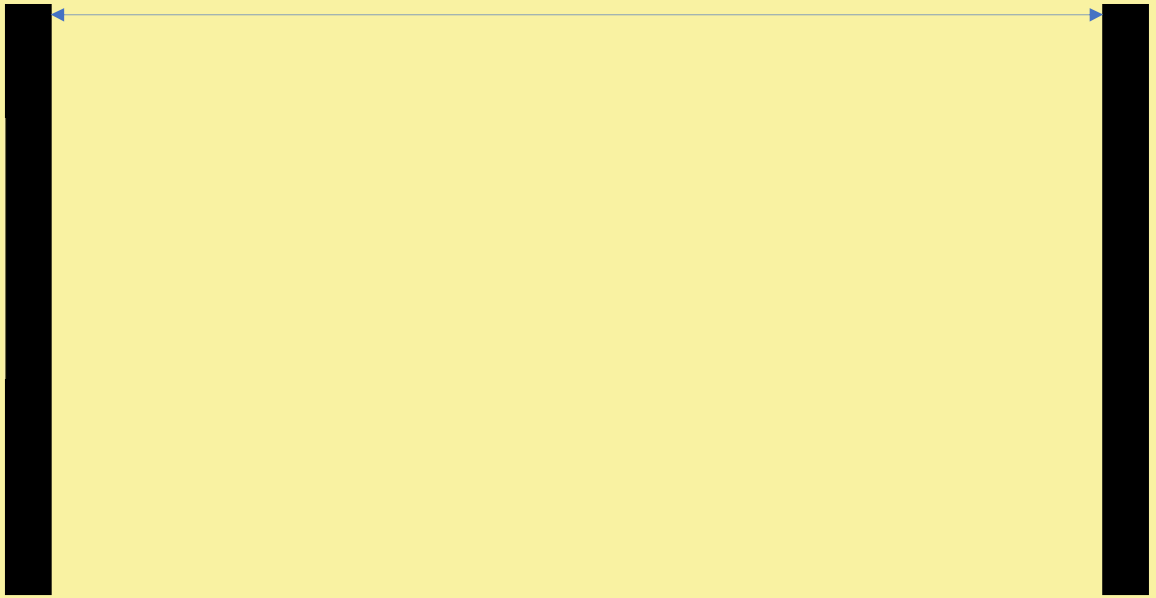
For the complete building steps, please refer to Lesson 1.



02 Task

Task

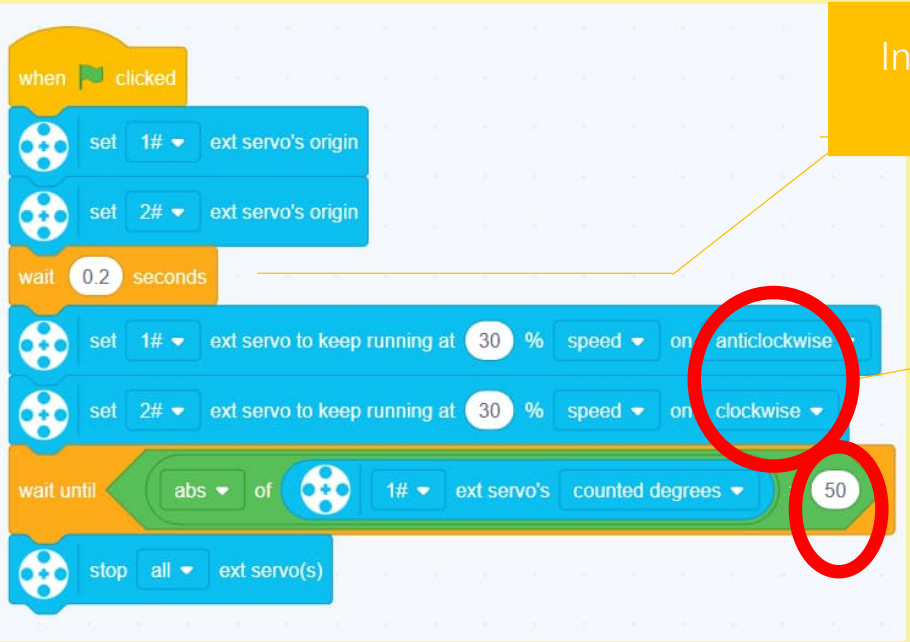
Task 1: Make the car move forward and backward



Task

Task 1: Make the car move forward

Relative angle control via a motor



In online mode, there may be some delay. Please wait a short time before the device responds.

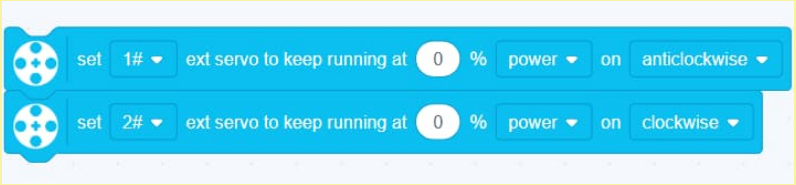
Motor rotation for forward movement: clockwise or counterclockwise?

What approximate angle should we use for the motor to move forward 1 meter? Try a few times to find the right value.

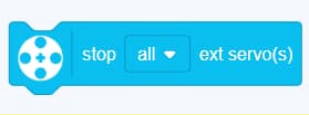
Coding Technique 1

There are two ways to stop the motor.

Method 1: Set the power to 0.



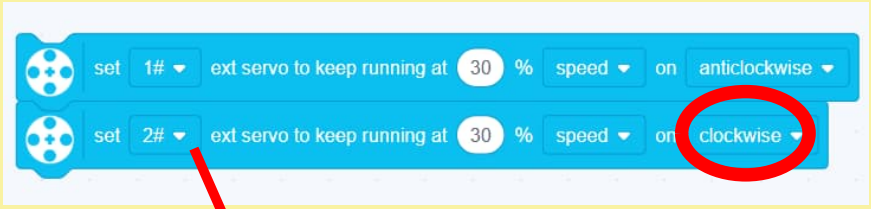
Method 1: Stop the motor.

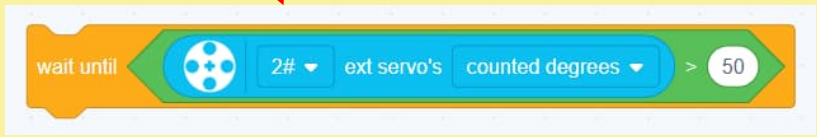


Coding Technique 2

The selections of waiting for the motor

When using  “ greater-than ” comparison, please choose the motor rotating clockwise for the evaluation.

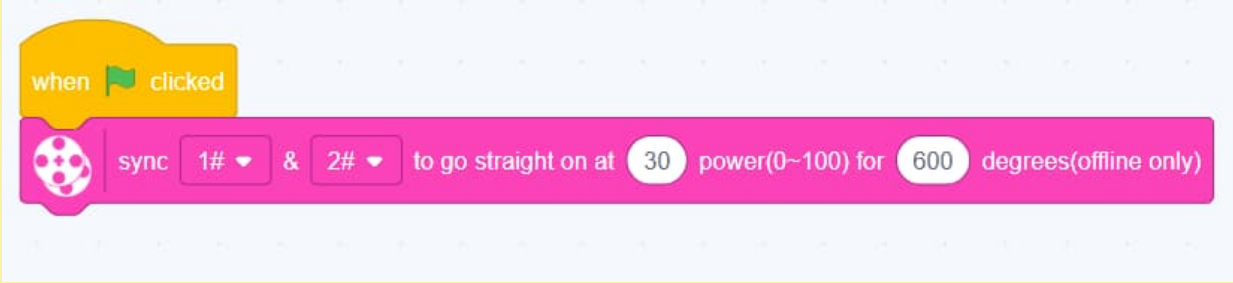




Task

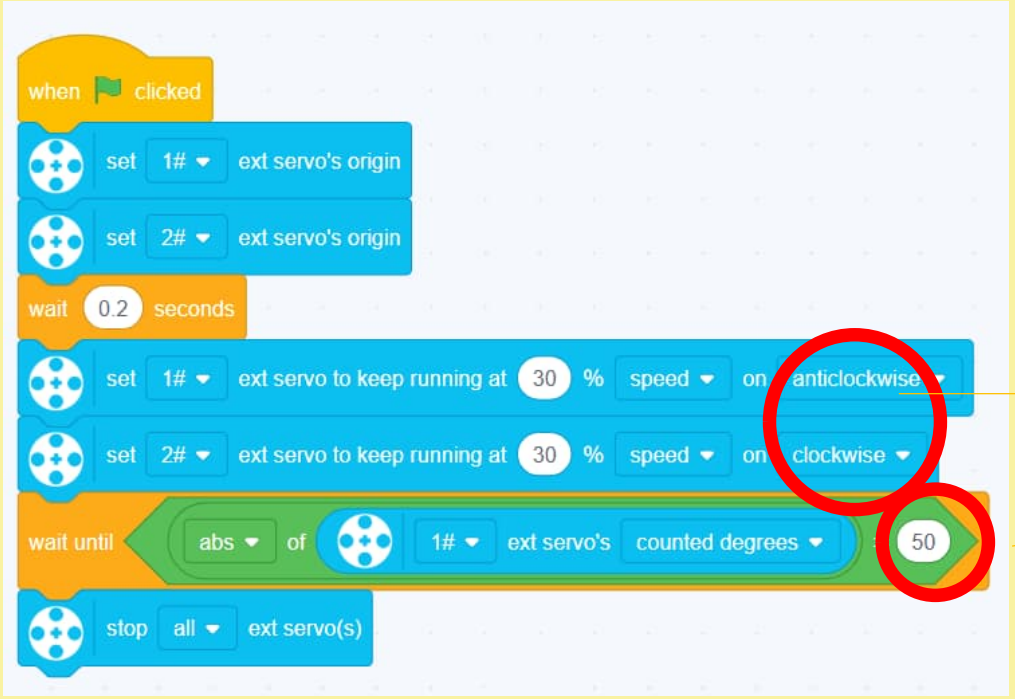
Task 1: Move the car forward

Method 2: Use the built-in packaged module (offline use only)



Task

Task 2: Move the car backward the same distance



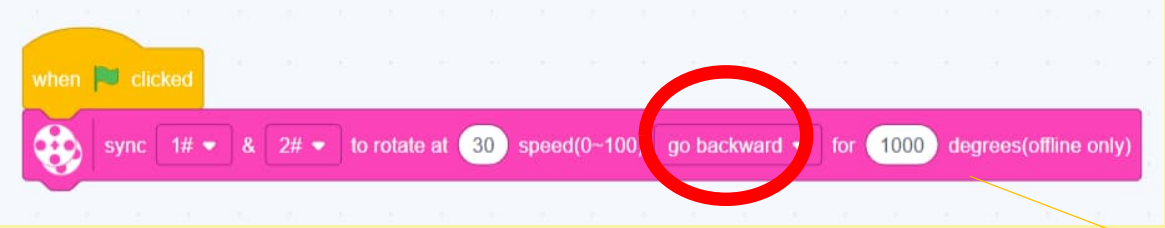
Motor rotation for backward movement: clockwise or counterclockwise?

What approximate angle should we use for the motor to move backward 1 meter? Try a few times to find the correct value.

Task

Task 3: Move the car forward and backward using 2 Methods

Angle control: use a negative sign for counterclockwise.



Use direction control to set the movement direction.

Coding Technique 3

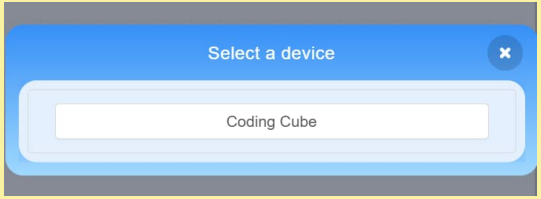
Program download and reconnection operation

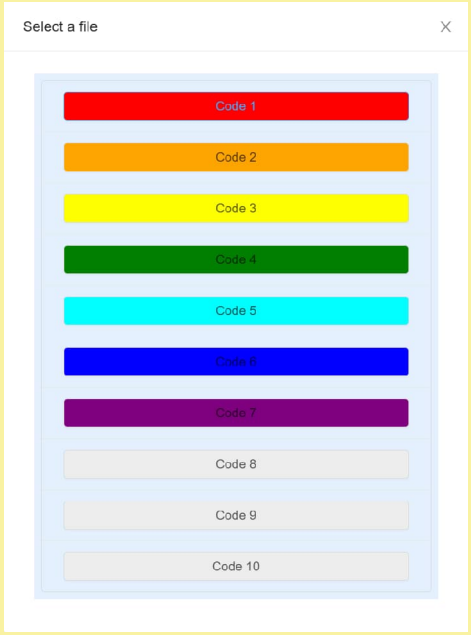
1、Green flag: Run the program online
2、Red stop: Stop the online operation
3、Upload the program to the robot and run it

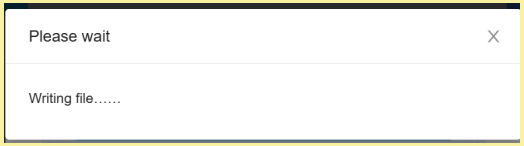
Next, after selecting a movement program, we will begin uploading and running it.
Downloading and running can eliminate the delay in motor startup that occurs during online operation.

Coding Technique 3

Program download and reconnection operation







Select a device

Select a file

Automatically runs after download completes.

Coding Technique 3

Program download and reconnection operation

After the program finishes running, press the exit button at the top-left of the Coding Cube. The programming interface will automatically reconnect.