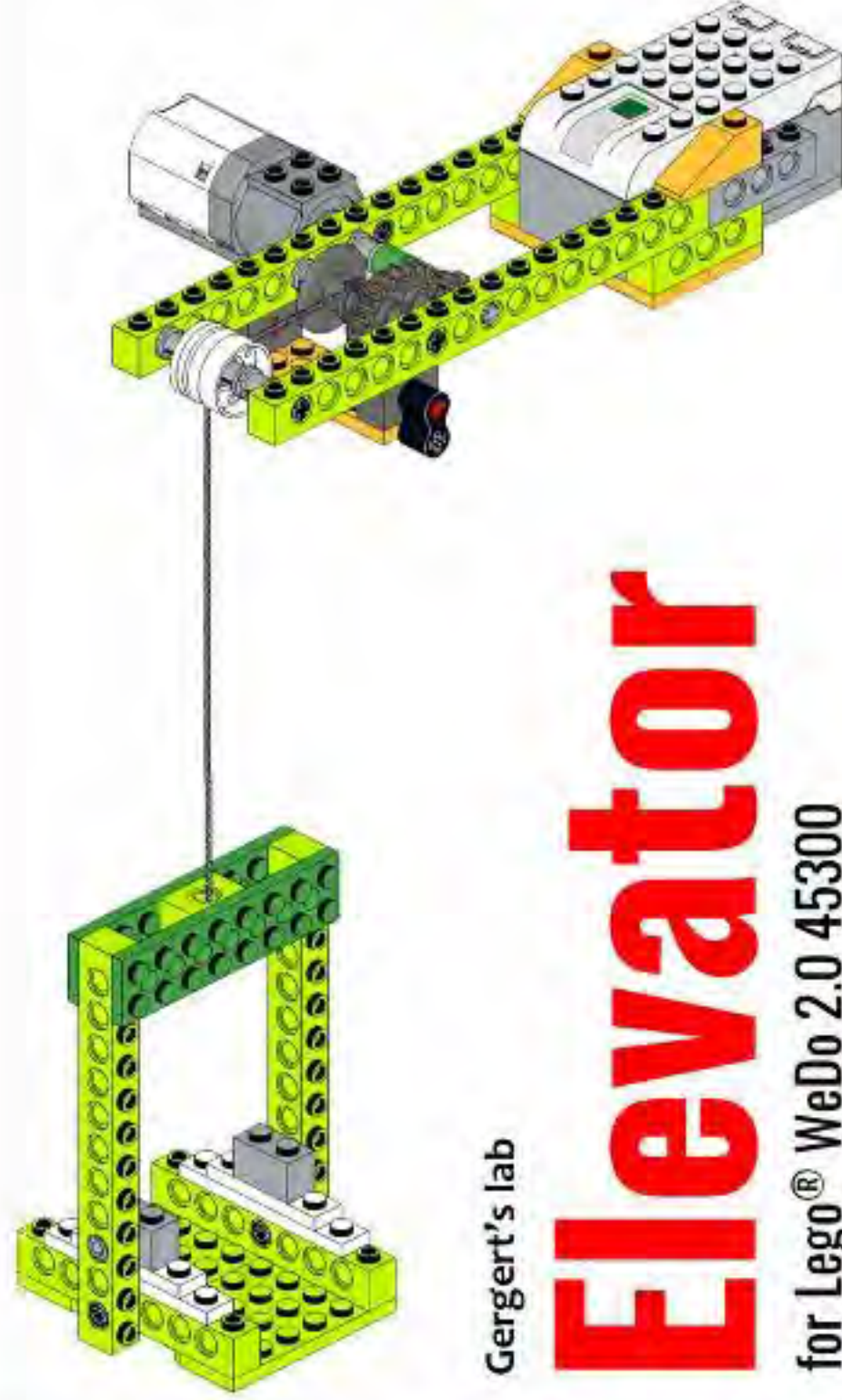


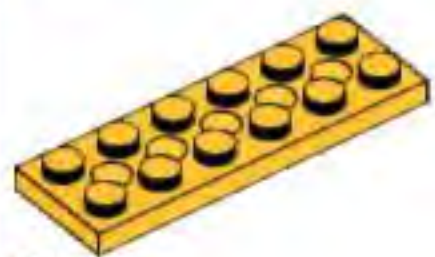
elevator
unofficial building instruction



Gergert's lab

Elevator

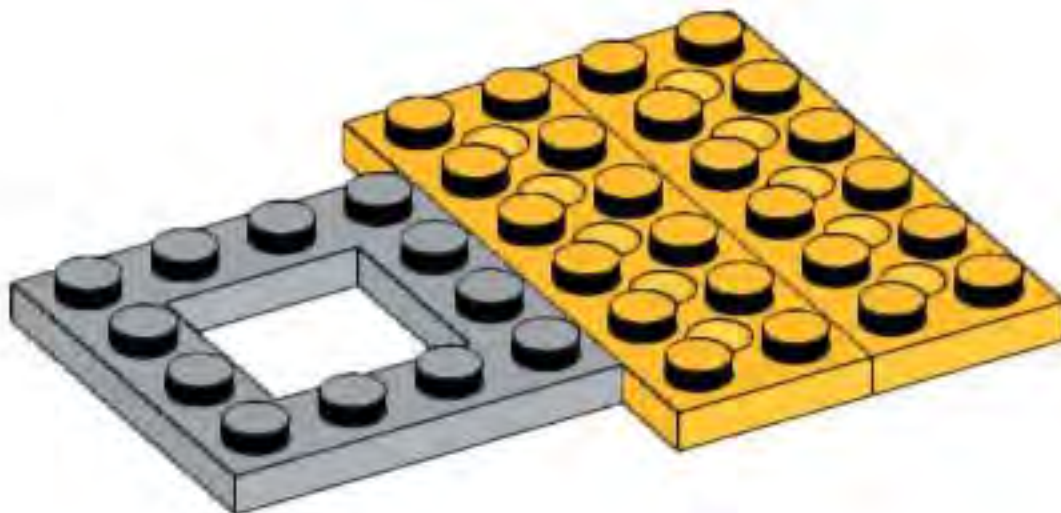
for Lego® WeDo 2.0 45300

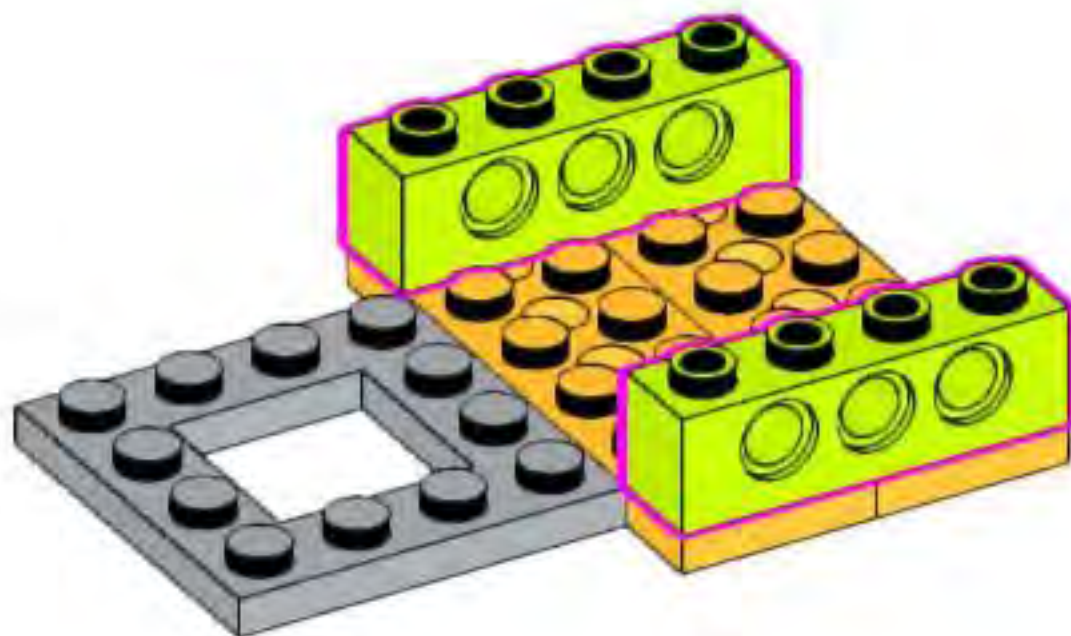
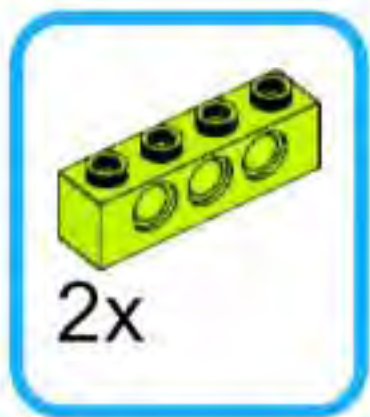


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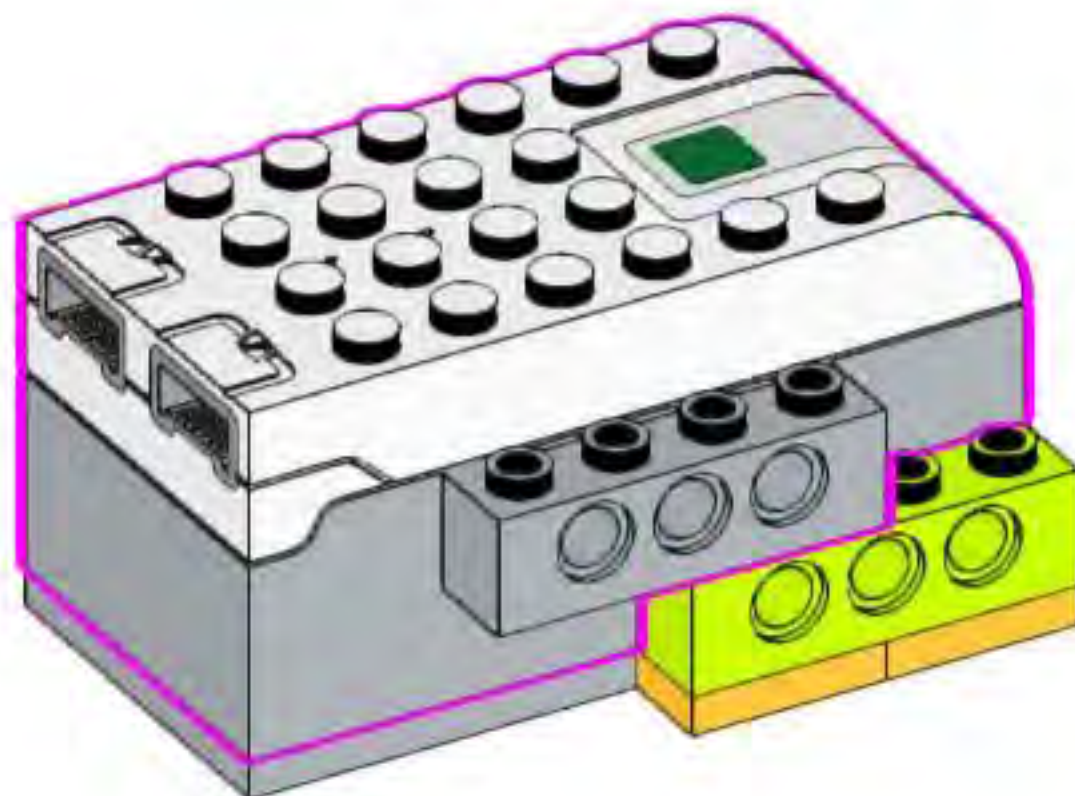
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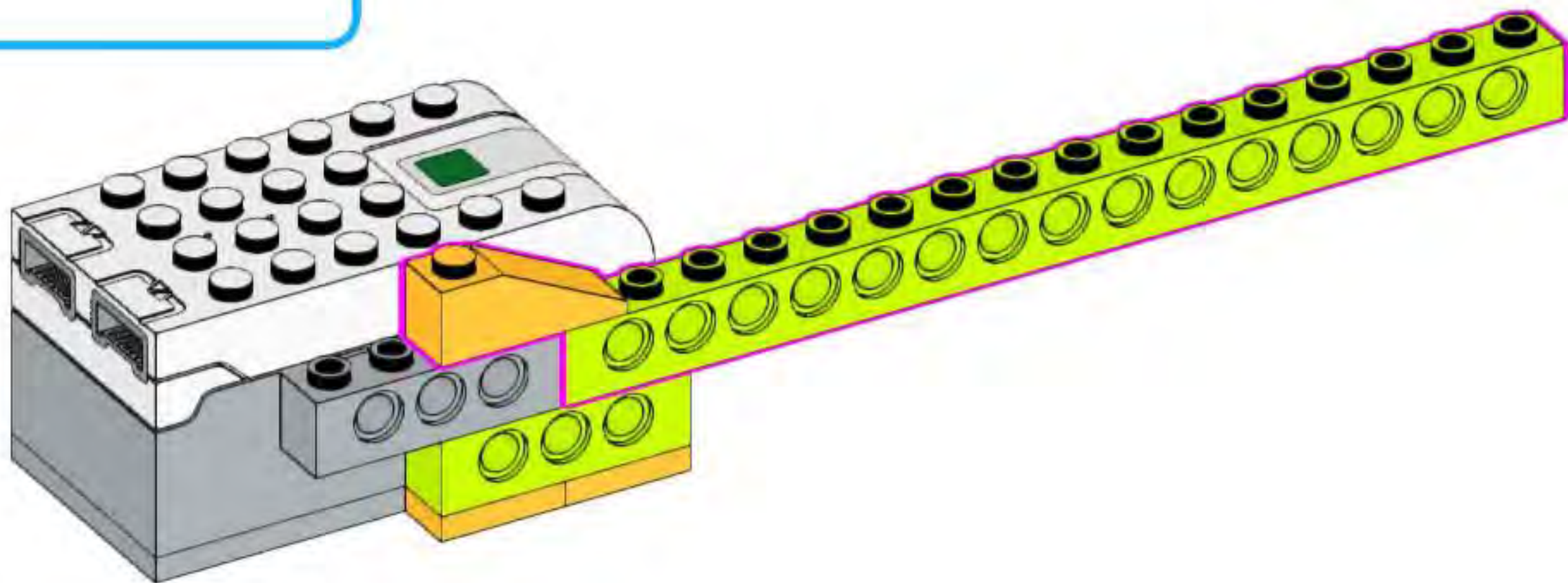
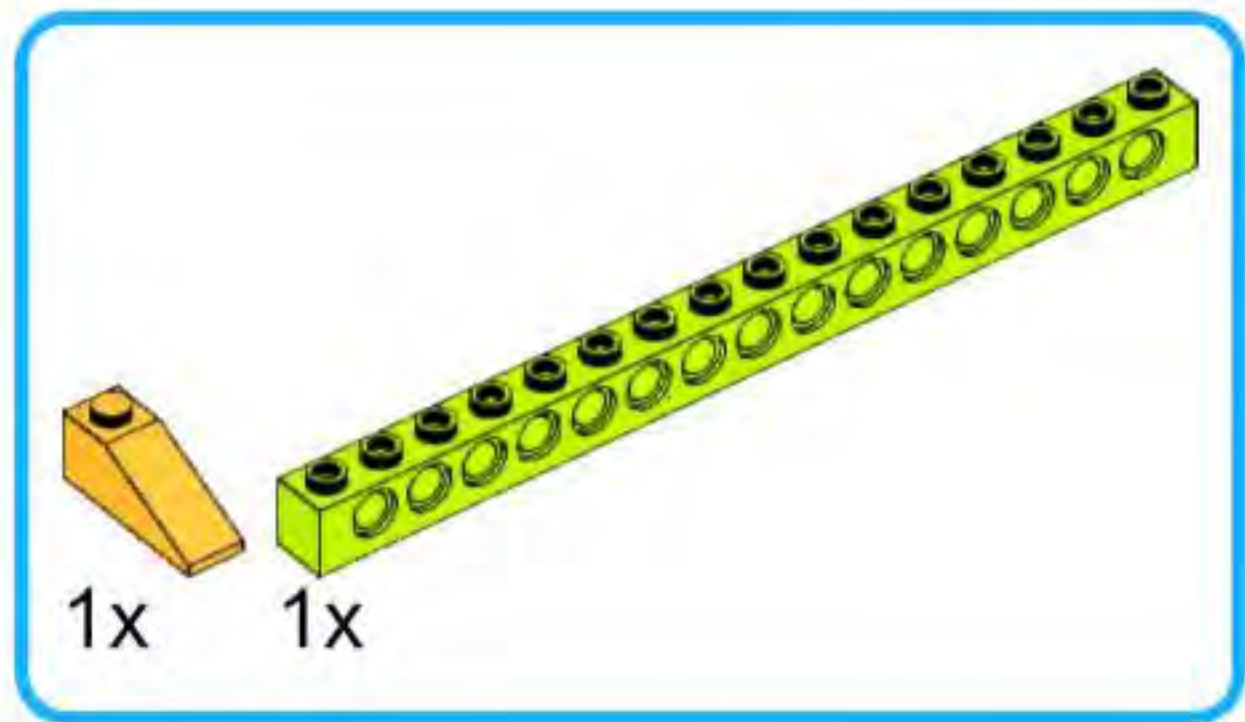


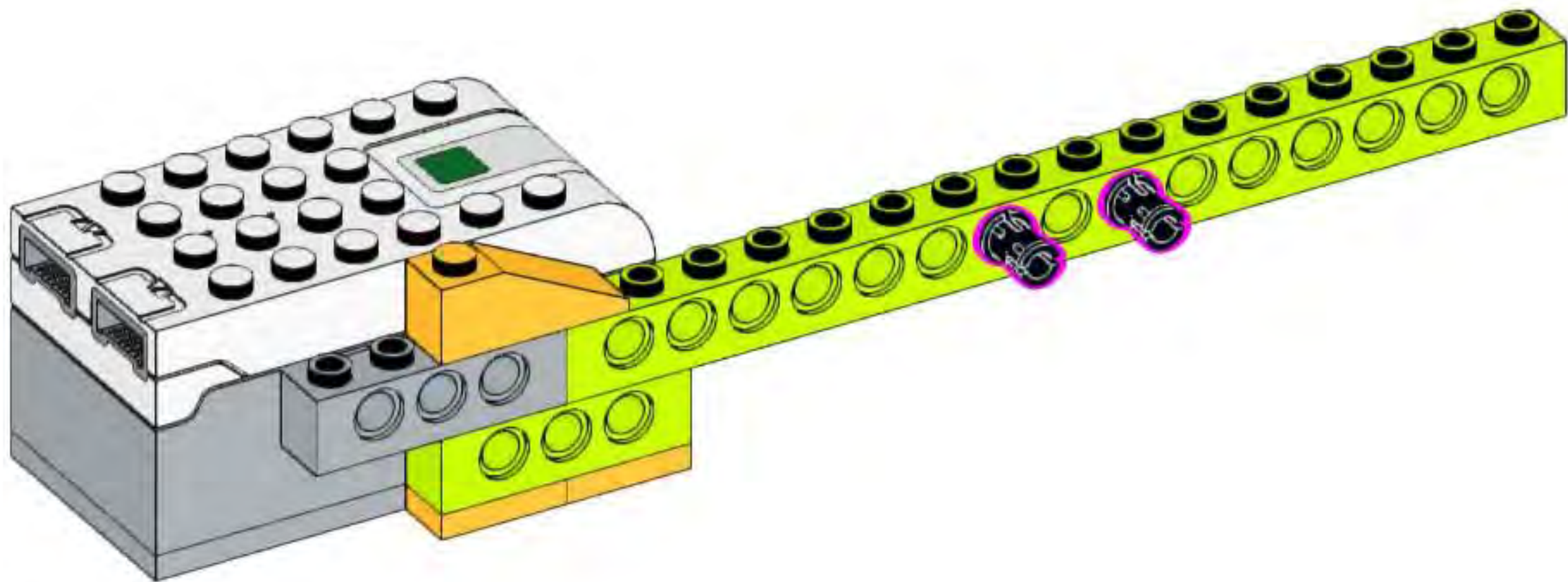


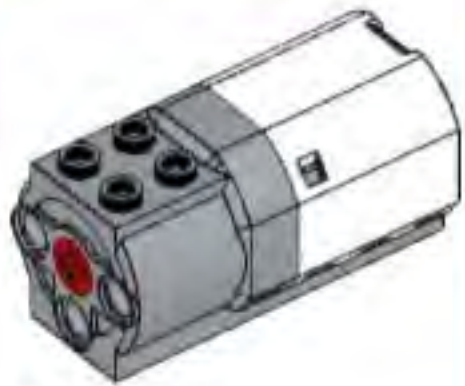


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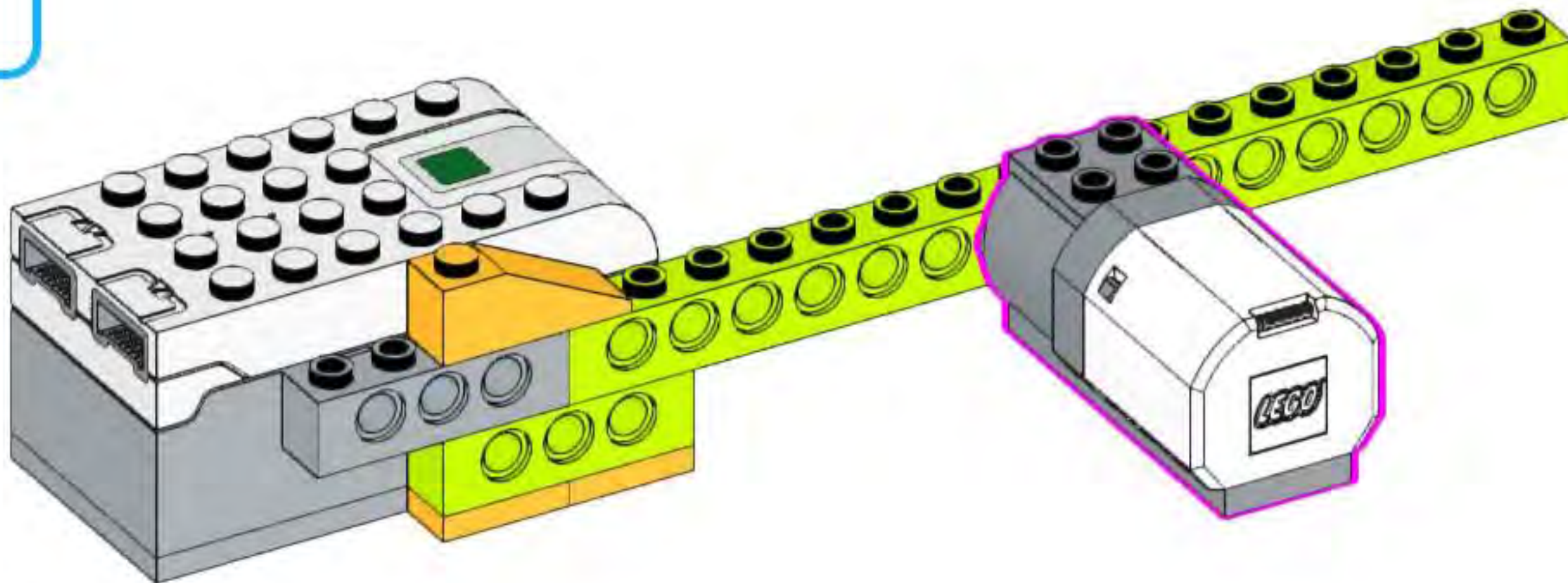


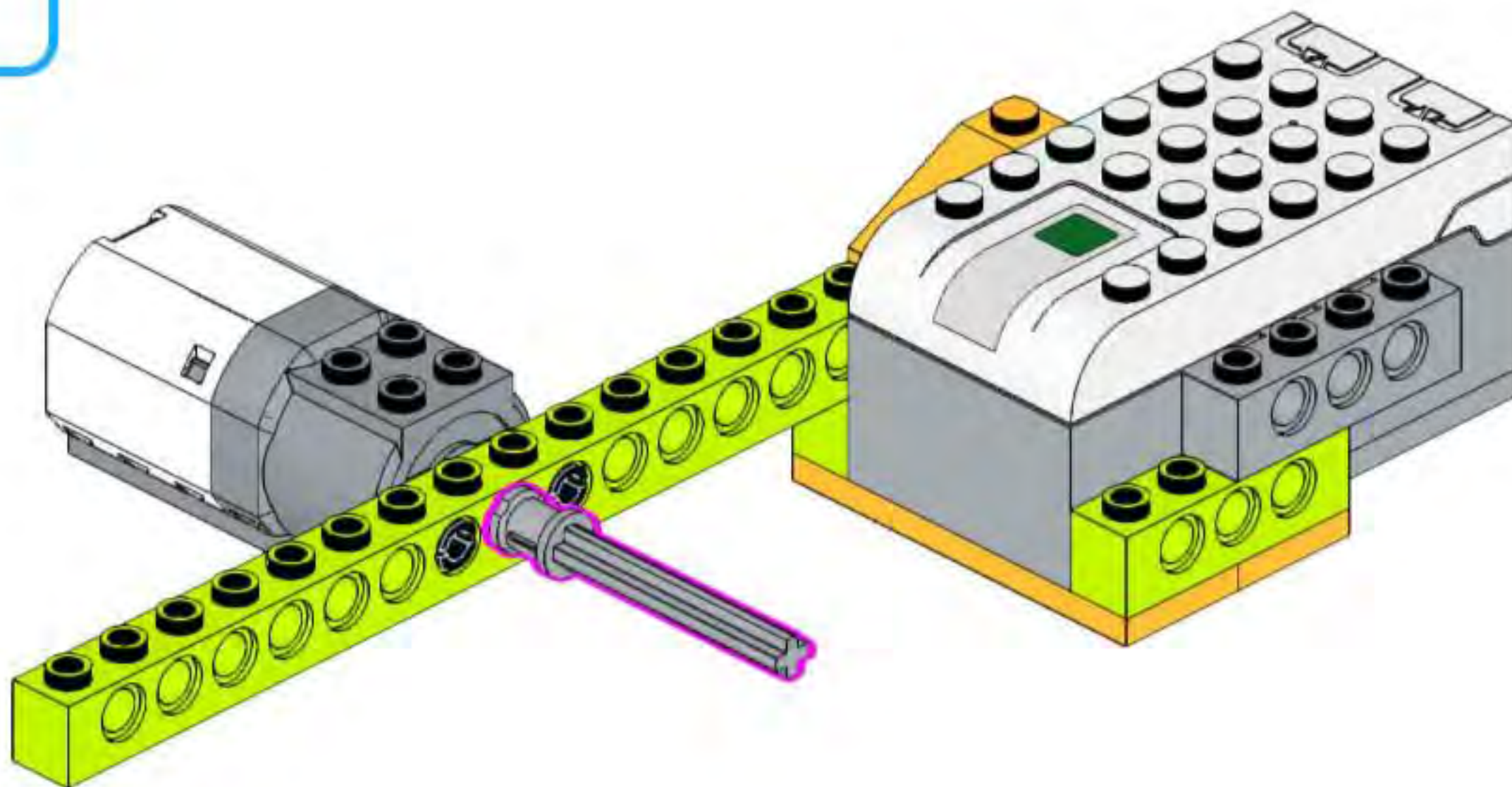


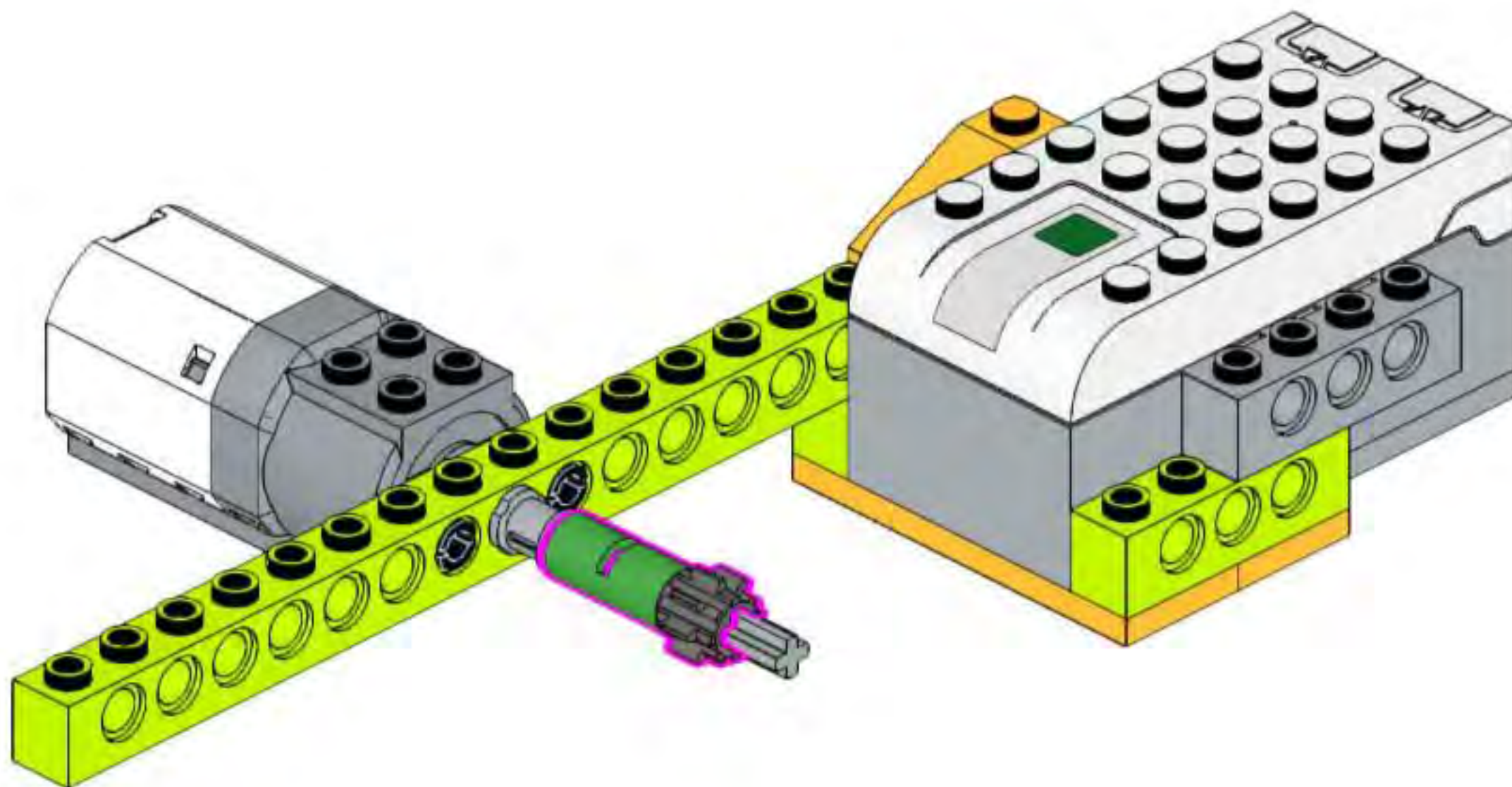


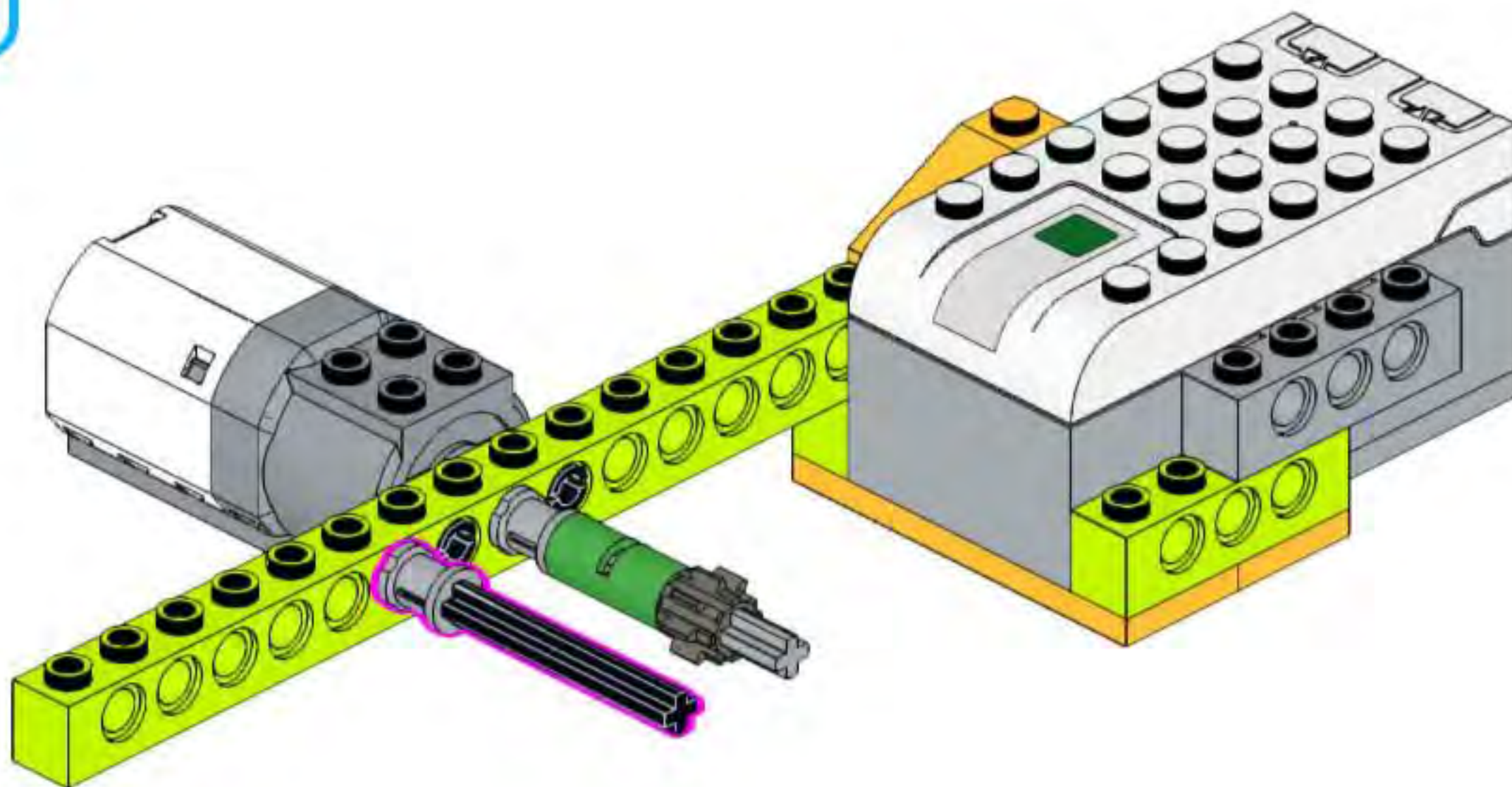


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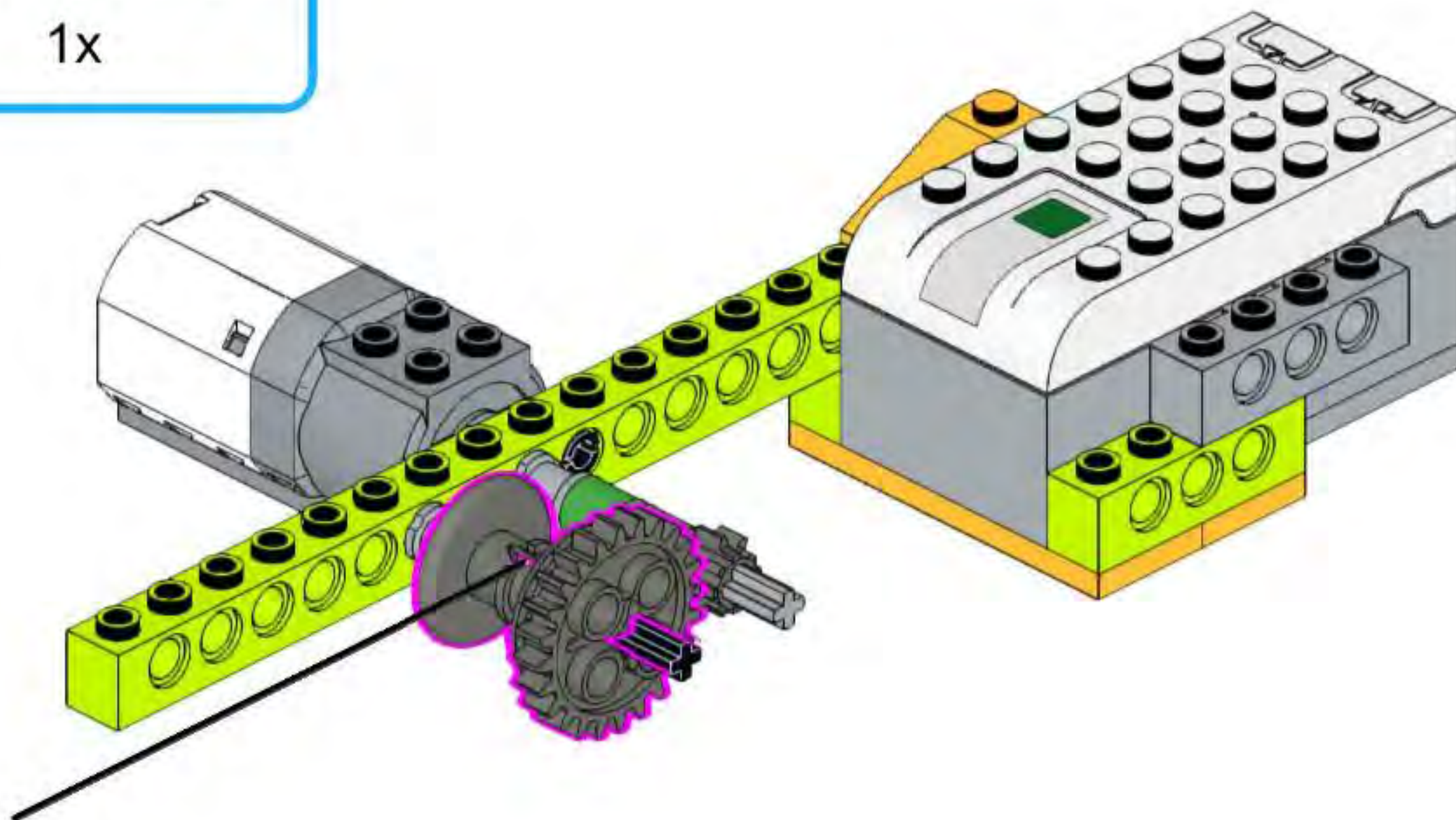
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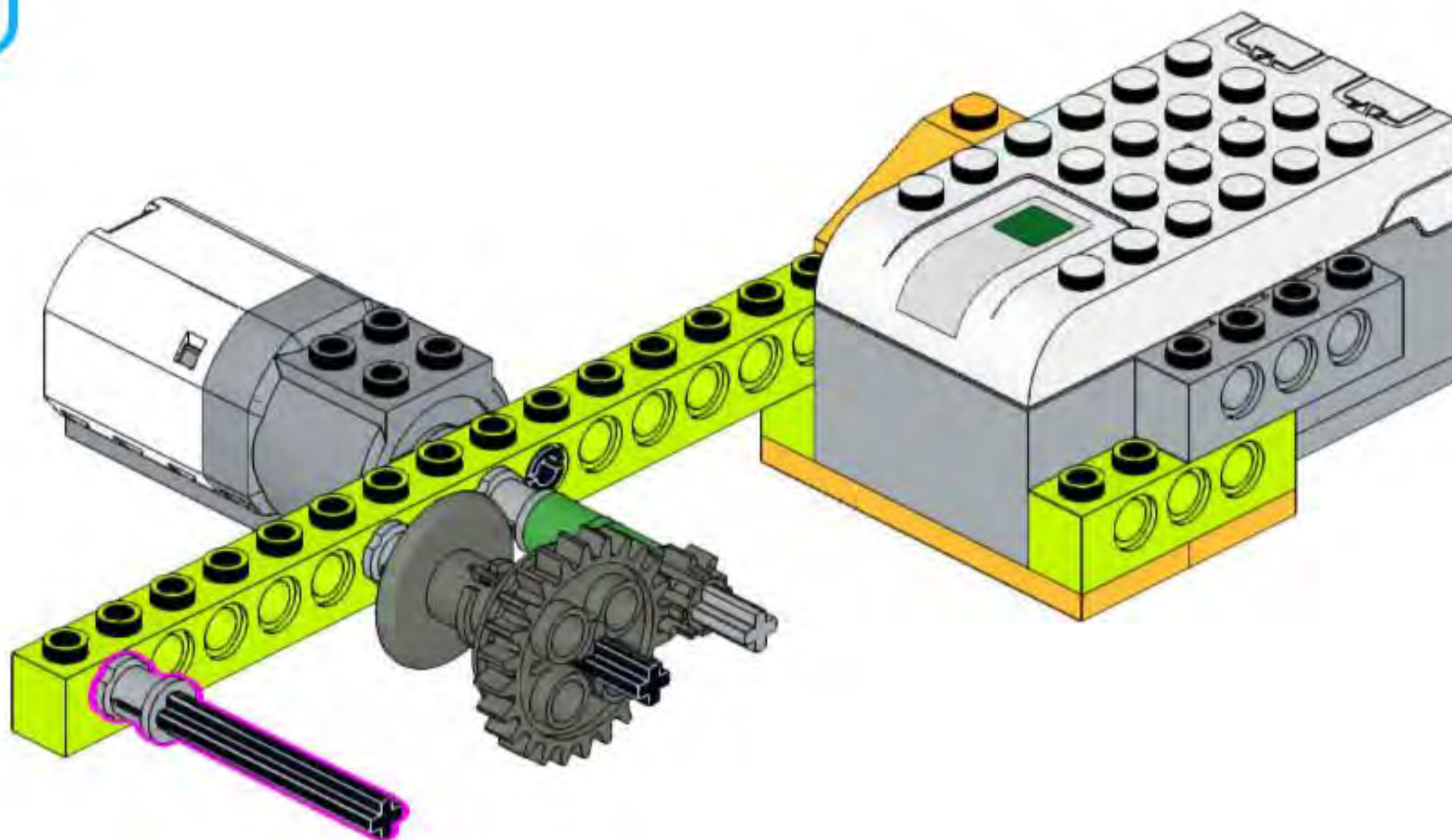


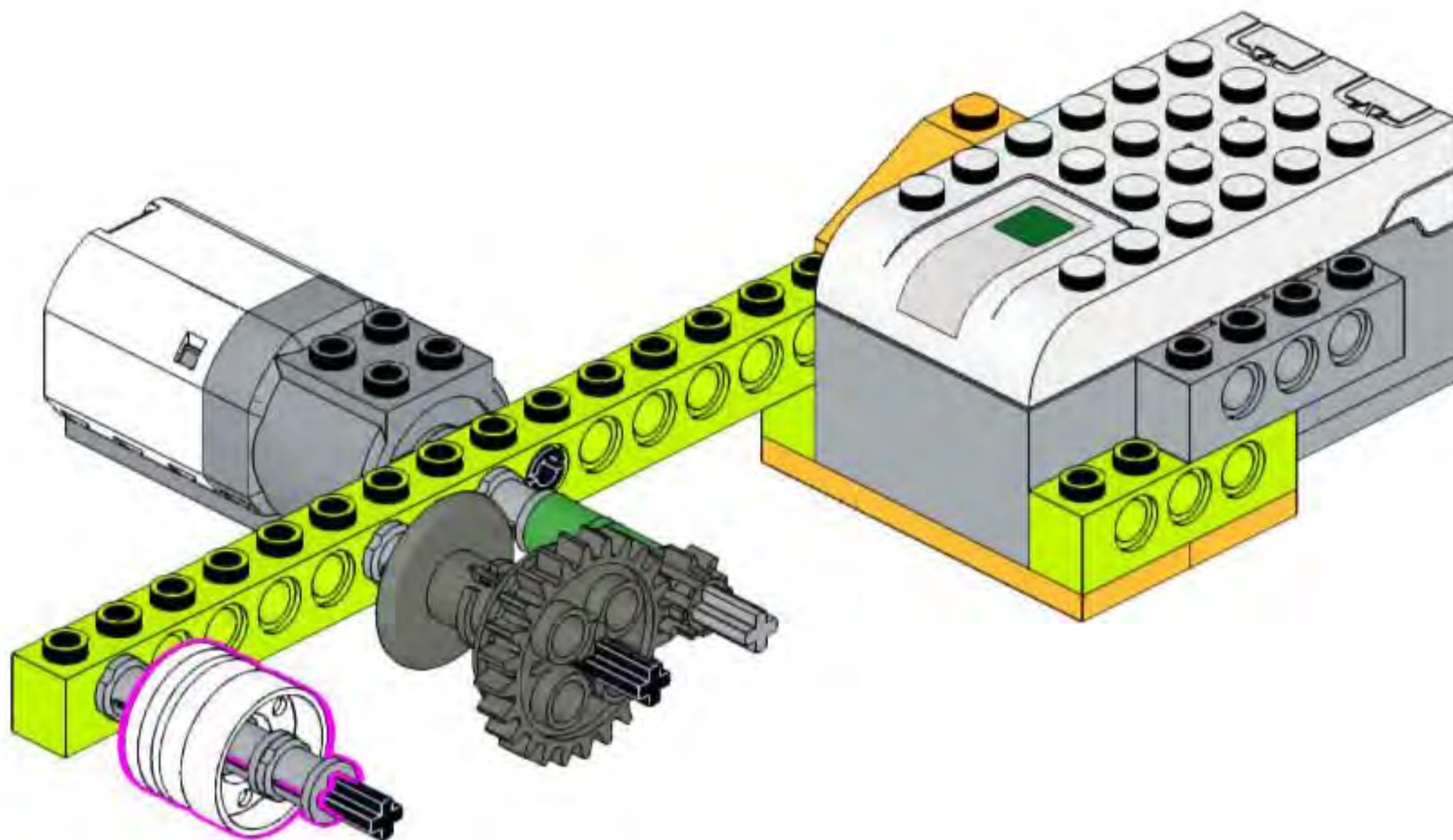
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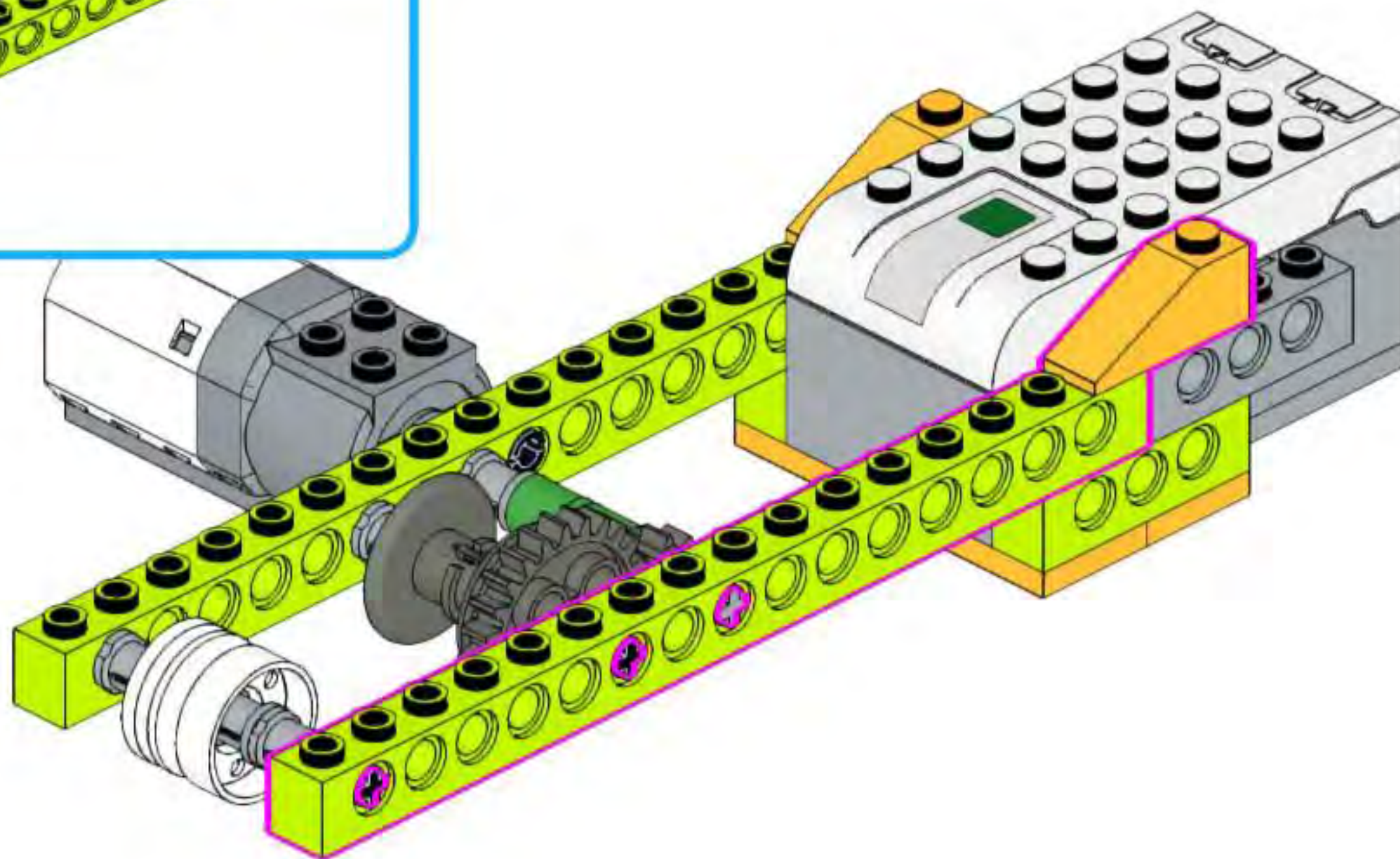
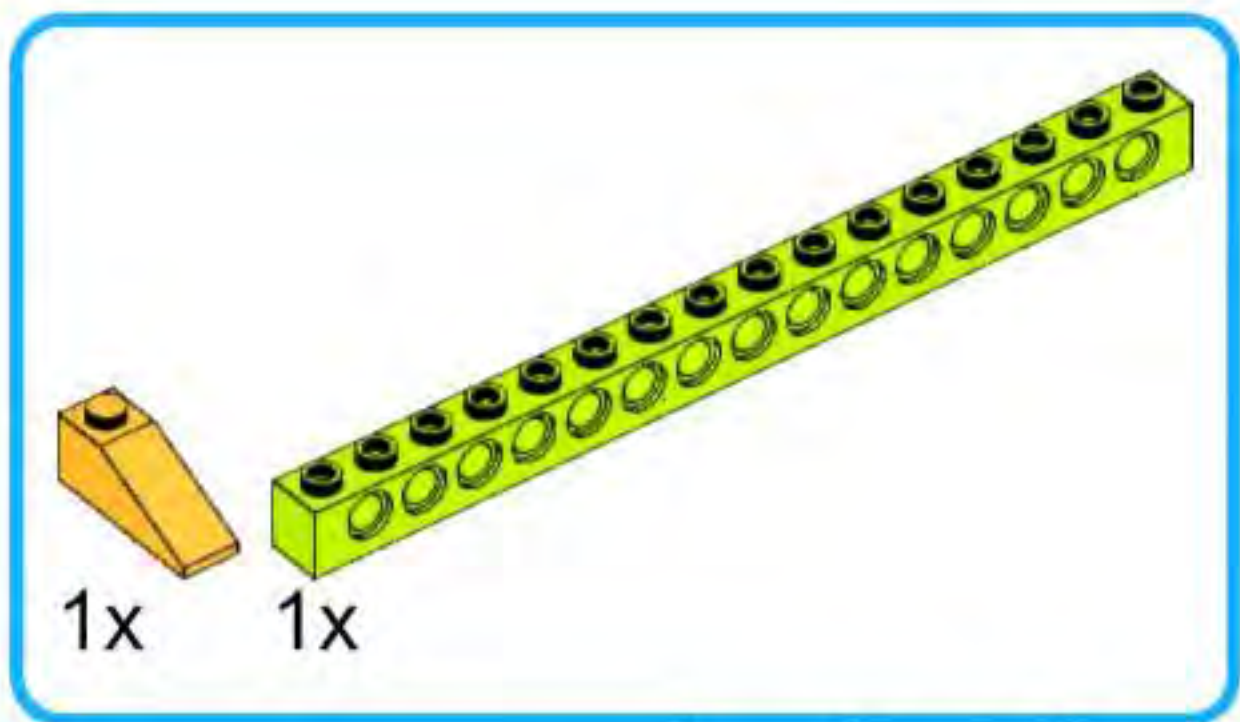


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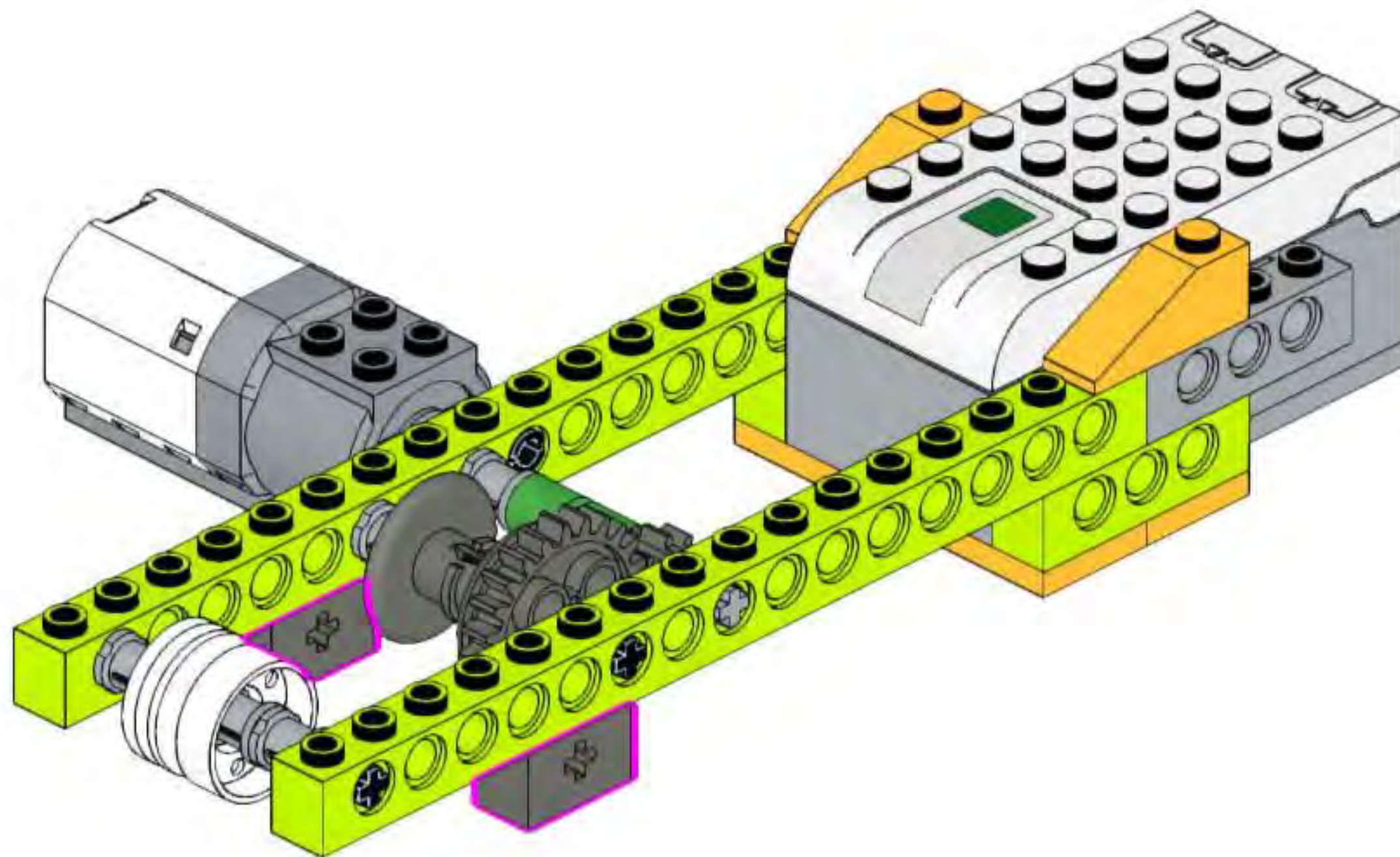


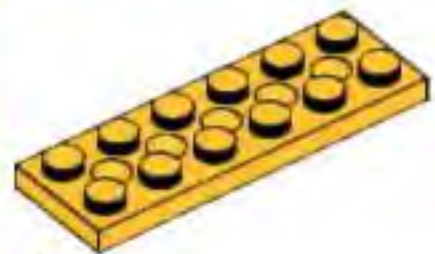




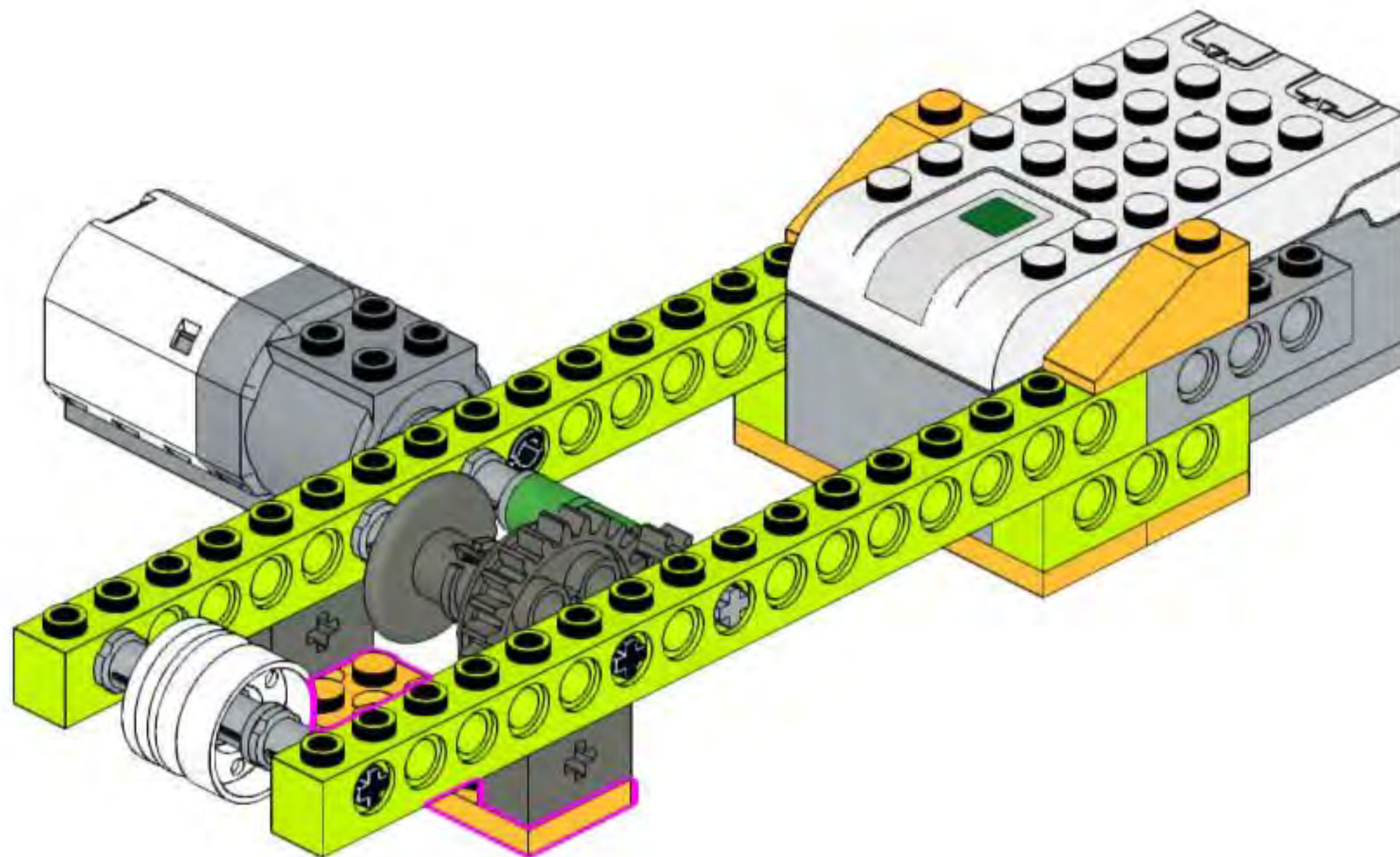


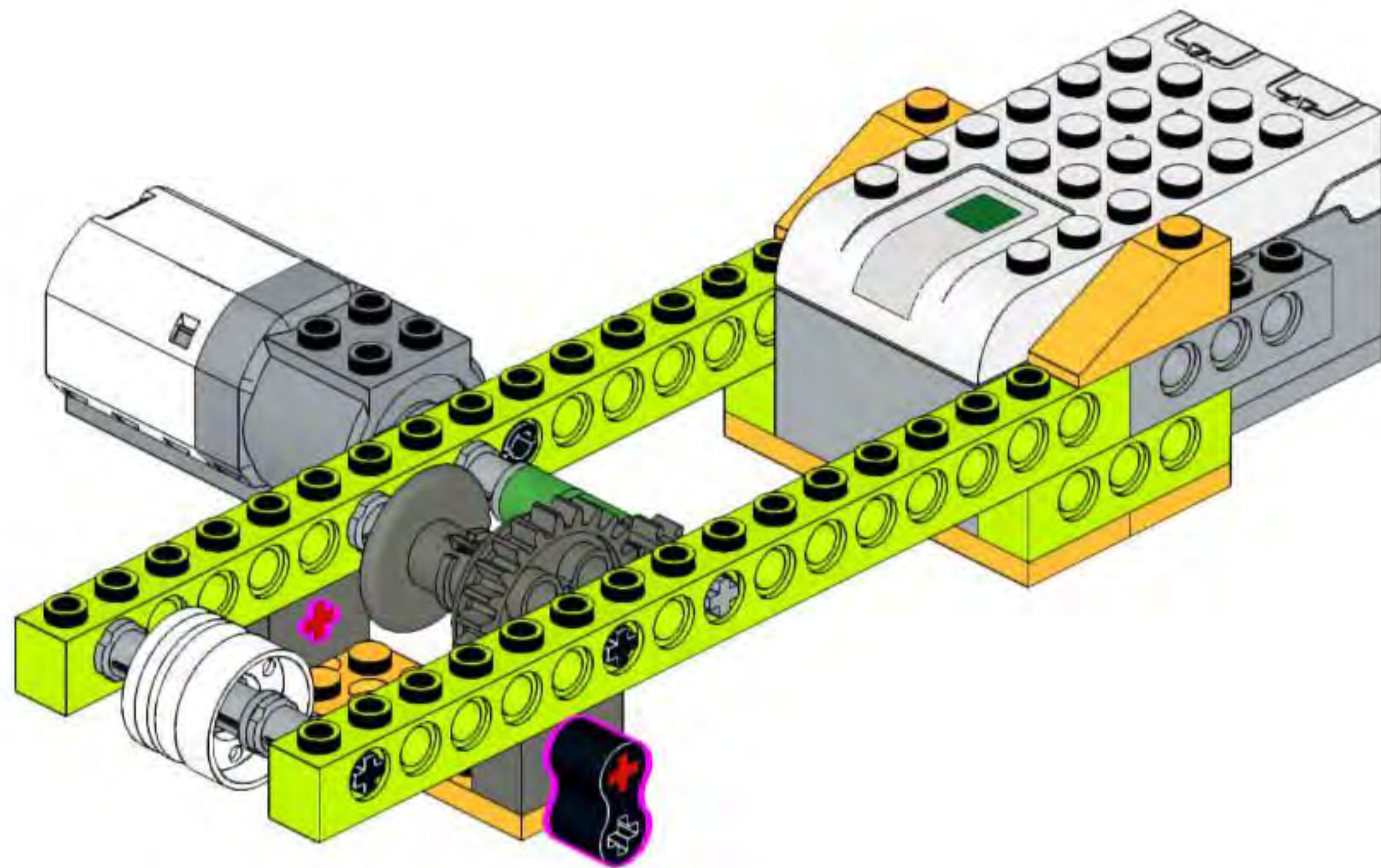
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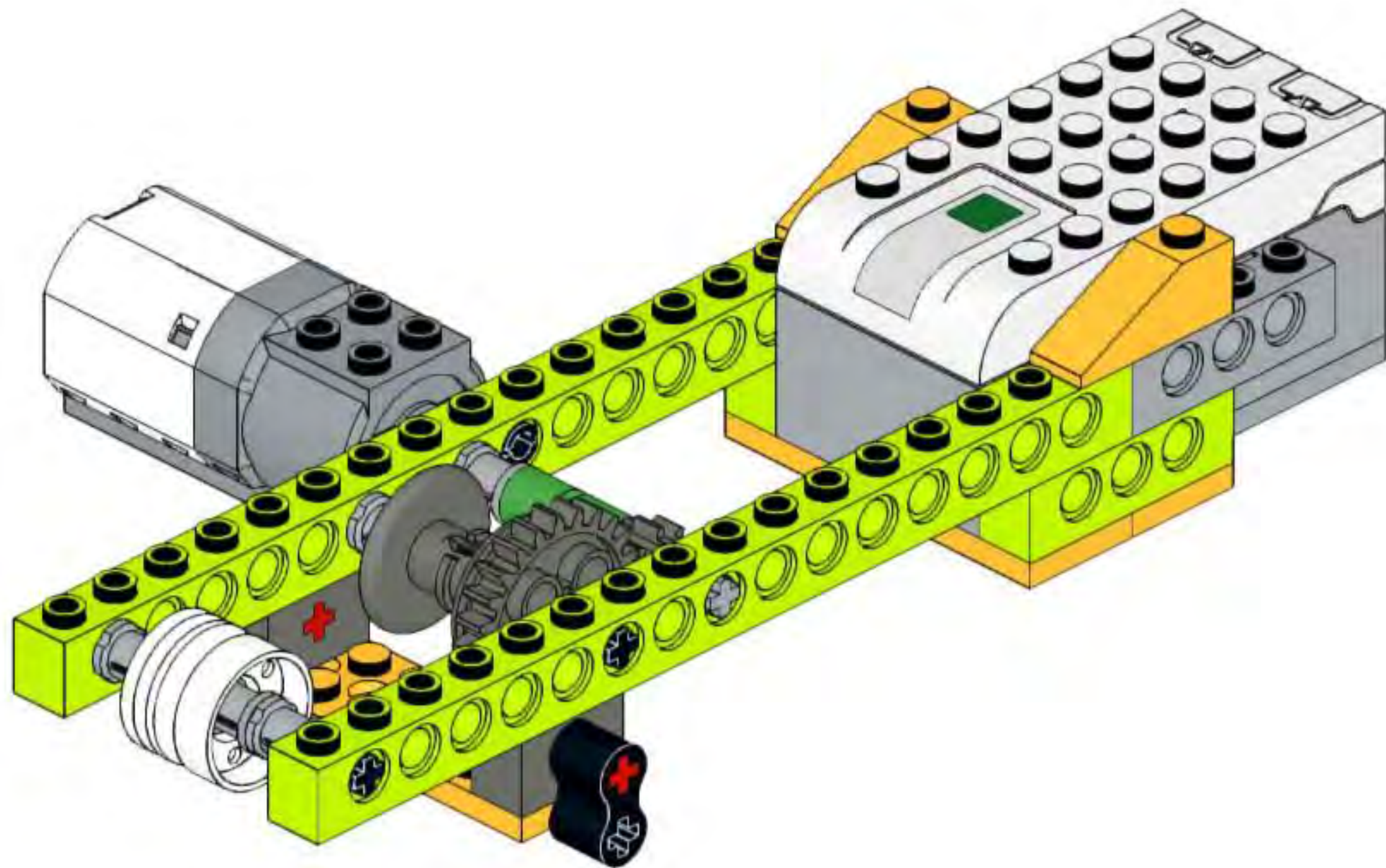




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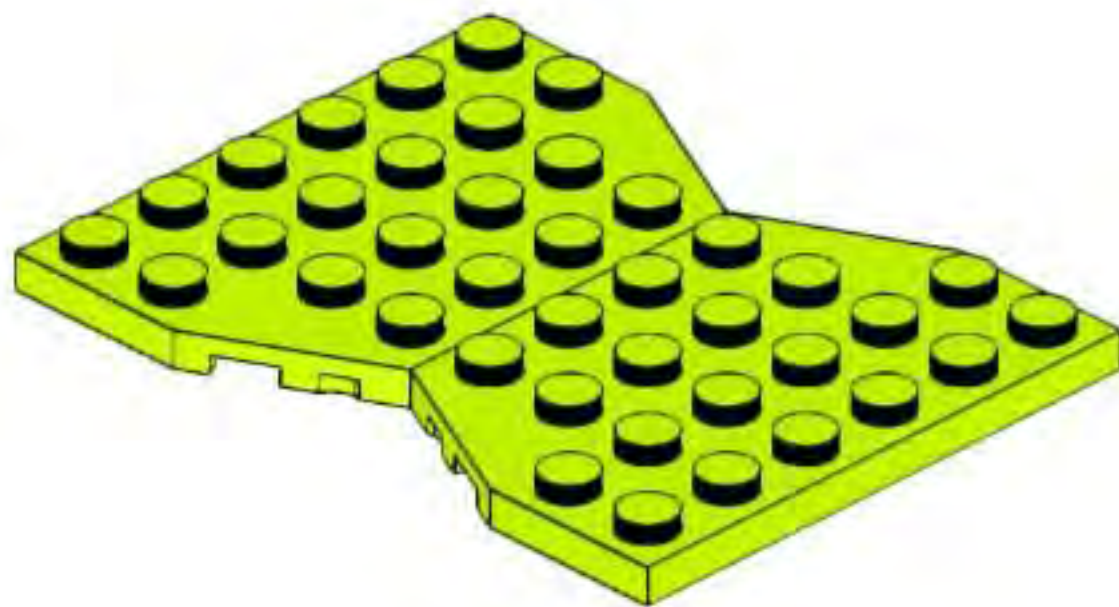


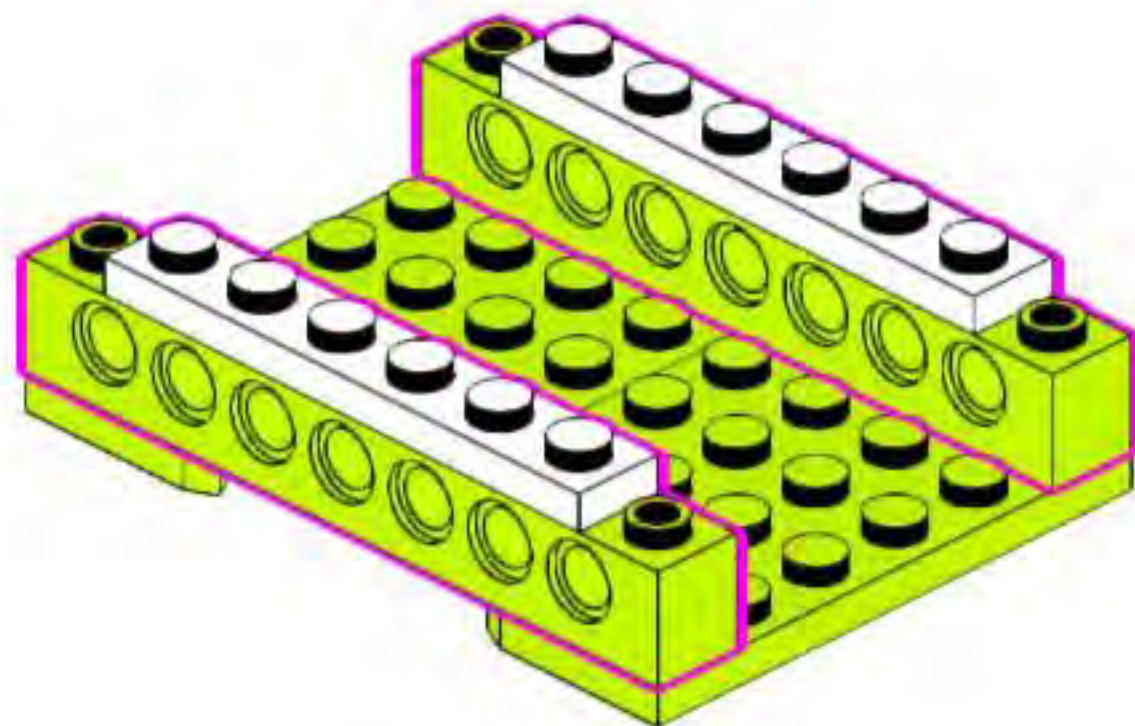
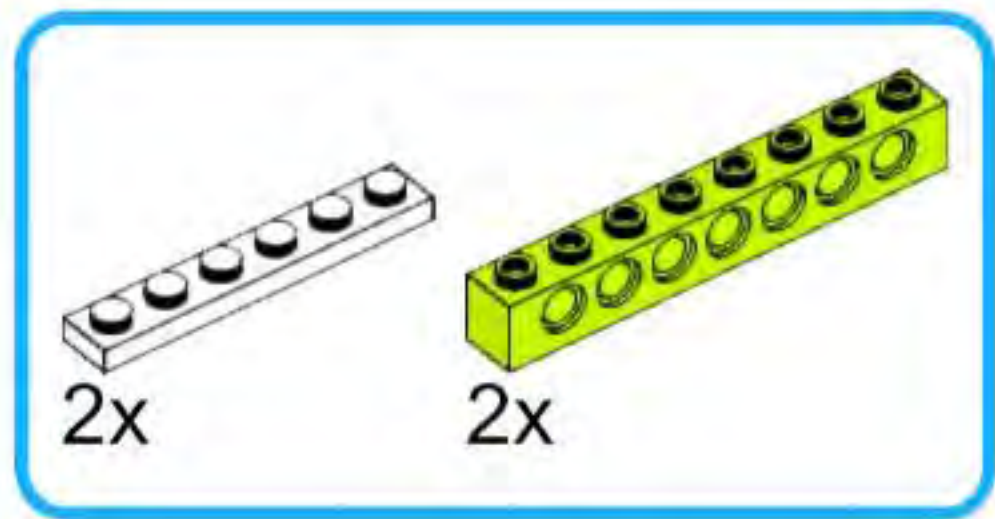


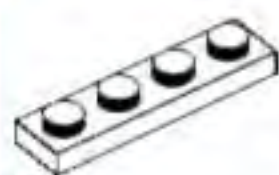




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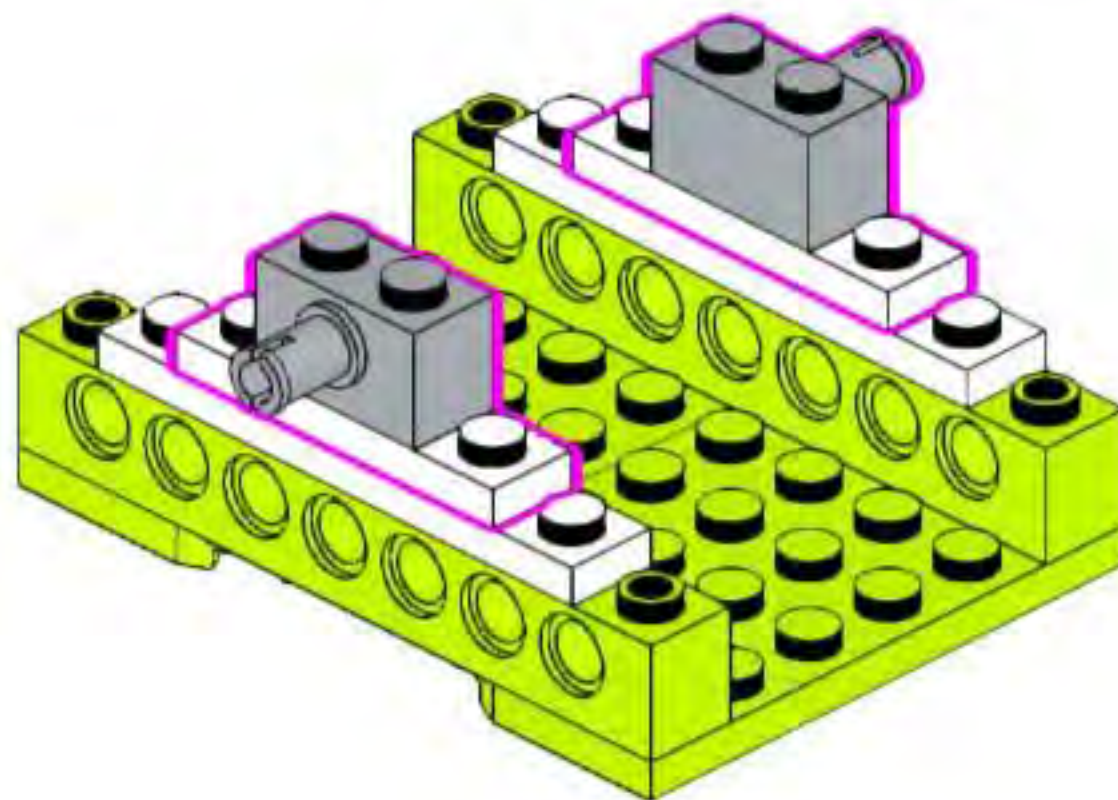


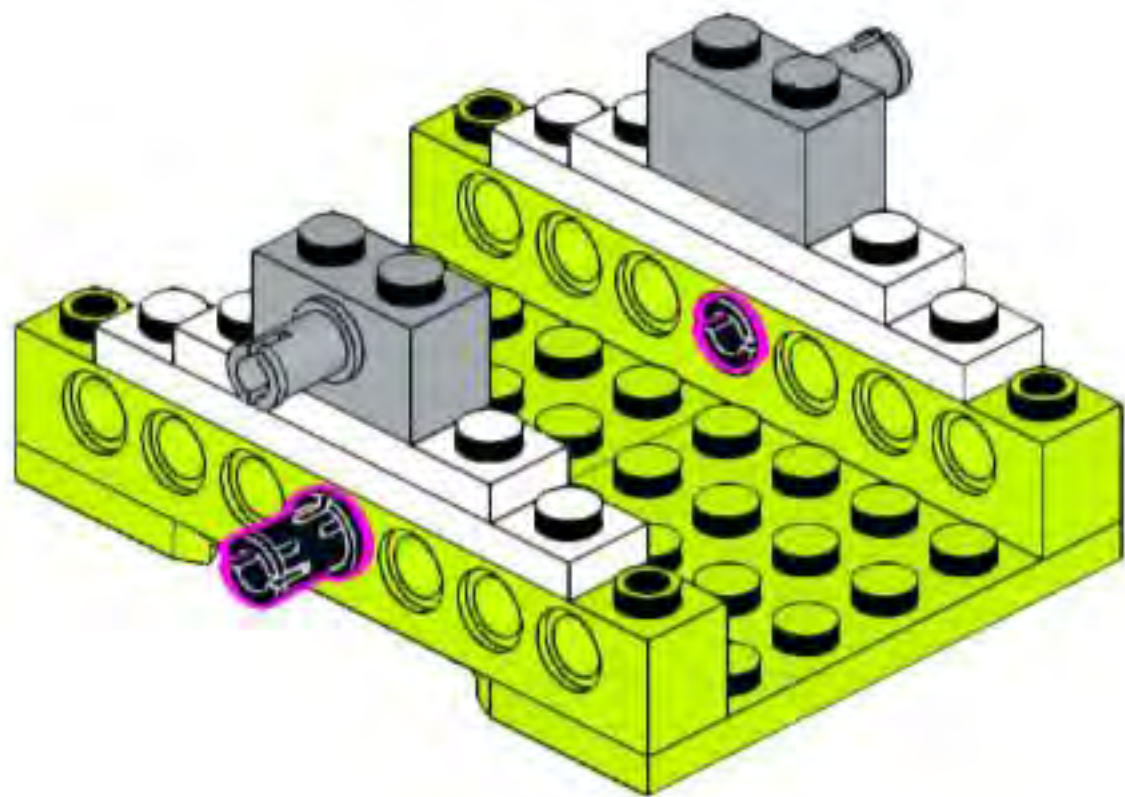


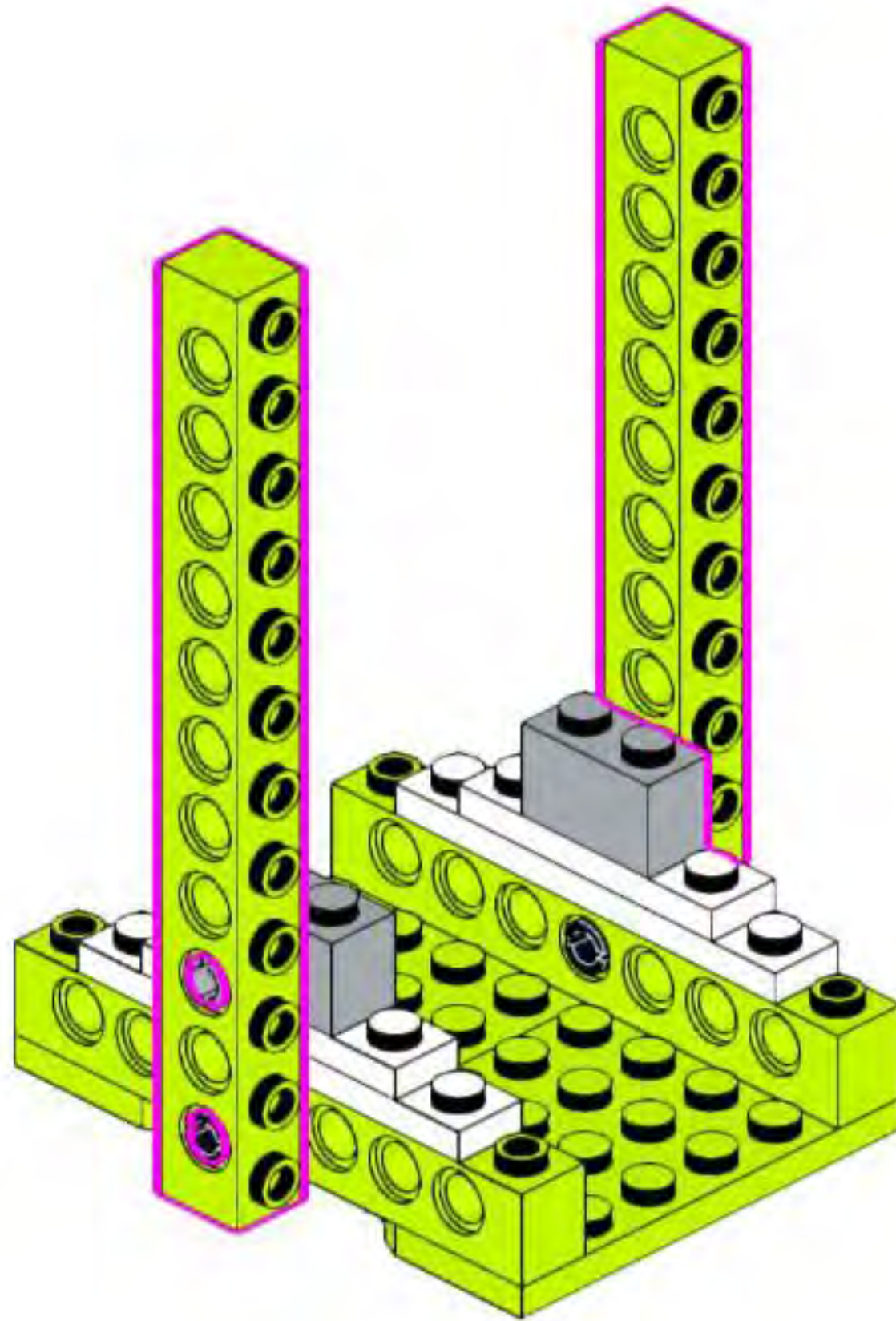
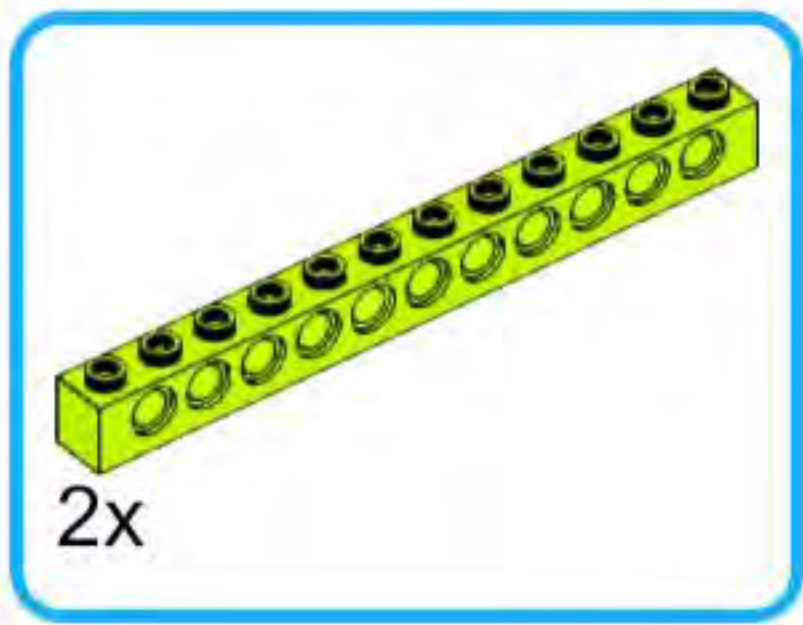
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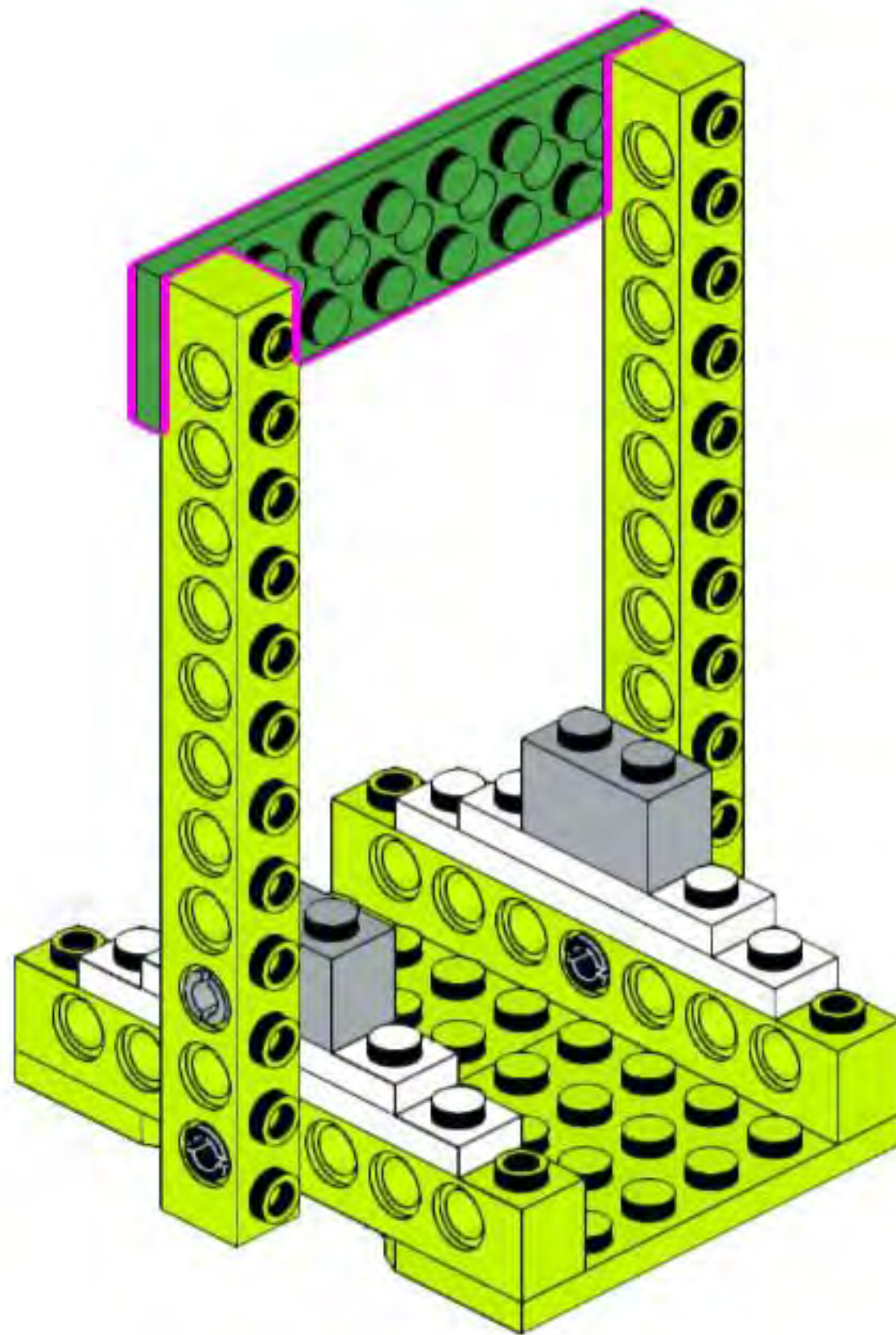
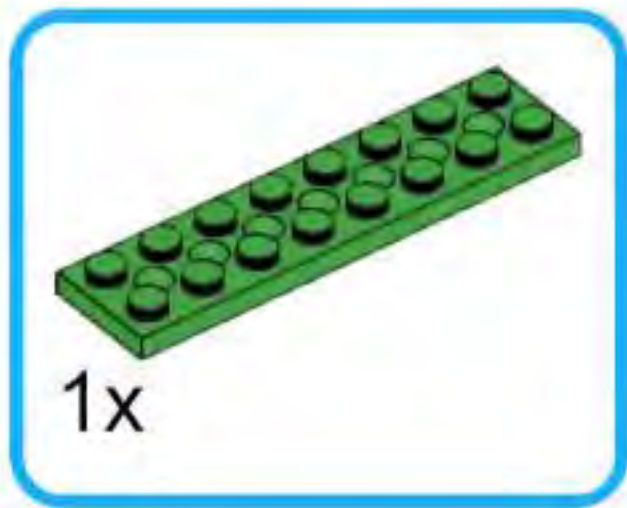


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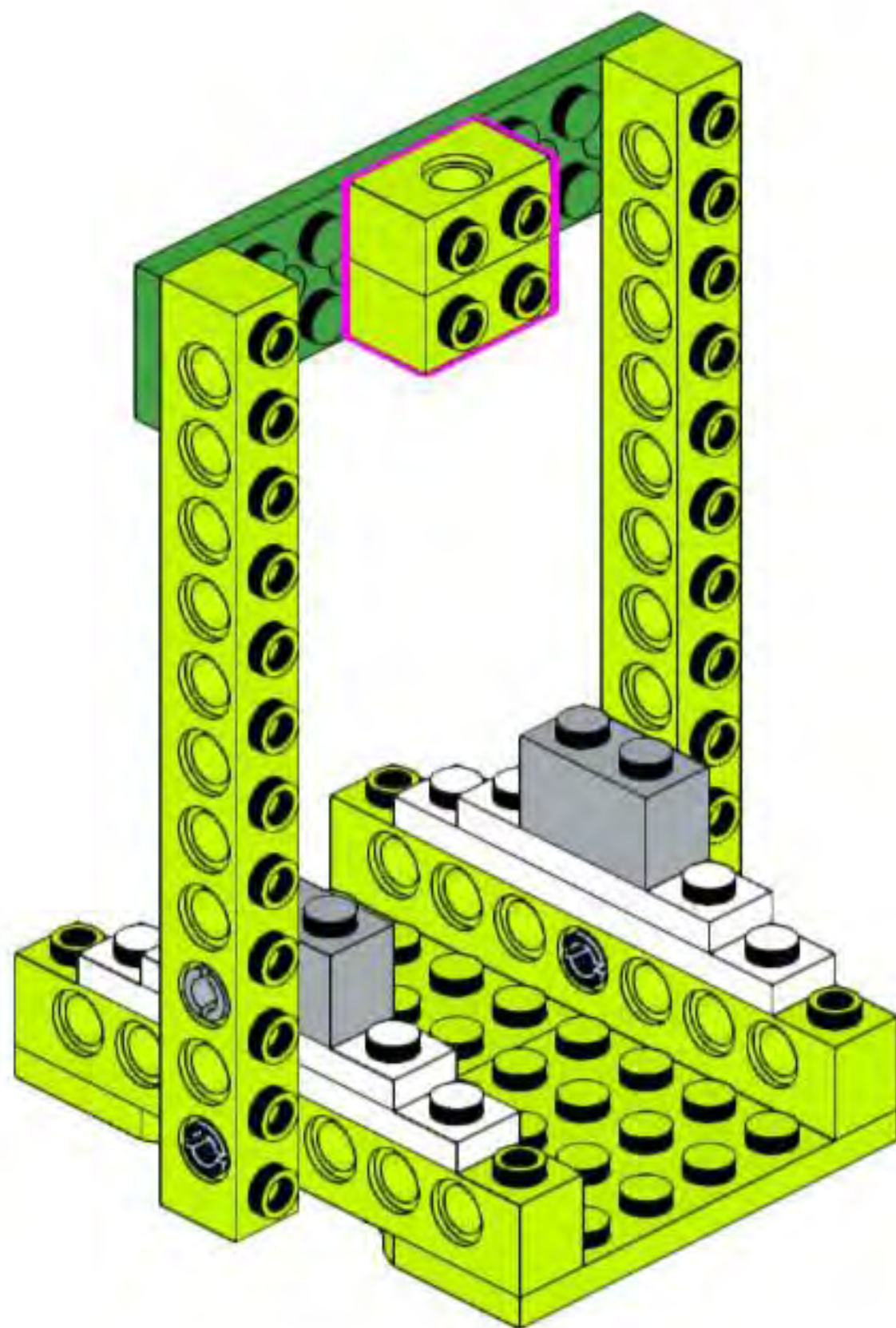


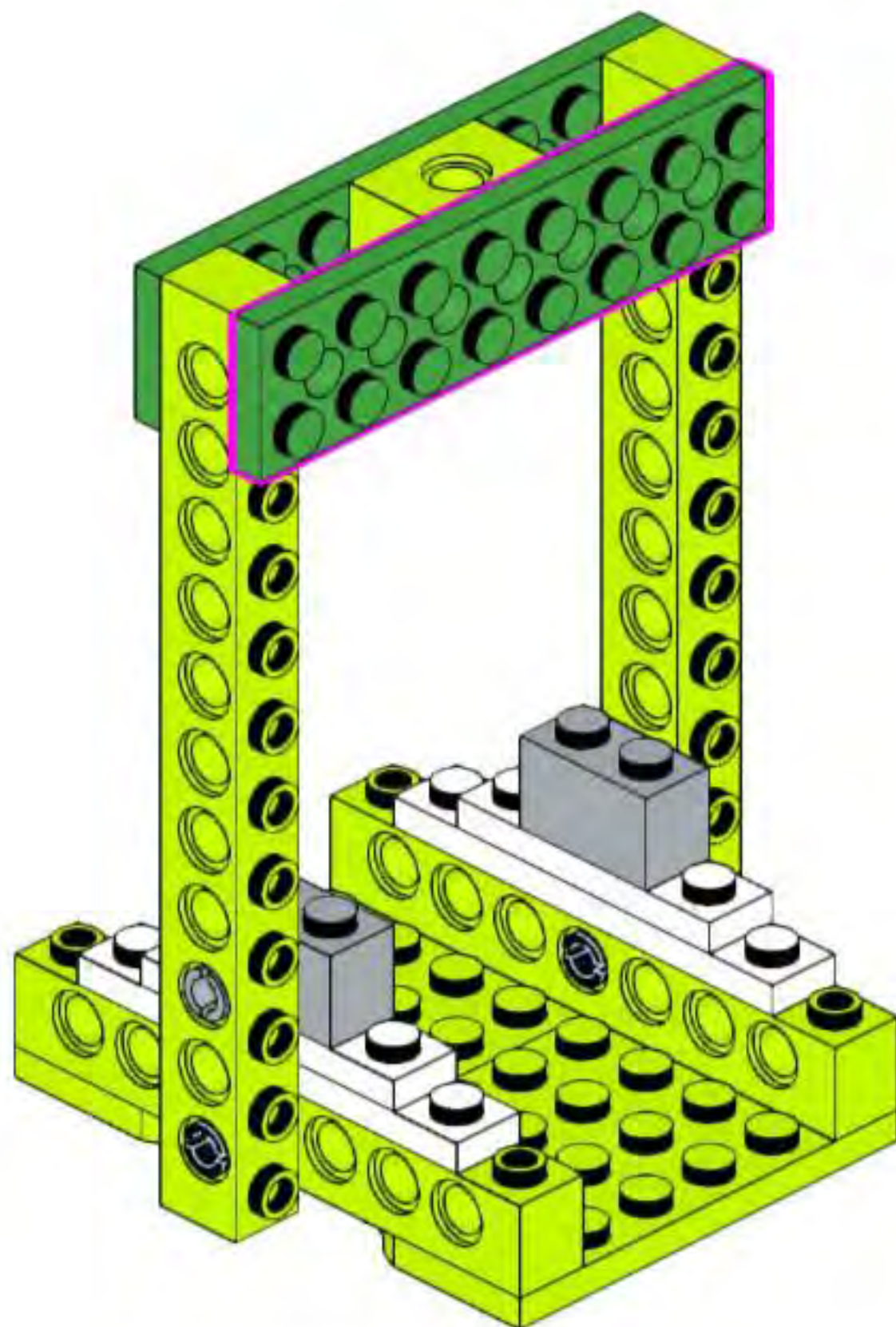
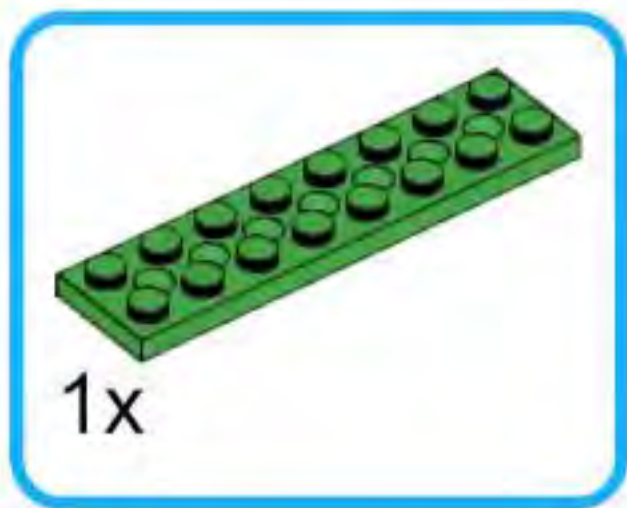


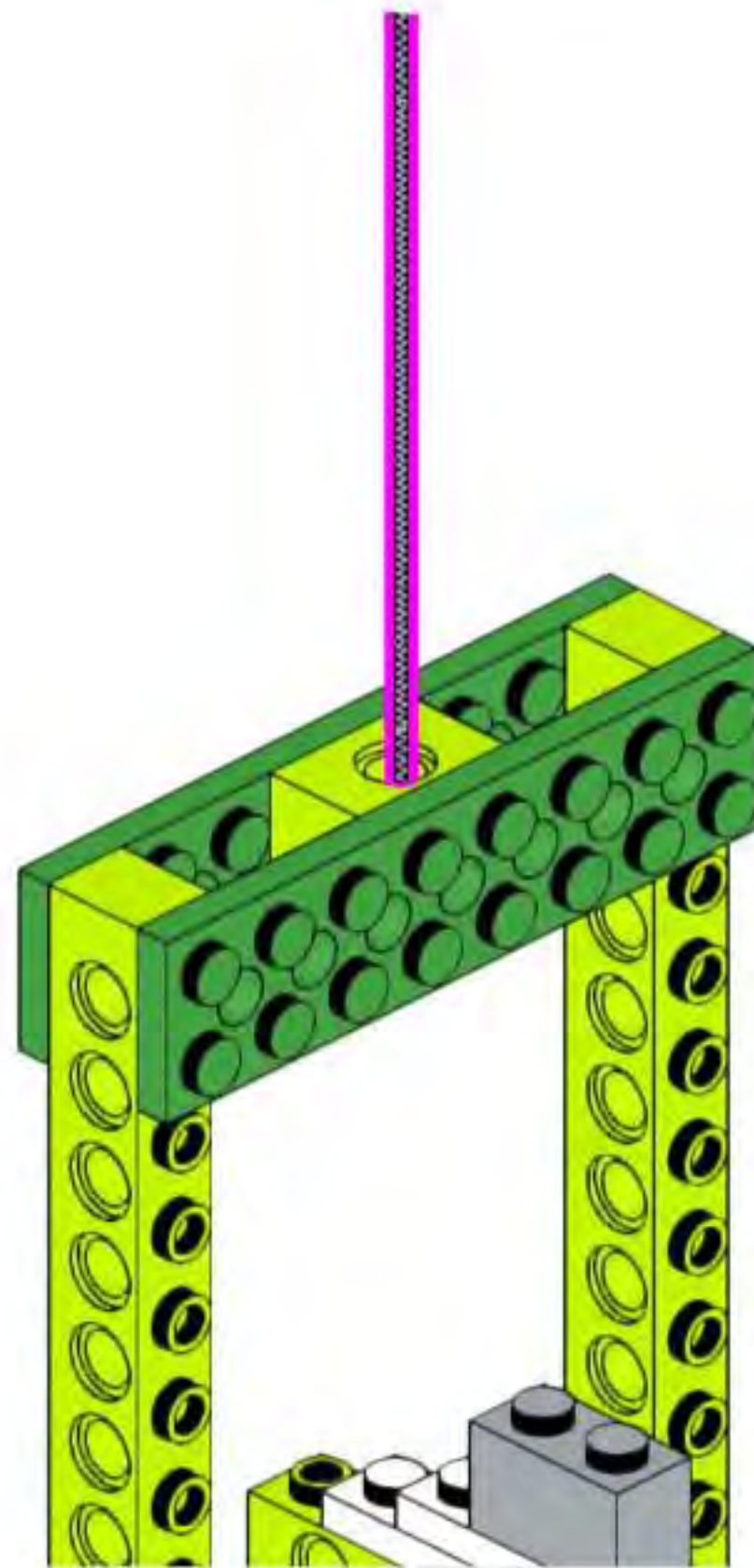


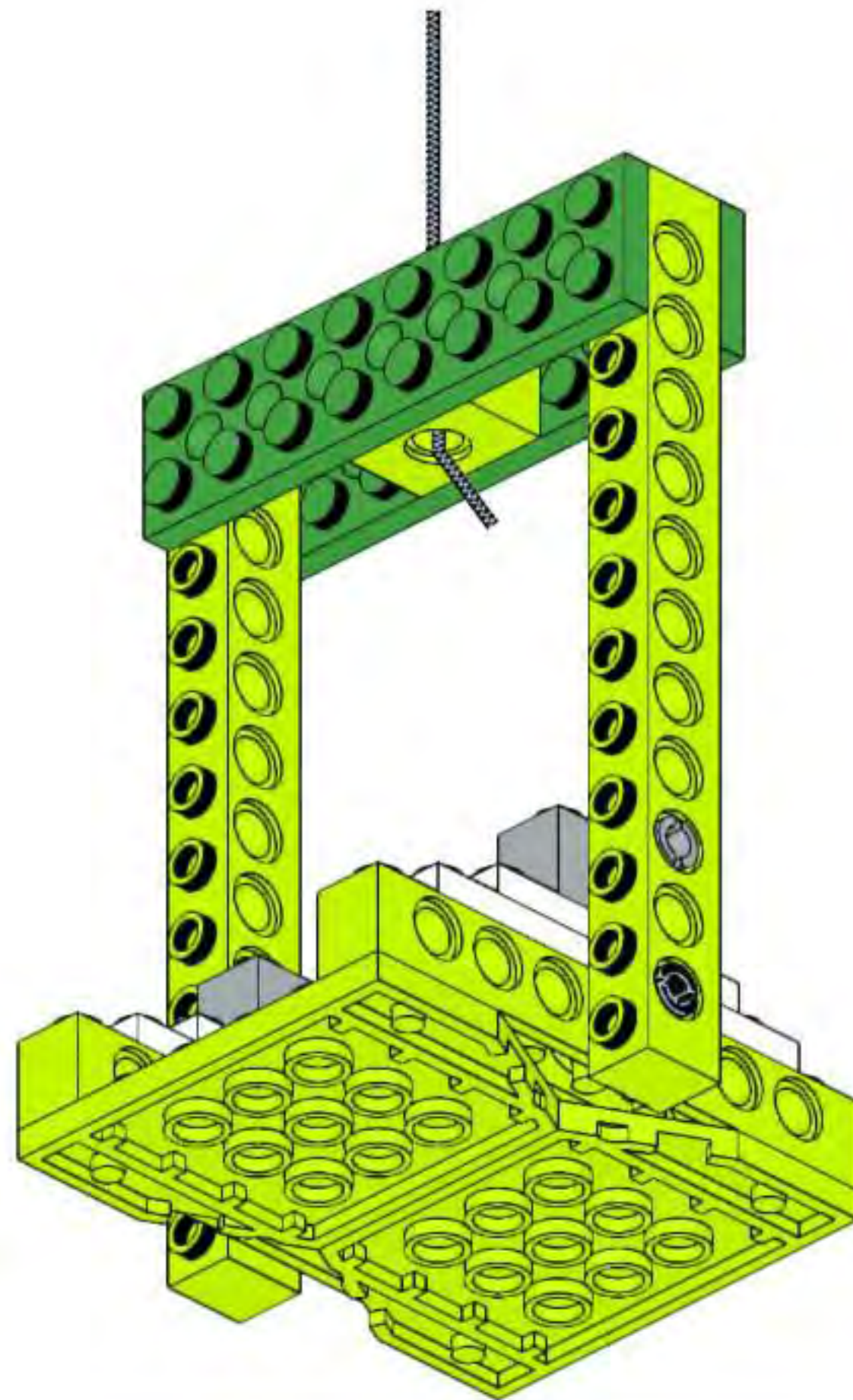


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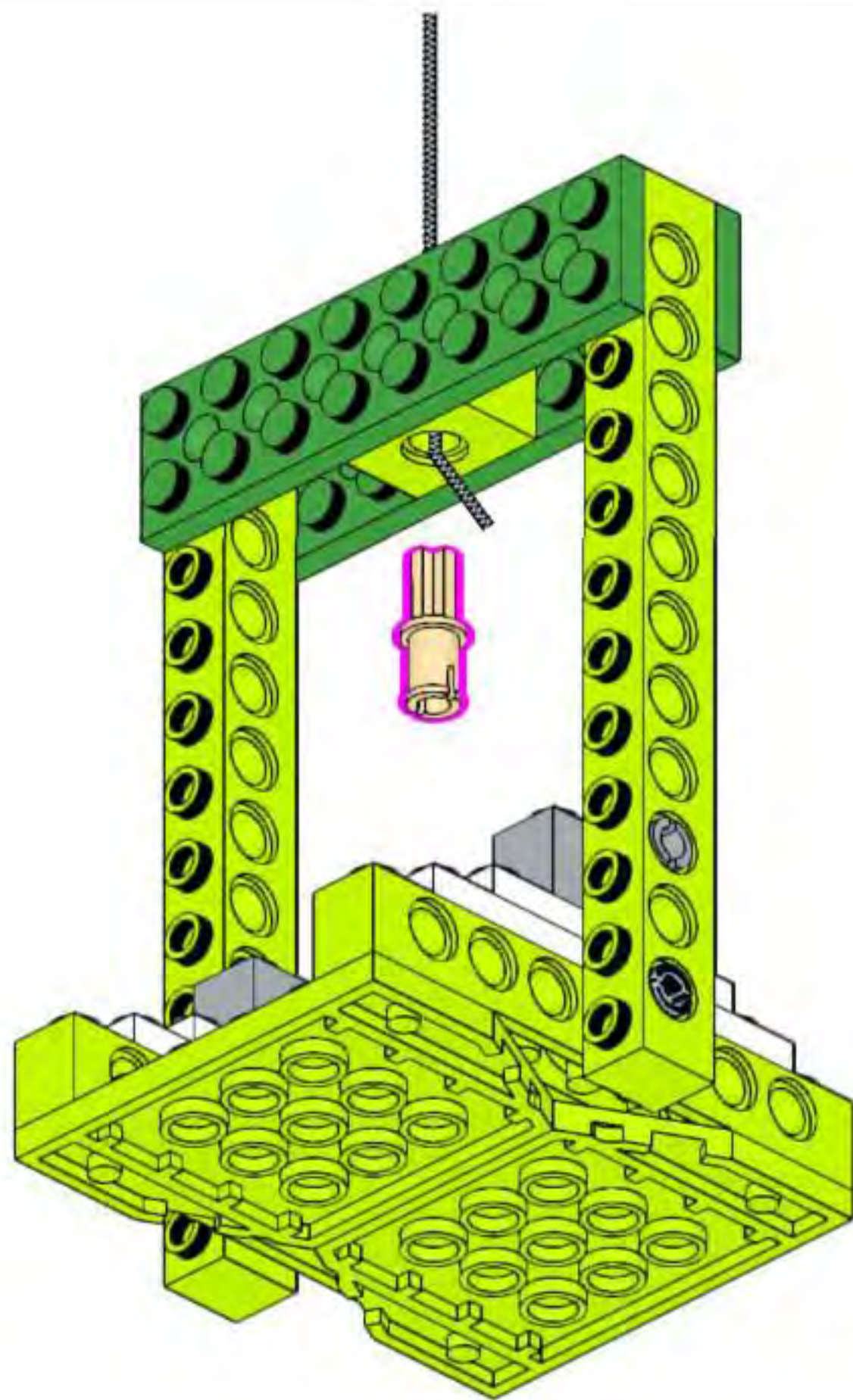








1x



We pass the other end of the cable into the hole of the 2×2 blocks. And fix it with a pin. Please note, we insert the beige pin with the cross side.

Our elevator is almost ready. The part with the block and the motor will be on the table, and the cab on the cable will hang down. Please note that the roller over which the cable is thrown must protrude beyond the edge of the table. It remains to put elastic bands on the block, so that the upper part does not slip off the countertop.

when 1 key pressed
set LEVEL to LEVEL - 1
broadcast LEVEL
set LEVEL to 1

when clicked
set LEVEL to 1

when 2 key pressed
set LEVEL to LEVEL - 2
broadcast LEVEL
set LEVEL to 2

when 3 key pressed
set LEVEL to LEVEL - 3
broadcast LEVEL
set LEVEL to 3

when I receive 1
set motor direction to this way
turn motor on for 4 seconds

when I receive 2
set motor direction to this way
turn motor on for 8 seconds

when I receive -1
set motor direction to that way
turn motor on for 4 seconds

when I receive -2
set motor direction to that way
turn motor on for 8 seconds



1

Yellow button with green play icon
Red button with '123' icon
Blue label with '1'

Yellow button with '7' icon
Red button with '123' icon
Yellow button with envelope icon
Red button with '123' icon
Blue labels: '1', '123', '1'

Yellow button with '2' icon
Red button with '123' icon
Yellow button with envelope icon
Red button with '123' icon
Blue labels: '2', '123', '2'

Yellow button with '3' icon
Red button with '123' icon
Yellow button with envelope icon
Red button with '123' icon
Blue labels: '3', '123', '3'

Yellow button with envelope icon
Green button with robot icon
Green button with hourglass icon
Blue labels: '1', '4'

Yellow button with envelope icon
Green button with robot icon
Green button with hourglass icon
Blue labels: '2', '8'

Yellow button with envelope icon
Green button with robot icon
Green button with hourglass icon
Blue labels: '-1', '4'

Yellow button with envelope icon
Green button with robot icon
Green button with hourglass icon
Blue labels: '-2', '8'



Look at how complex our program is. Let's see how it works. Imagine that we have entered the elevator and are on the first floor. By pressing button 2, how many floors will we go and in which direction? (answer: 1 up) And if we press button 3? (Answer: 2 up) And now imagine that we entered the elevator on the 2nd floor, how many floors will we go down to the 1st? (Response: 1) And how much is up to 3? (Answer: 1) And the last example: if we go down from 3 floors to 1, we will go down 2 floors. And if from 3 to 2 – we will pass 1 floor down. Thus, in a three-story building, we pass either 1 or 2 floors. At the same time, the direction changes if we move up or down.



The first – the simplest-sets the floor on which we are initially located.



The second part defines three buttons, when you click on which the elevator works. Look: when we press the 1 button, the computer subtracts 1 from the number on the screen, and then sends an email to the mailbox with the result number. After that, he writes down the floor number on the screen.



1



The third part starts the motor in the right direction and for the specified time. For example, when a letter arrives in mailbox "1", the motor starts to wind the cable for 4 seconds. That is, the cab moves up one floor (4 seconds is the approximate time to lift the cab by half the length of the cable). Or, when the letter arrives in the mailbox "-1", the cable is unwound for 4 seconds and the cabin descends one floor.