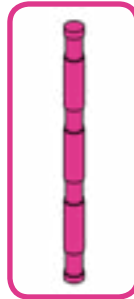
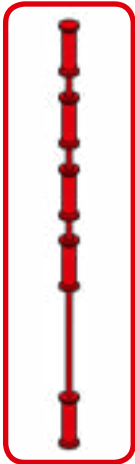
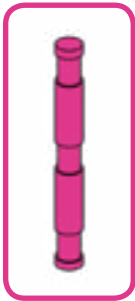
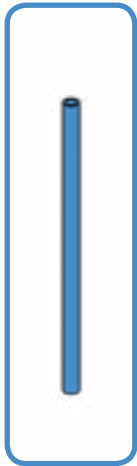


InflatiBits Manual

Christopher Kopic, BFA & Kristian Gohlke, M.Sc. Digital Media
Bauhaus-Universität Weimar, 2015



Sliding Restrictor

Rigid Restrictor

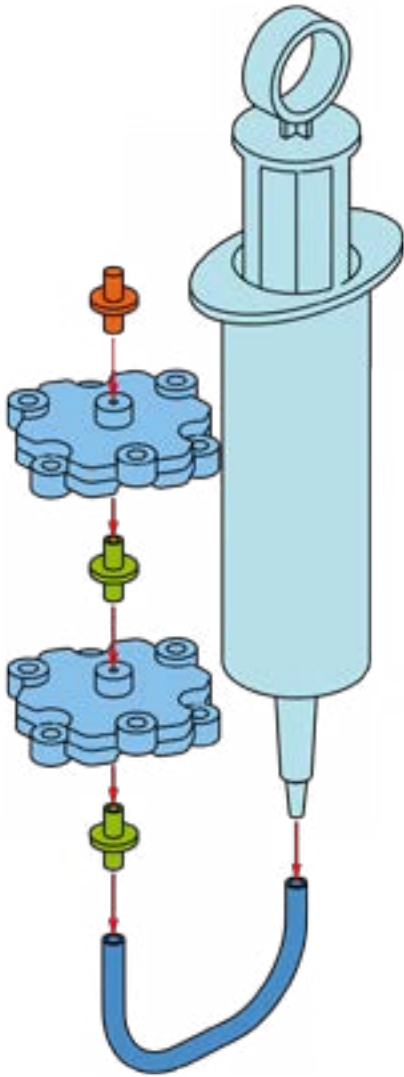
Extender

Air Connector

Air Stop

Tube

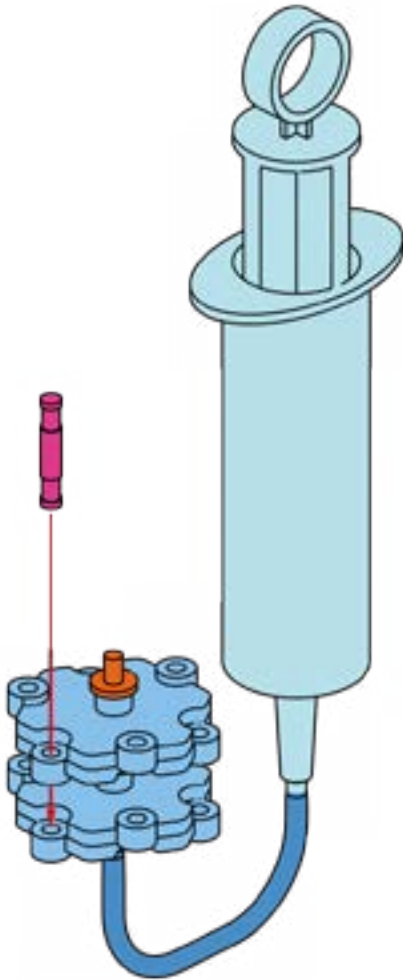
Flexible Restrictor



Let's create our first Soft Robot. Connect the pieces as shown in the picture, then press on the syringe to pump air into the system.

The silicone extenders will fill with air and get longer. We've created movement with air pressure.



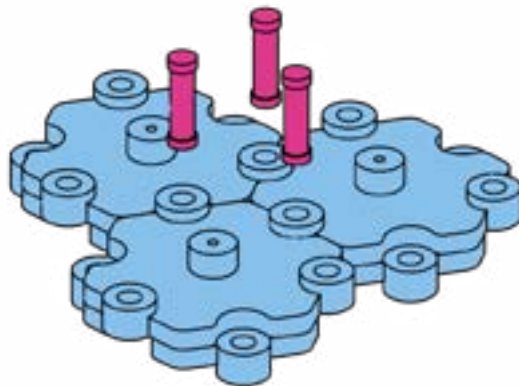
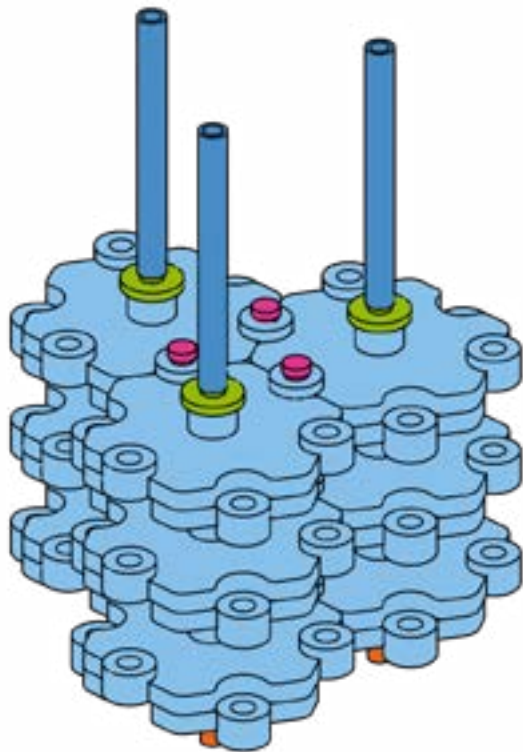


A simple linear motion is a bit boring though. Let's make it more interesting by adding a rigid restrictor.

If we use the syringe now, the contraction moves in a curve instead of a straight line.

The combination of extending and restricting elements is the basic principle of every soft robot. Here's some inspiration:

6



1



9x



9x



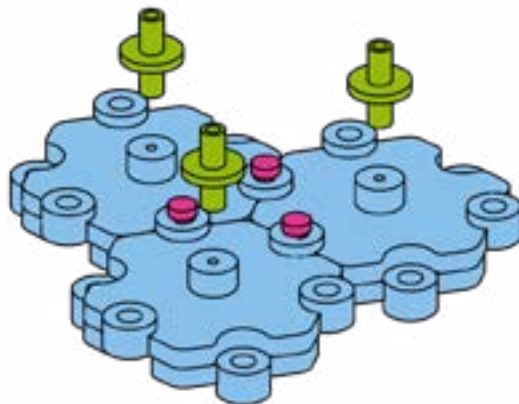
9x



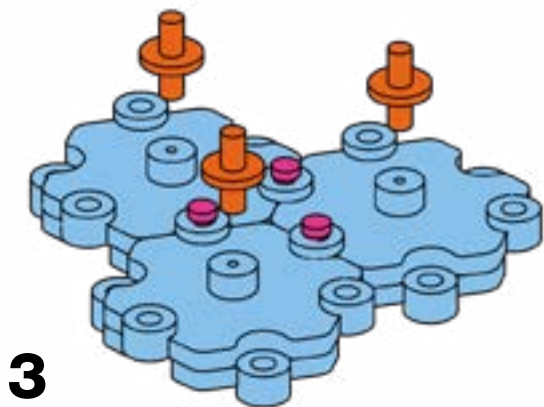
3x



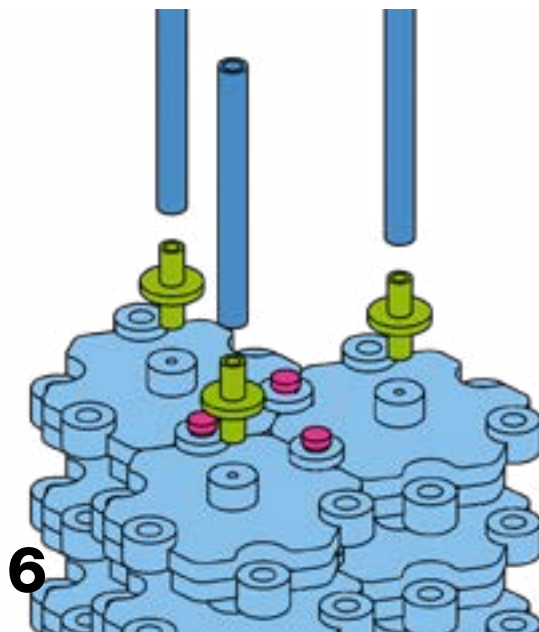
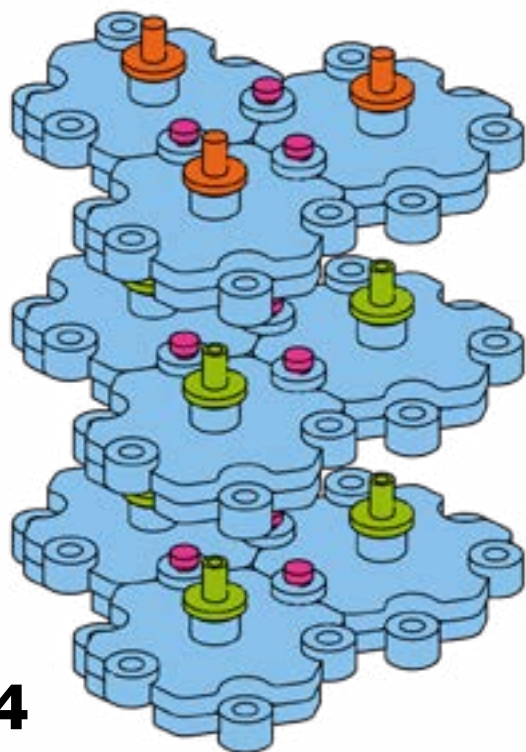
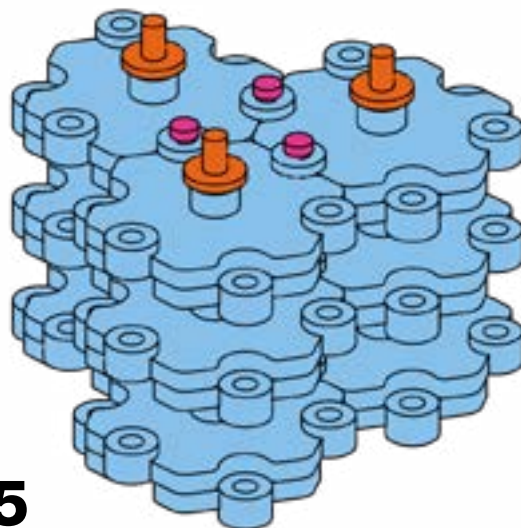
3x



2

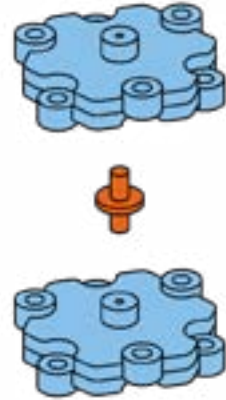
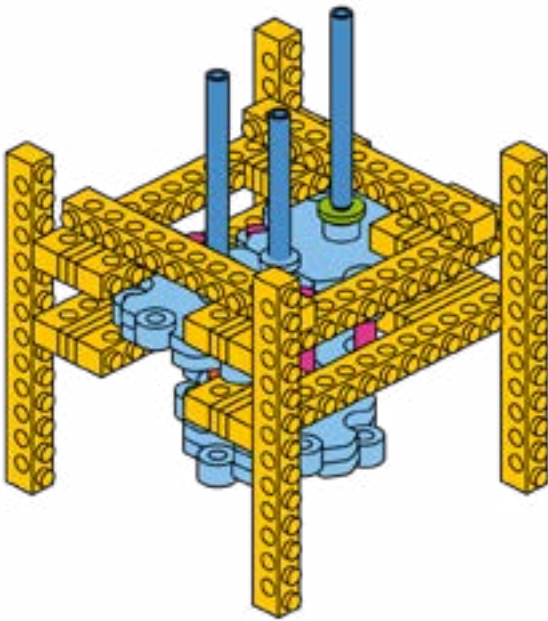


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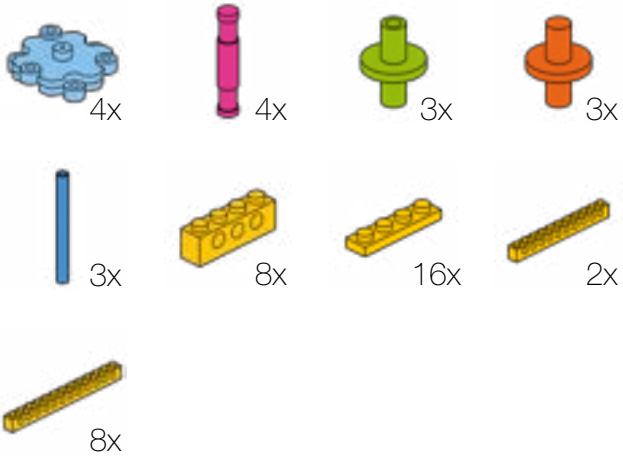




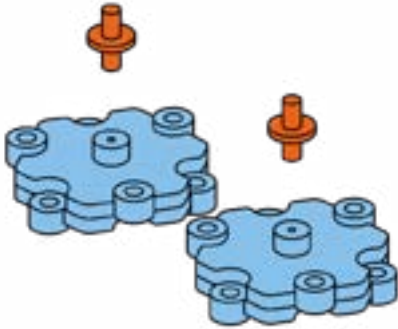
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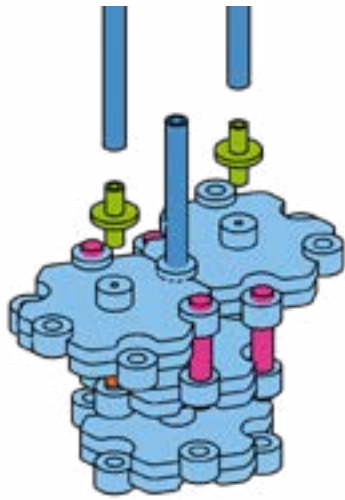
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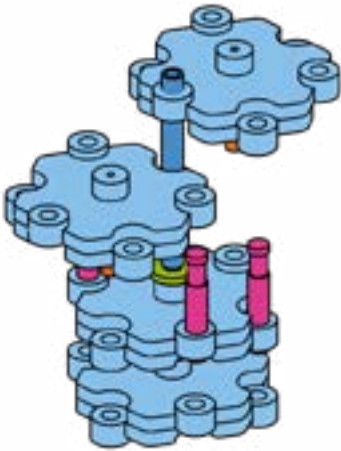
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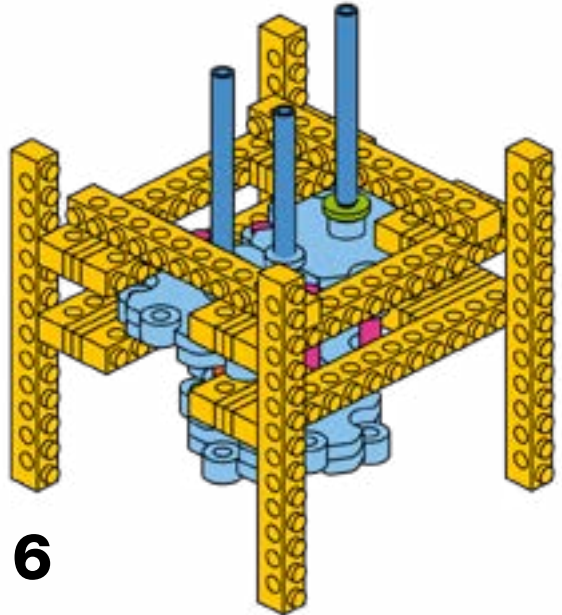
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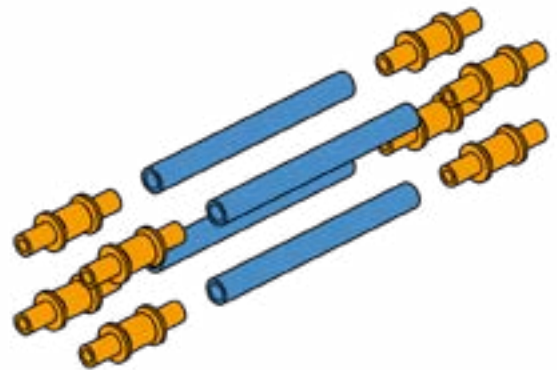
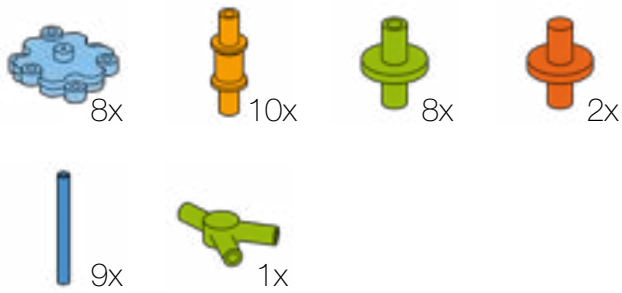
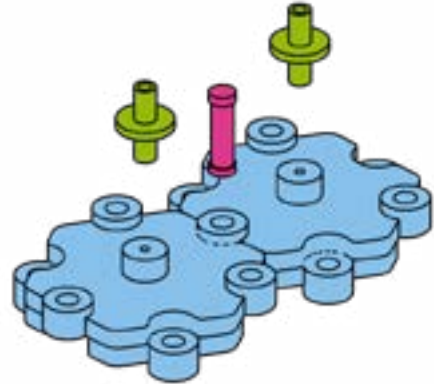
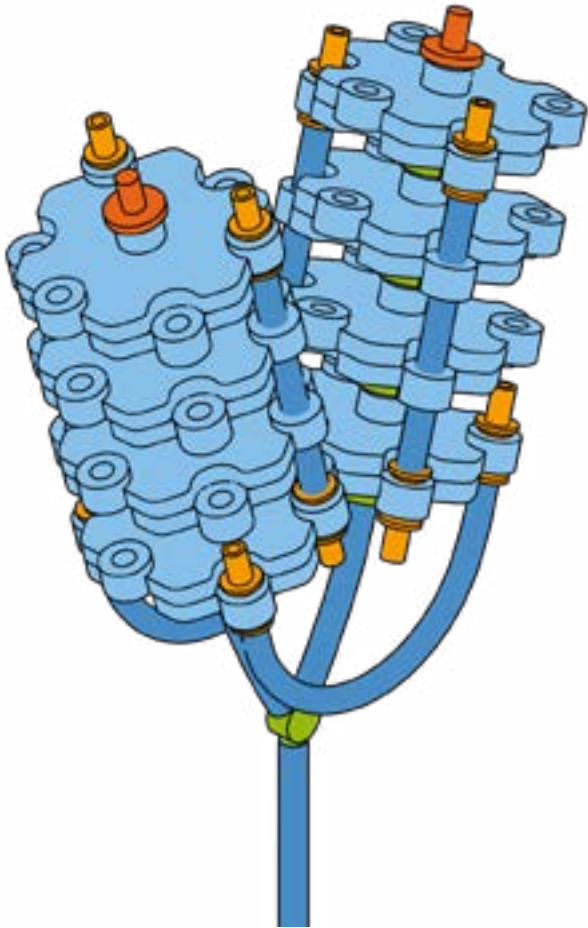


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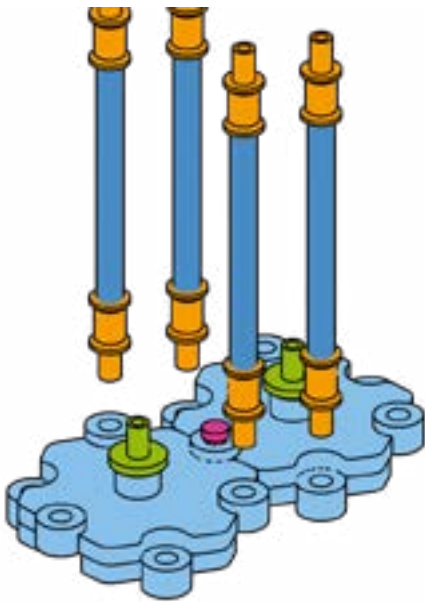


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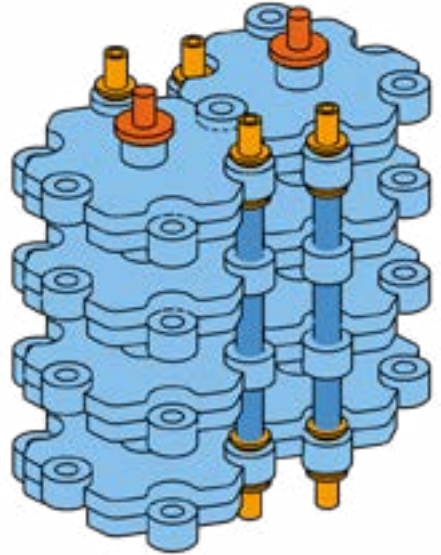




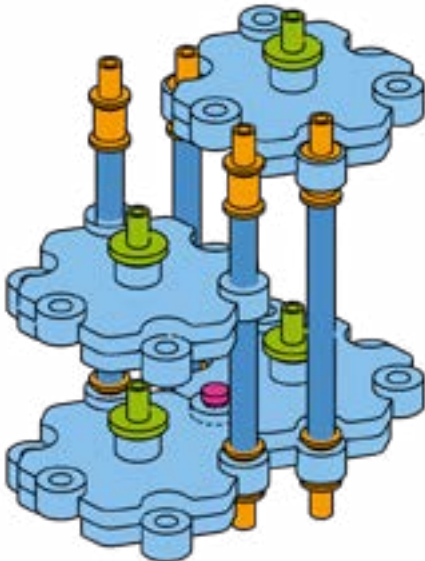
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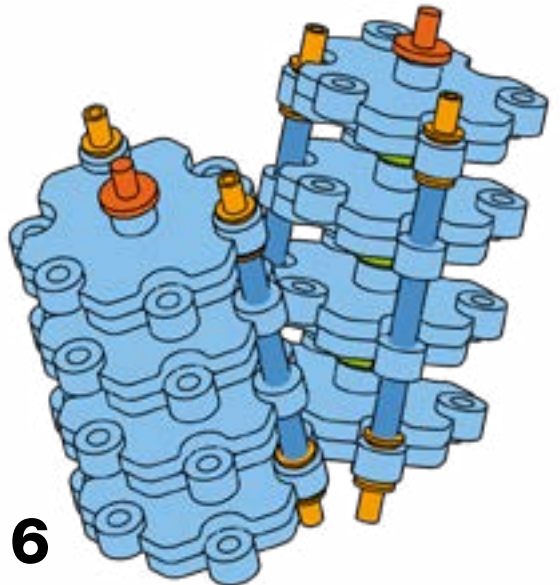
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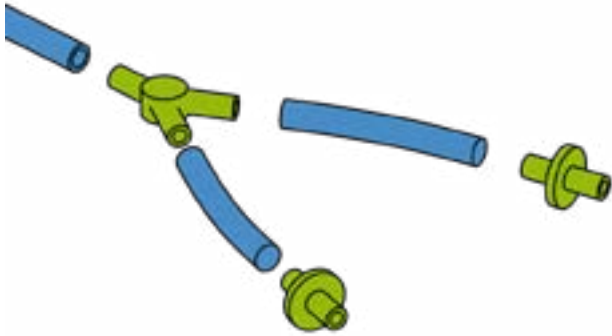


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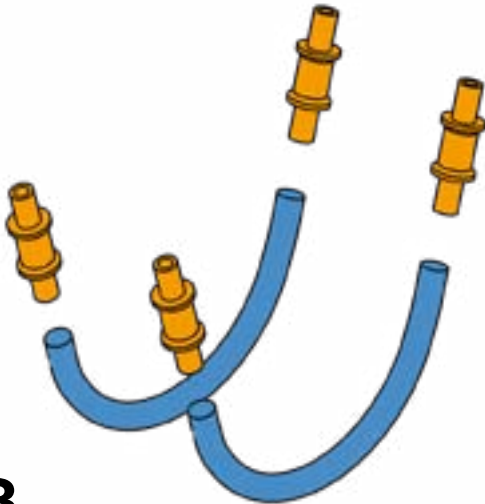


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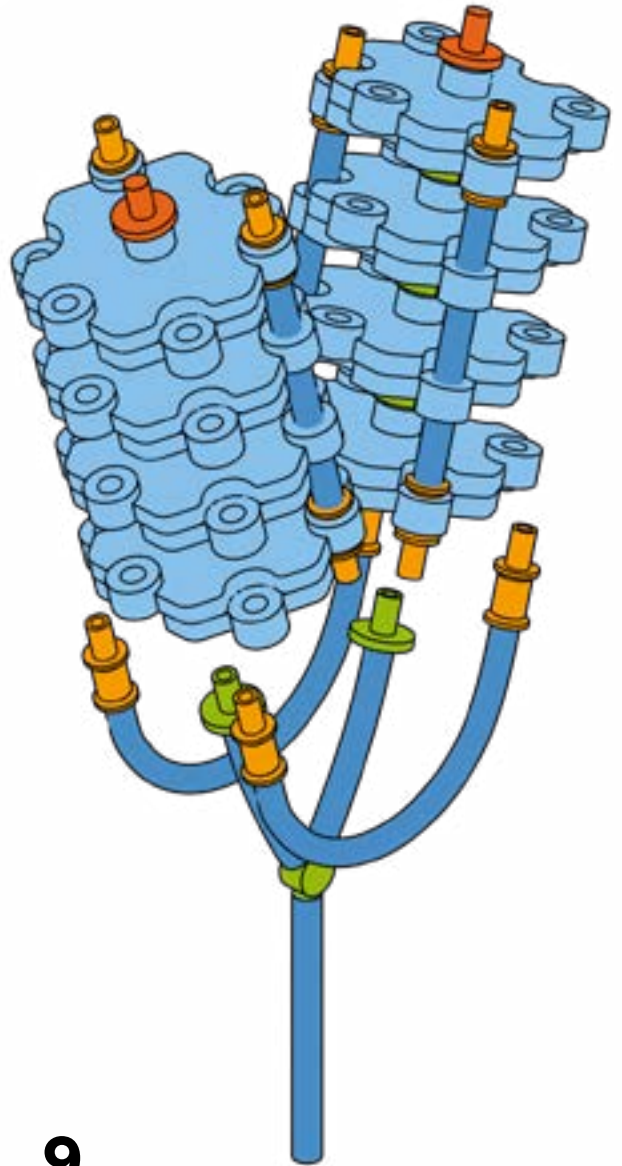




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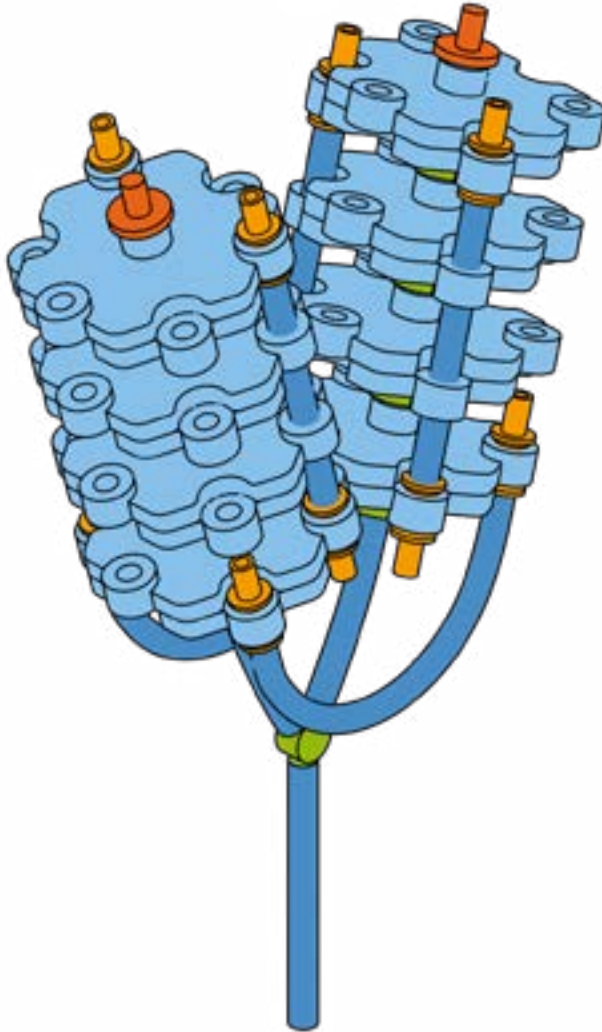


8



9

15



10

