

# Spider

[Building:](#) 

[Program:](#) 

Designed for **NXT 1.0** (8527, or 9797 + 9695/9648)

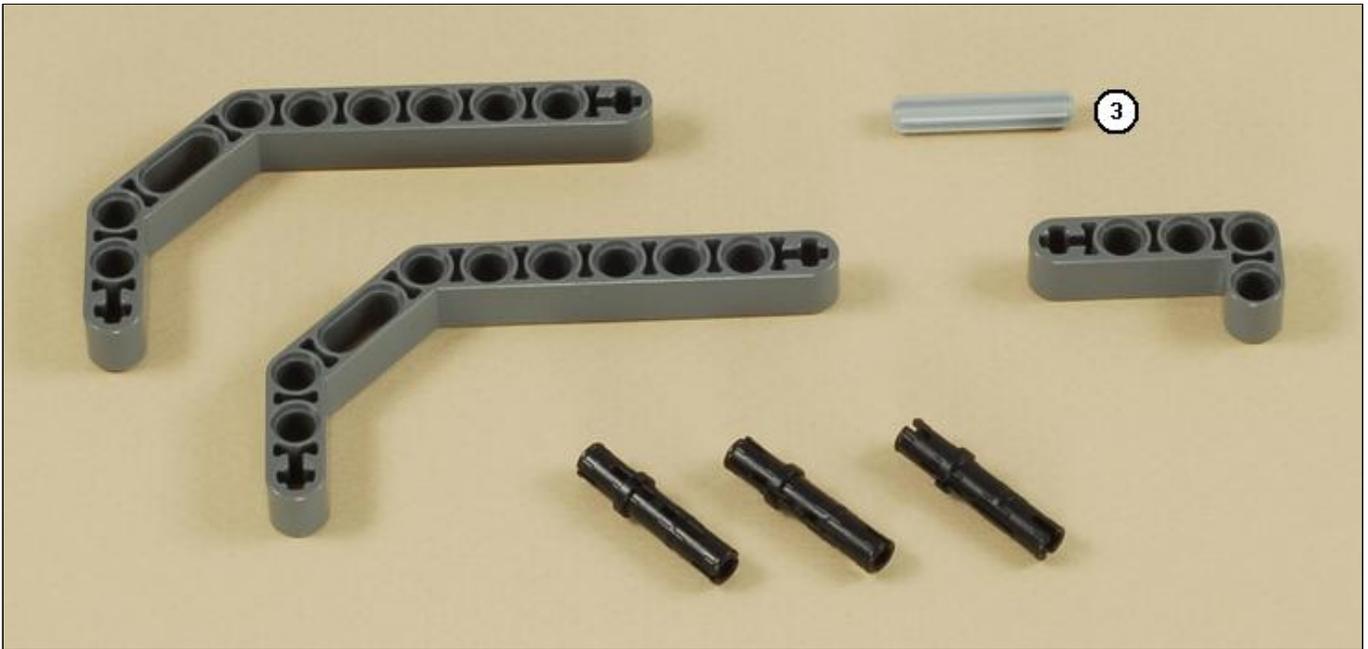
## Building Instructions

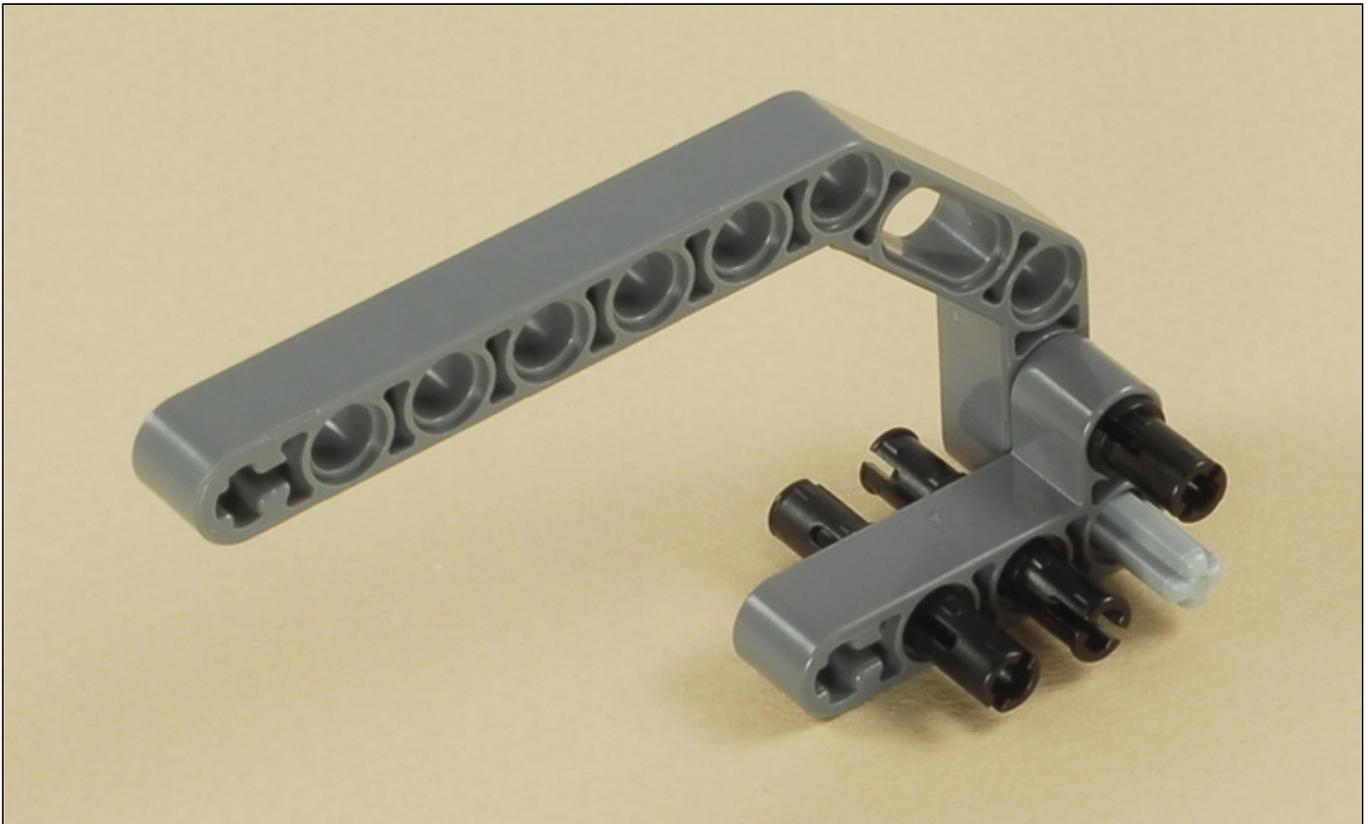
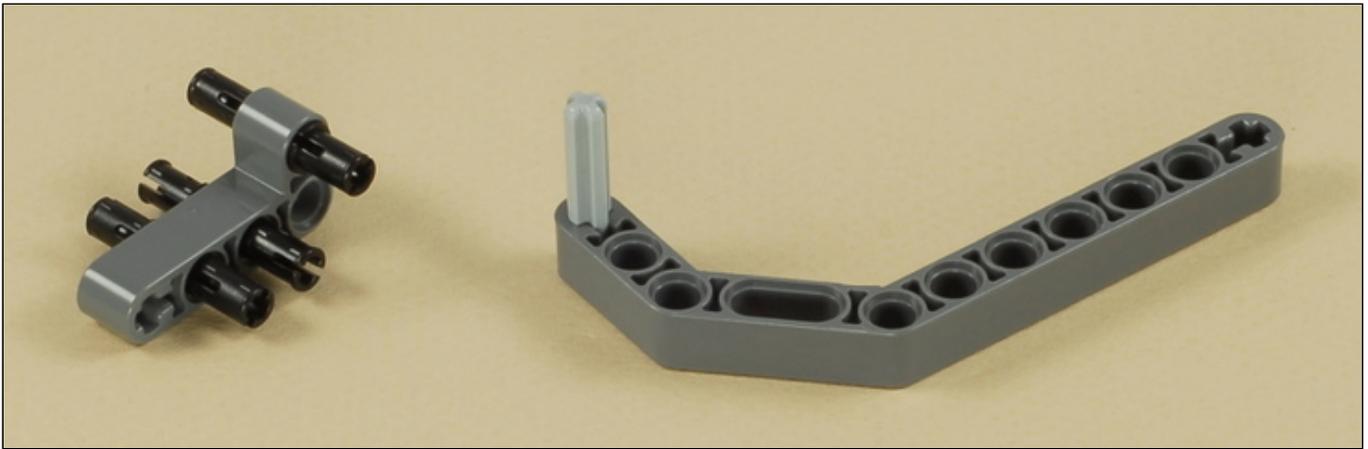
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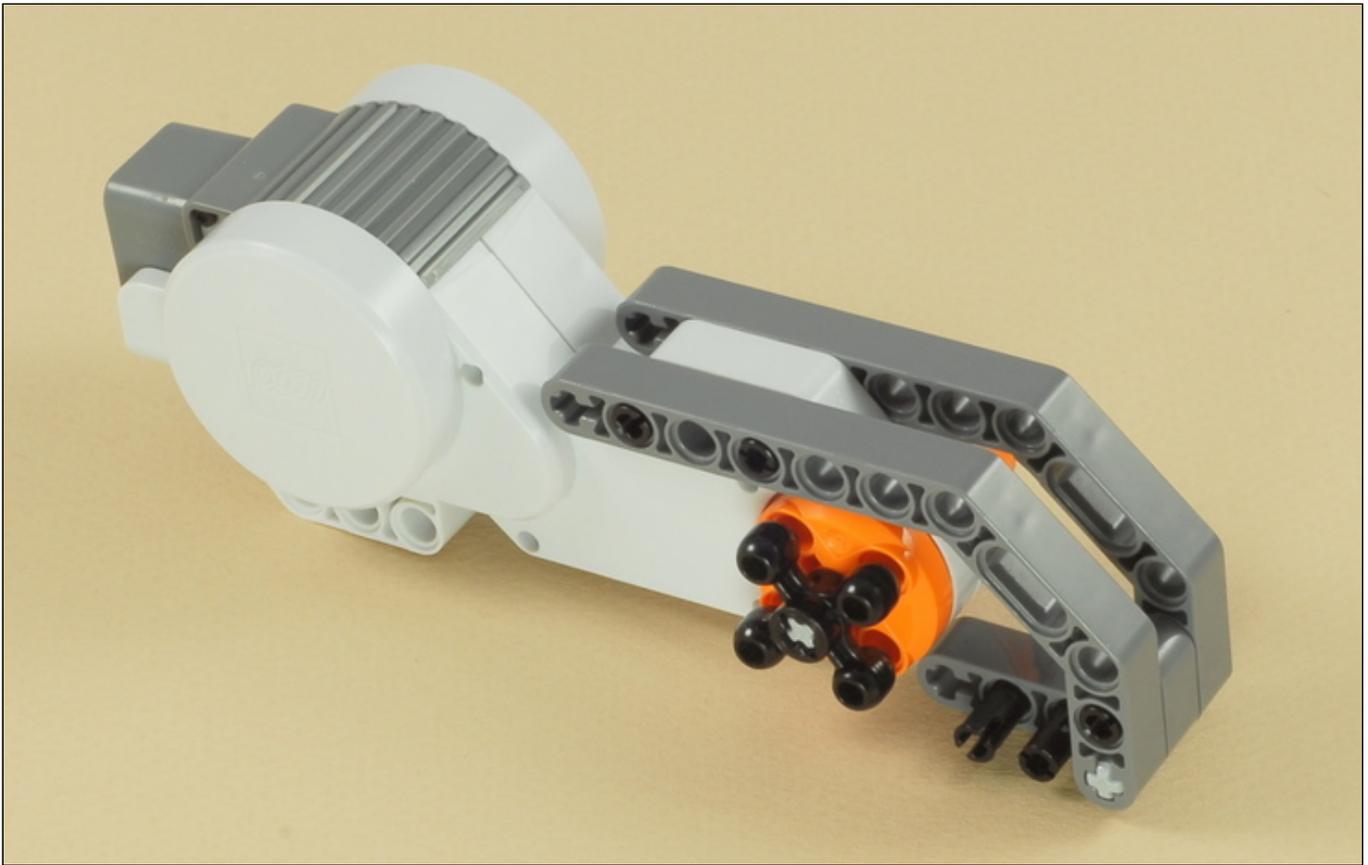




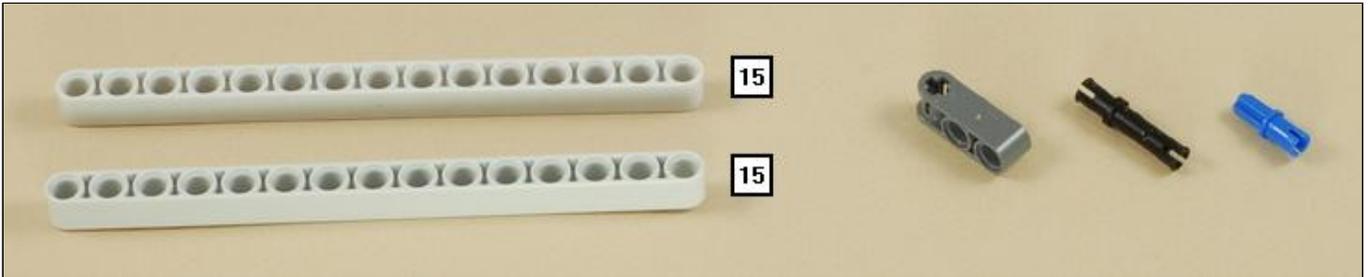
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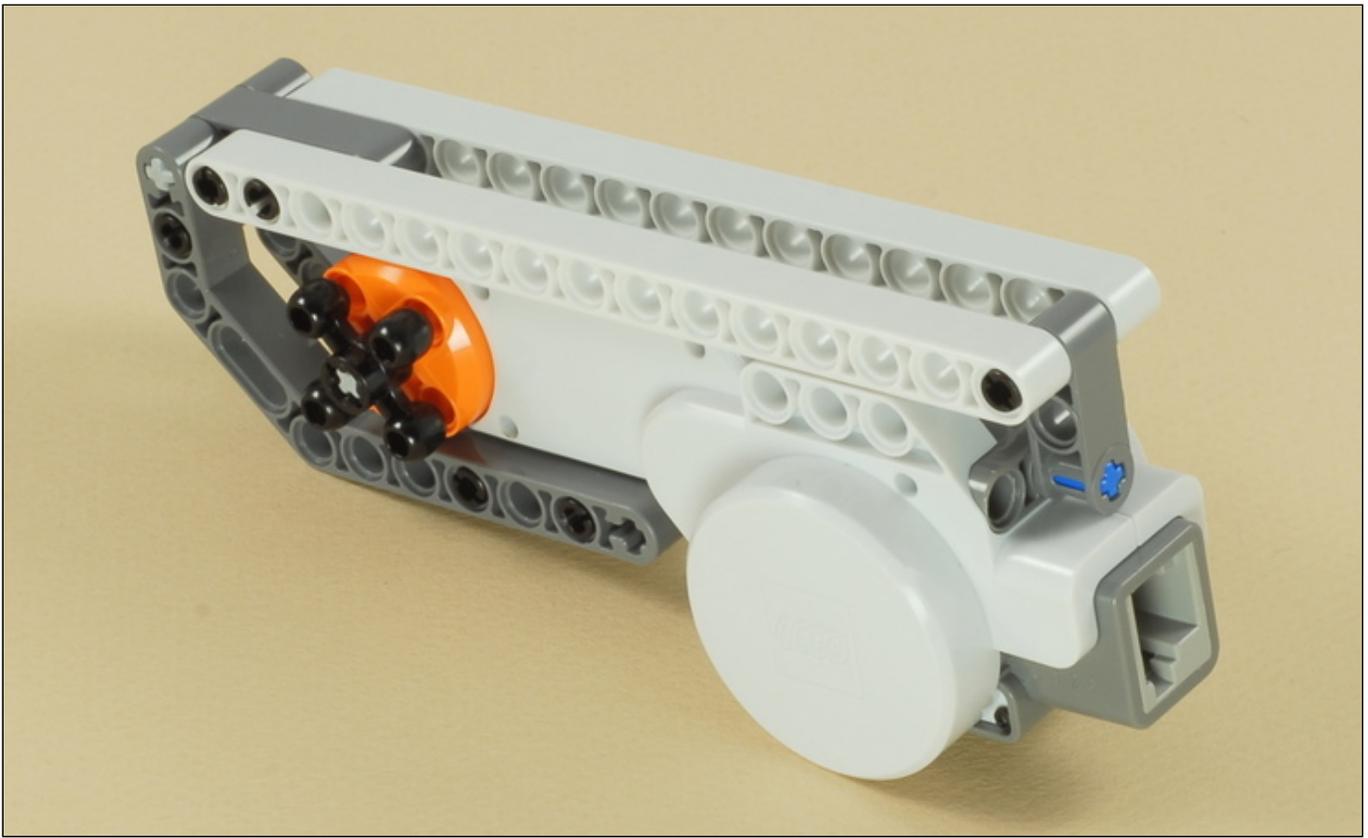
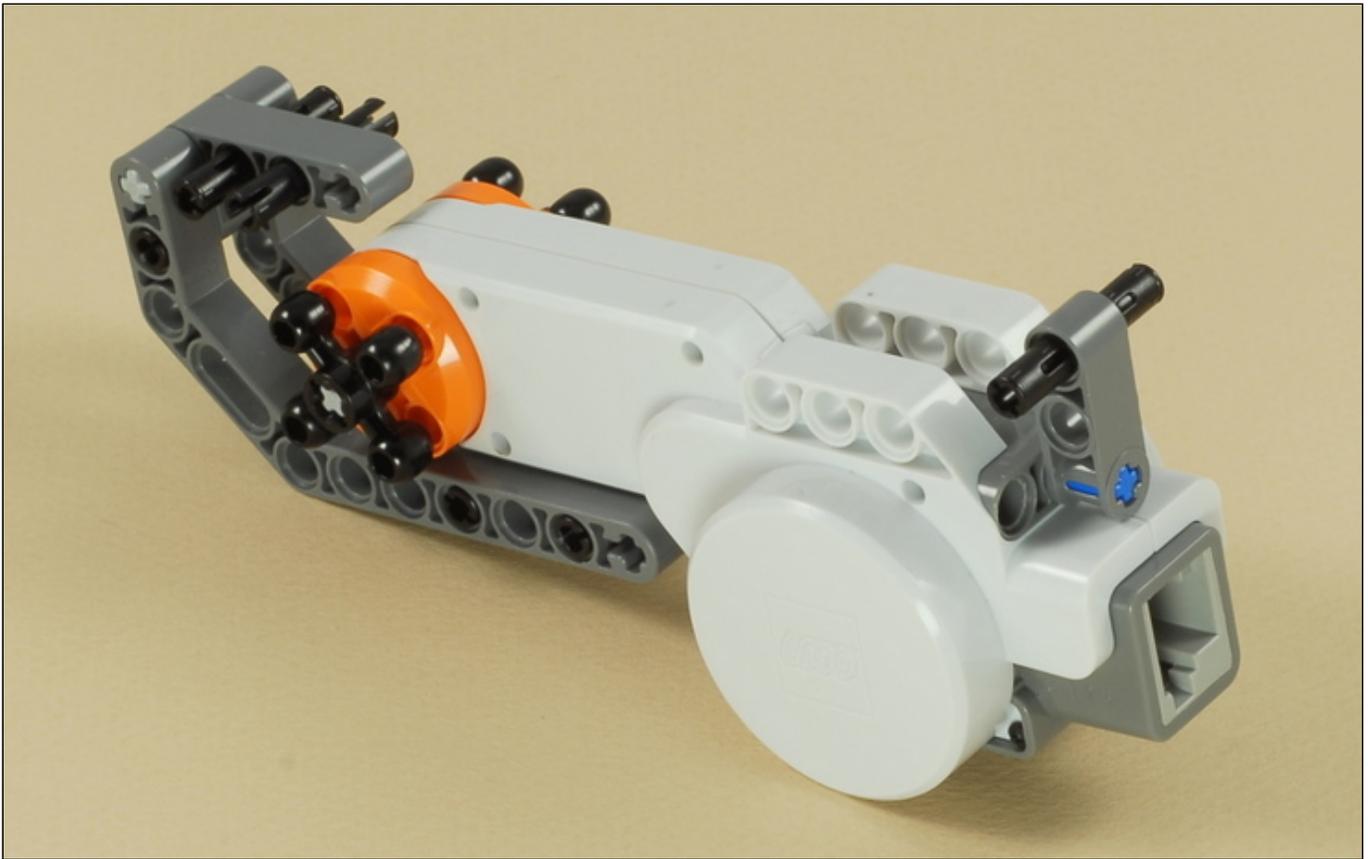


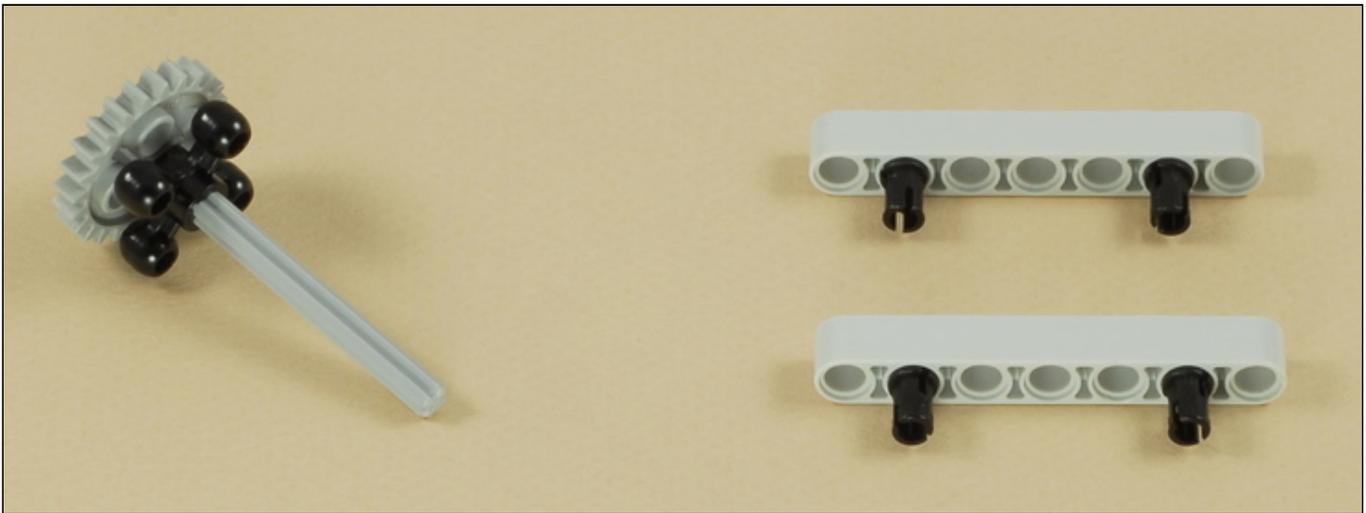
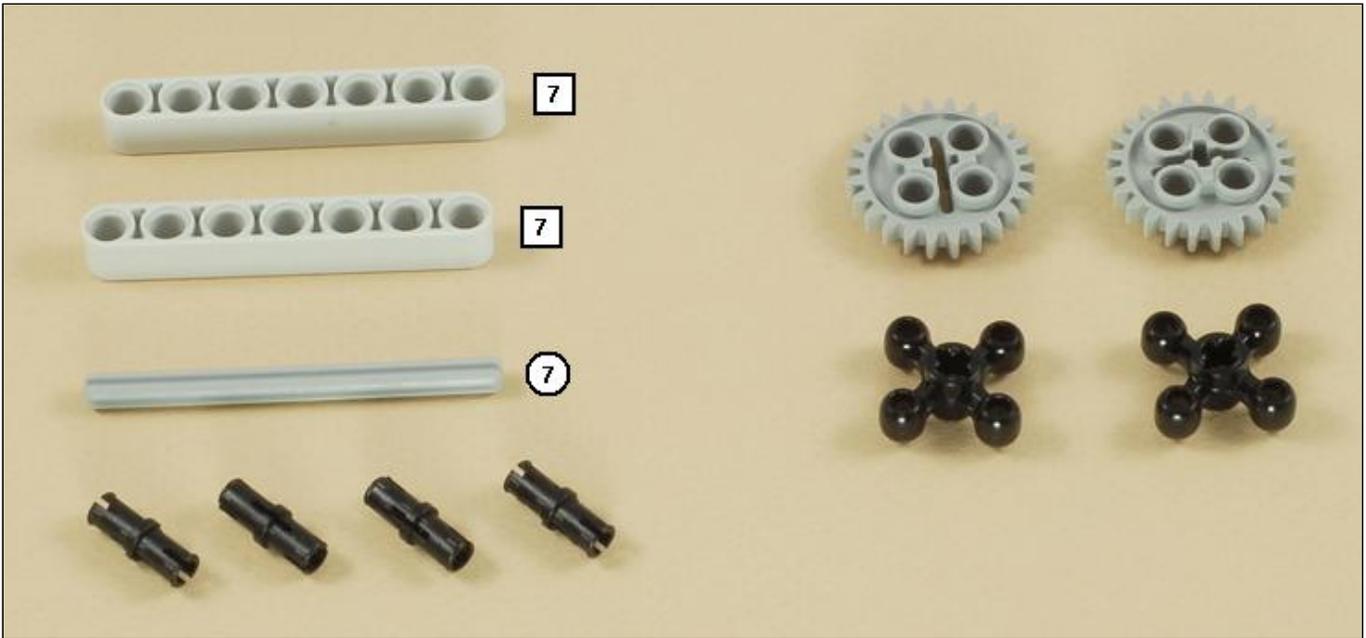


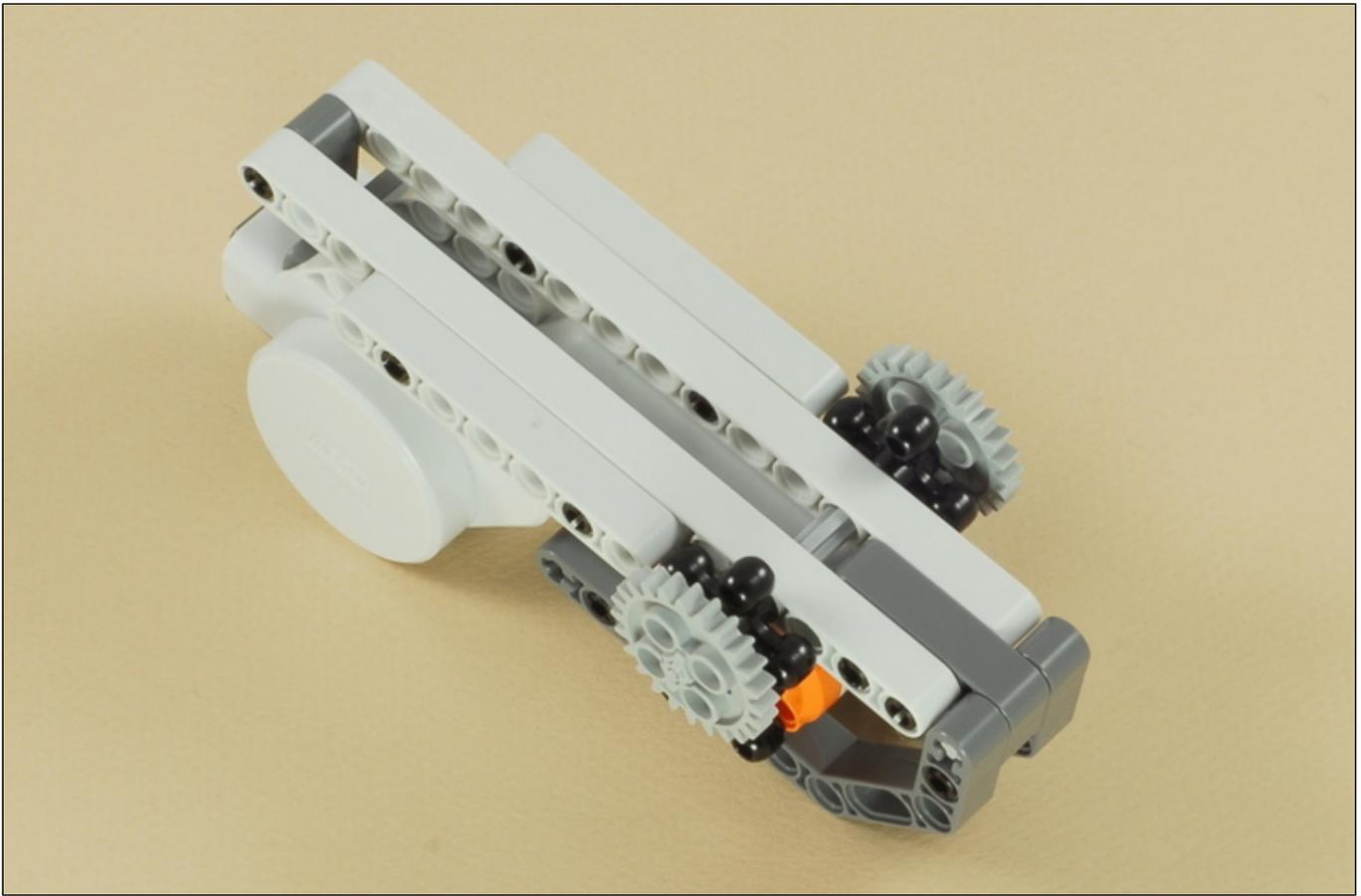


**3**

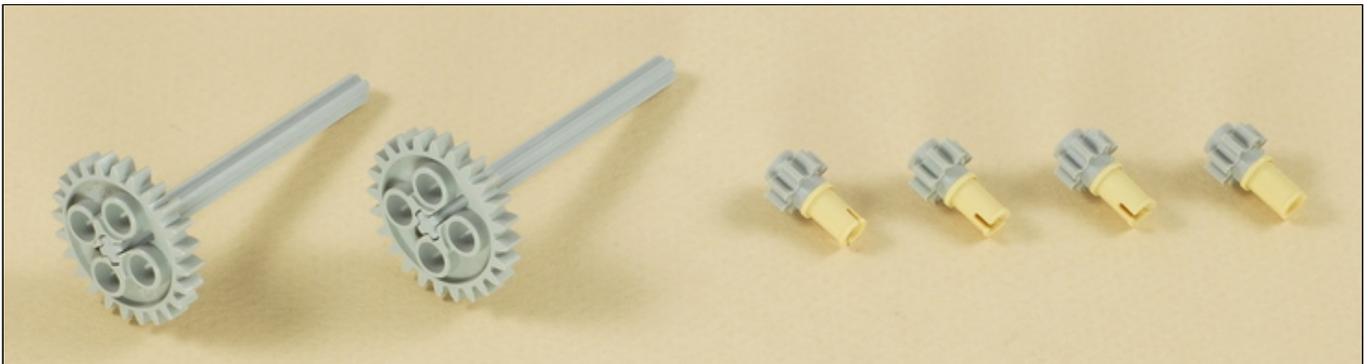




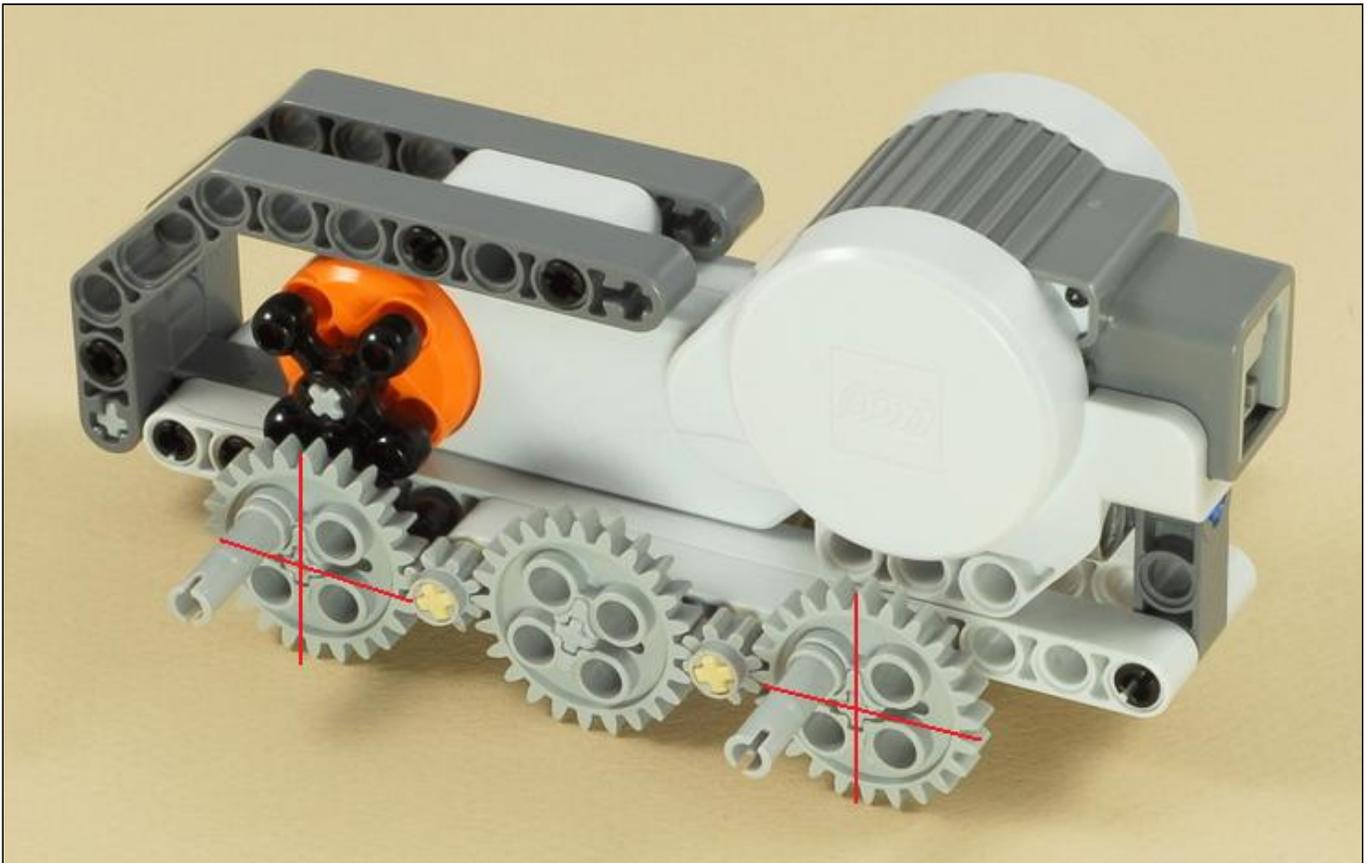
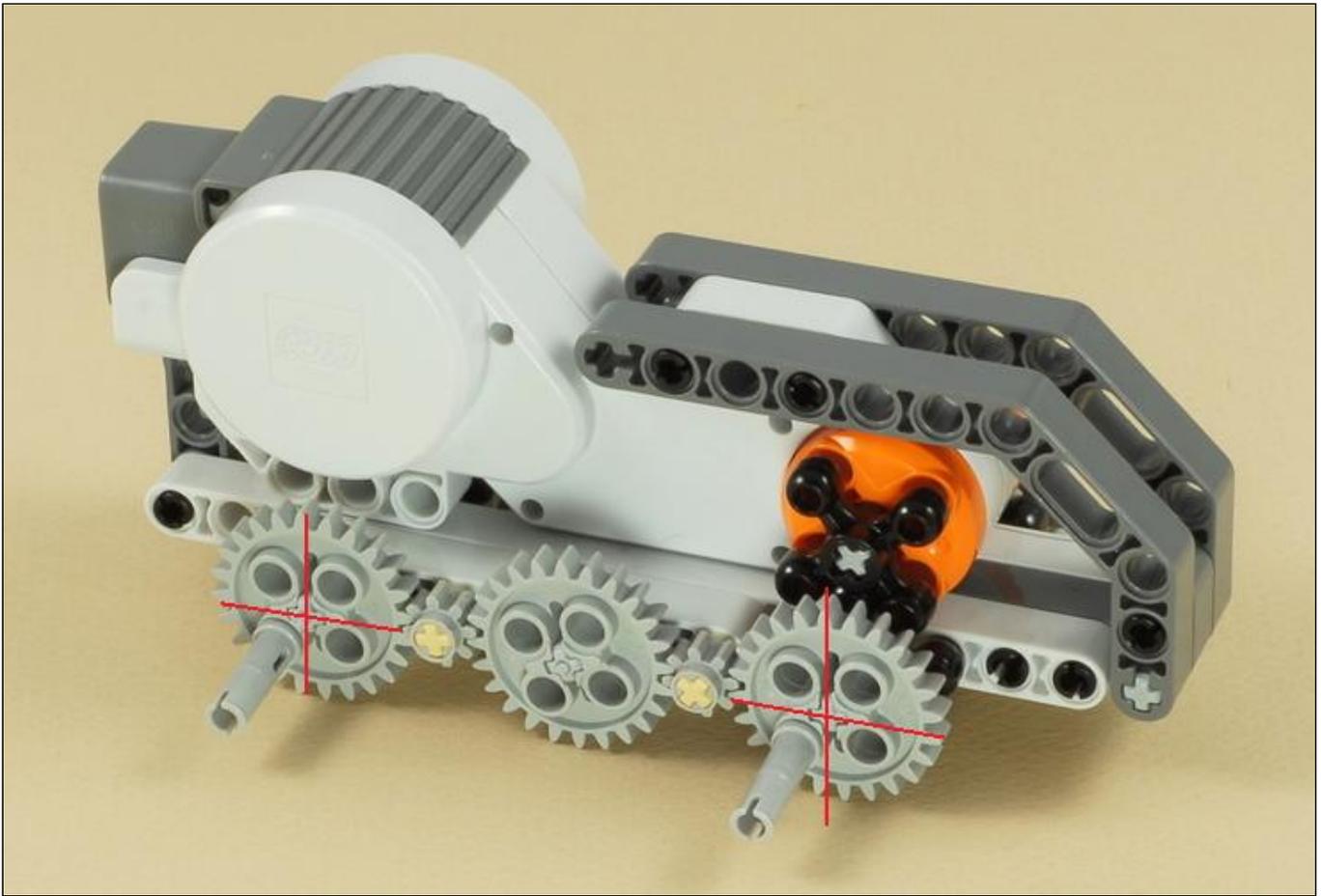




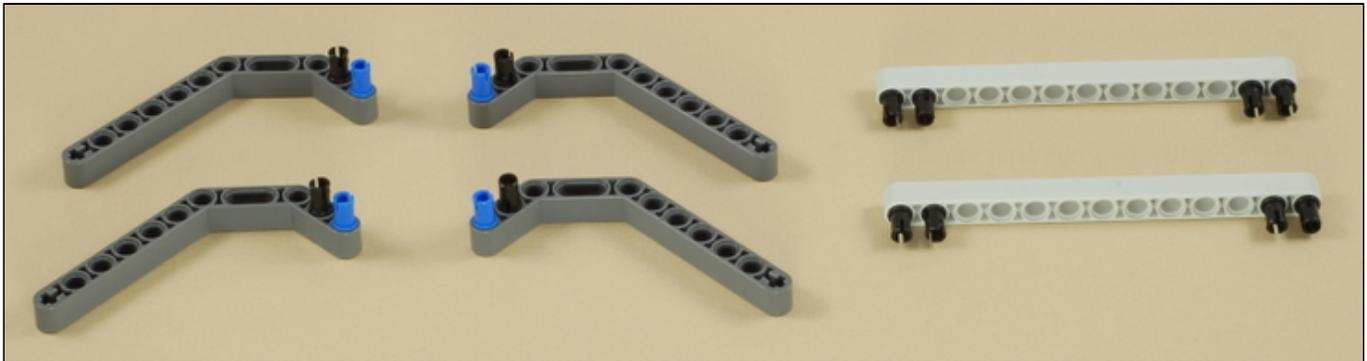
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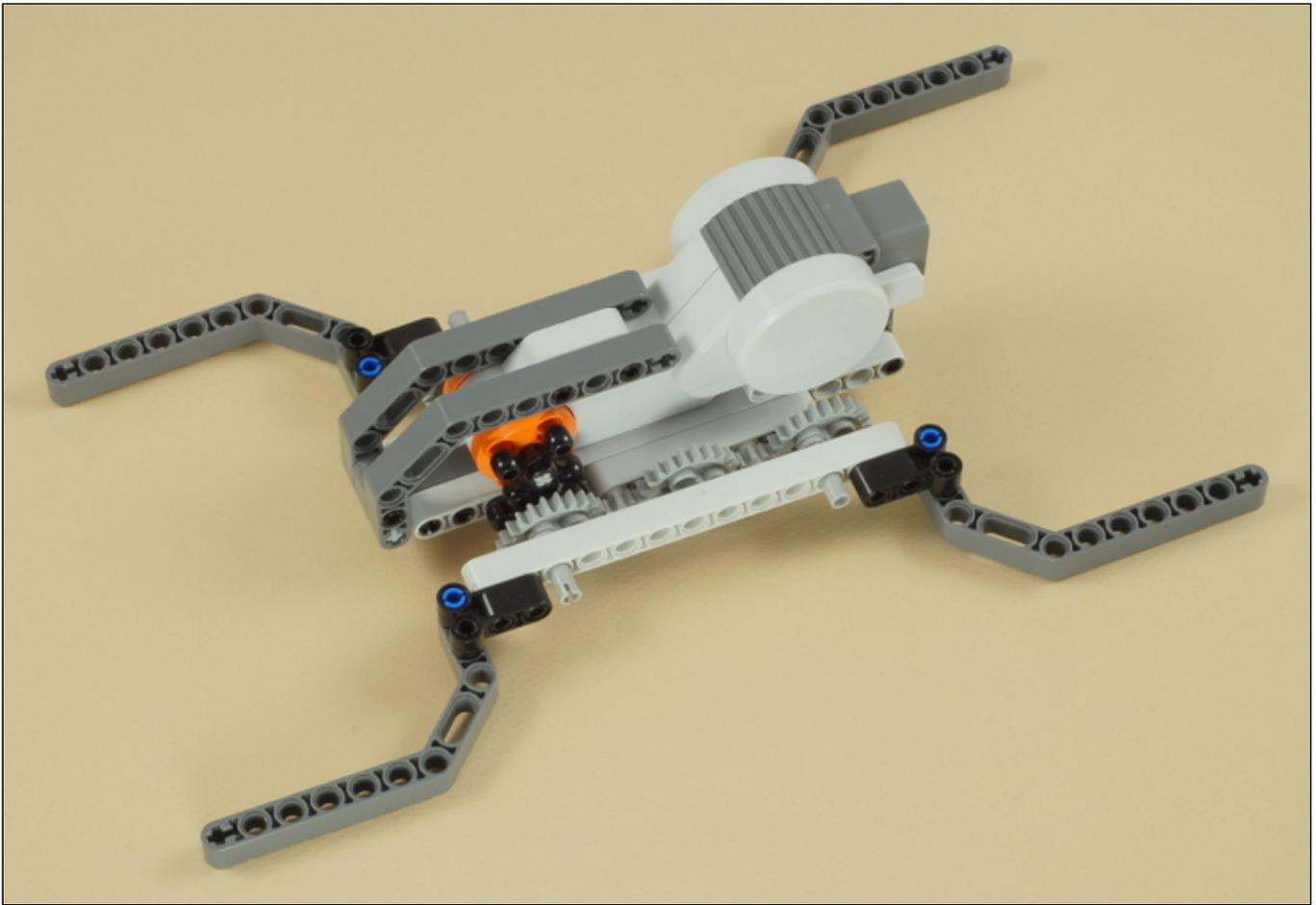


**Important:** The holes in the gears must be aligned exactly as shown in the two pictures below, and the long gray pegs placed as shown.

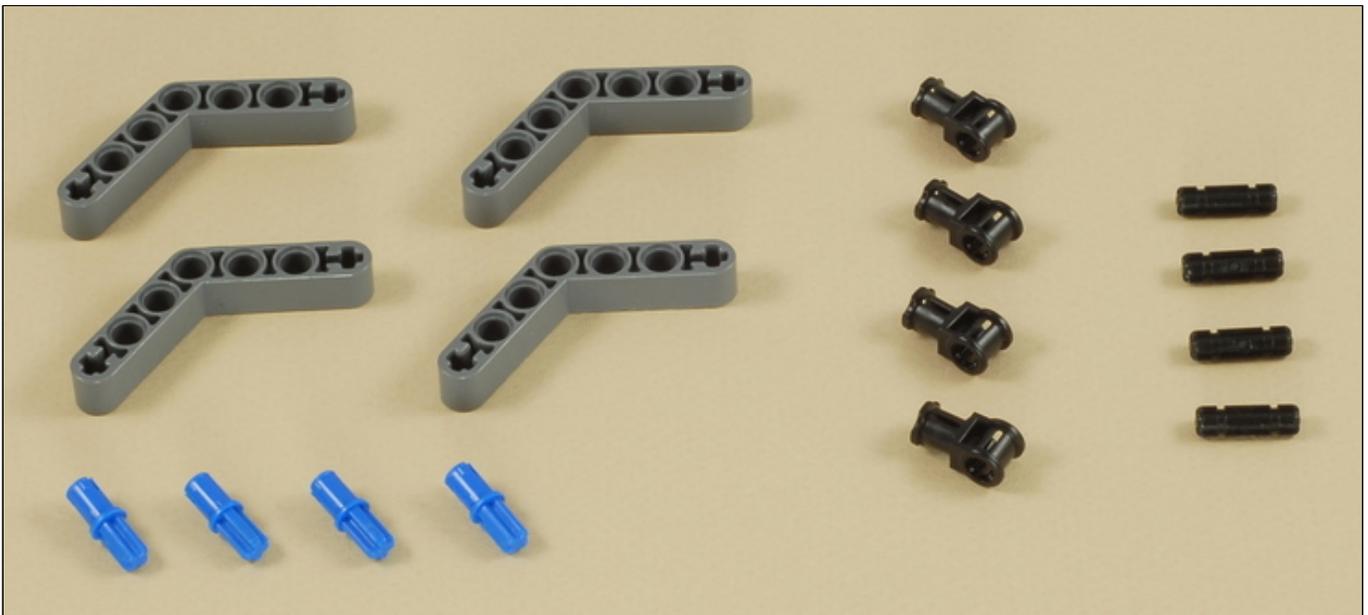


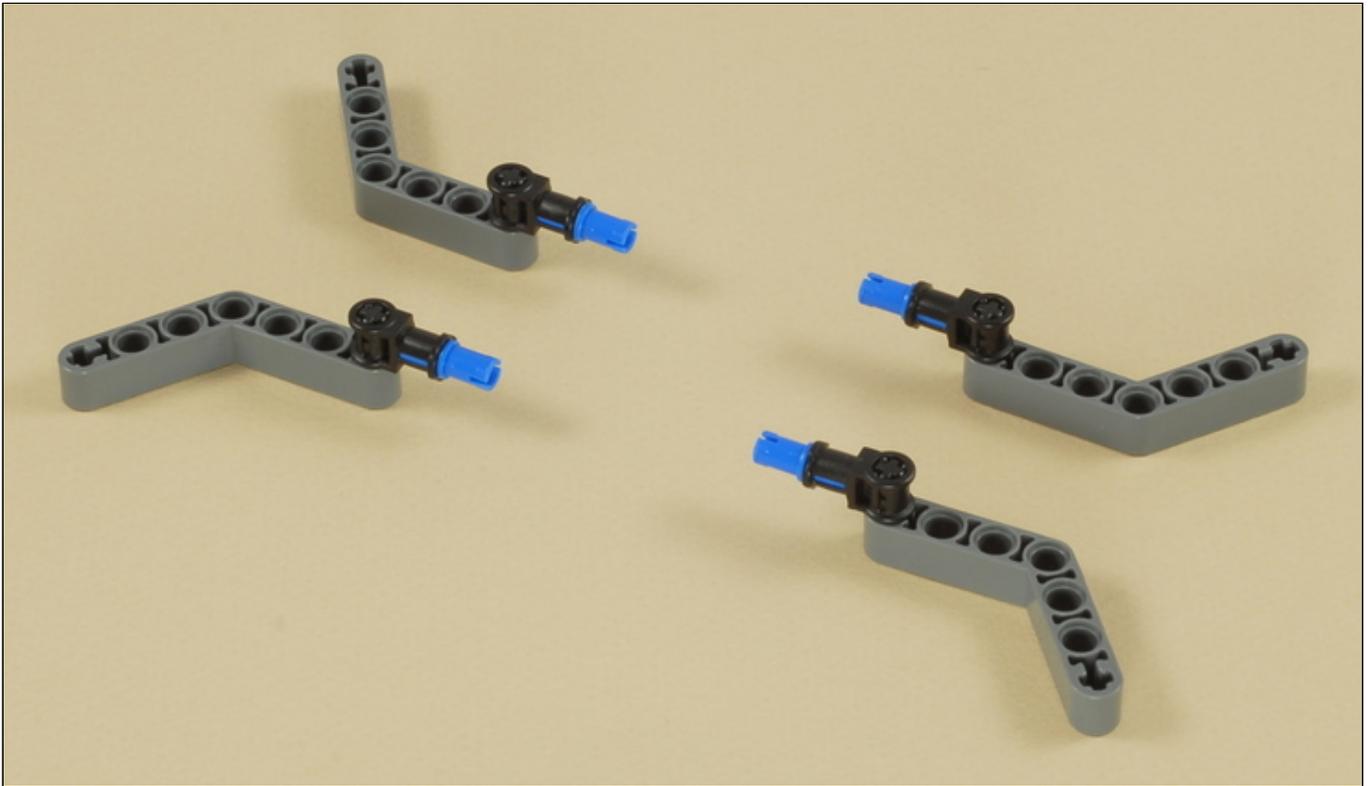
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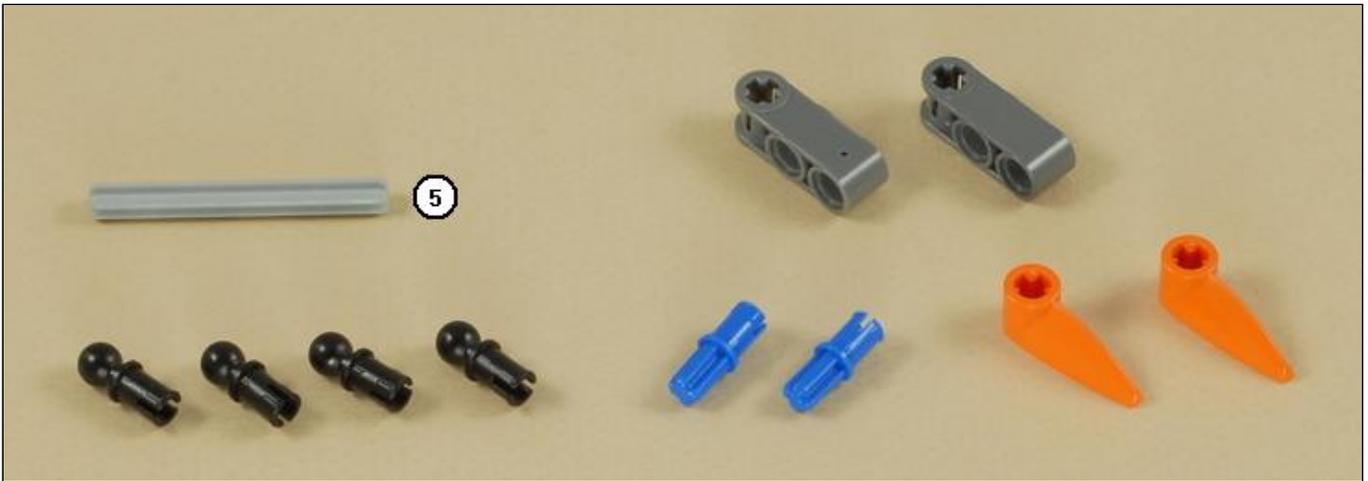
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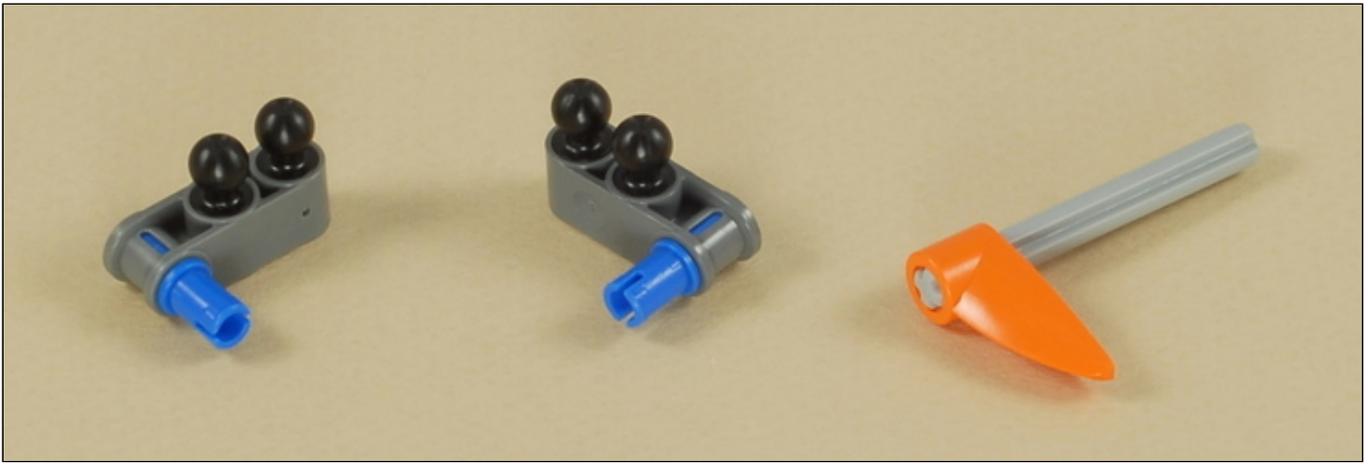






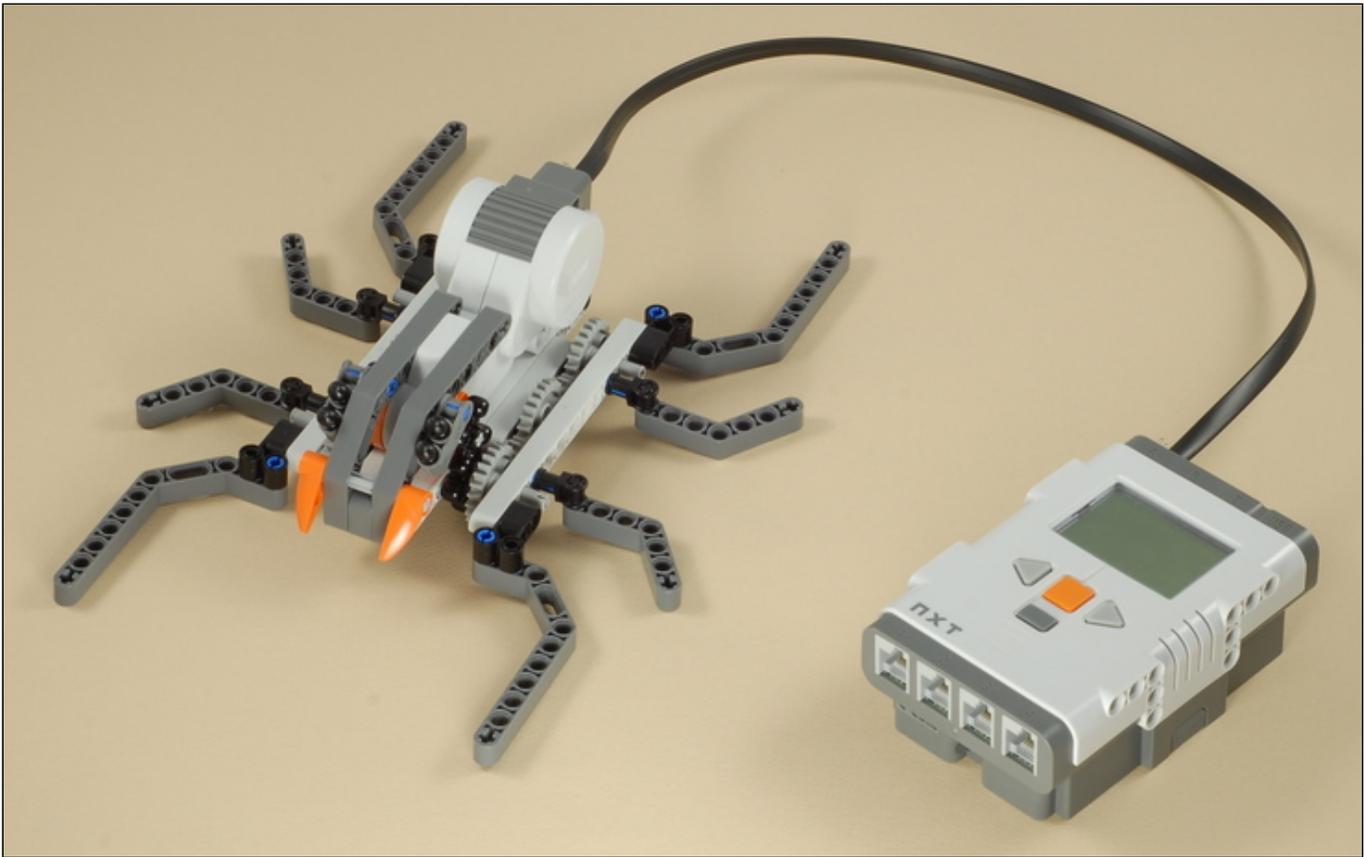
8





# 9

Use one of the longest (50 cm) wires to connect the motor to port **A** on the NXT.



## Spider Programming

Use the [Spider](#) program for the Spider. This program allows you to make the motor go forward, backward, or stop, using the Right Arrow, Left Arrow, and Enter buttons on the NXT, which will control how the spider walks.

## Challenges

- Making machines that walk on legs is difficult, and this Spider cheats a bit when it walks, by rolling on the bottom of the gears on the side that not stepping. What happens if you add some pieces to the underside so that it cannot roll on the gears? Can you think of a way to fix this?
- The [Spider](#) program can be used for any creation where you want to be able to control the direction of a single motor at full speed, or stop it, from the NXT buttons. Can you think of and design something else that can use this program?
- The shape of the NXT motor reminded me of an insect/spider body, which is what inspired this project. How else can you take advantage of the shape of the NXT motor?

