

Case 08: The Robot Arm

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10.1. Purpose

To make a robot arm.

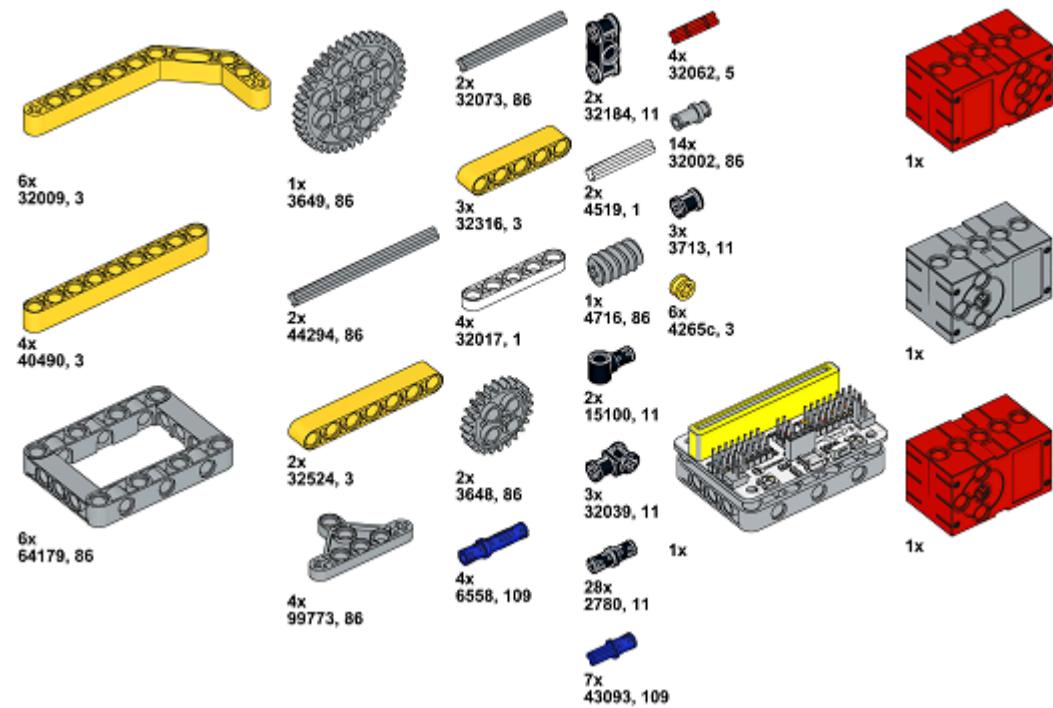


10.2. Link

[micro:bit Wonder Building Kit](#)

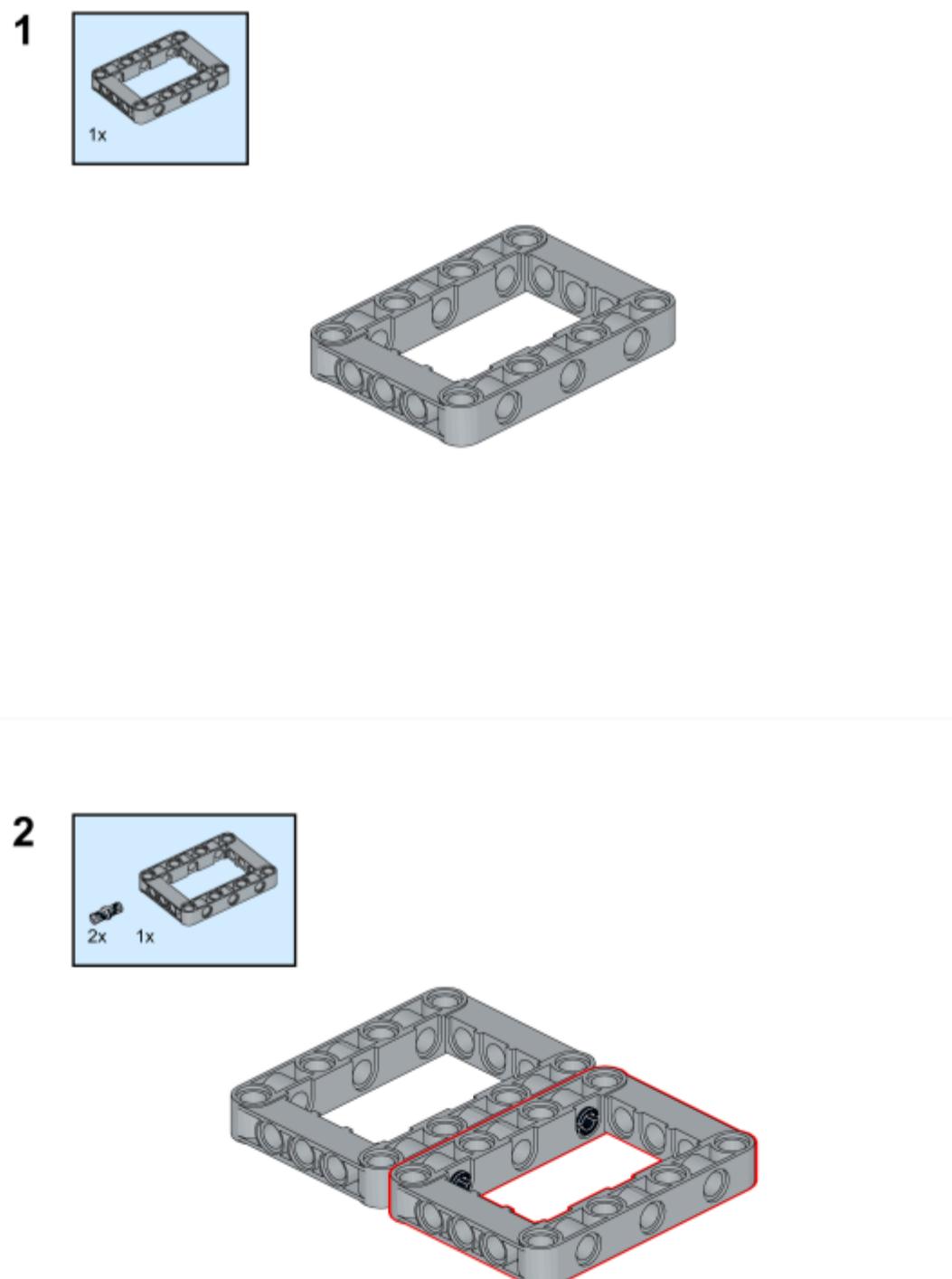
[Joystick bit](#)

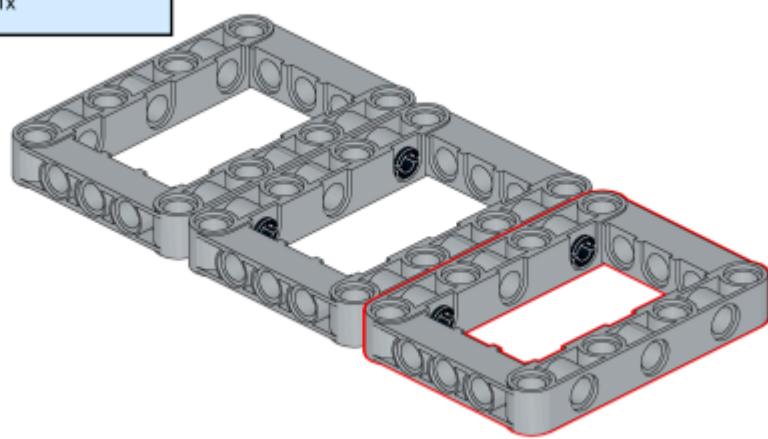
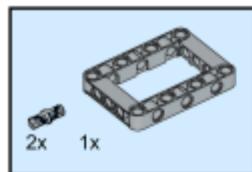
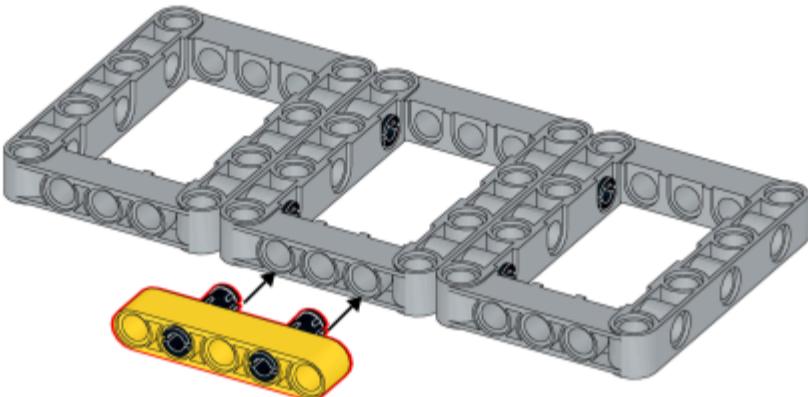
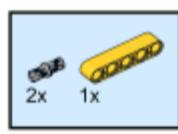
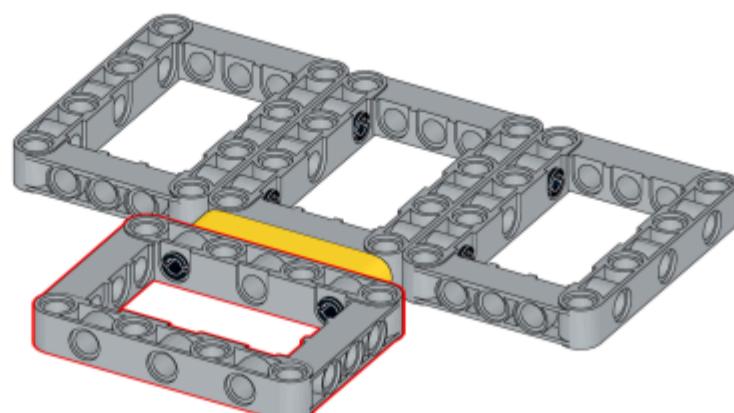
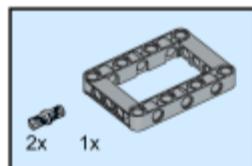
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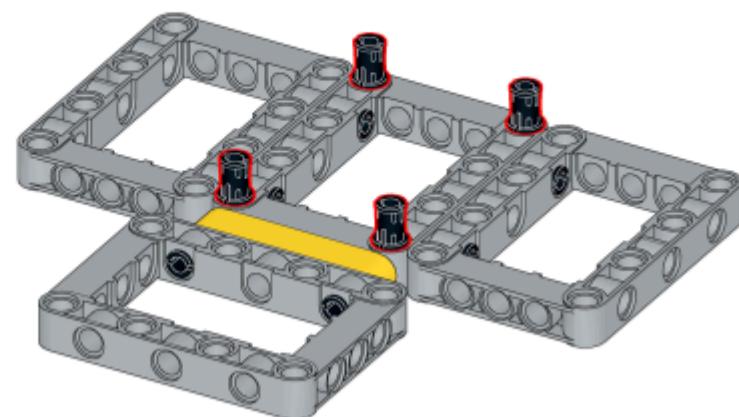
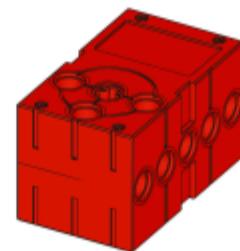
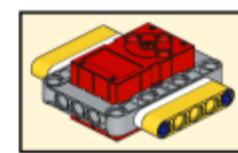
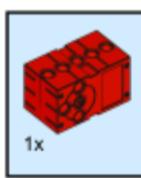
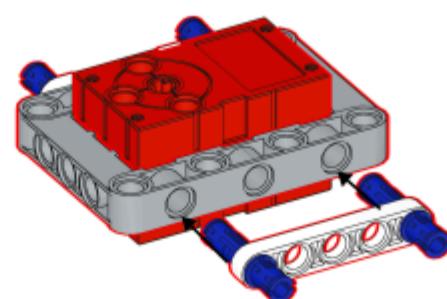
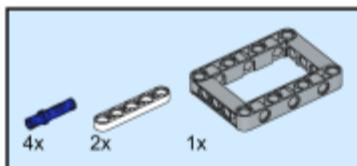


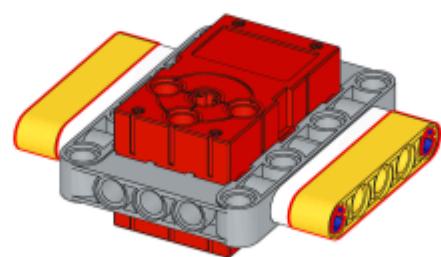
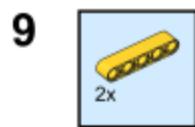
Video link: <https://youtu.be/IRJKXAfJf9M>

10.4. Bricks build-up

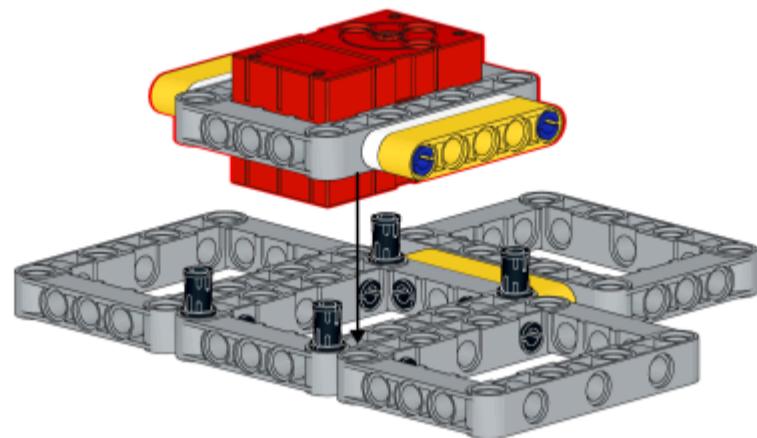


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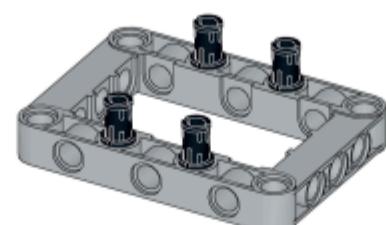
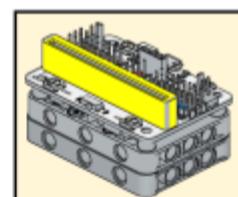
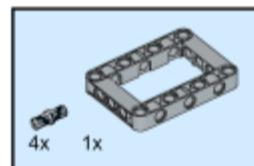
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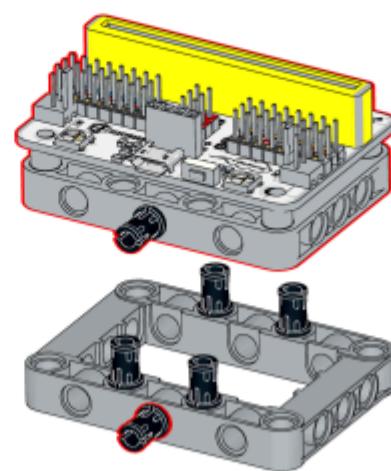
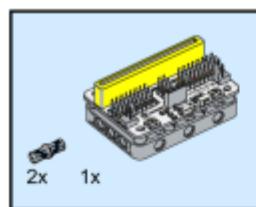
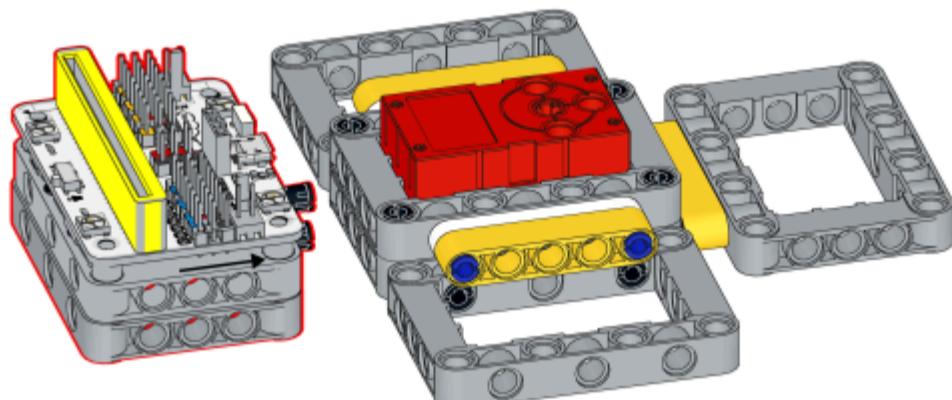
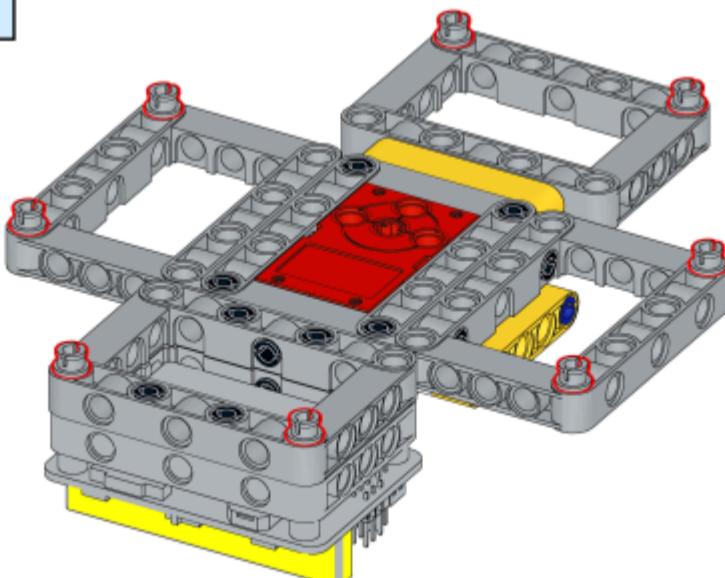


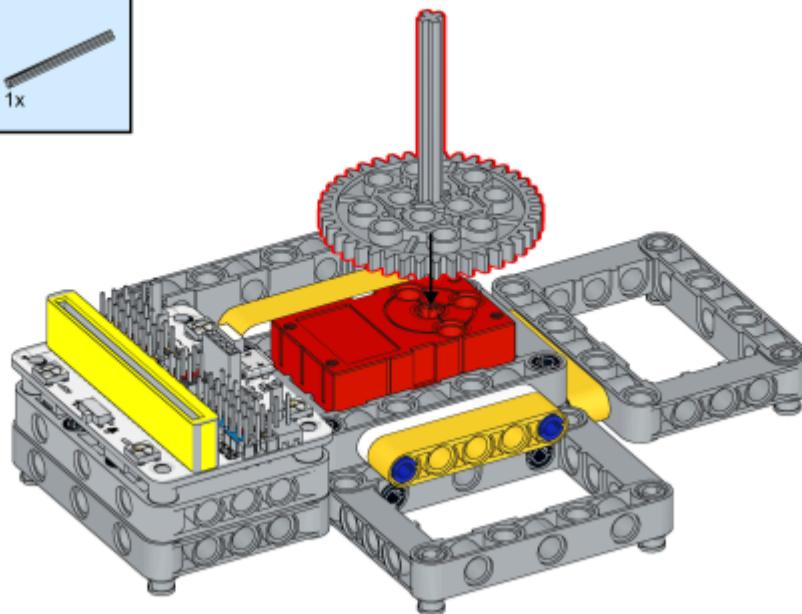
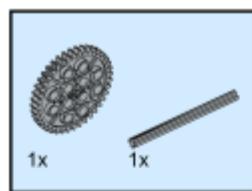
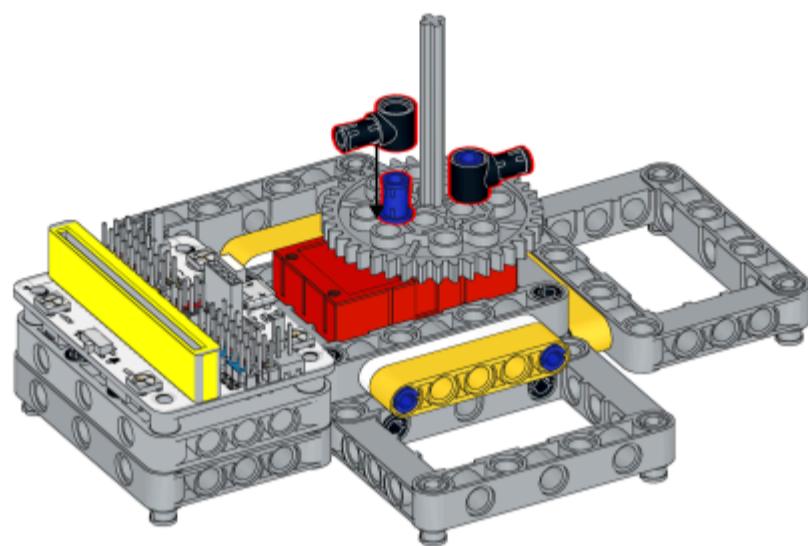
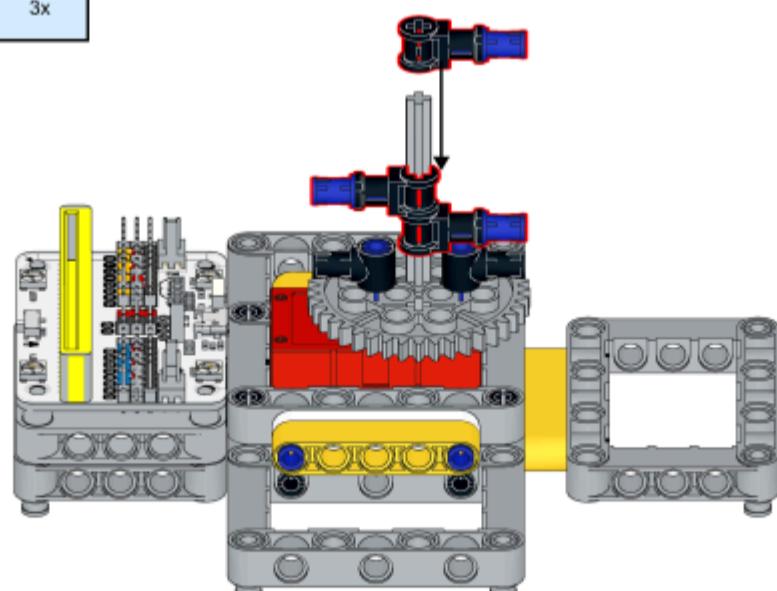
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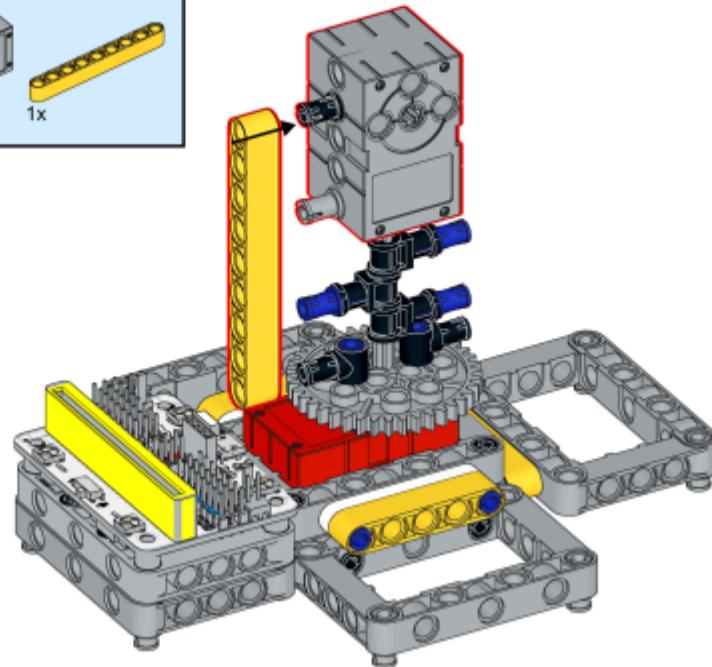
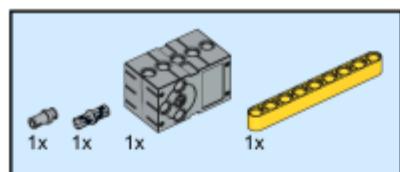
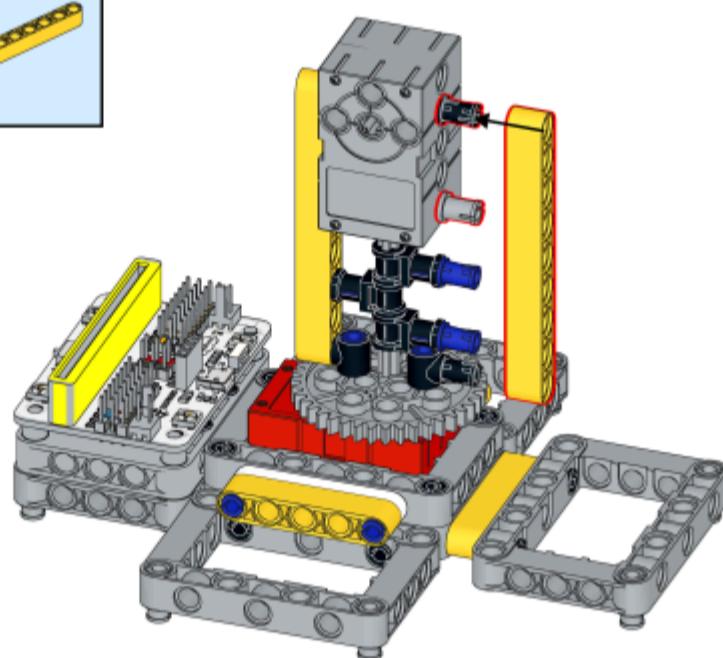
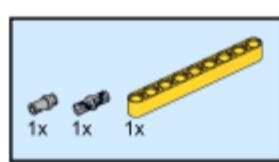
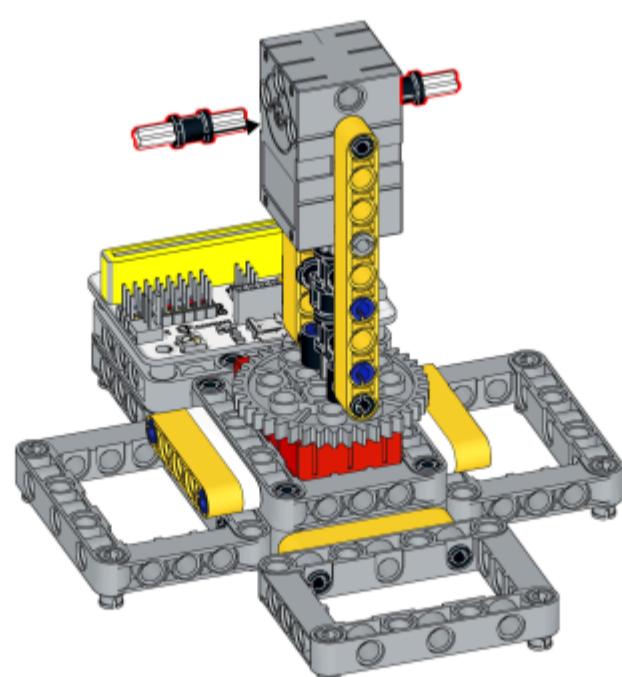
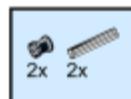


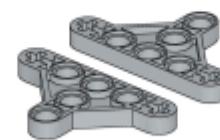
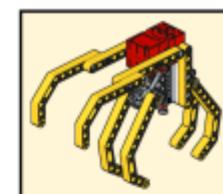
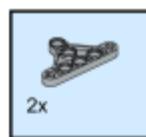
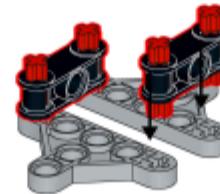
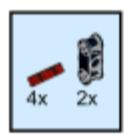
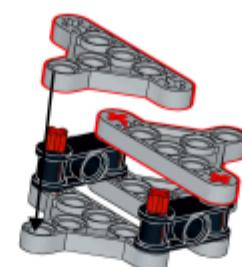
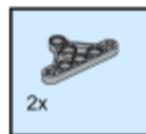
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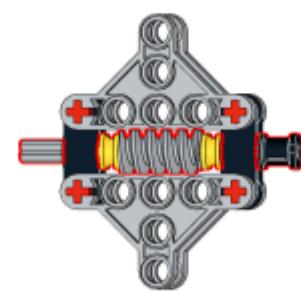
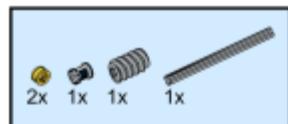
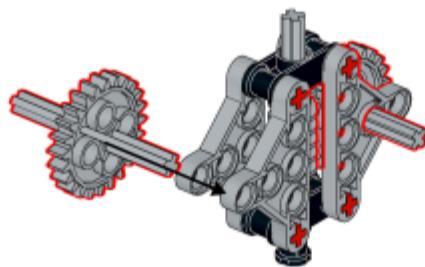
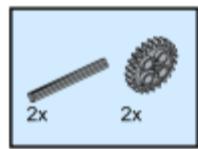
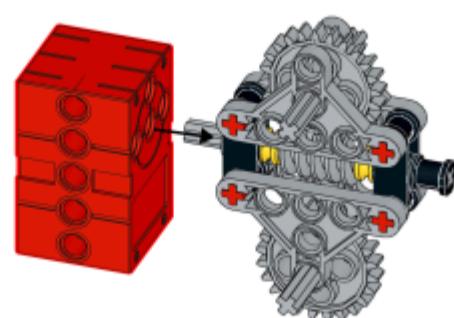
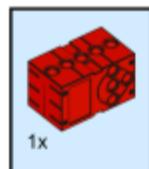


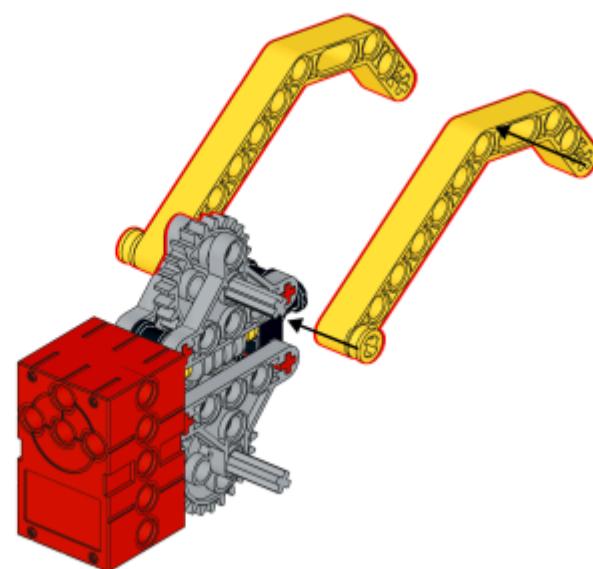
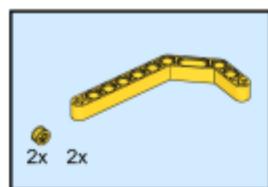
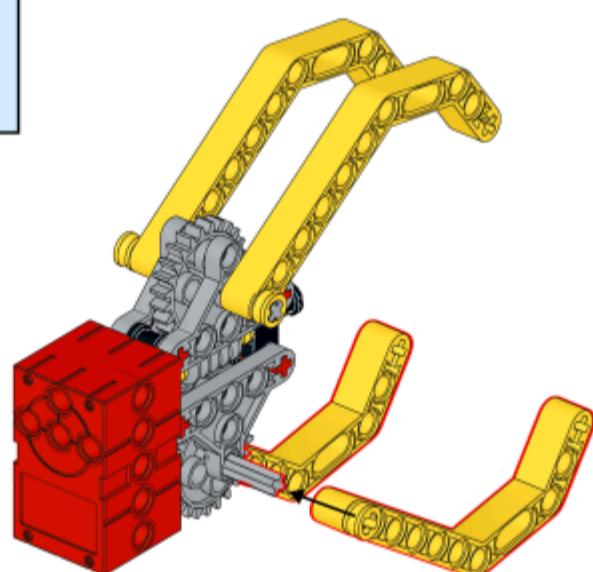
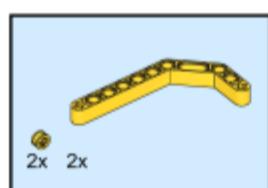
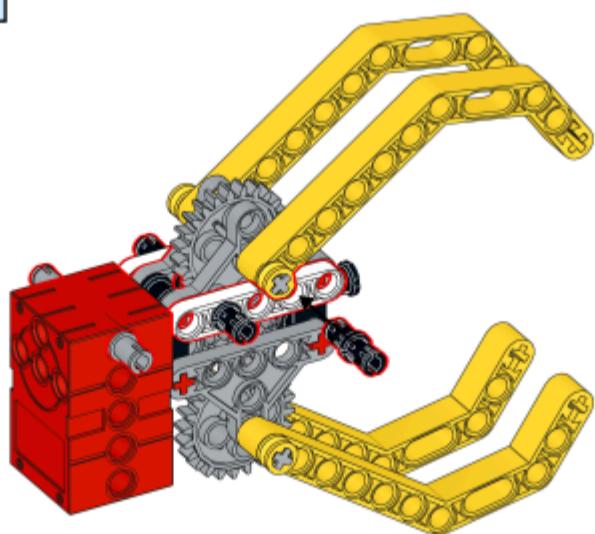
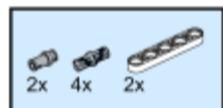
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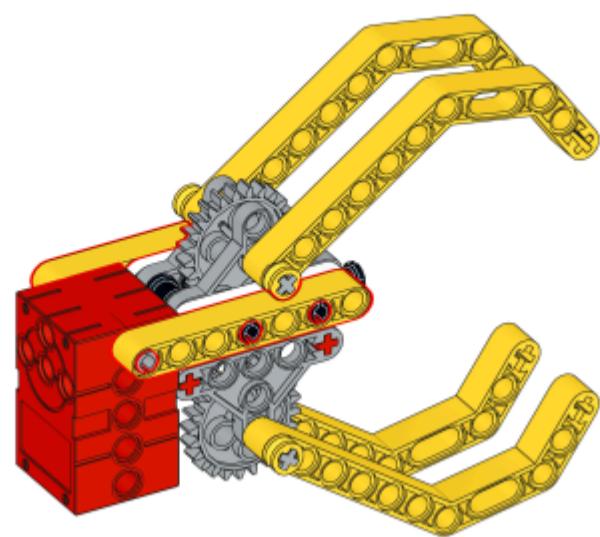
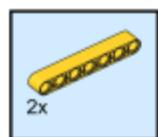
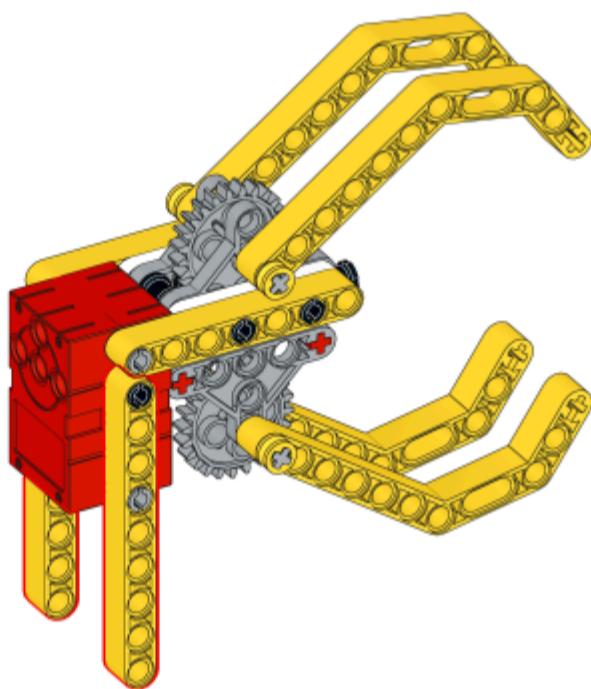
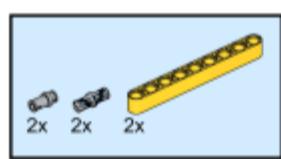
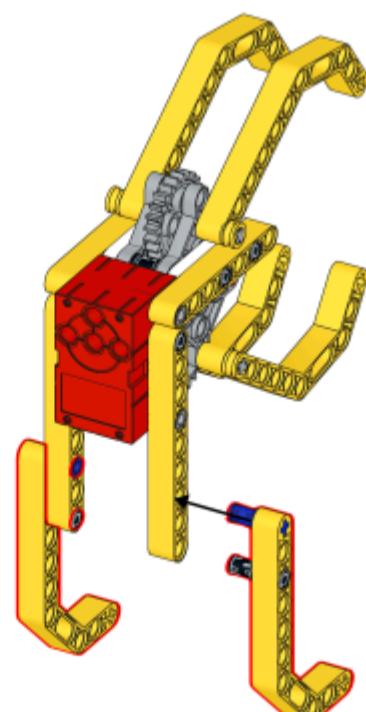
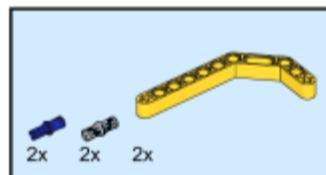
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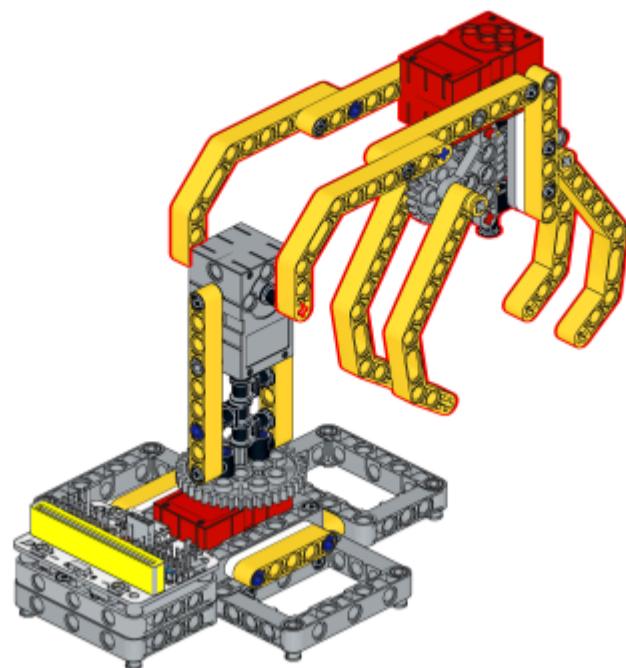
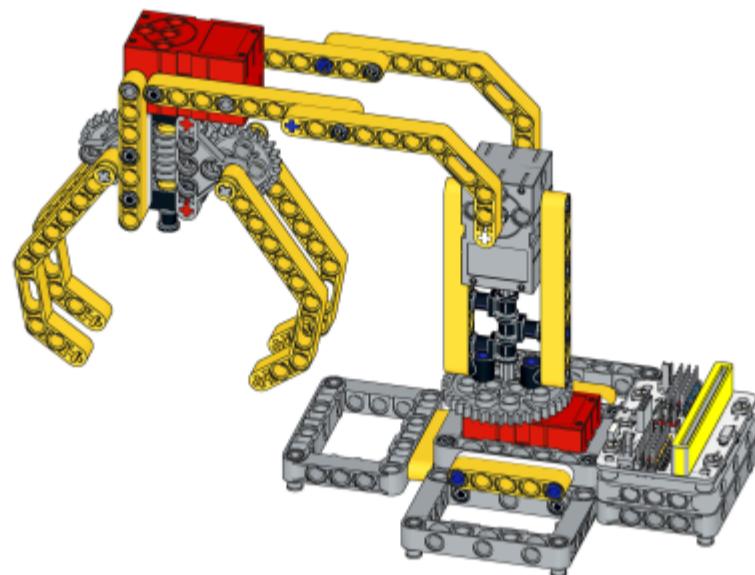
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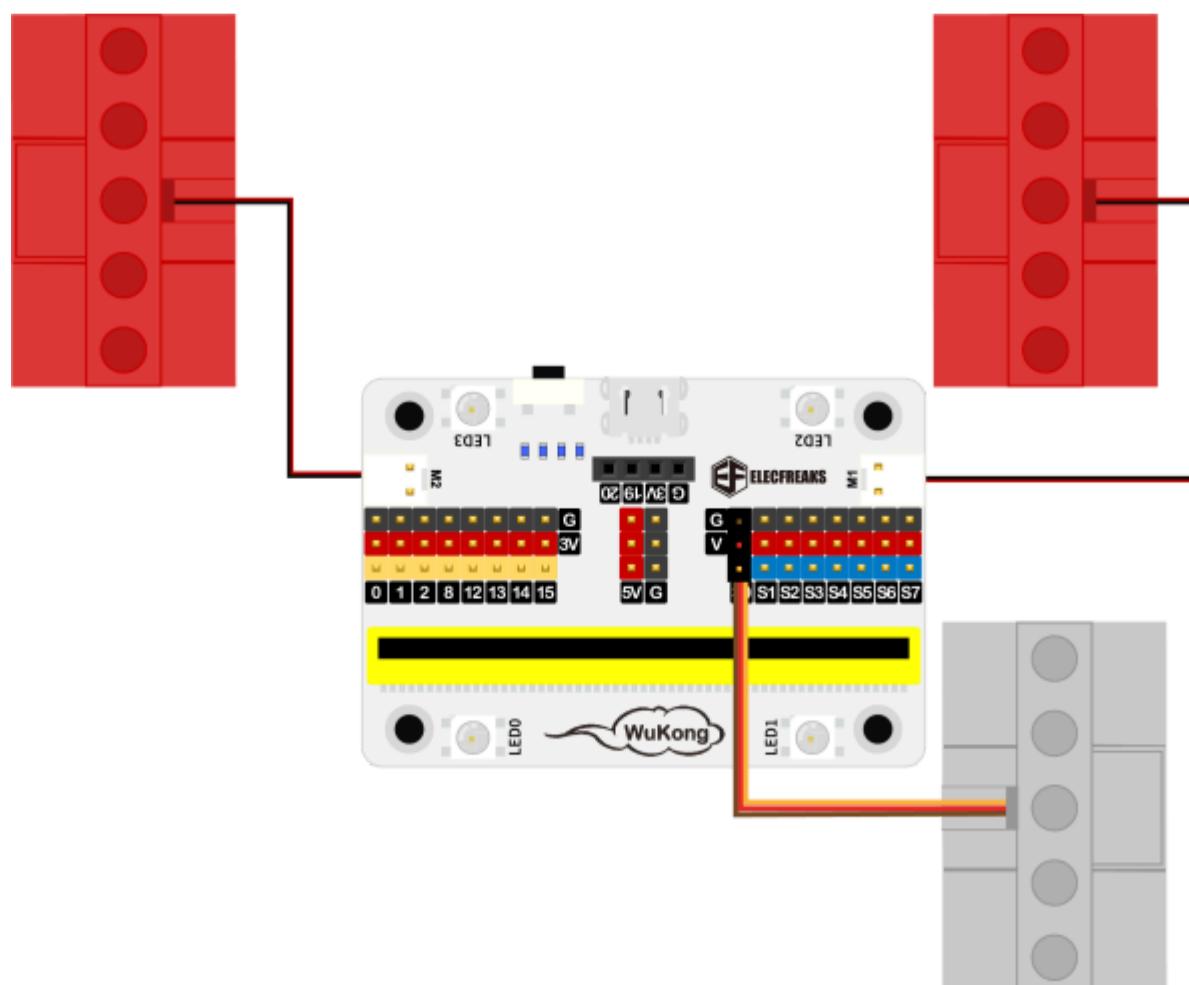
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30**31****32**

33**34**

10.5. Hardware Connection

Connect two [motors](#) to M1 and M2, the [servo](#) to S0 ports on [Wukong breakout board](#).



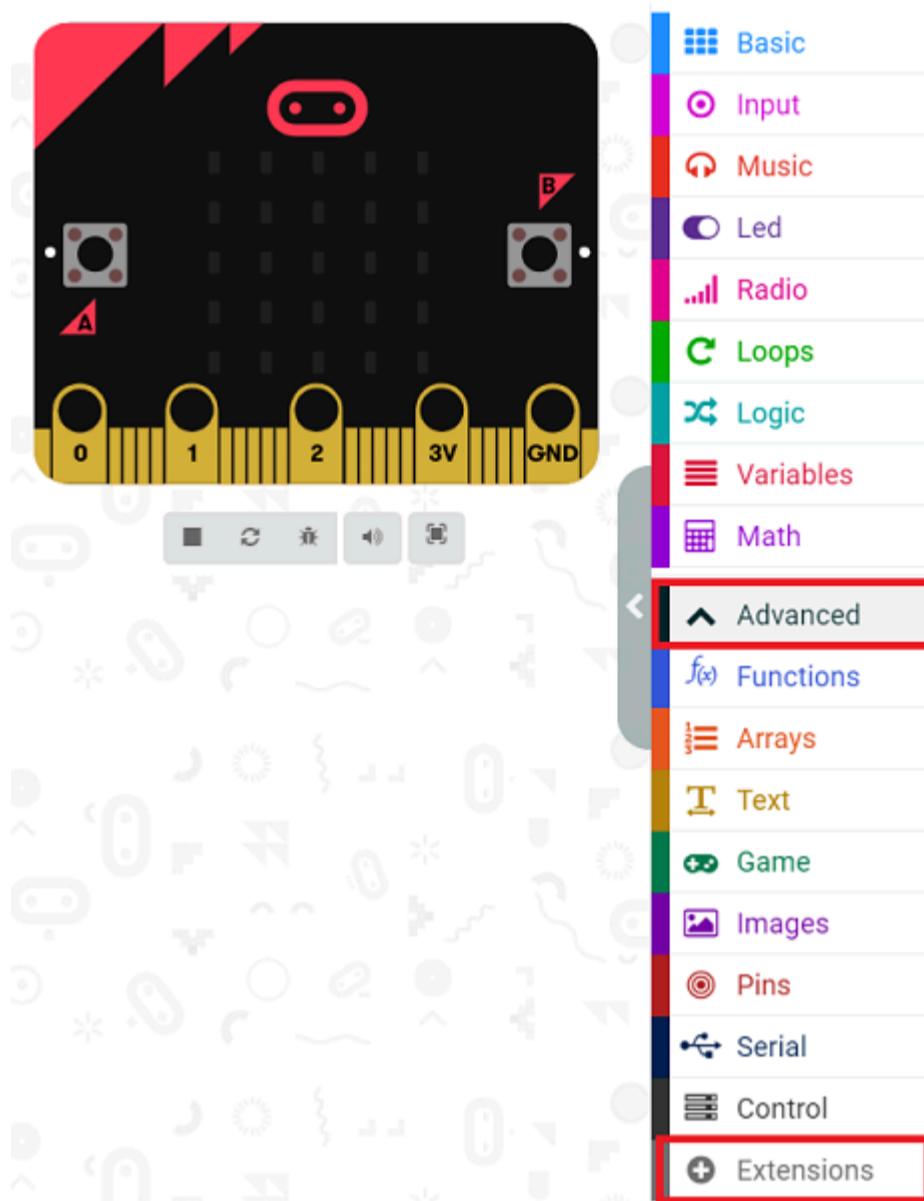
10.6. Software Platform

[MakeCode](#)

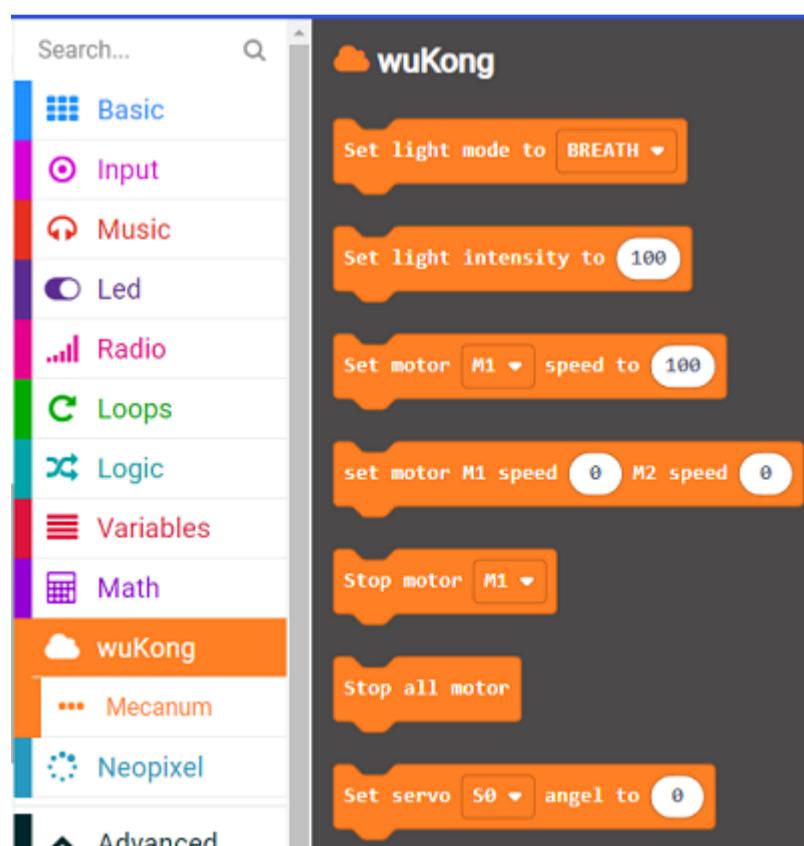
10.7. Coding

Add extensions

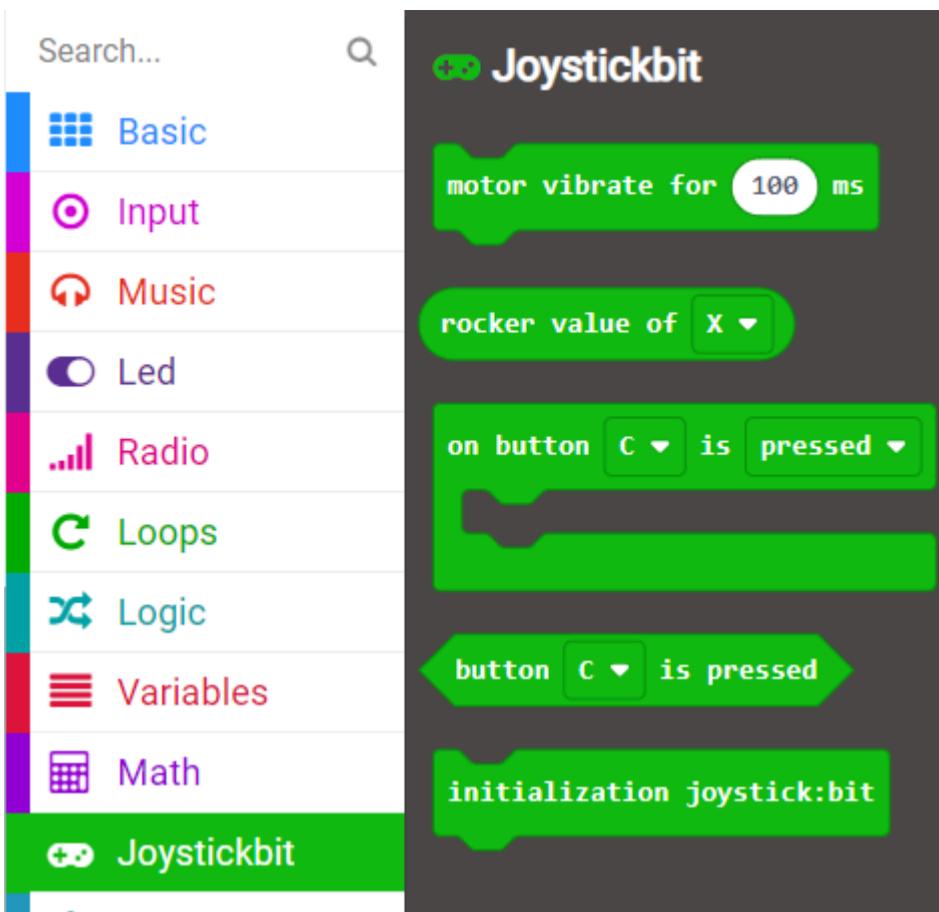
Click “Advanced” in the MakeCode to see more choices.



Search with Wukong in the dialogue box to download it.

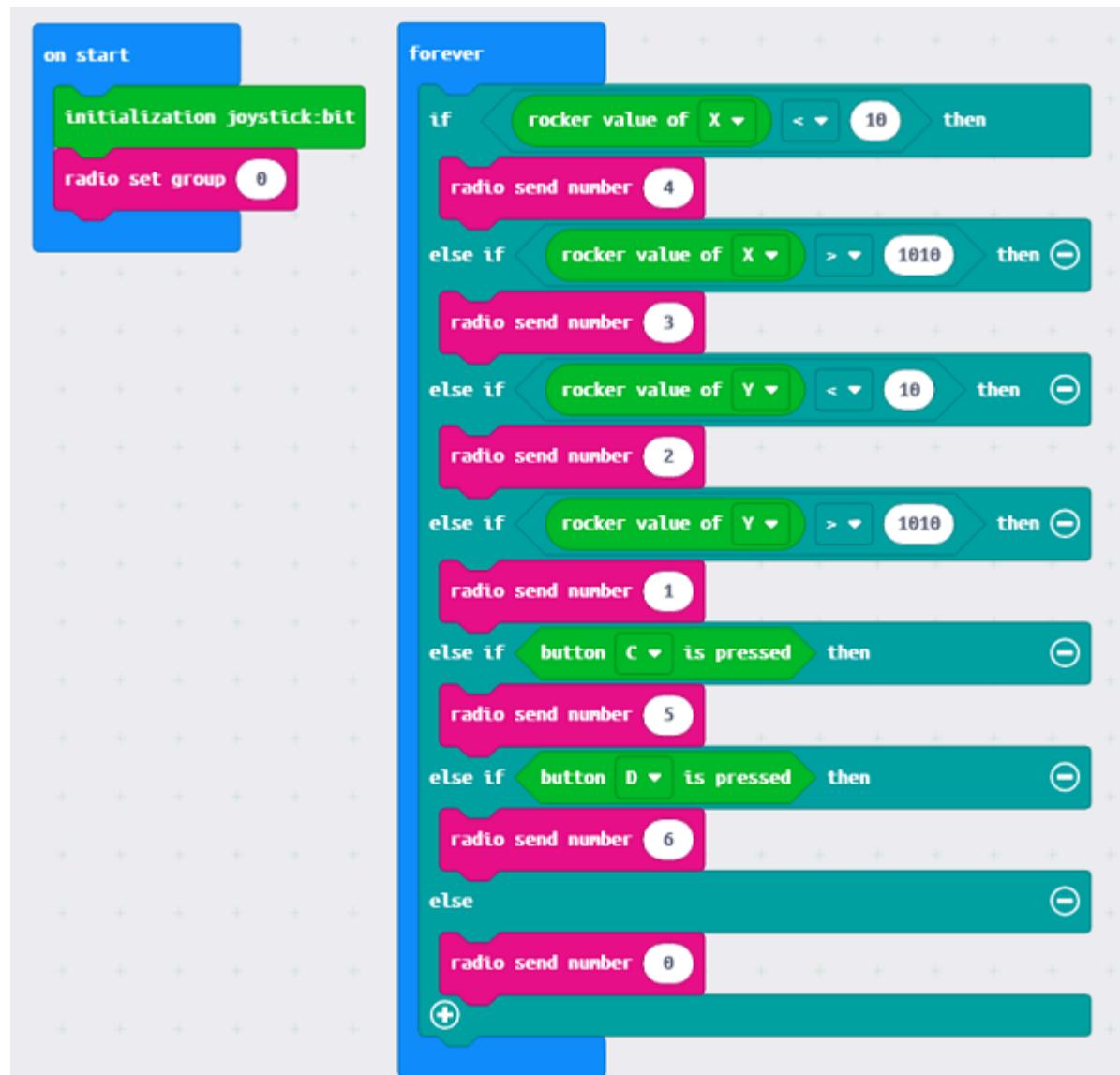


Search with joystickbit in the dialogue box to download it.



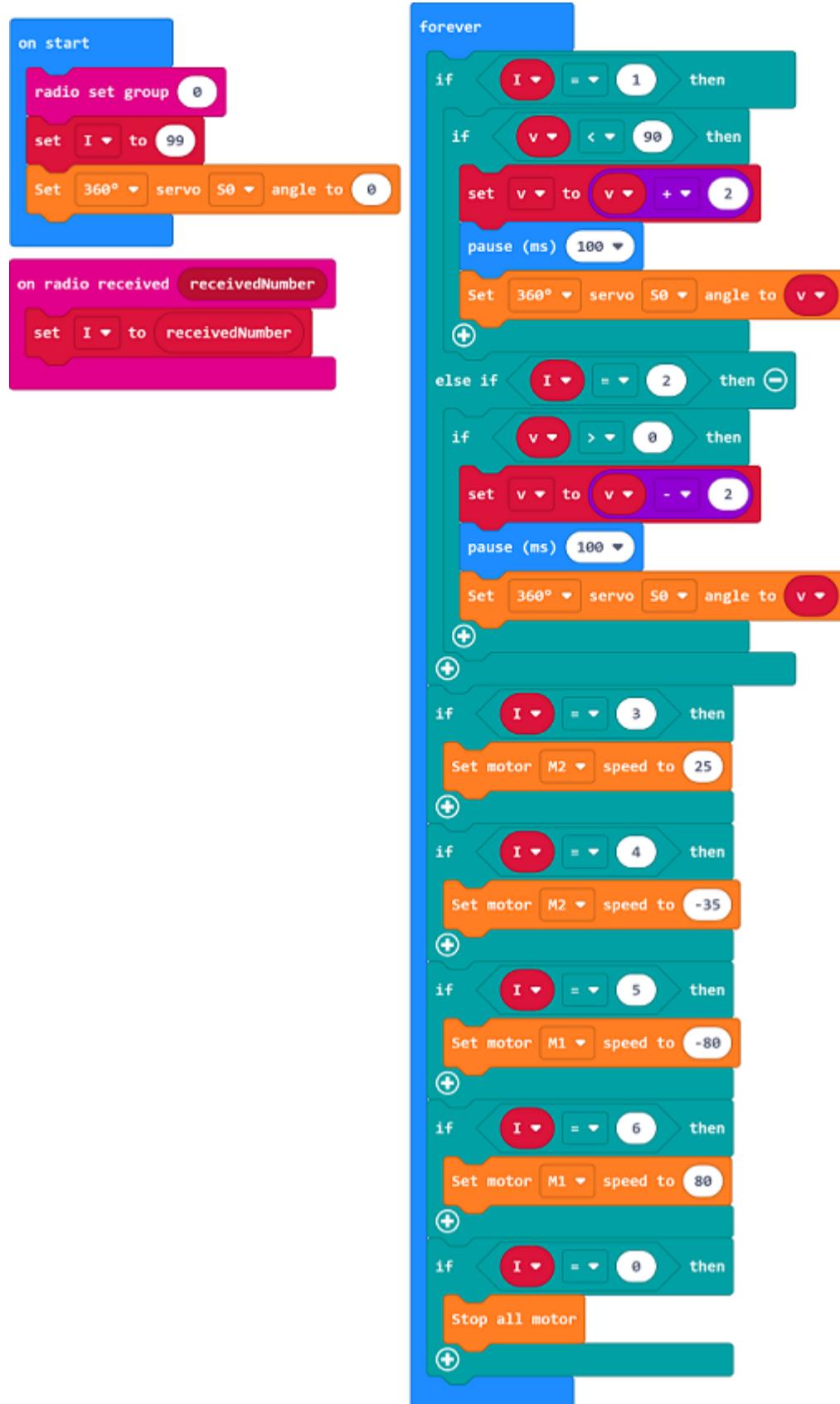
Program

For Joystick:bit:



Link:https://makecode.microbit.org/_3mK9cbULkLCy

For the robot arm:



Link:https://makecode.microbit.org/_92hgjPE9Kdec

Result

Control the robot arm with the Joystick:bit, the left and right direction of the handle rocker controls the rotation of the robot arm to the left and right, the up and down direction of the handle rocker controls the rise and fall of the robot arm, the C button controls the clamping of the robot arm, and the D button controls the release of the robot arm clamp.

By ELECFREAKS Team

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