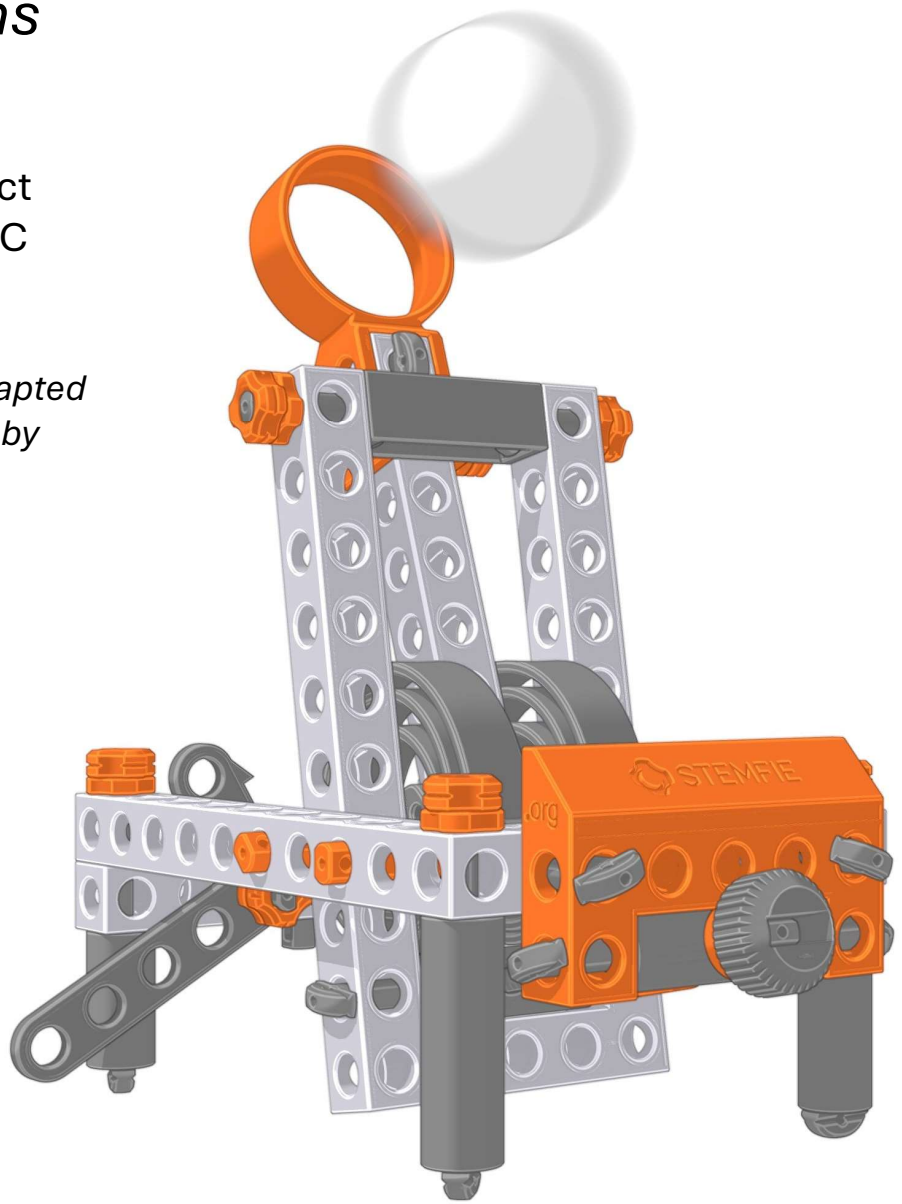
STEMFIE® Desktop Catapult Kit

Assembly Instructions

Designed by The STEMFIE Project
Printed by Edelberg Designs, LLC

These assembly instructions are adapted from the assembly photos provided by the STEMFIE project



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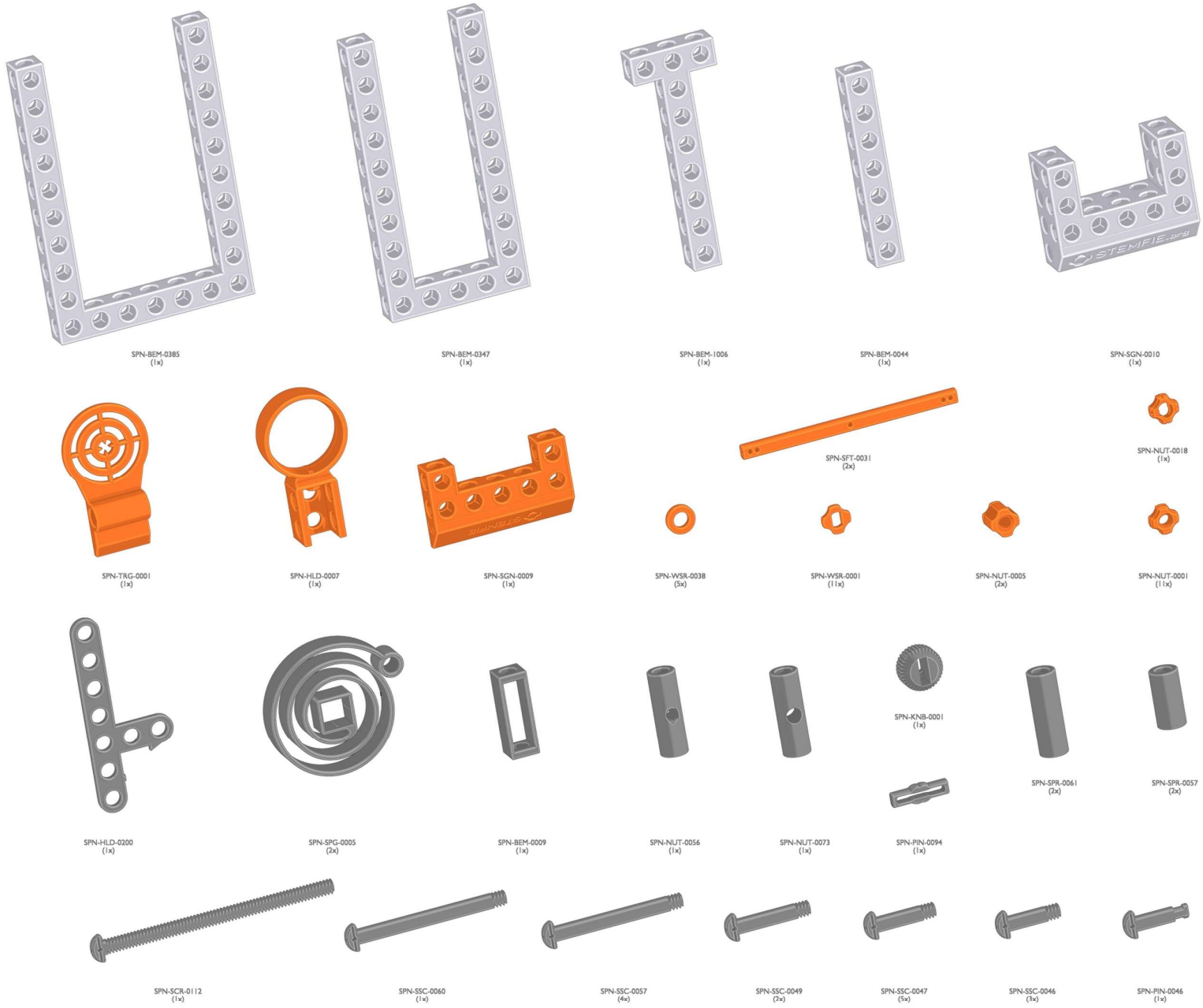
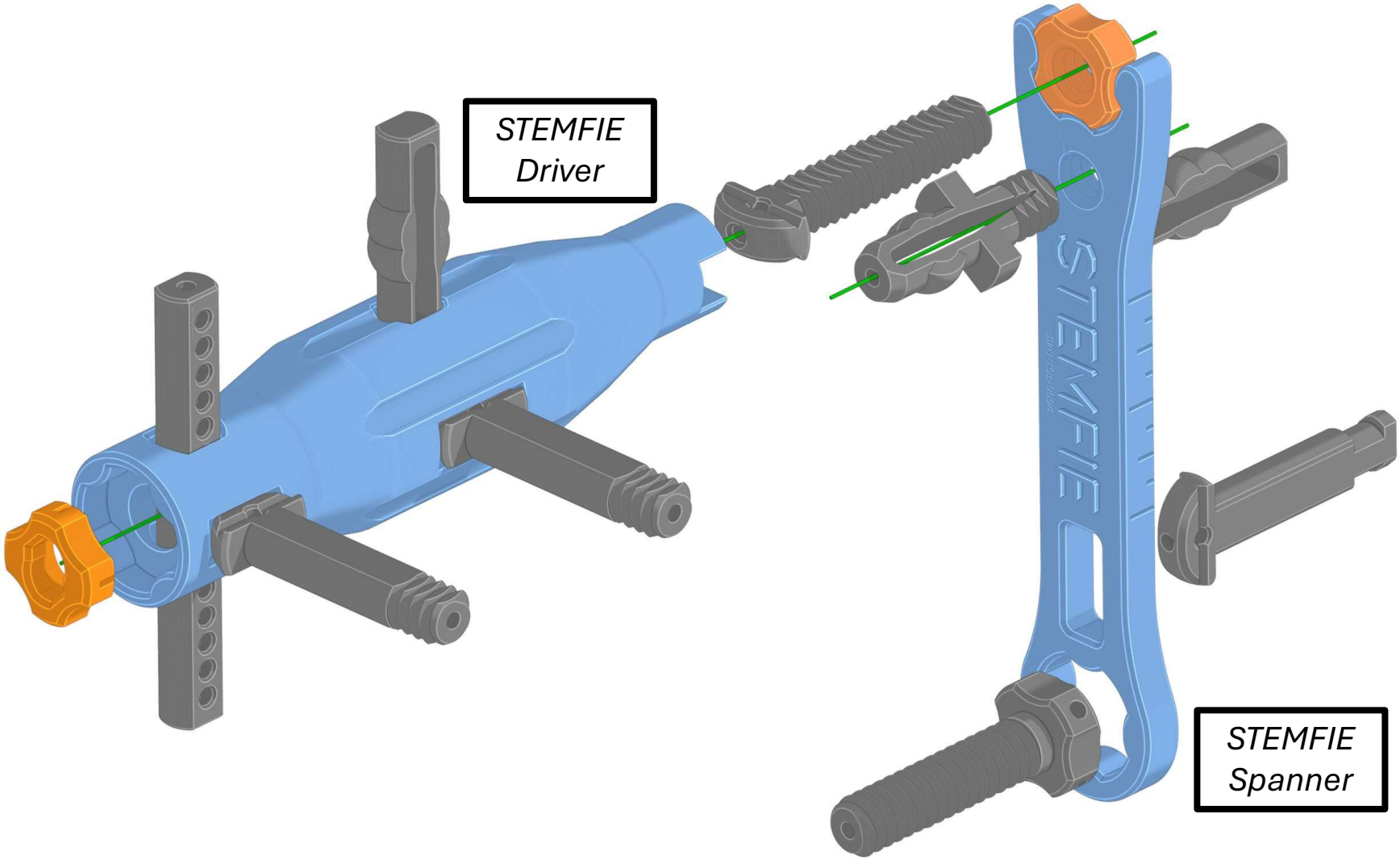
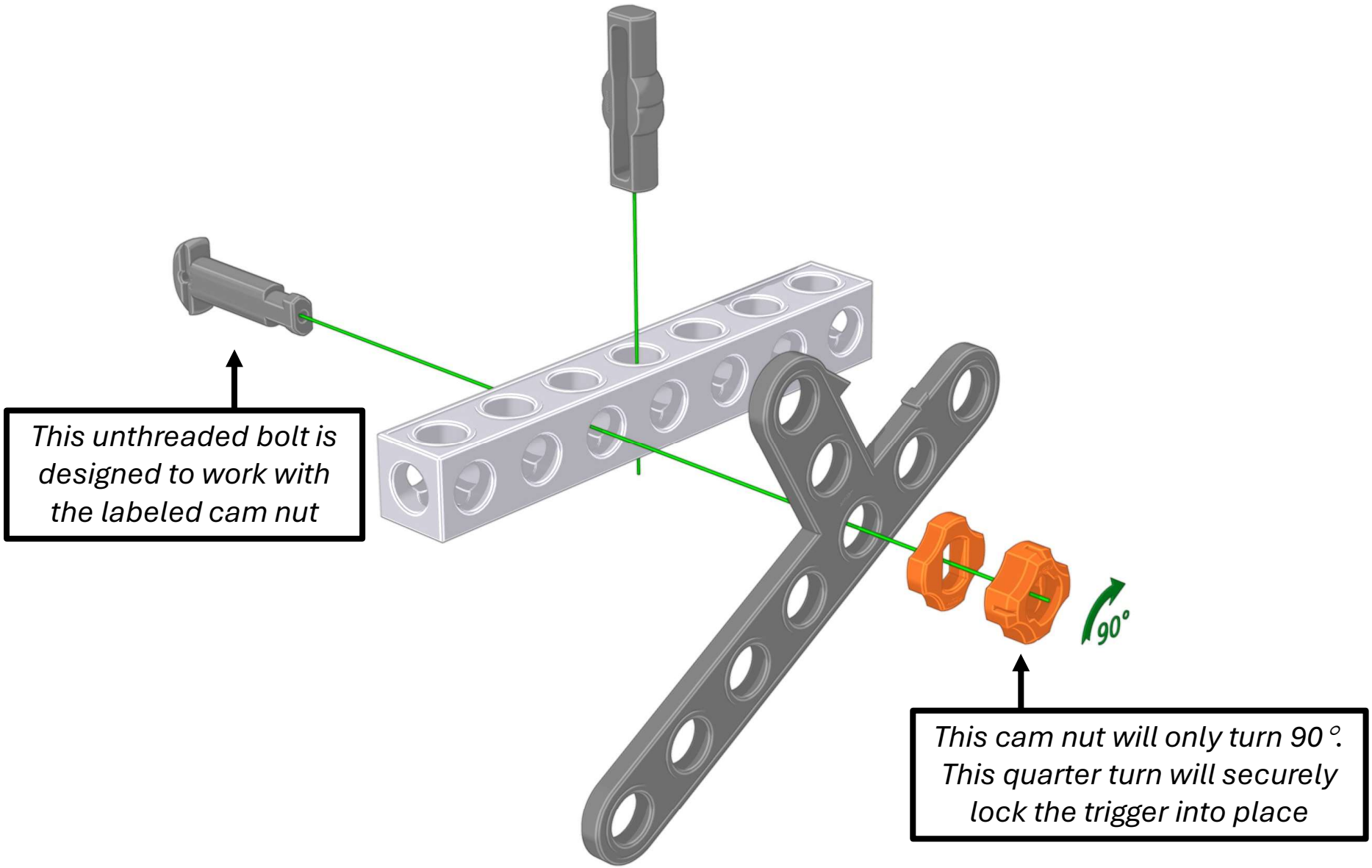
Part List


SPN-BEM-0385
(1x)
SPN-BEM-0347
(1x)
SPN-BEM-1006
(1x)
SPN-BEM-0044
(1x)
SPN-SGN-0010
(1x)
SPN-TRG-0001
(1x)
SPN-HLD-0007
(1x)
SPN-SGN-0009
(1x)
SPN-WSR-0038
(5x)
SPN-SFT-0031
(2x)
SPN-WSR-0001
(11x)
SPN-NUT-0005
(2x)
SPN-NUT-0018
(1x)
SPN-NUT-0001
(11x)
SPN-HLD-0200
(1x)
SPN-SPG-0005
(2x)
SPN-BEM-0009
(1x)
SPN-NUT-0056
(1x)
SPN-NUT-0073
(1x)
SPN-KNB-0001
(1x)
SPN-PIN-0094
(1x)
SPN-SPR-0061
(2x)
SPN-SPR-0057
(2x)
SPN-SCR-0112
(1x)
SPN-SSC-0060
(1x)
SPN-SSC-0057
(4x)
SPN-SSC-0049
(2x)
SPN-SSC-0047
(5x)
SPN-SSC-0046
(3x)
SPN-PIN-0046
(1x)

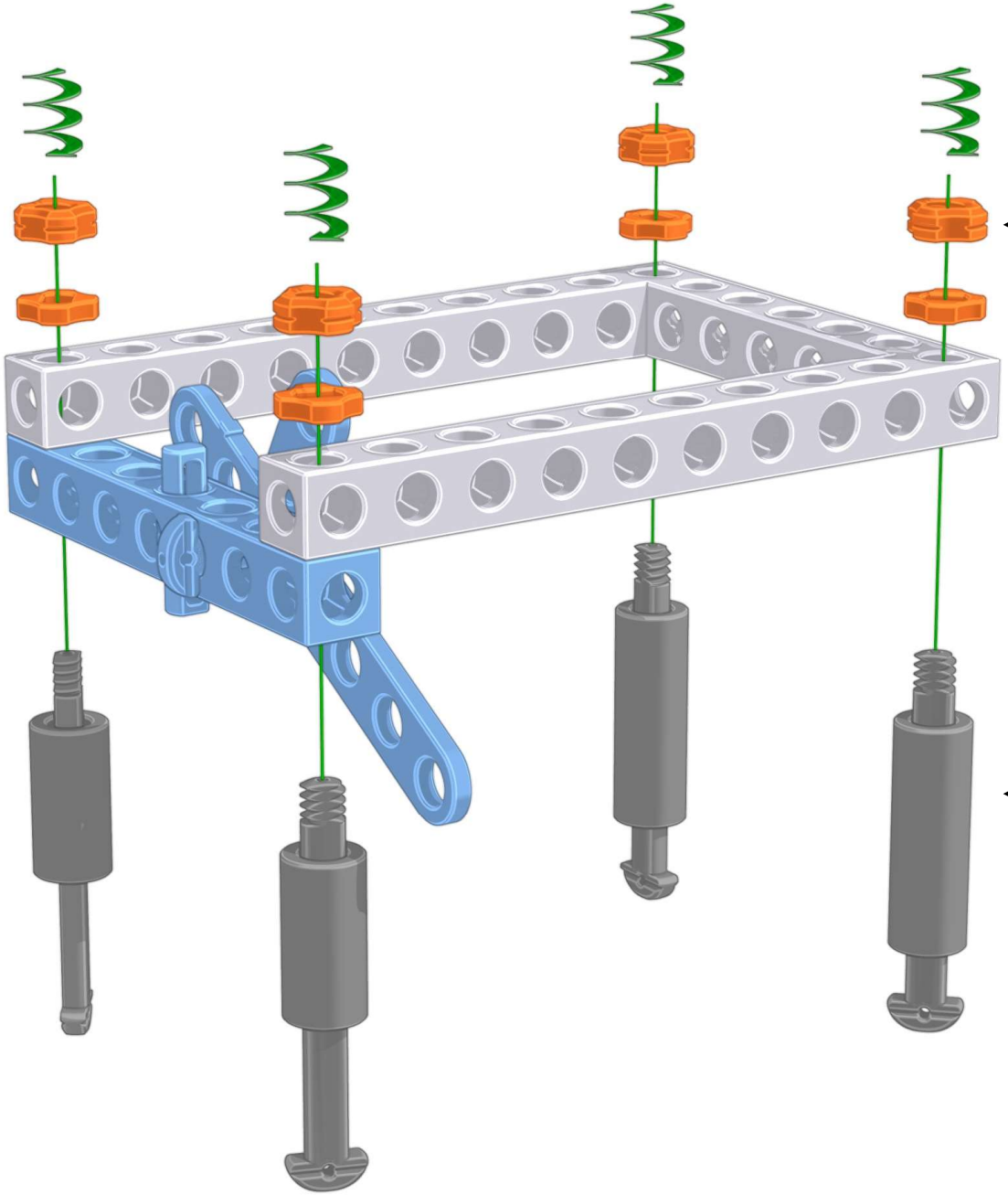
How to use STEMFIE Assembly Tools



Step 1 – Trigger Assembly



Step 2 – Frame Assembly



A threaded nut is placed on top of a flat washer

These partially threaded bolts are inserted through the cylindrical pegs. The longer pegs are in the front, the shorter in the back

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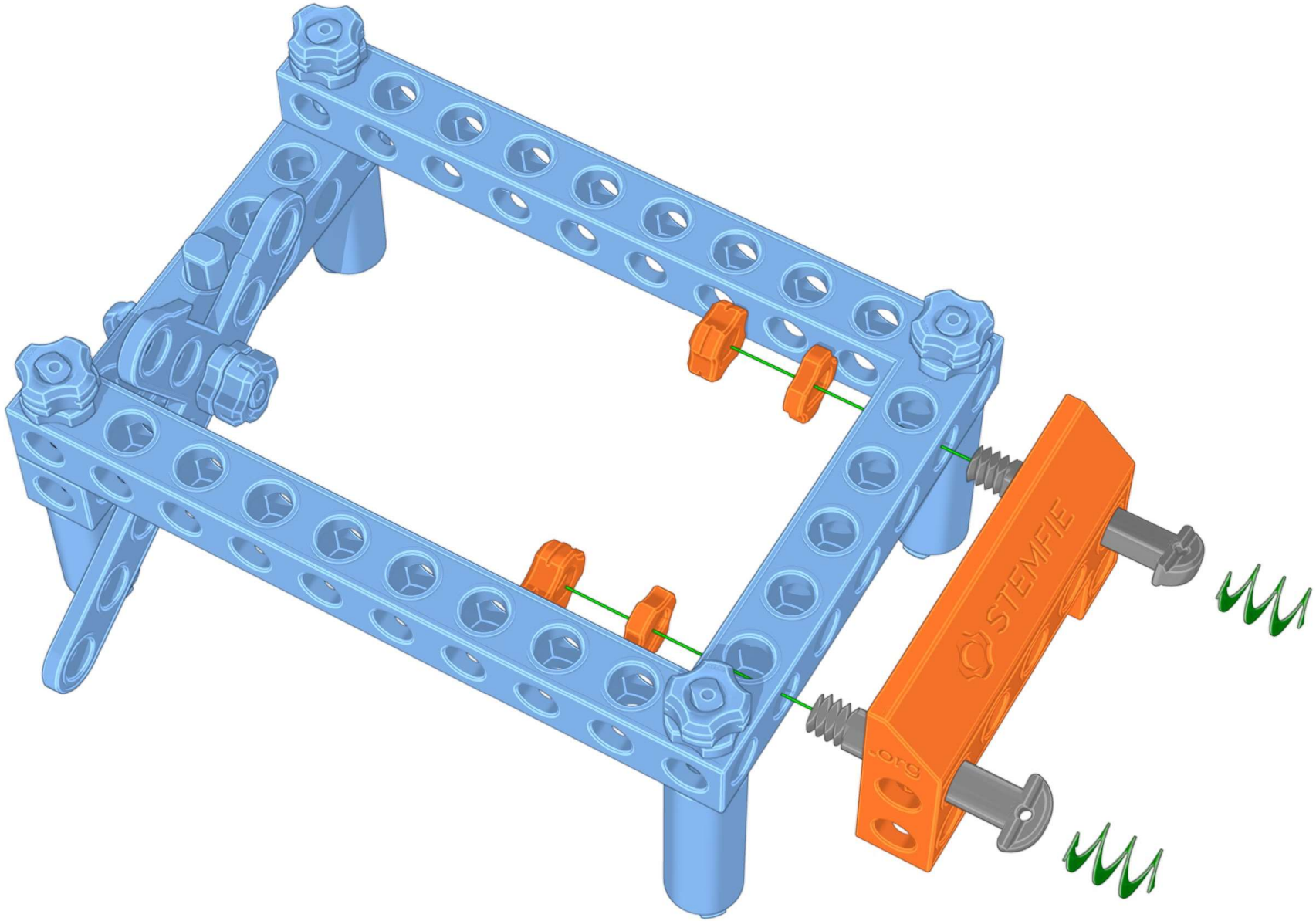
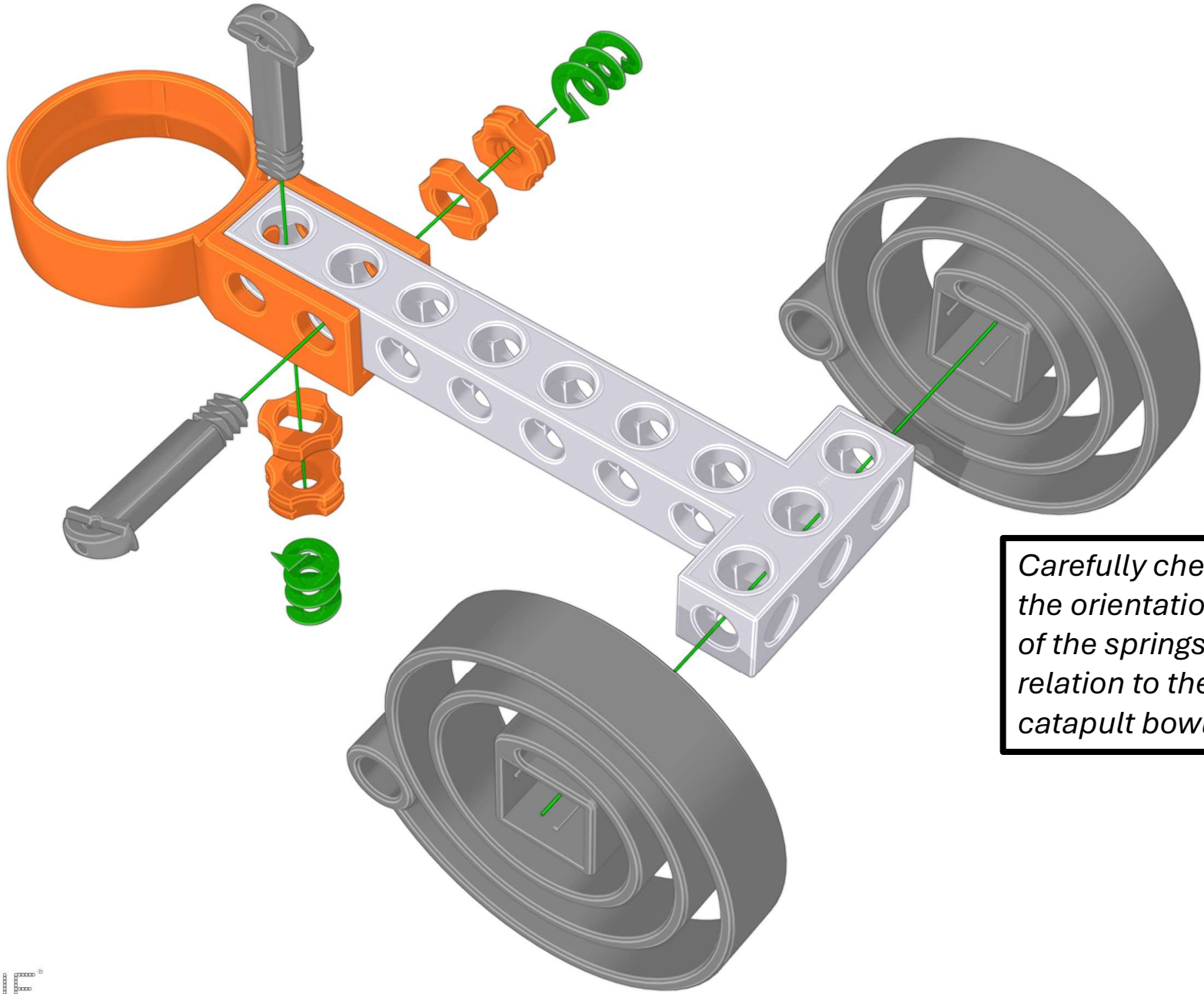
Step 3 – Front Plate Assembly

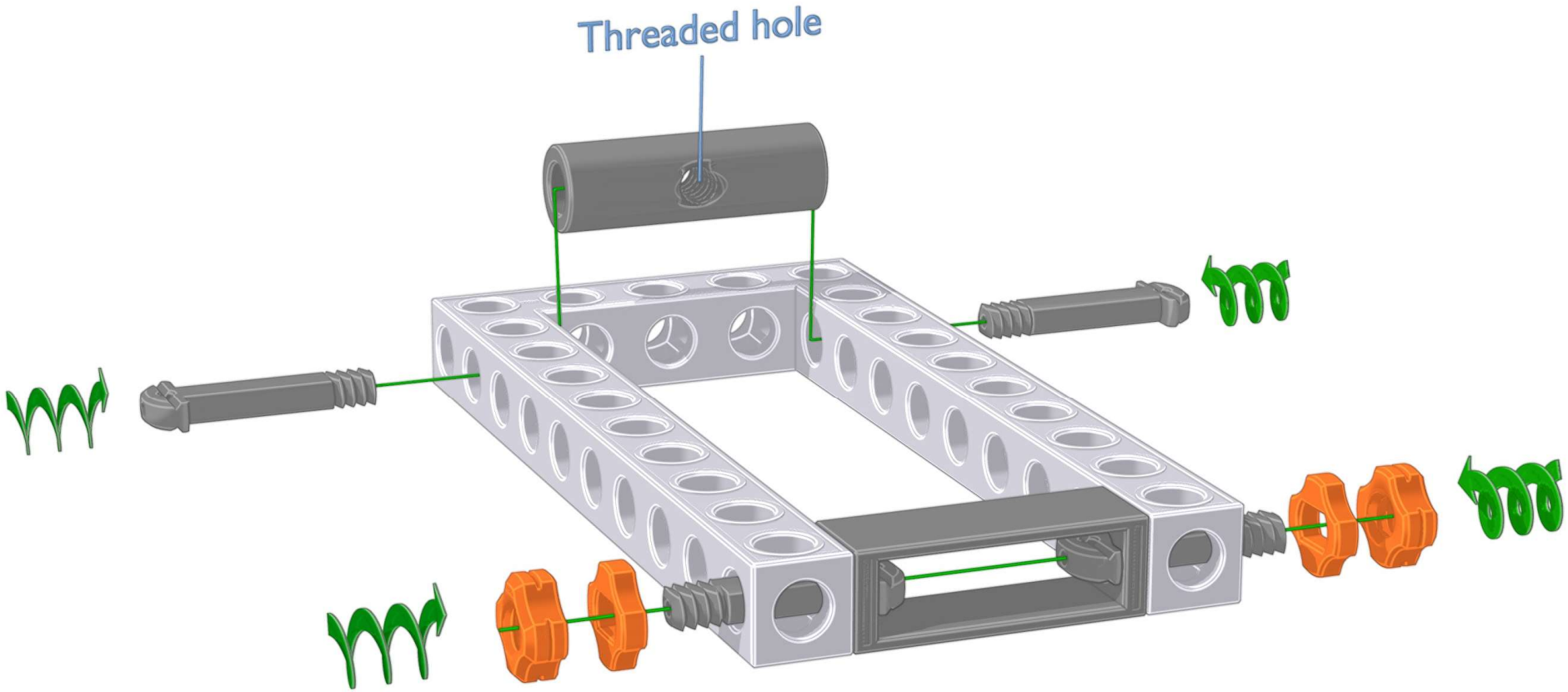


Step 4 – Catapult Arm Assembly

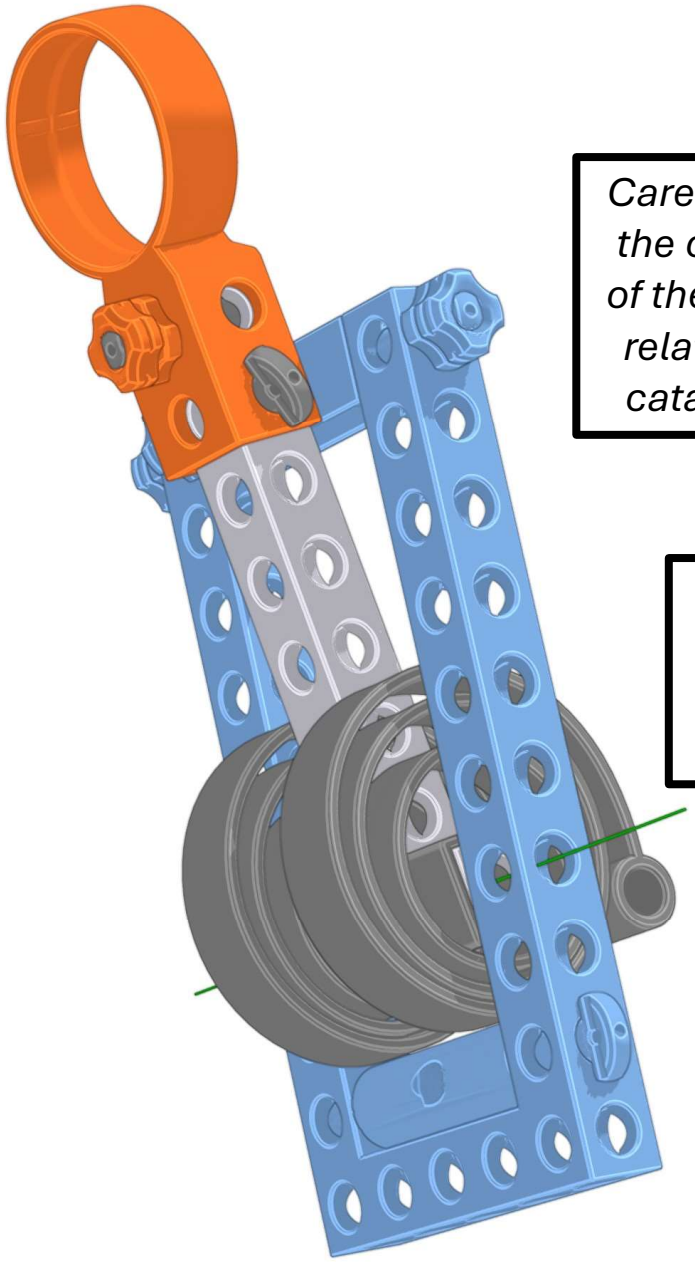


Carefully check the orientation of the springs in relation to the catapult bowl

Step 5 – Crossbar Assembly



Step 6 – Crossbar-Catapult Arm Preparation

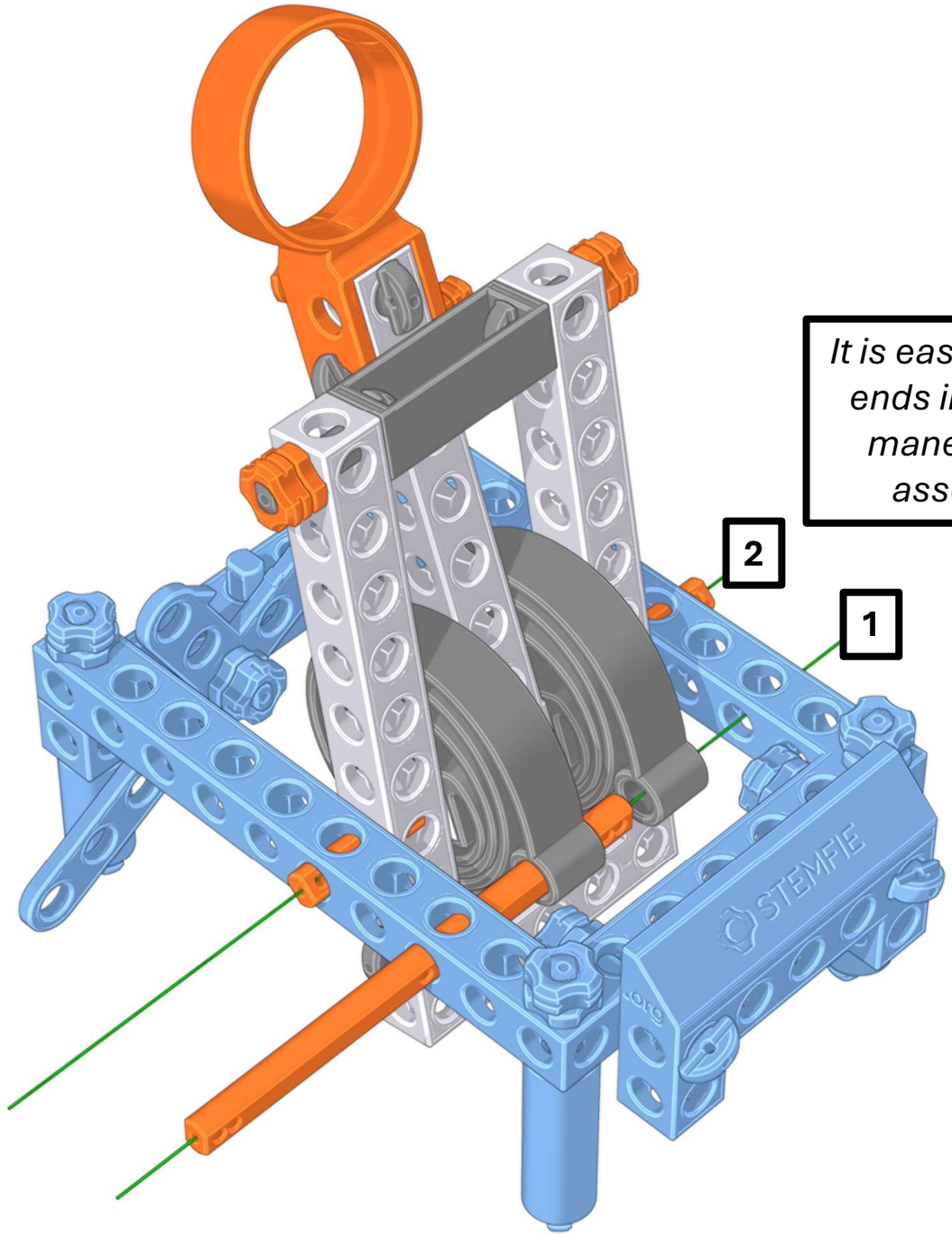


Carefully check the orientation of the springs in relation to the catapult bowl

The bowl should be on the opposite side of the crossbar assembly from the ends of the spring

You will need to partially compress the springs against the crossbar to align the catapult arm with the correct hole on the crossbar

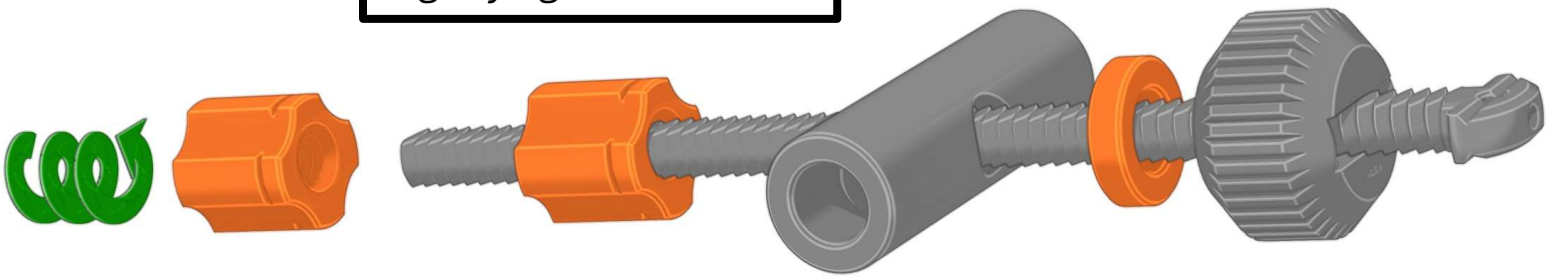
Step 7 – Connecting the body and mechanical components



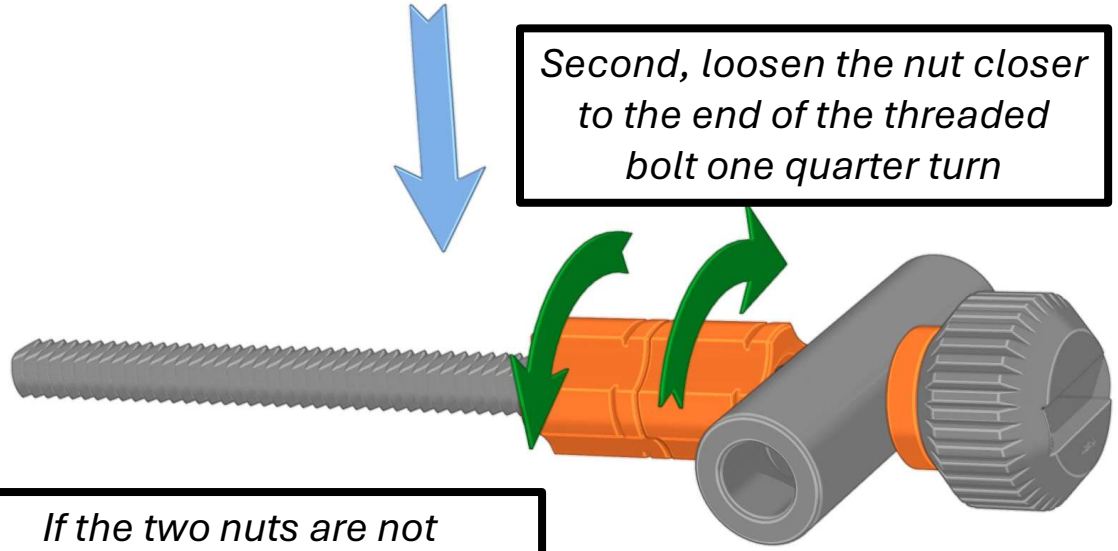
It is easier to lock the spring ends into place first, then maneuver the crossbar assembly into place

Step 8 – Crossbar Positioner Assembly

First, screw both nuts tightly against the axle

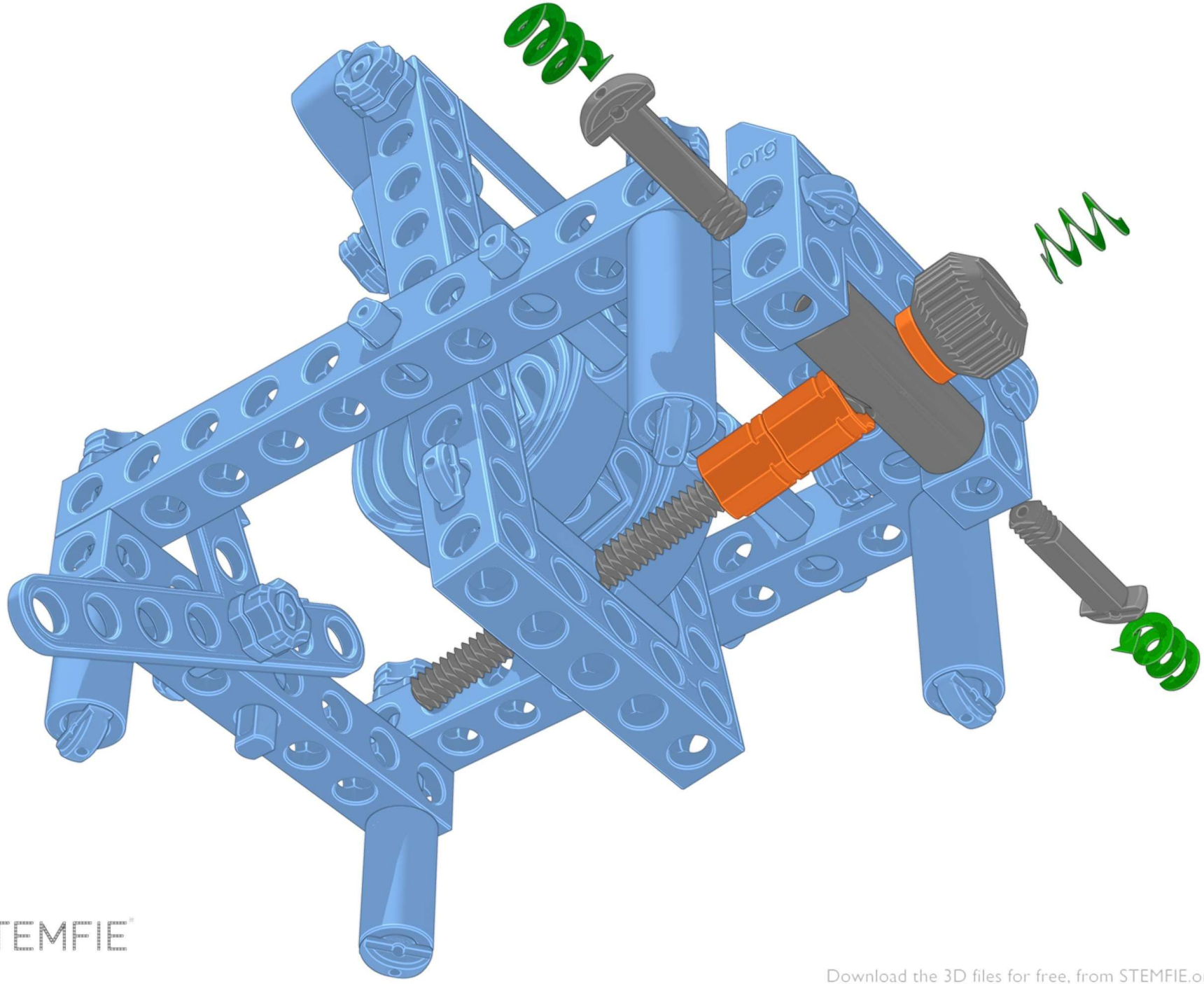


Second, loosen the nut closer to the end of the threaded bolt one quarter turn

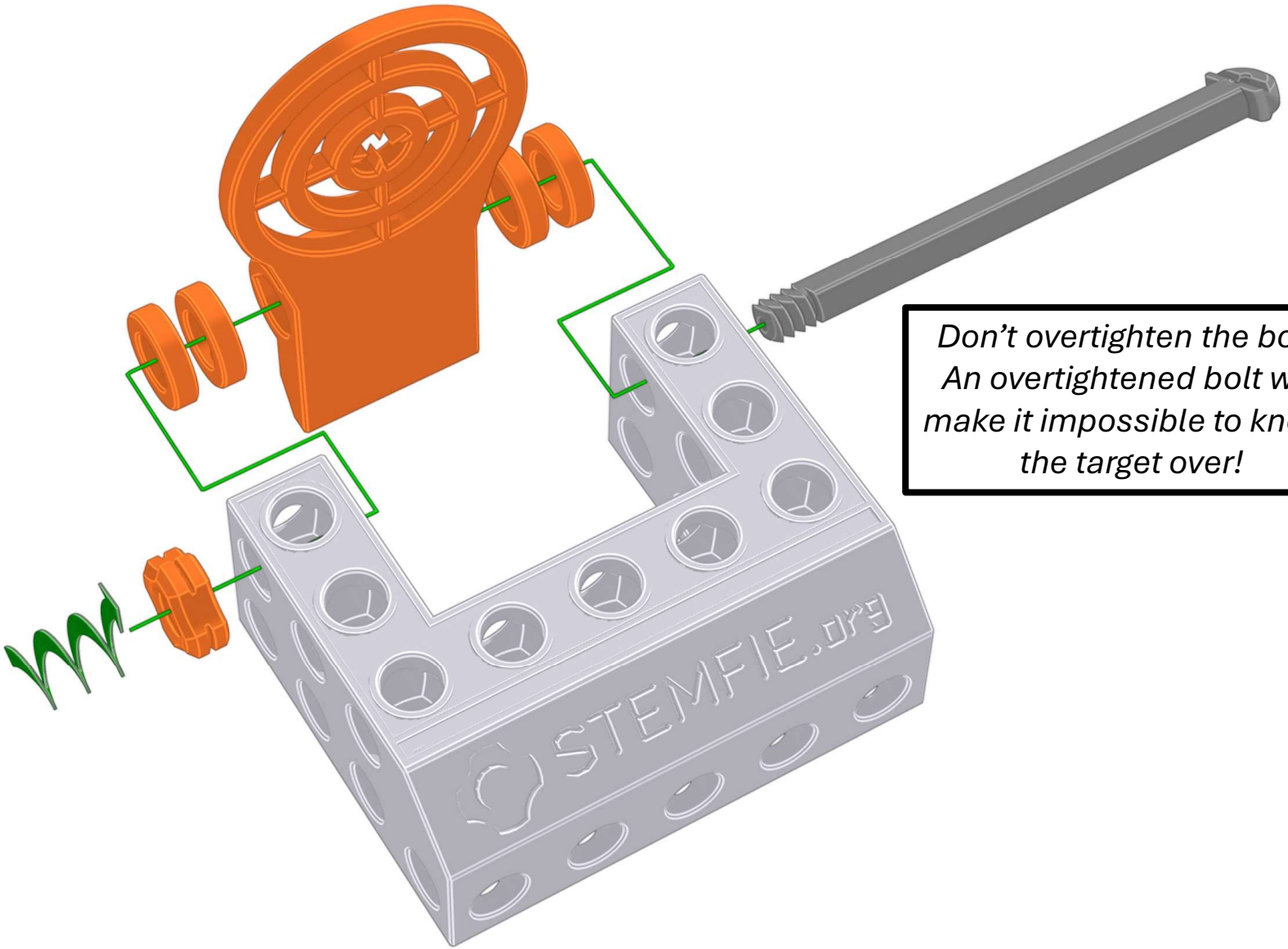


If the two nuts are not separated, the crossbar positioner will not work properly

Step 9 – Adding the Crossbar Positioner



Step 10 – Target Assembly

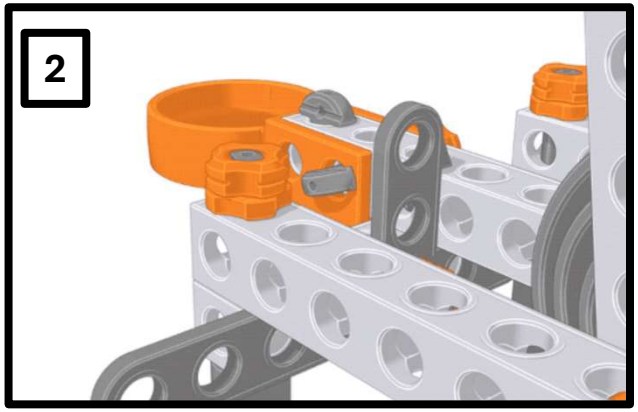


Don't overtighten the bolt! An overtightened bolt will make it impossible to knock the target over!

Operating the Catapult

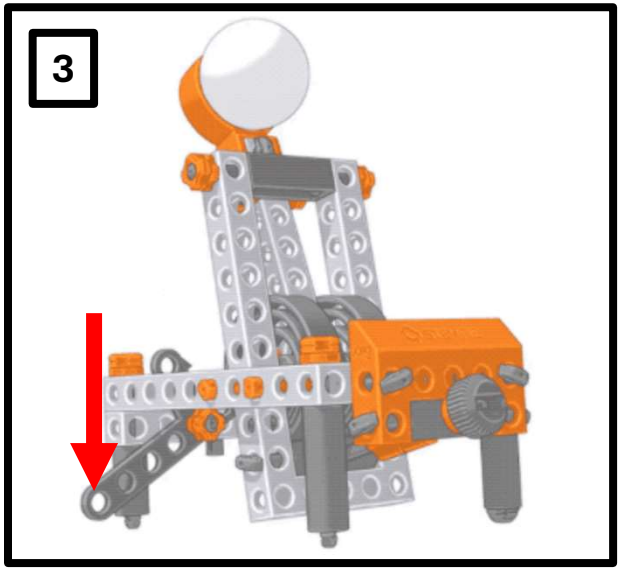
1

2



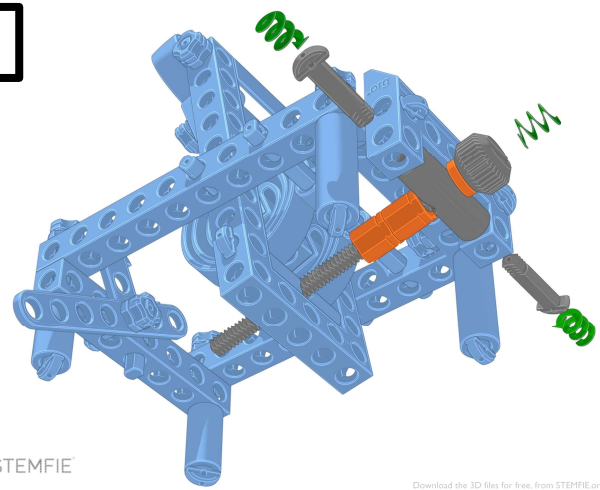
Hold the front orange part of the catapult and pull the catapult arm down towards the trigger

3



Press down on the trigger to launch the catapult! Watch your fingers!!

4



Experiment with the position of the crossbar by turning the crossbar positioner bolt

This will change how far the catapult arm rotates before releasing the ping-pong ball!