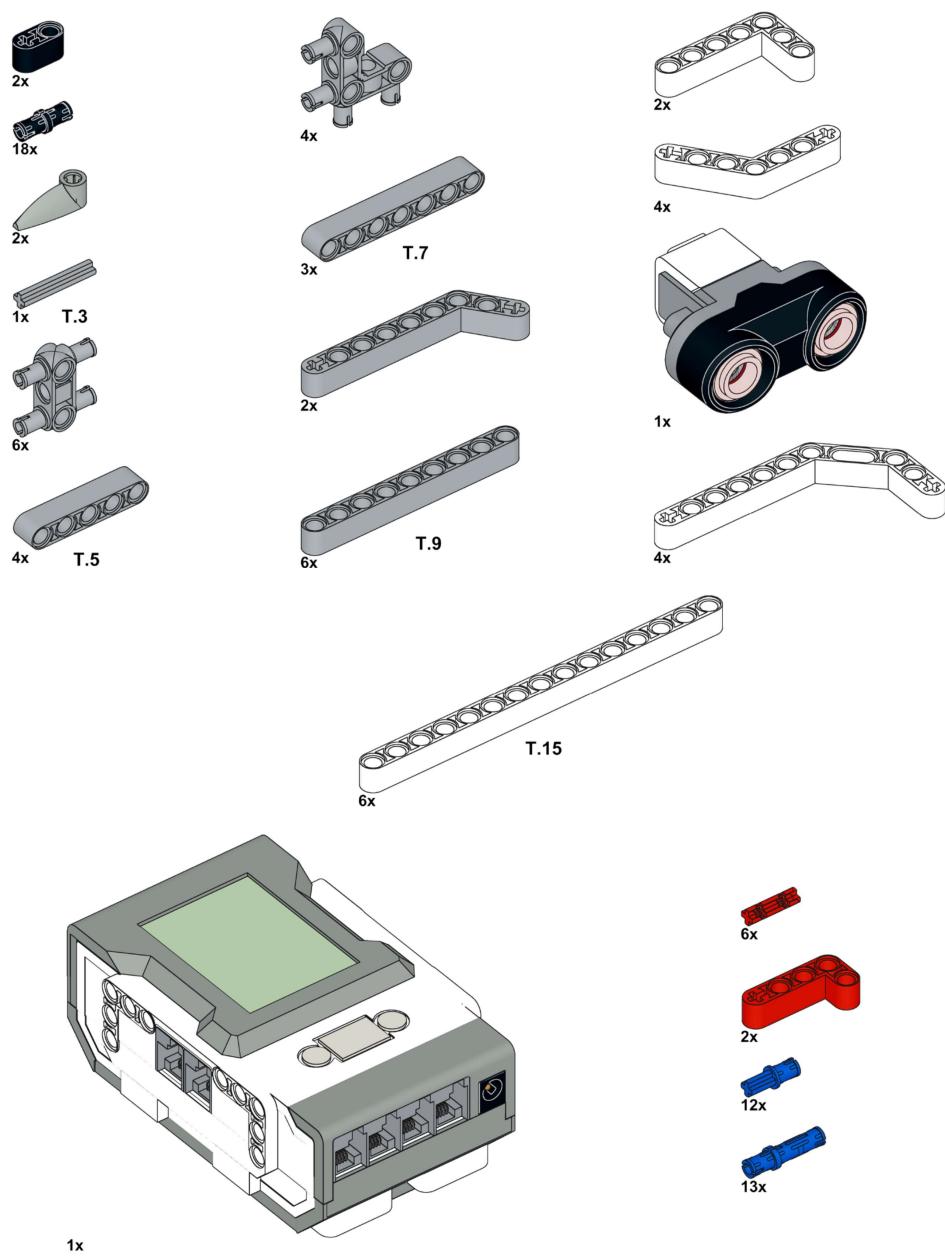


MANUAL PASSO A PASSO

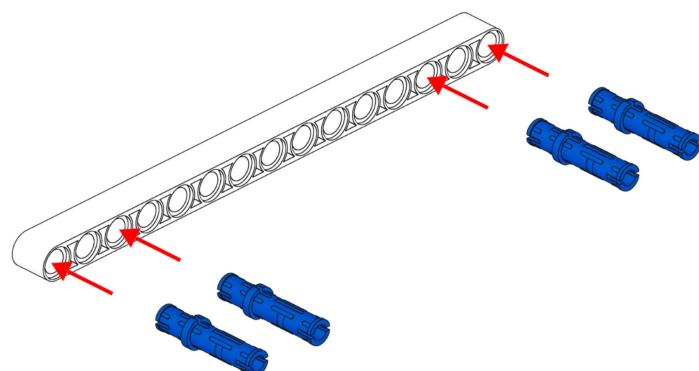
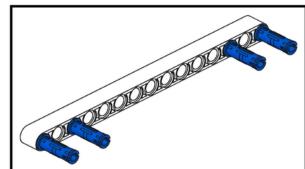
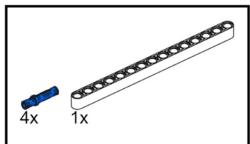
MONTAGEM

Antes de começar, faça um checklist das peças de que precisará para montar seu Robô Guitarra.



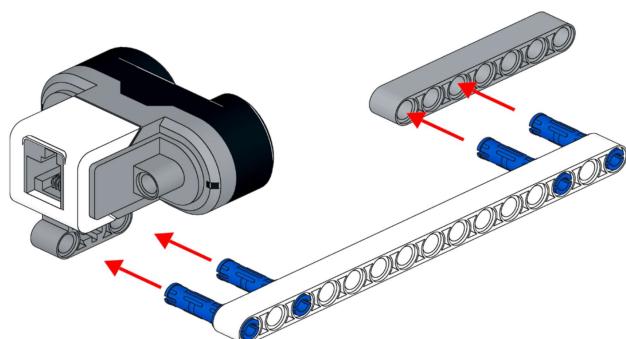
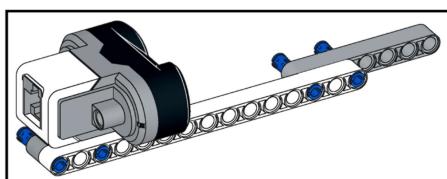
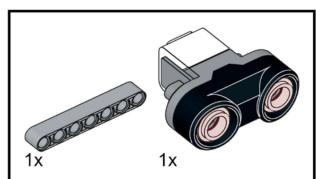
A seguir, acompanhe o passo a passo da montagem do Robô Guitarra.

1



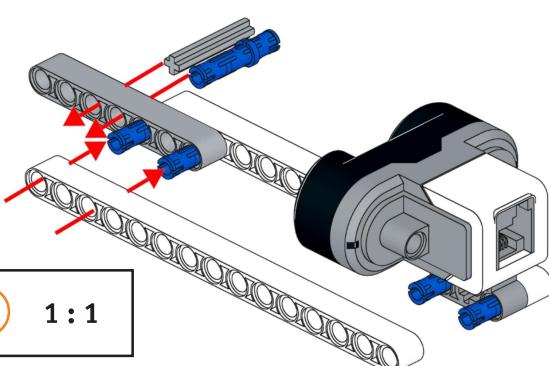
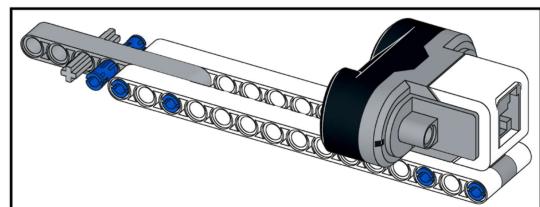
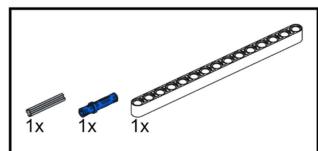
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9 1 : 1

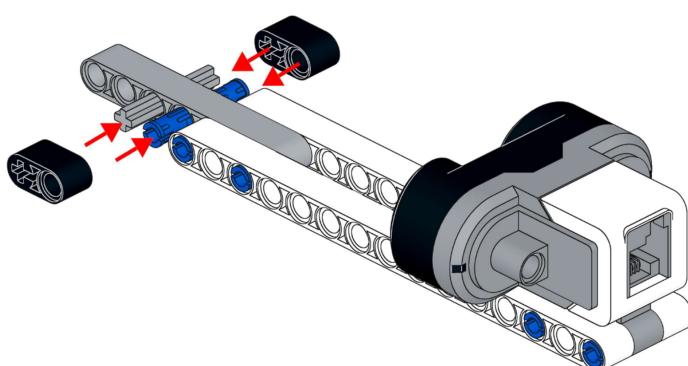
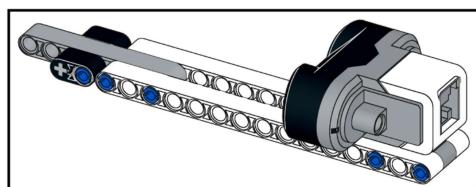
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3 1:1



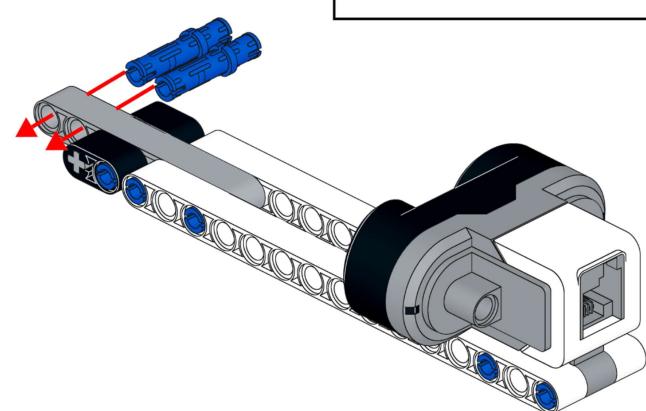
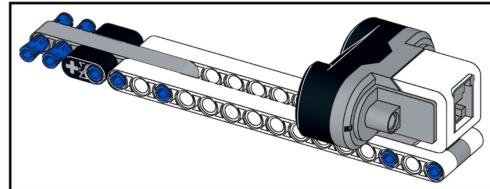
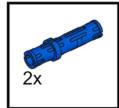
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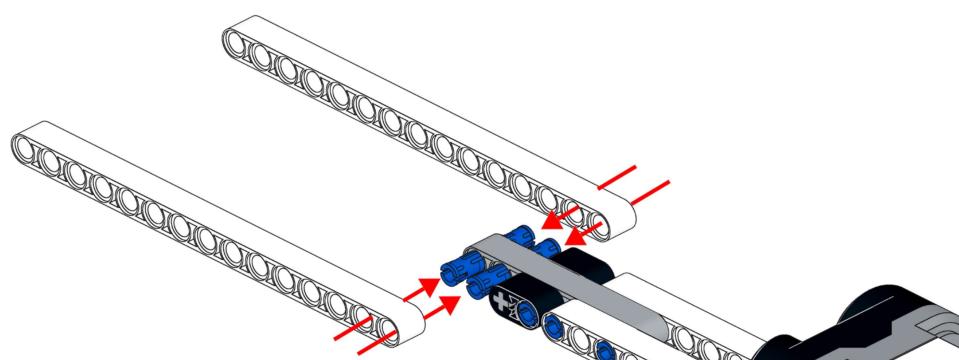
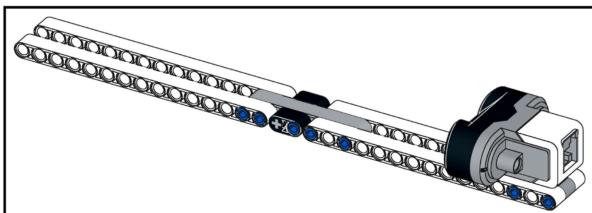
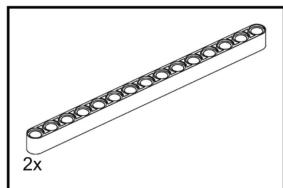
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ROBÓTICA NA PRÁTICA

5

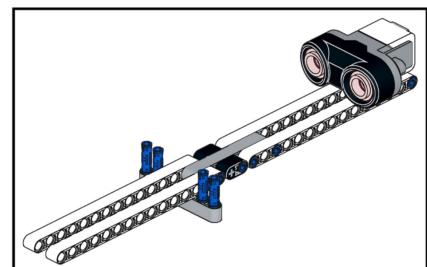
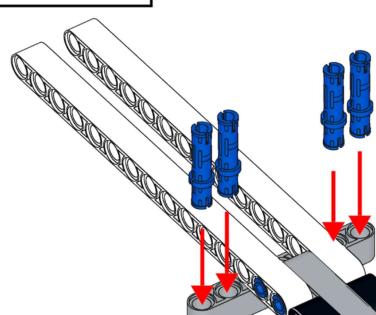
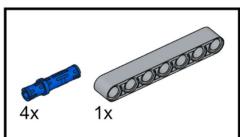


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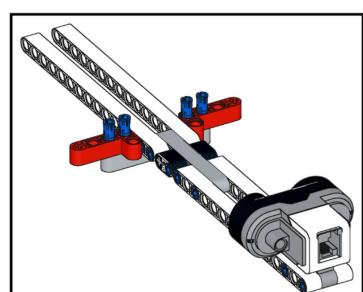
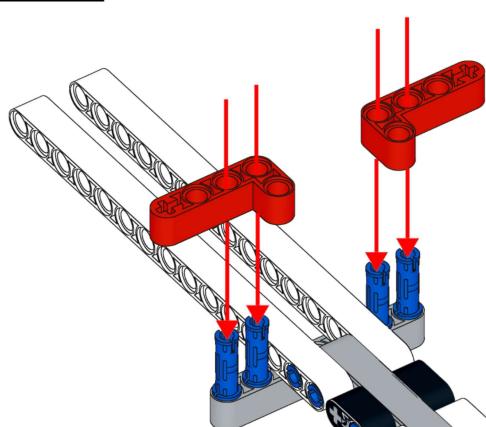
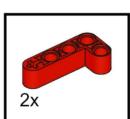
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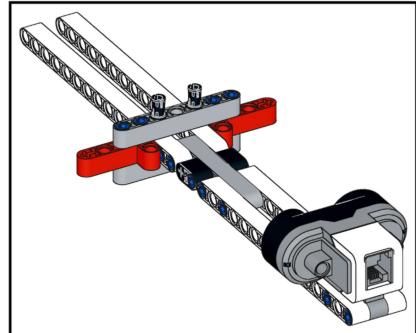
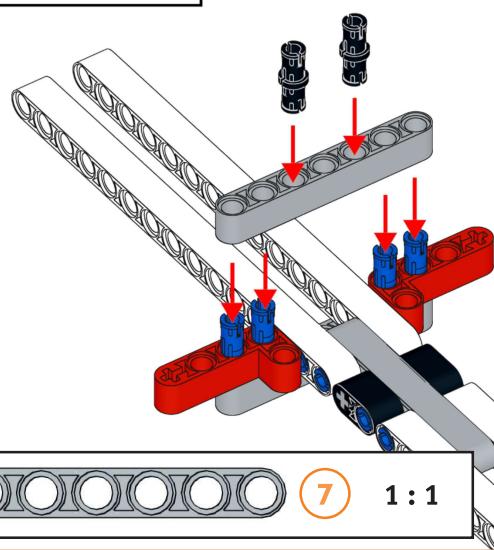
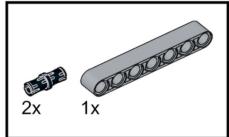
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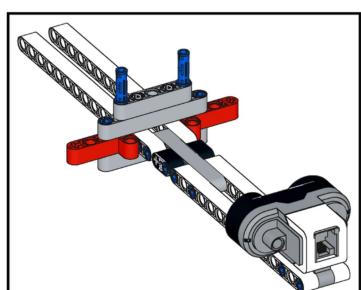
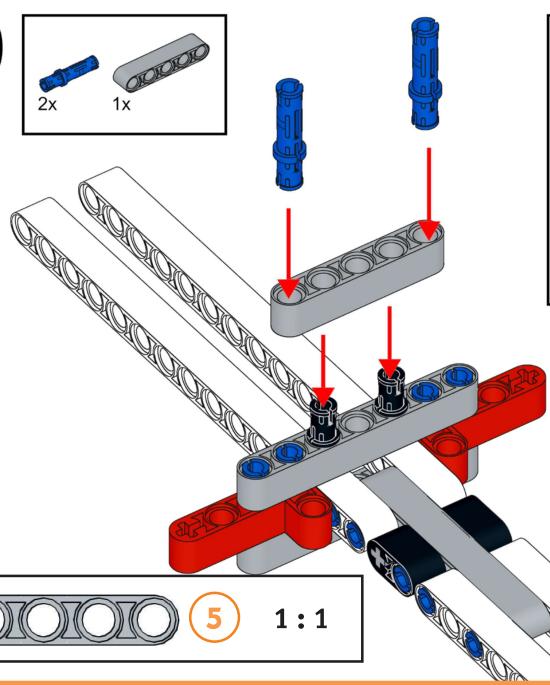
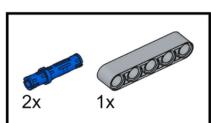
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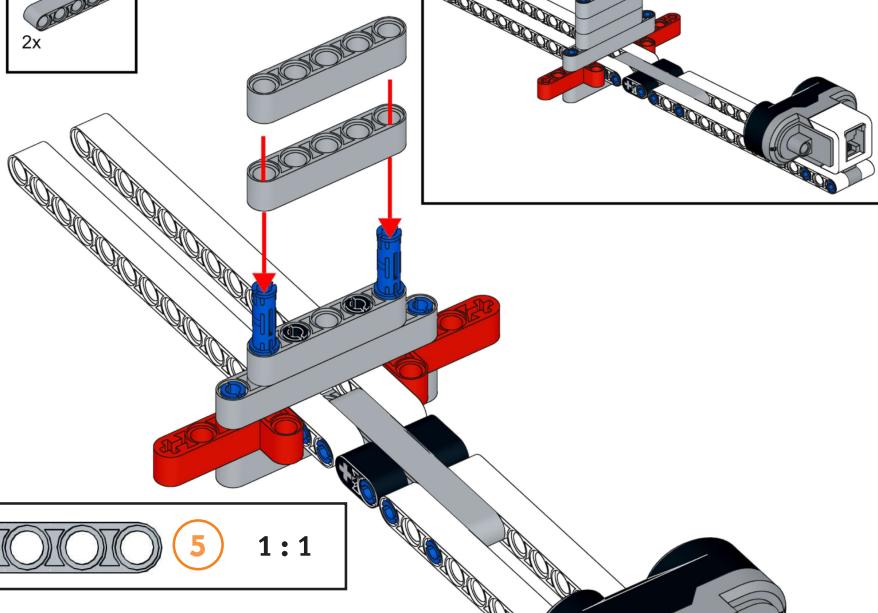
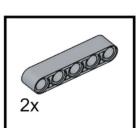
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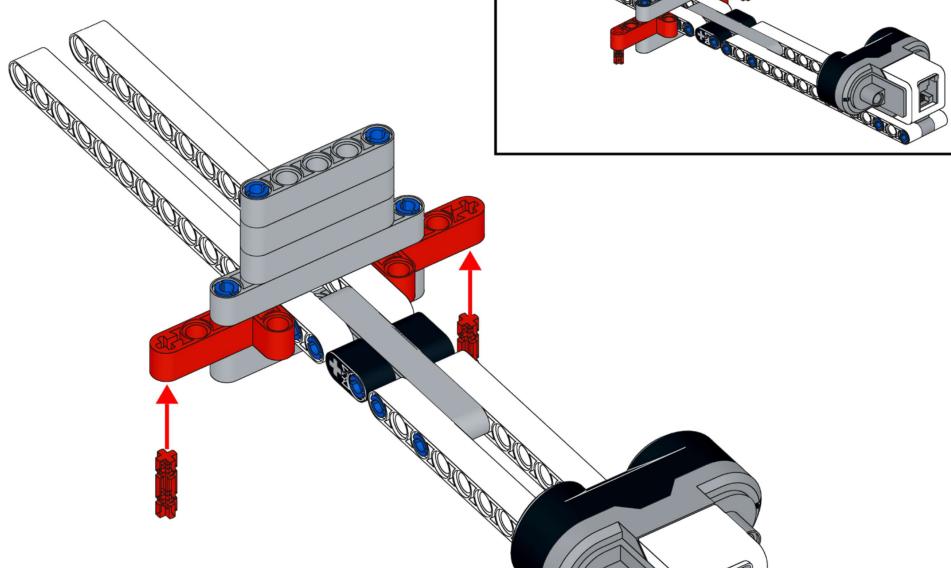
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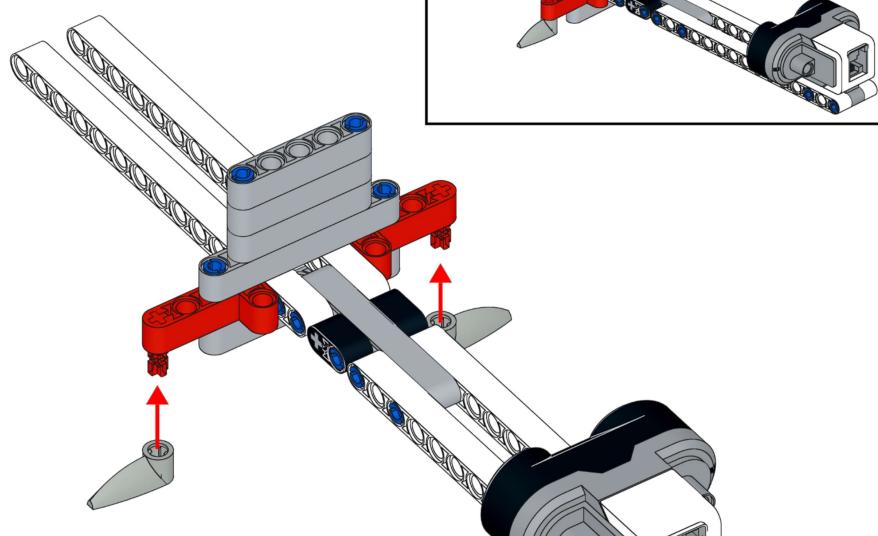
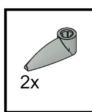
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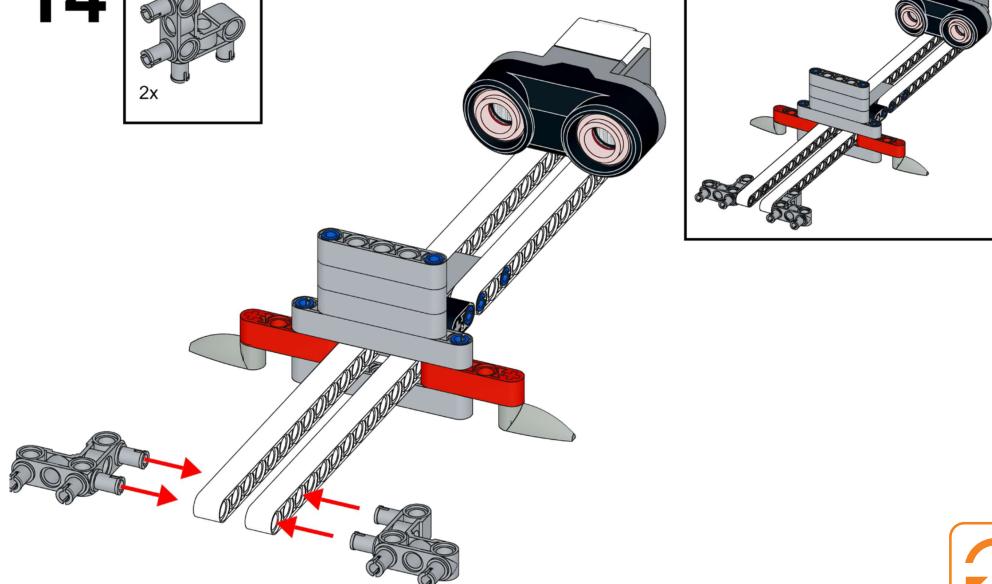
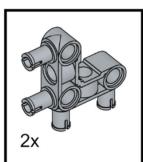
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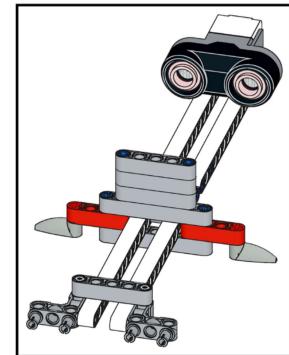
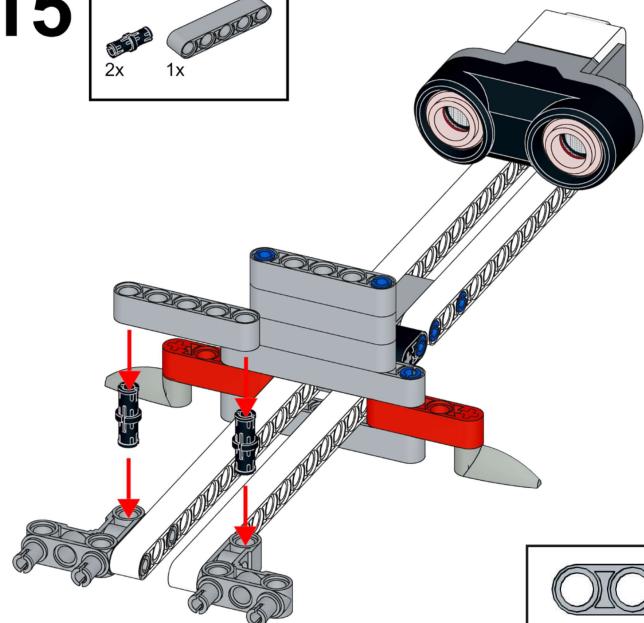
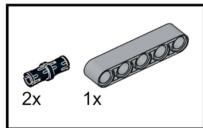
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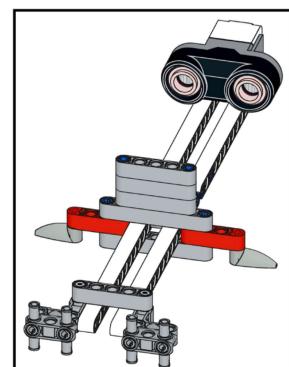
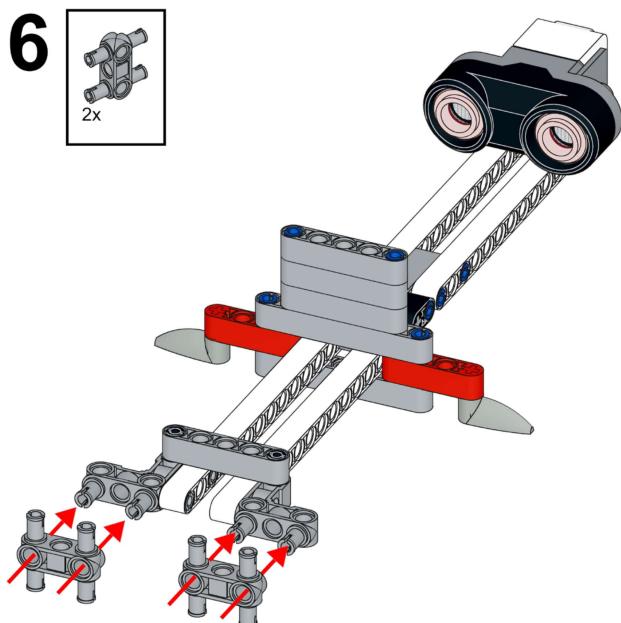
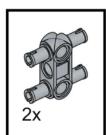


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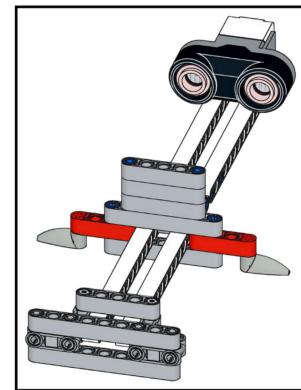
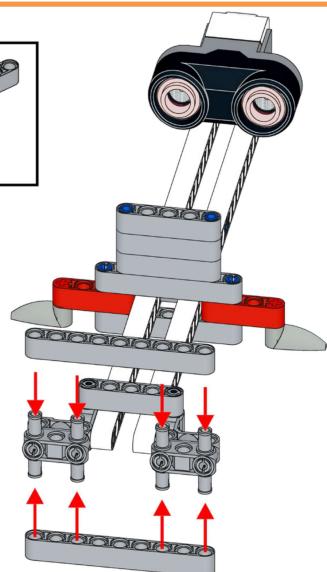
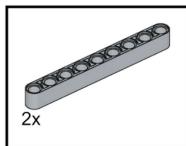
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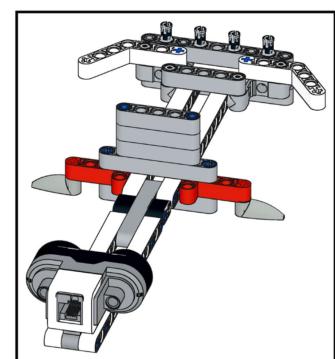
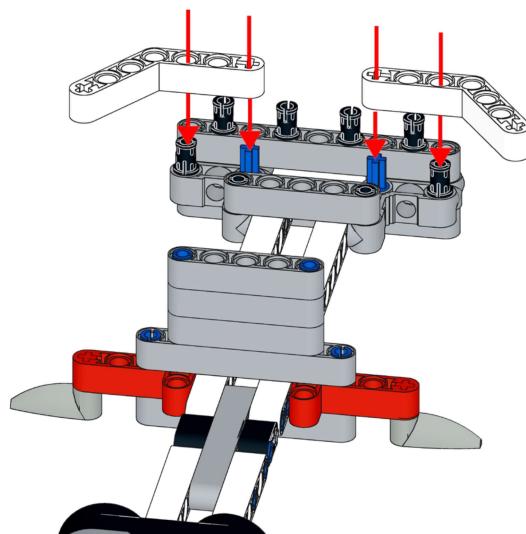
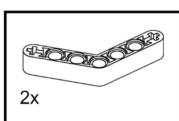
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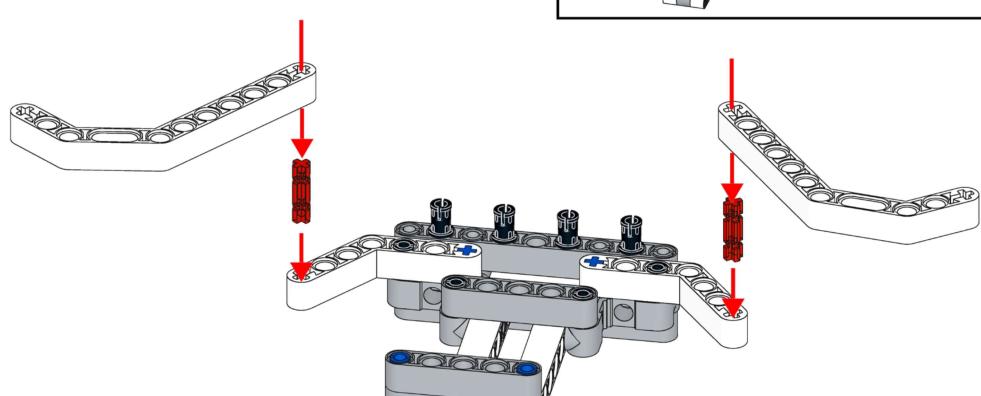
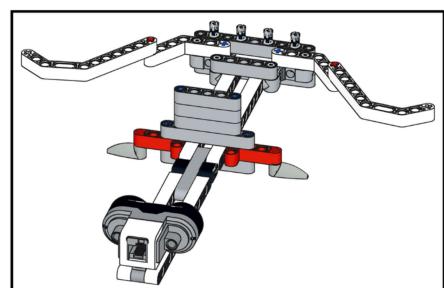
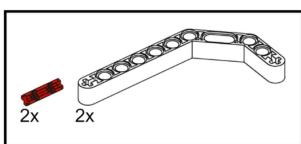
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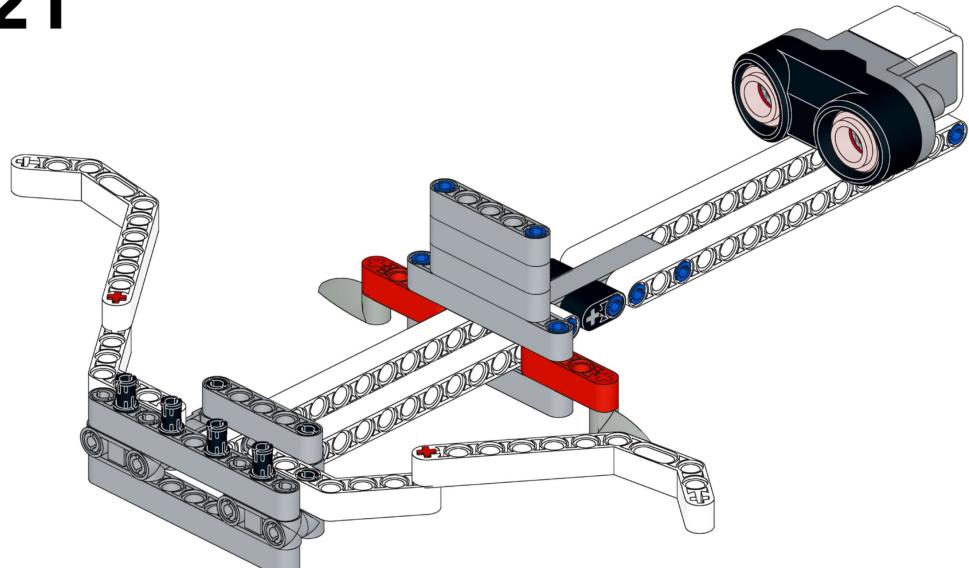
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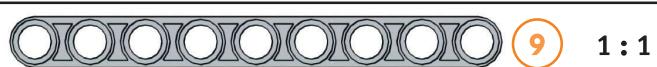
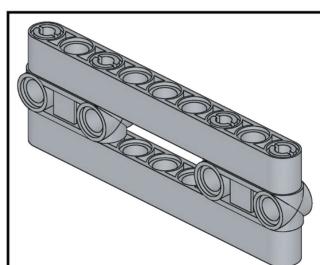
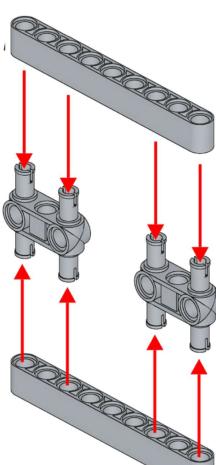
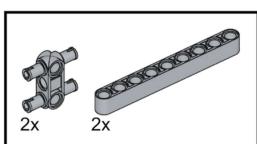
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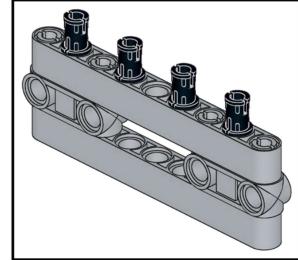
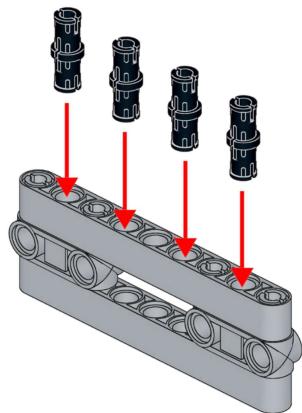
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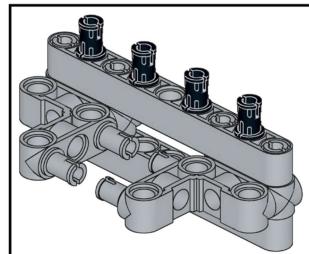
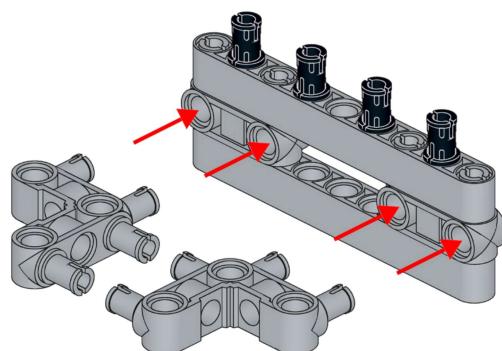
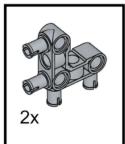
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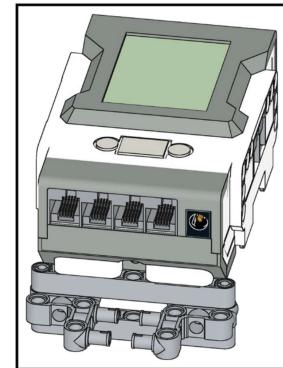
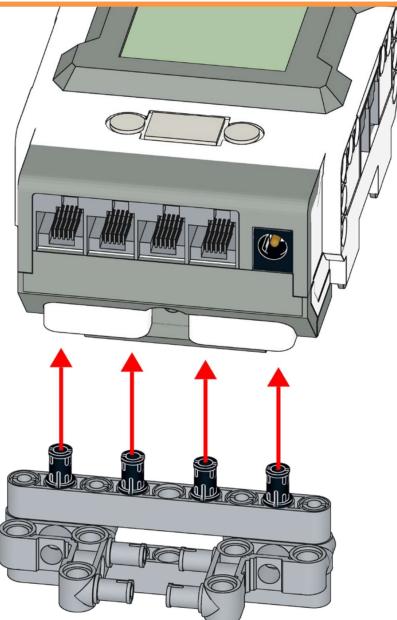
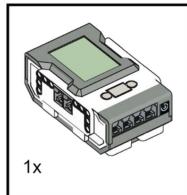
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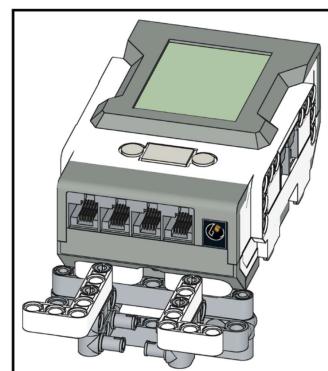
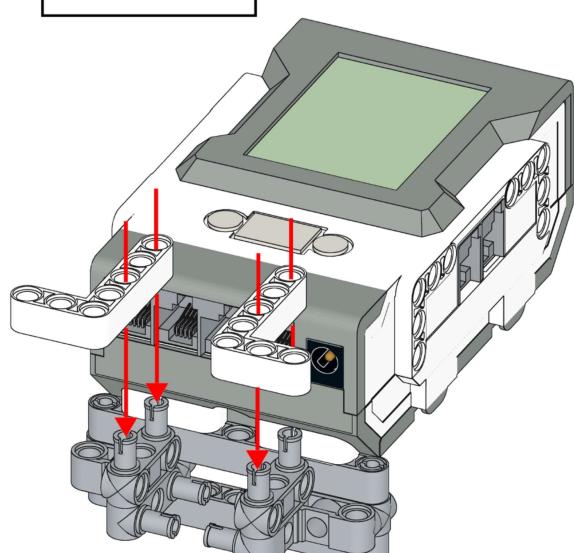
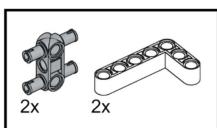
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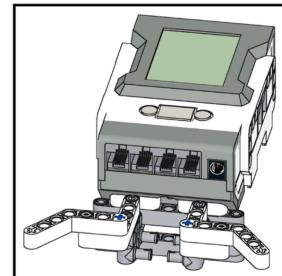
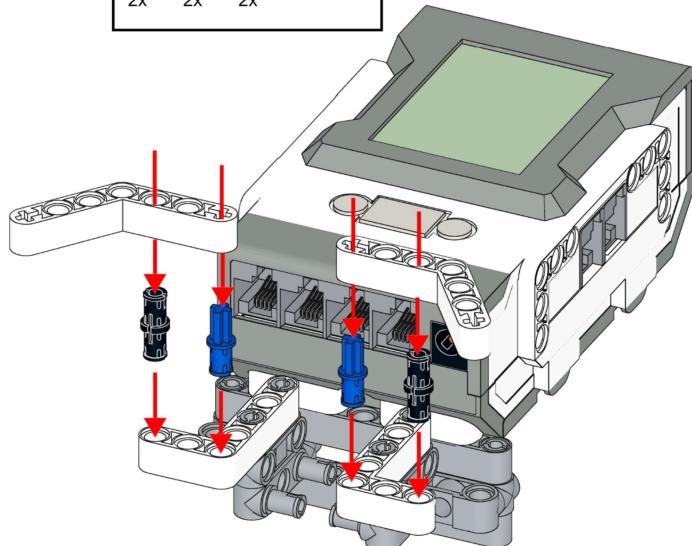
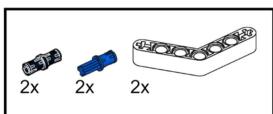
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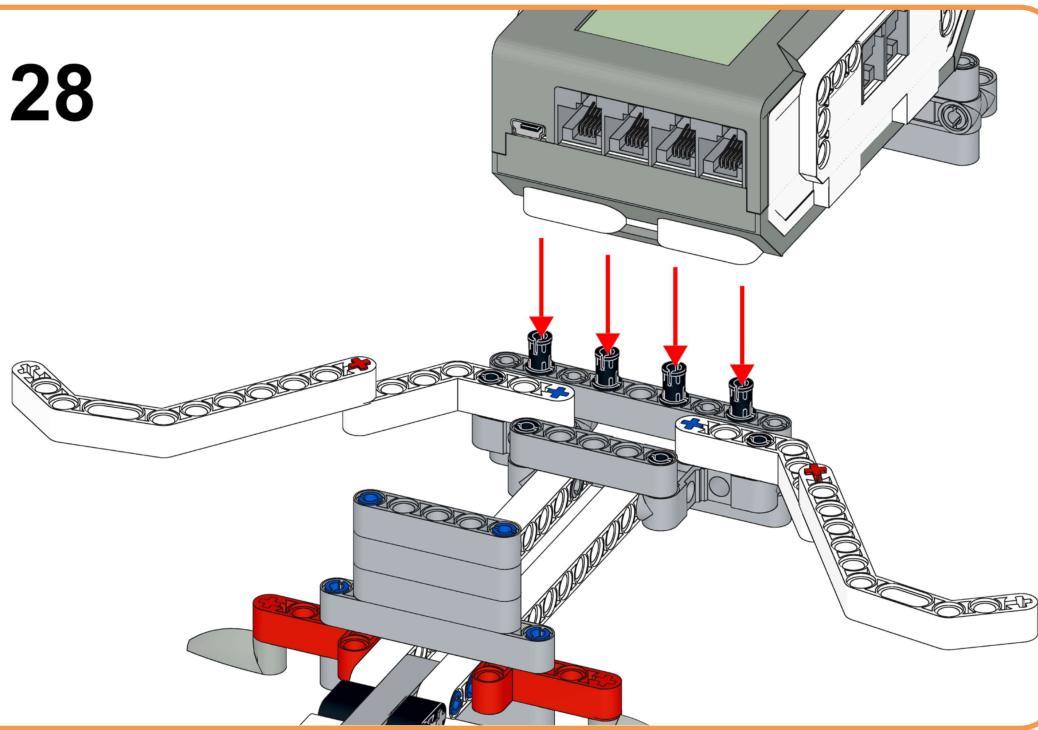
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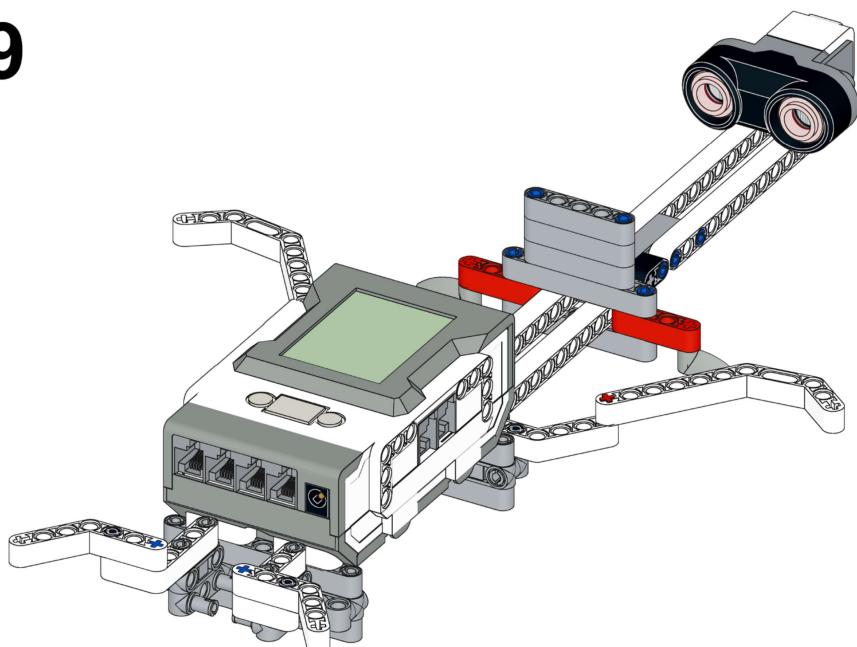
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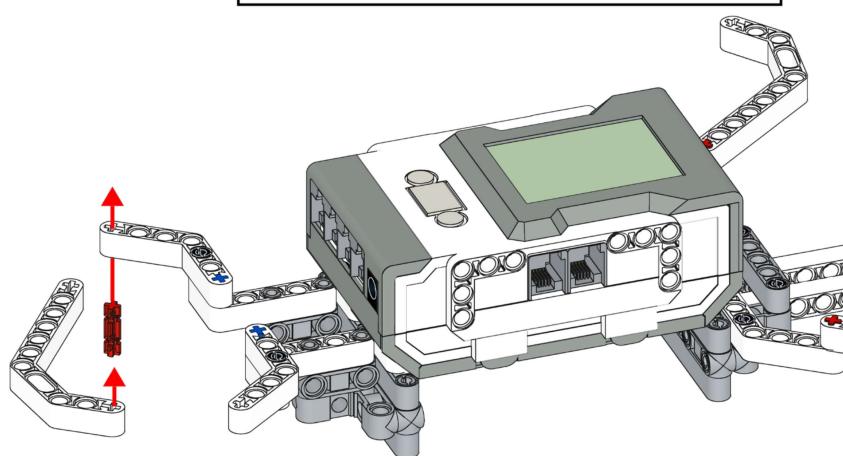
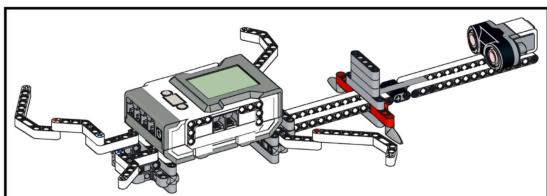
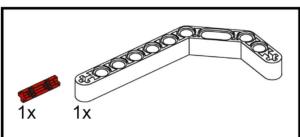
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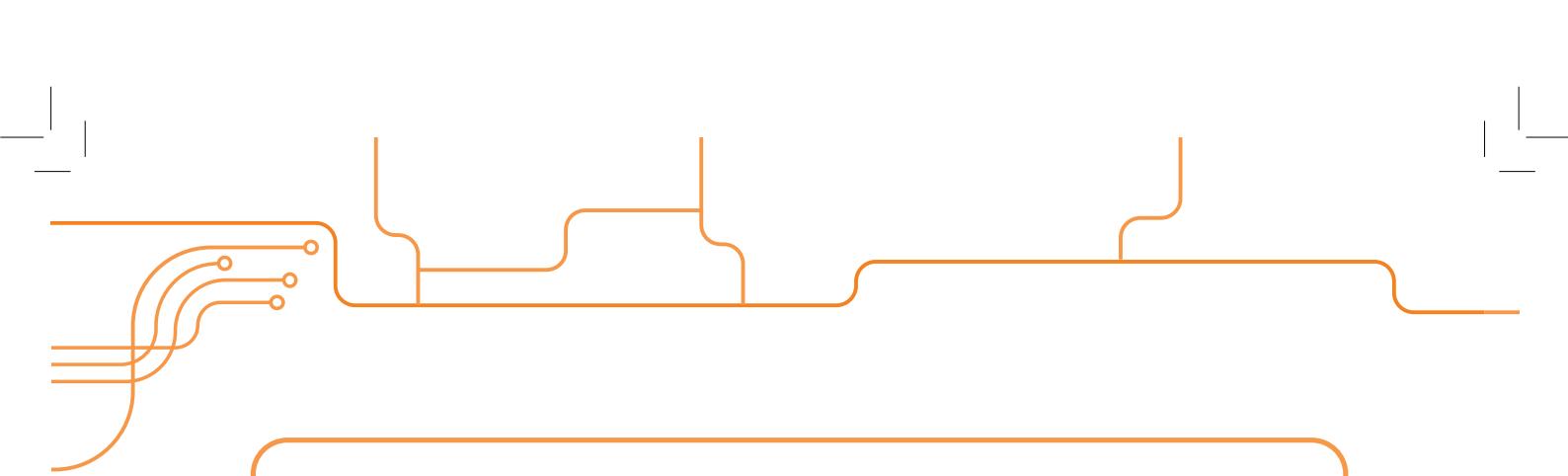
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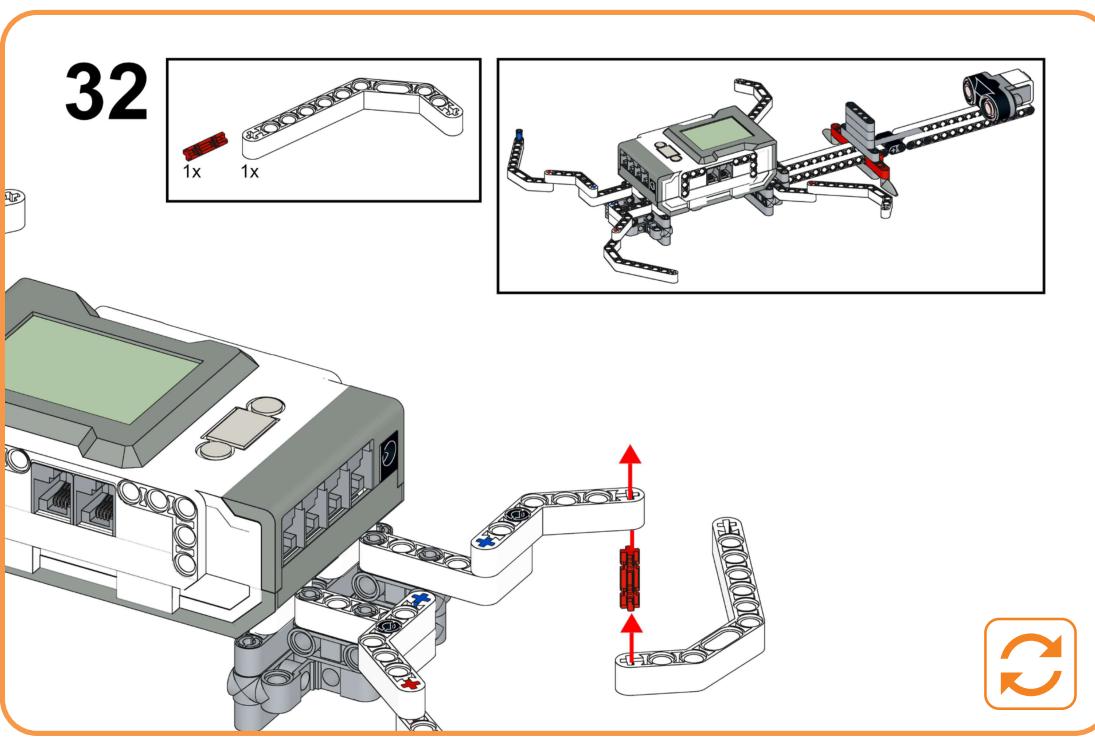
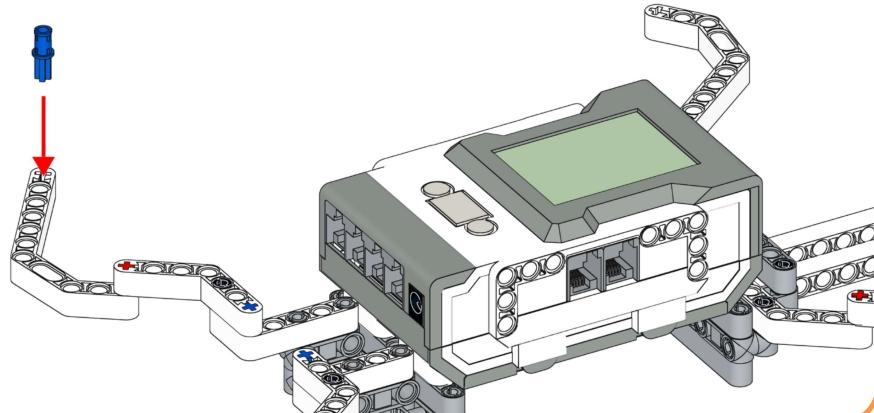
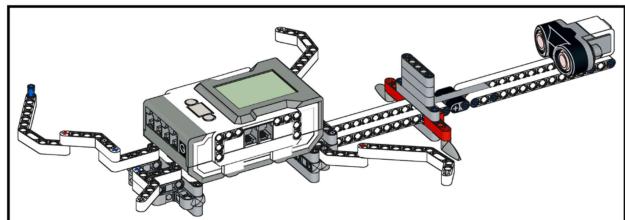


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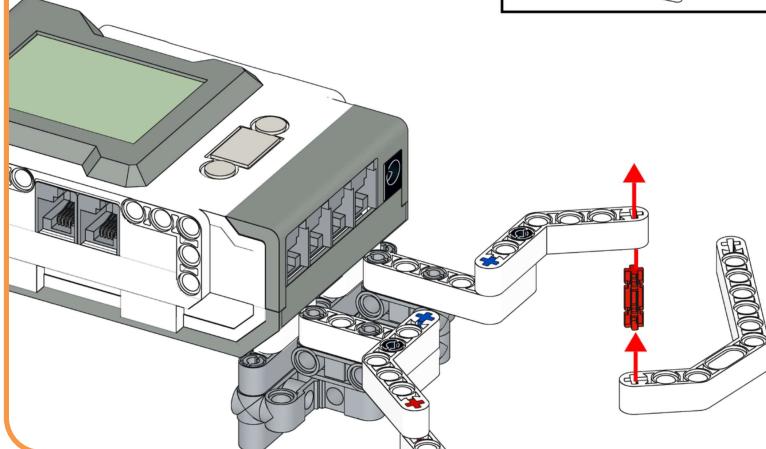
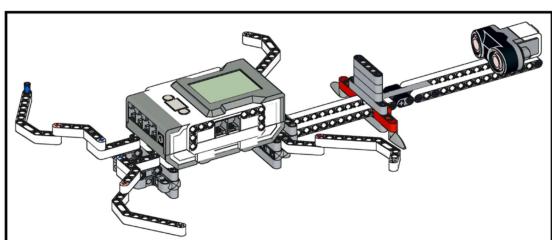
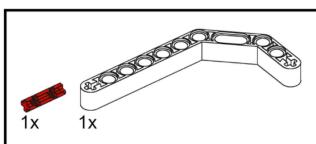




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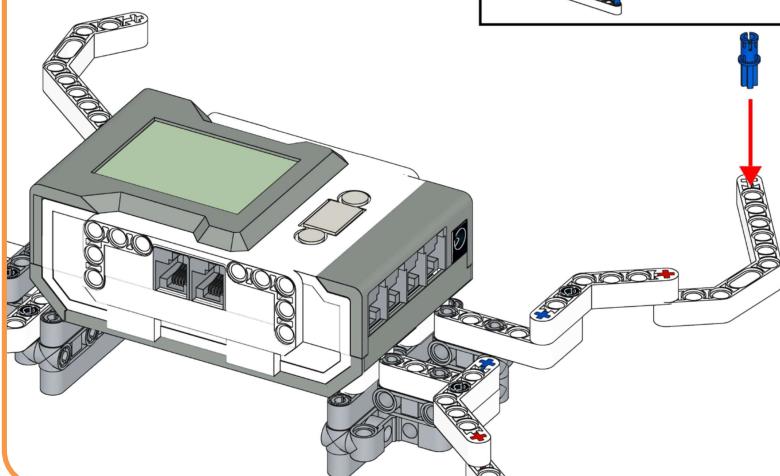
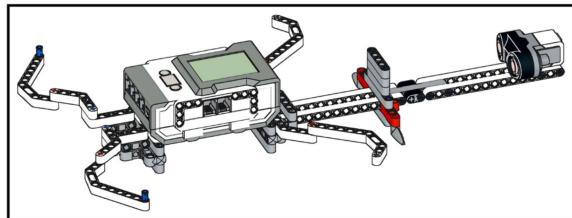
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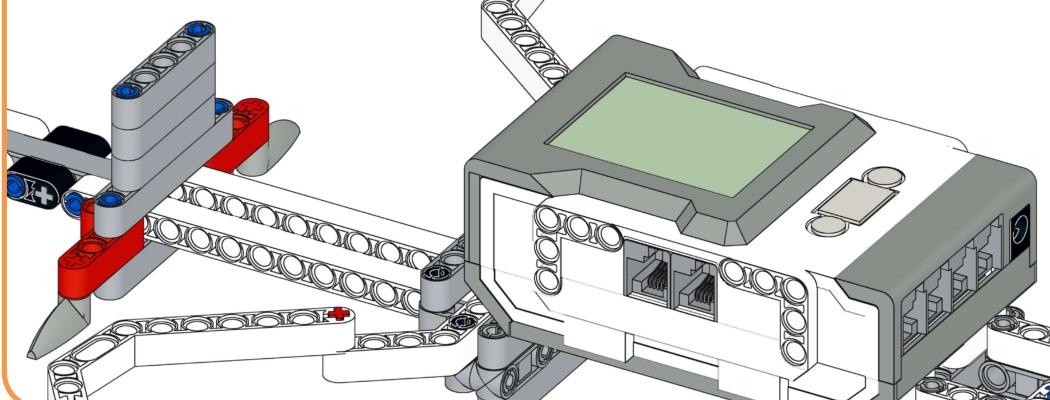
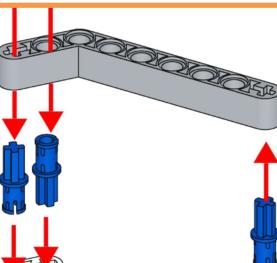
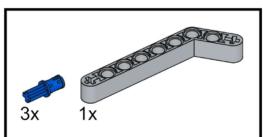
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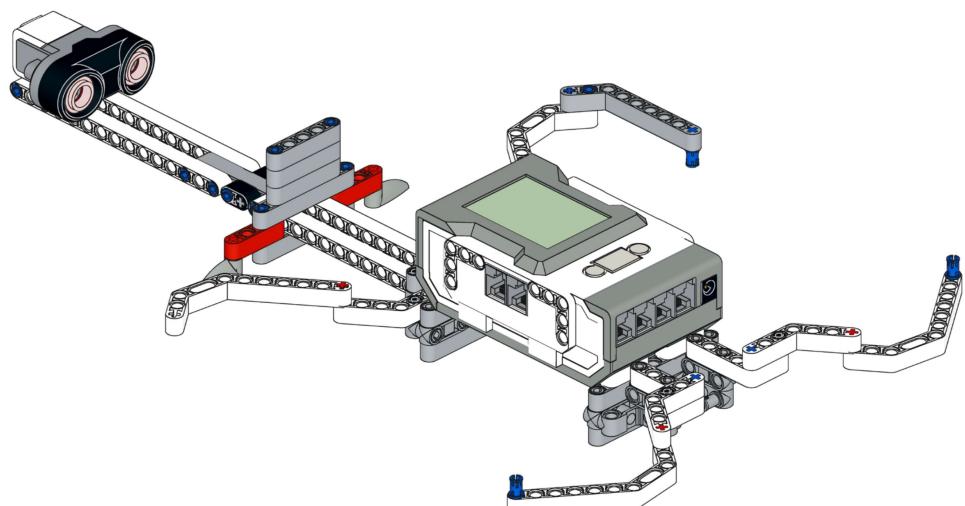
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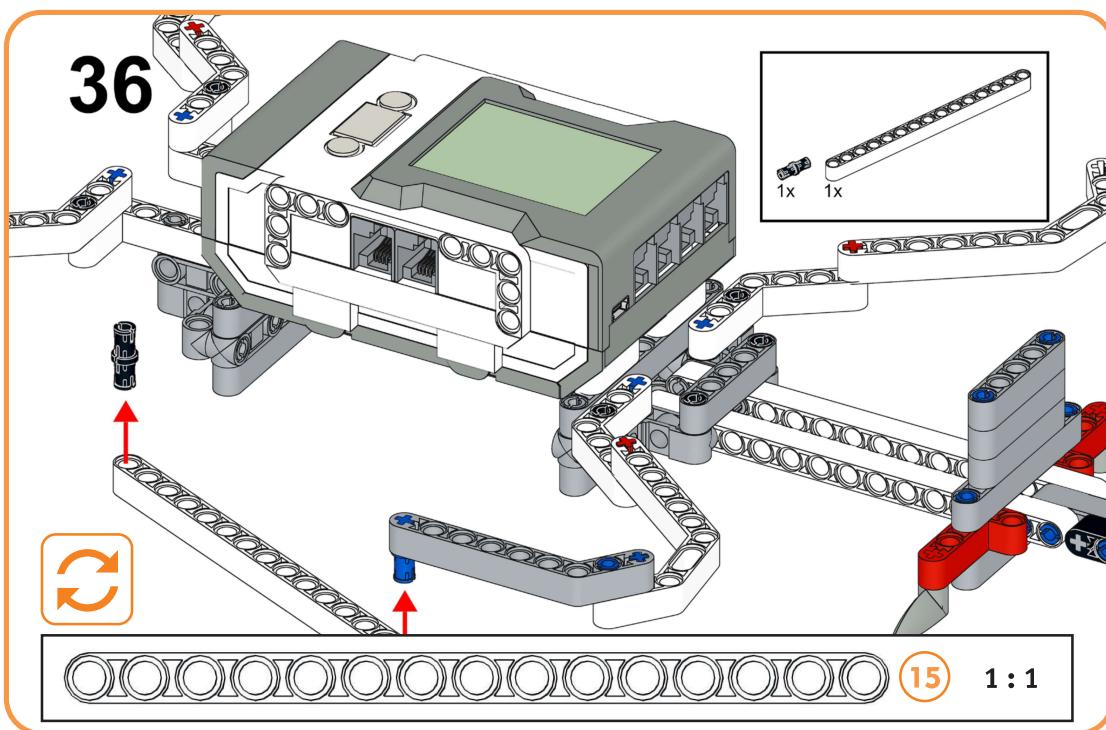
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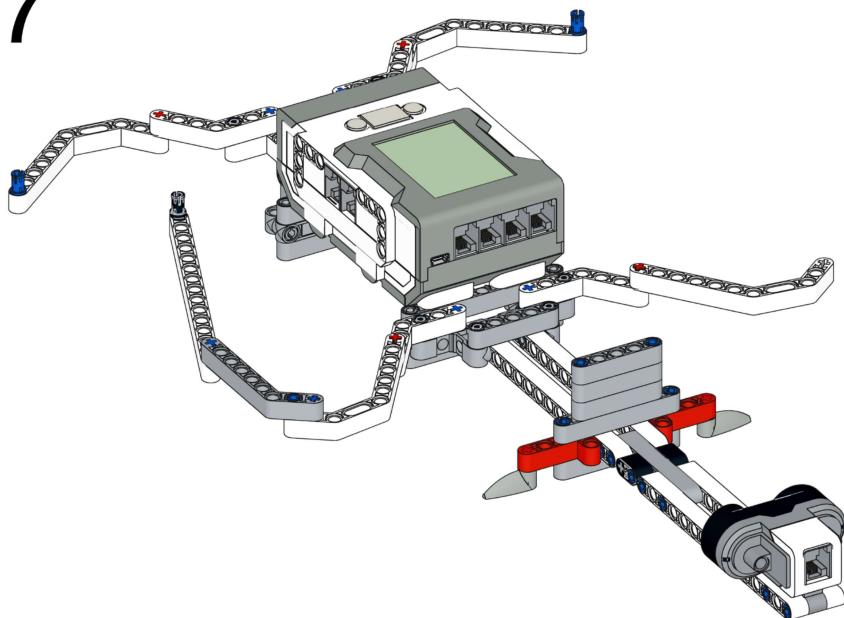
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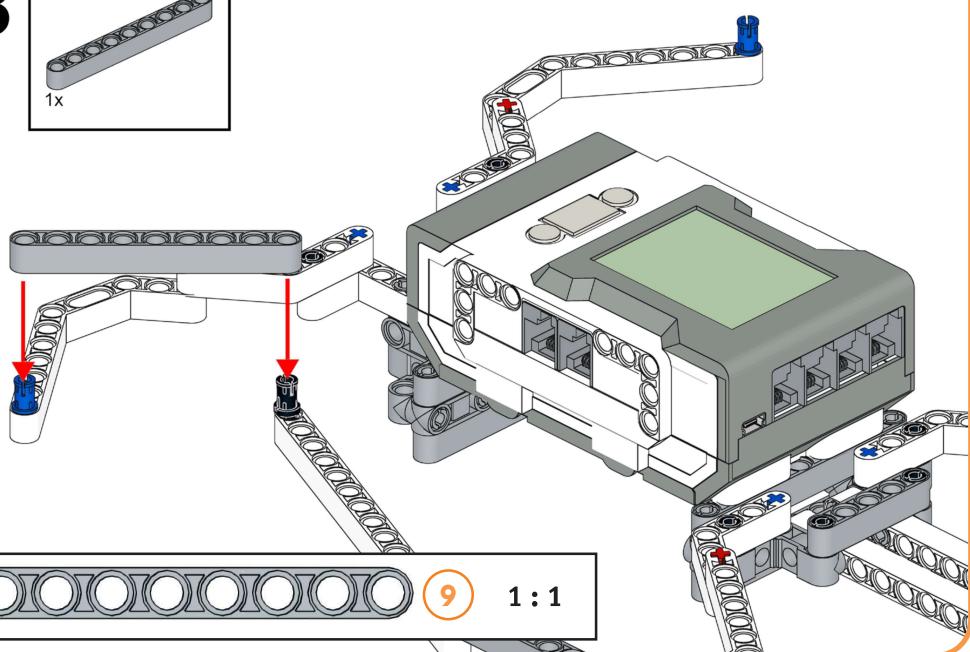
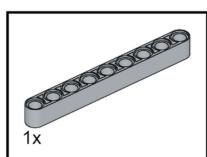
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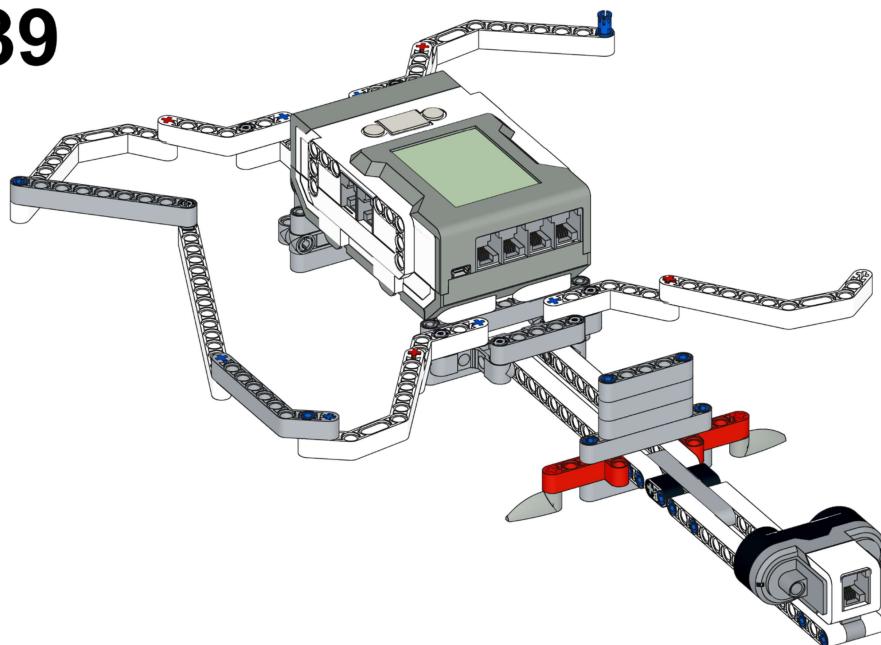
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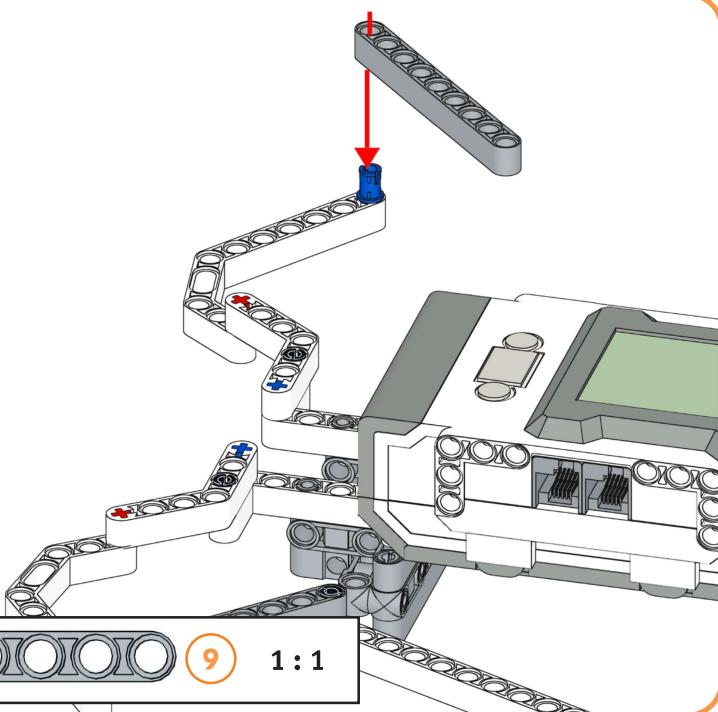
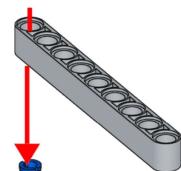
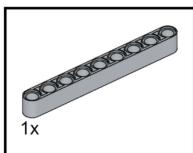
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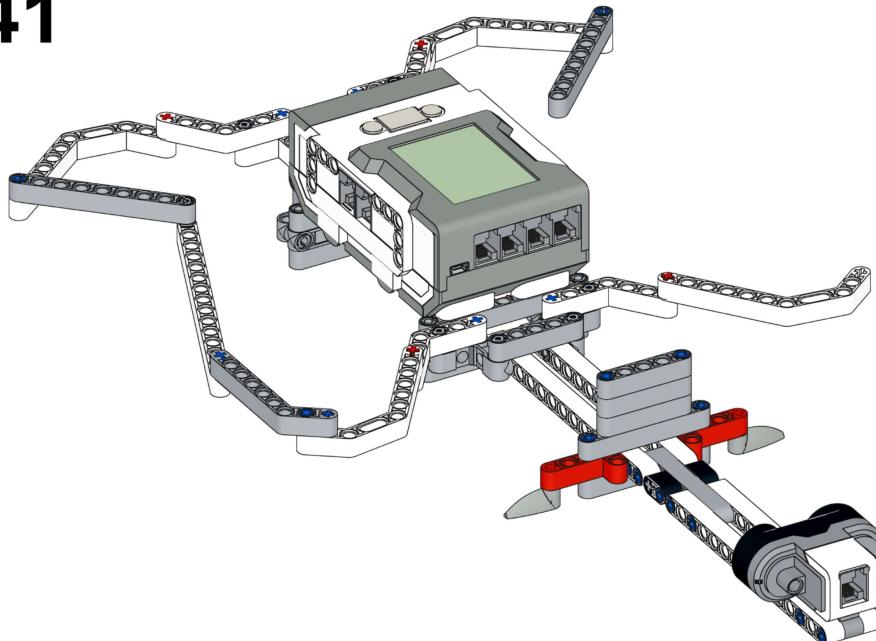
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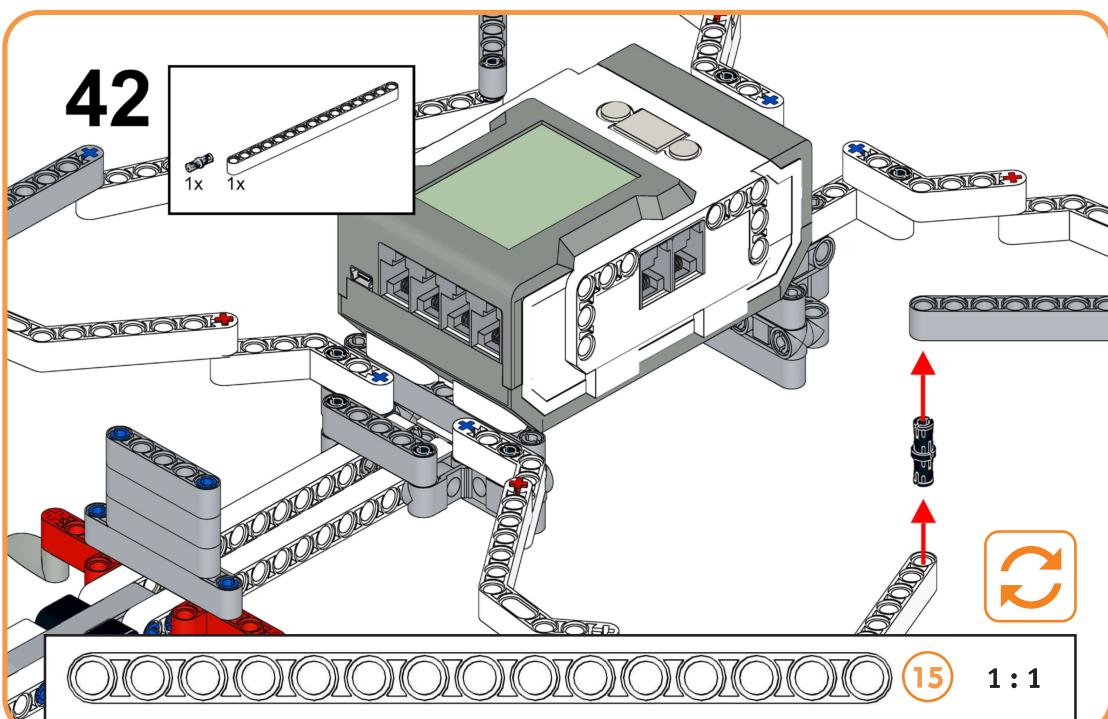
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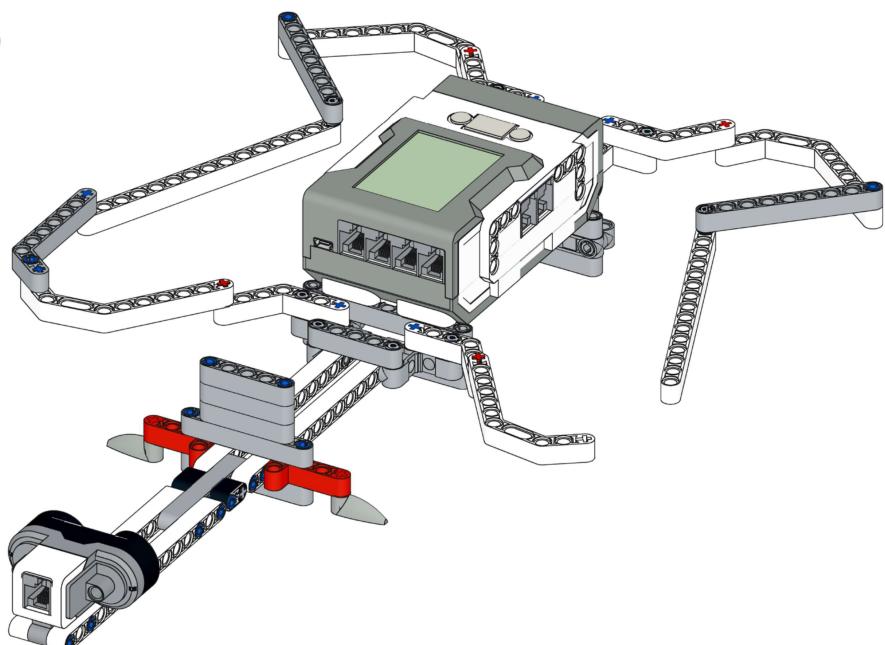
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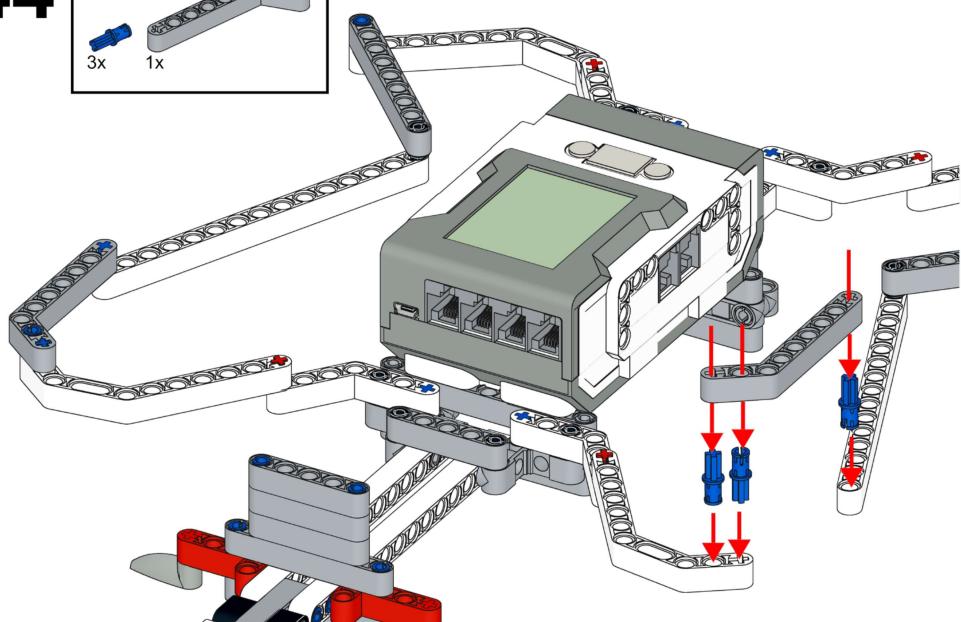
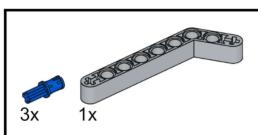
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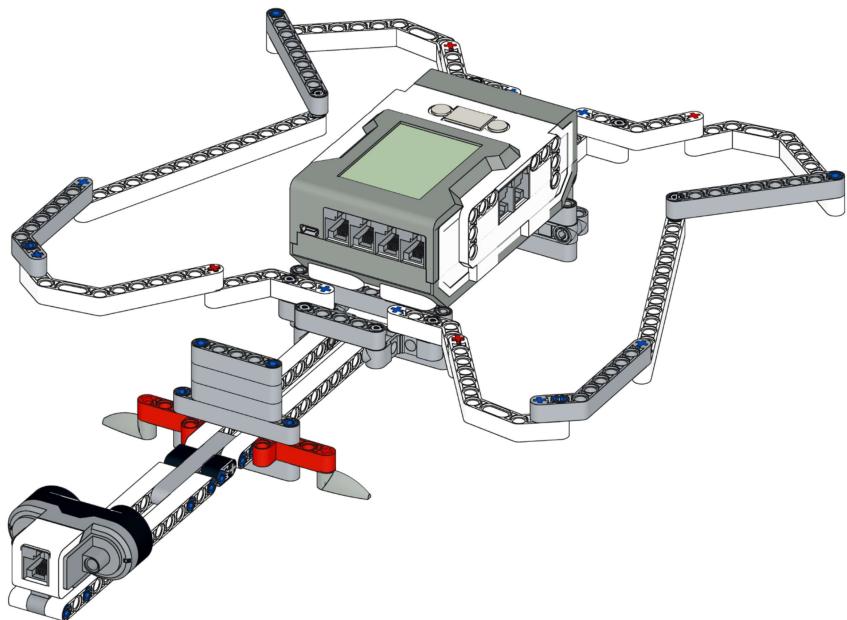
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ROBÓTICA NA PRÁTICA

45



PROGRAMAÇÃO

Ao tocar na tela do controlador (simulando o toque da mão direita em uma corda da guitarra), uma nota musical será emitida de acordo com a distância captada pelo sensor ultrassônico em relação à mão, representada pelo objeto na haste da guitarra.

As frequências de sons serão emitidas no próprio HUB controlador, e o *download* do programa deve ser realizado nele.

Para testar o som da nota musical na guitarra, o objeto deve ser levado para perto e para longe do sensor ultrassônico.

Serão consideradas áreas de execução das notas valores de distância maior que 5 e menor que 19. As casas serão divididas conforme as distâncias a seguir:

- ▶ Entre 5 e 7: nota dó com tempo inteiro;
- ▶ Entre 7 e 9: nota ré com tempo inteiro;
- ▶ Entre 9 a 11: nota mi com tempo inteiro;
- ▶ Entre 11 e 13: nota fá com tempo inteiro;
- ▶ Entre 13 e 15: nota sol com tempo inteiro;
- ▶ Entre 15 e 17: nota lá com tempo inteiro;
- ▶ Entre 17 e 19: nota si com tempo inteiro.

Para testar o som da nota musical na guitarra, o objeto deve ser levado para perto e para longe do sensor ultrassônico. Incite os alunos a realizarem alterações das notas e do tempo com que elas são emitidas, depois tente realizar um concurso de composições. Os toques na tela podem ser curtos ou longos.