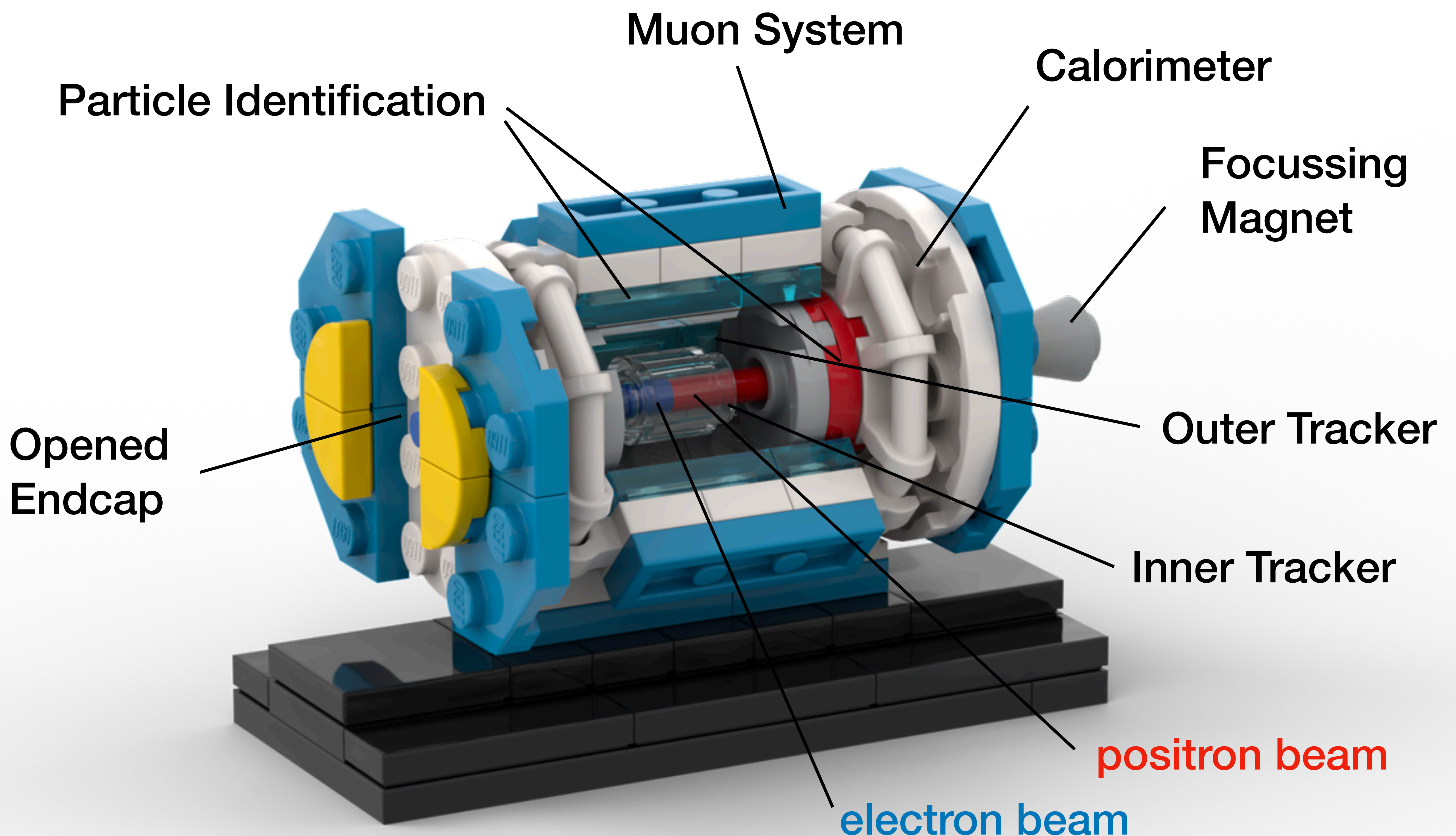


The Belle II Detector

Model design by Lea Reuter, Giacomo De Pietro and Moritz Bauer

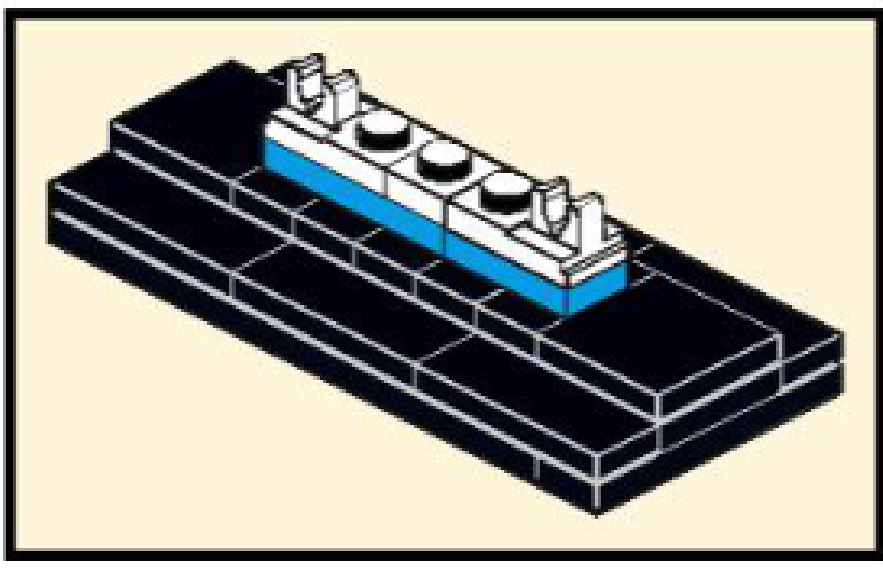


The Belle II experiment is an upgrade of the B-factory experiment Belle at the asymmetric electron-positron collider SuperKEKB in Tsukuba, Japan. More than 1000 physicists of the Belle II Collaboration at over 100 institutes around the globe are using the experiment to find answers about the nature of dark matter or the matter-anti-matter asymmetry of our universe.

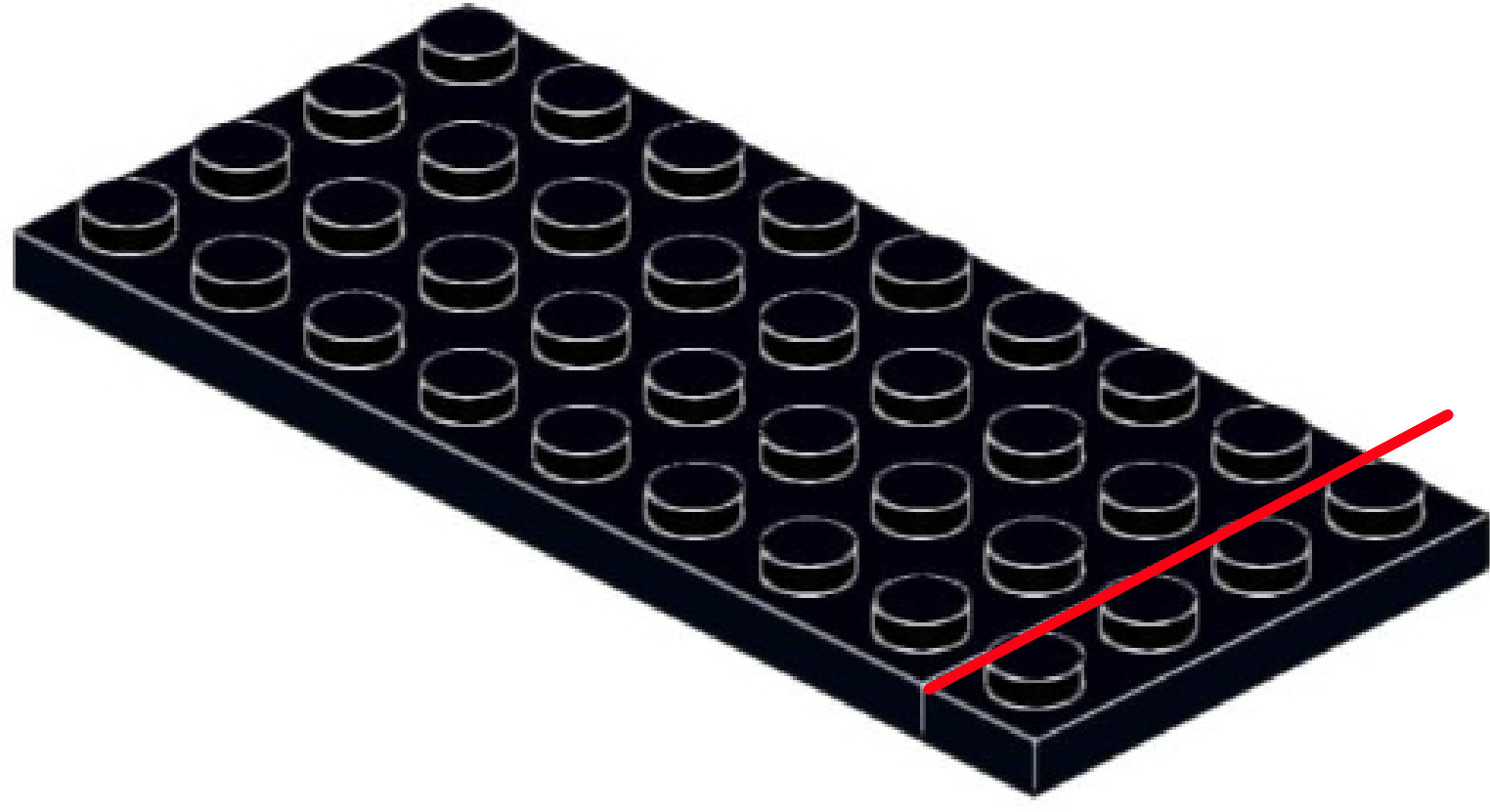
The detector is about 10m long and 8m tall. The inner tracker consists of pixels and strips of silicon detectors to record the paths of charged particles with a precision better than the width of a human hair. It is surrounded by a gas filled outer tracker that measures the curvature of charged particles in a strong solenoid field. Two dedicated particle identification detectors, a transparent detector called TOP in the barrel part and a Cherenkov detector in the forward direction, help to distinguish different particle species. The tracking and PID detectors are completely surrounded by an electromagnetic calorimeter that measures the energy of photons and electrons by converting their kinetic energy into visible light. The muon system, which is also acting as the return yoke of the solenoid magnet, catches the only particles that travel that far: Muons, the heavier versions of the well known electrons.

To provide the highest intensity electron-positron collisions in the world, SuperKEKB is using very large focussing magnets very close to the detector.

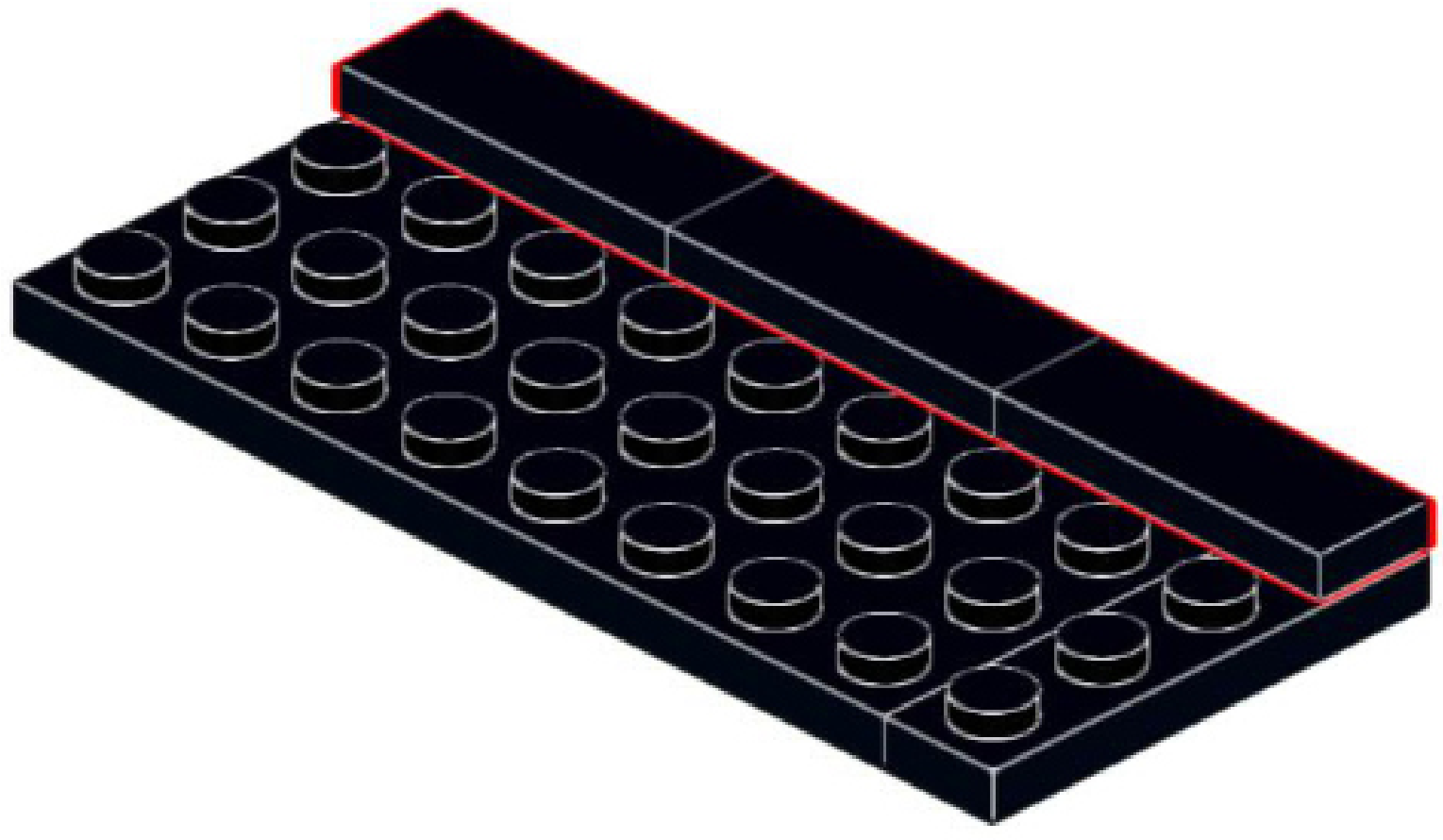
More information: www.belle2.de



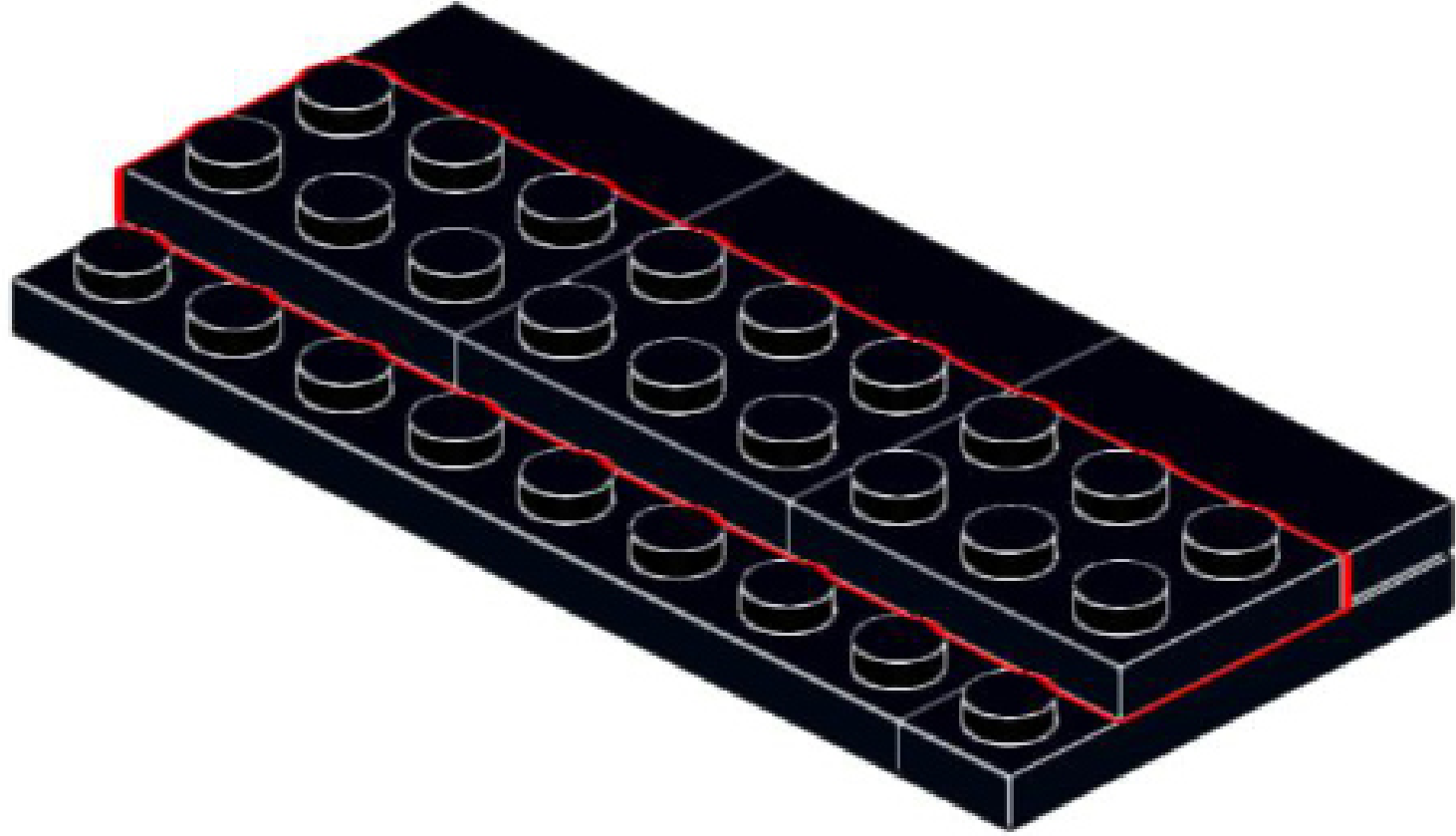
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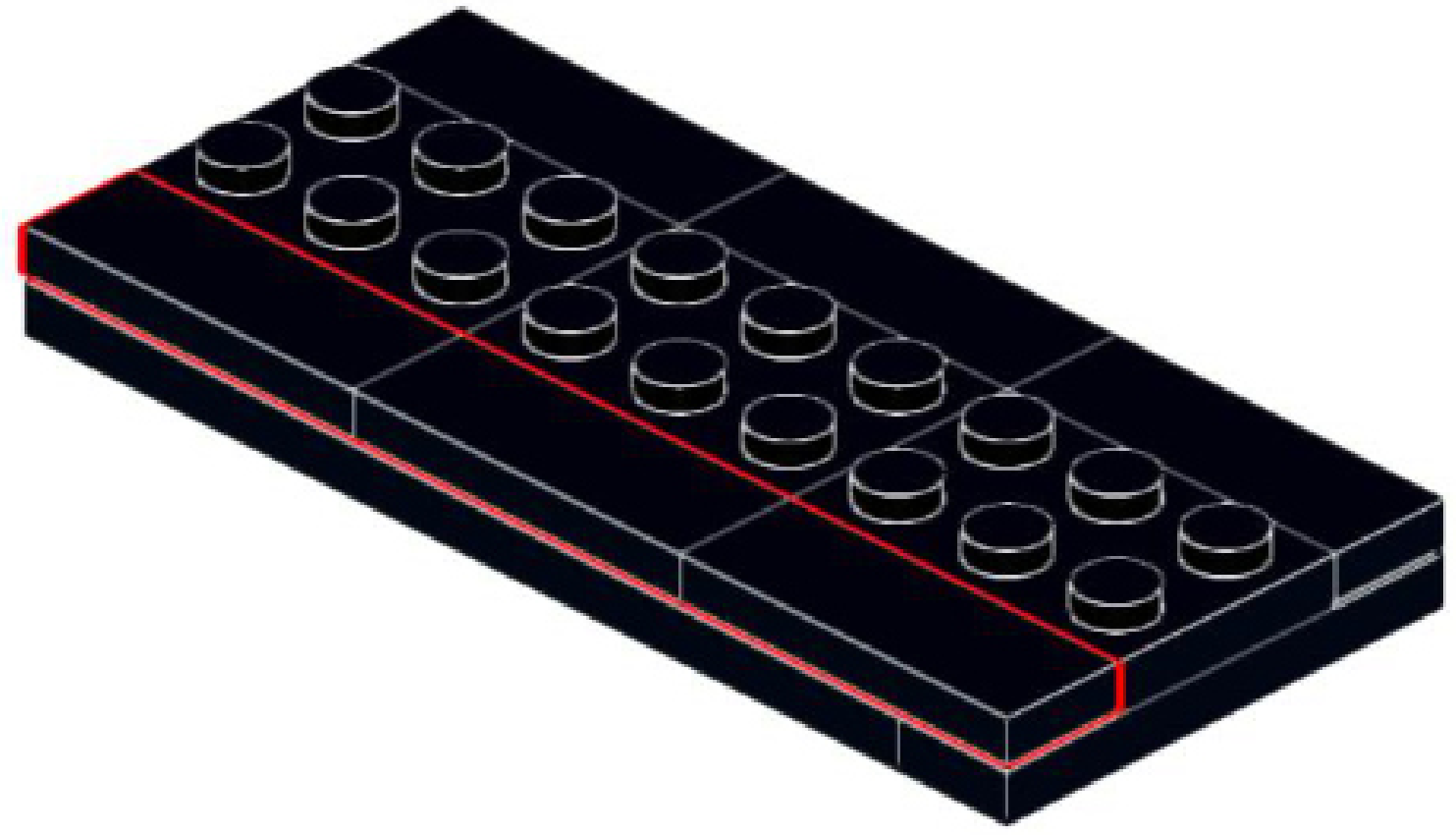
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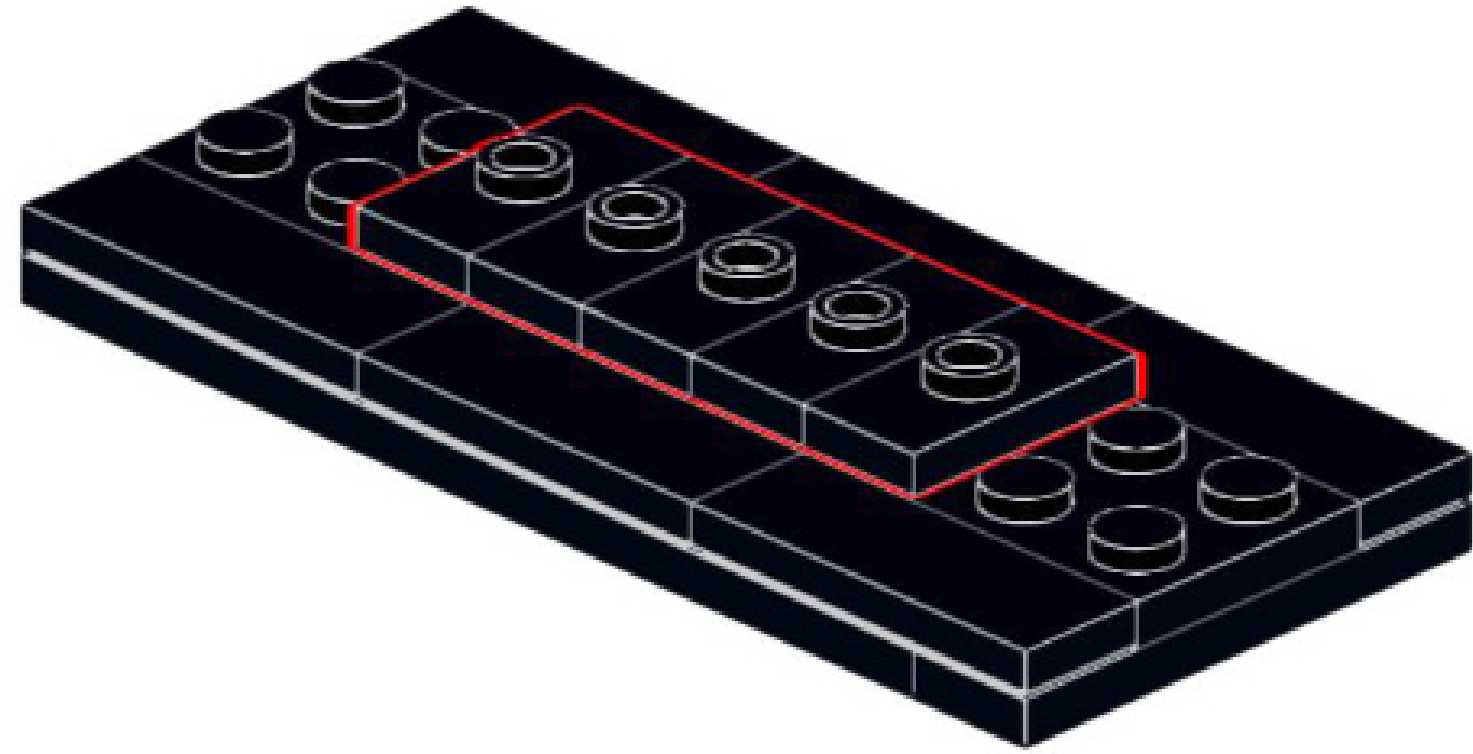
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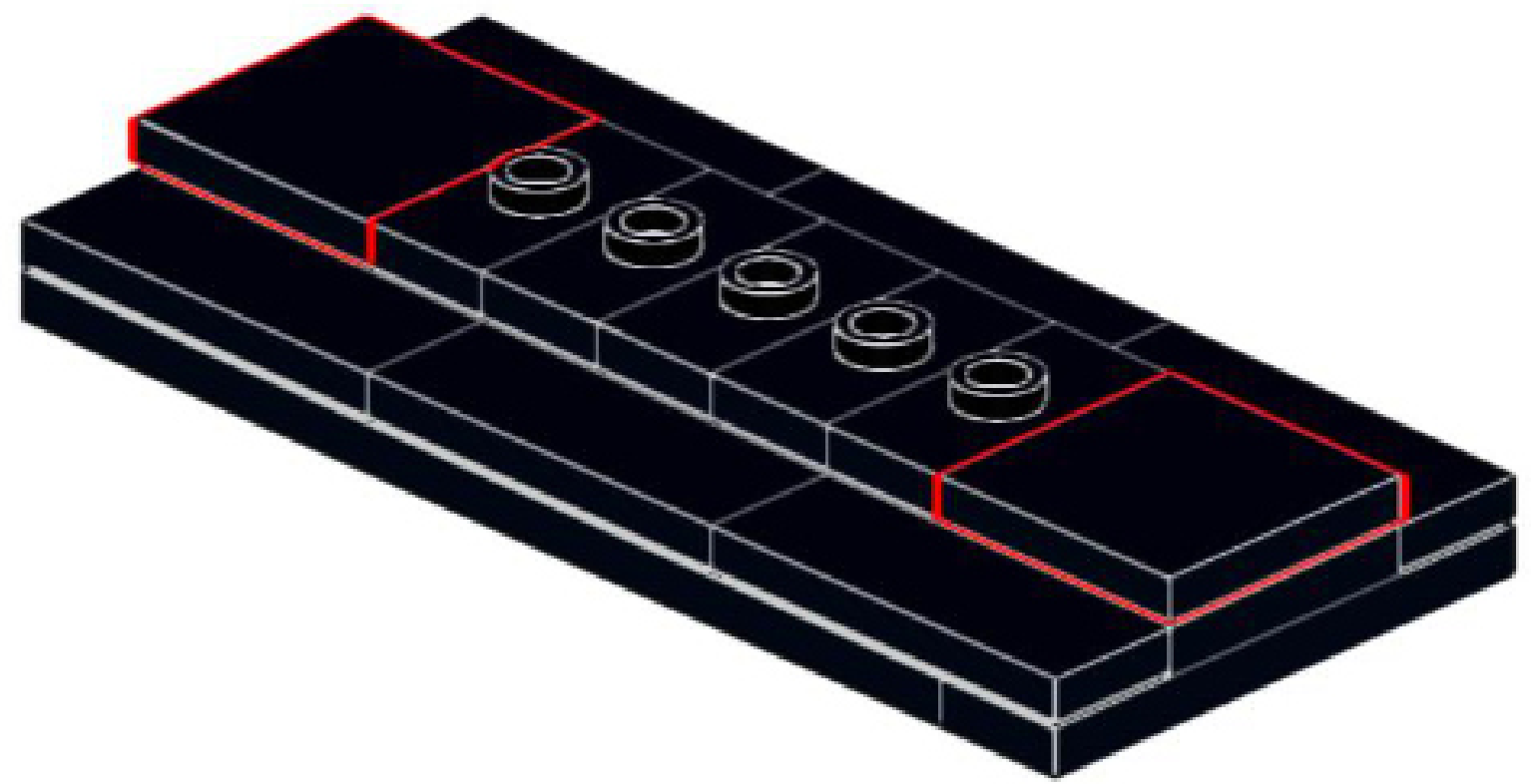
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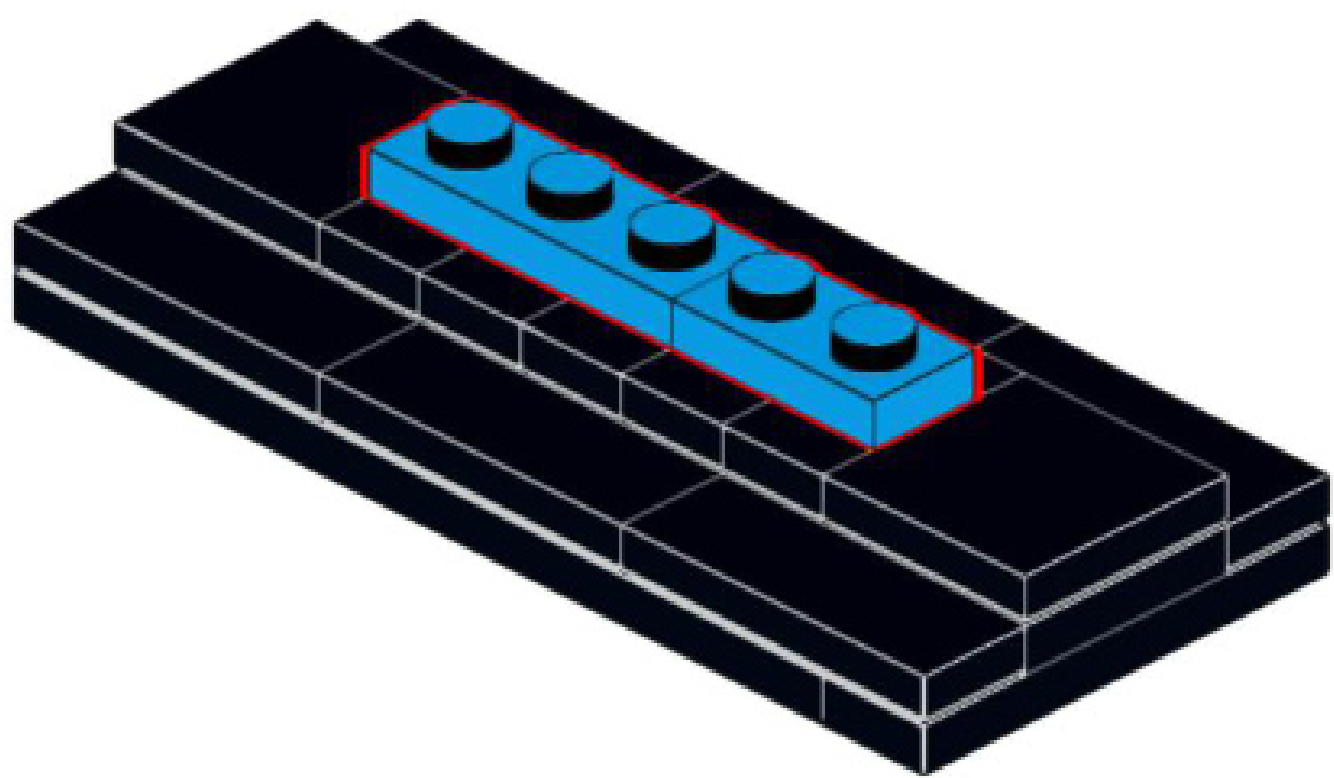
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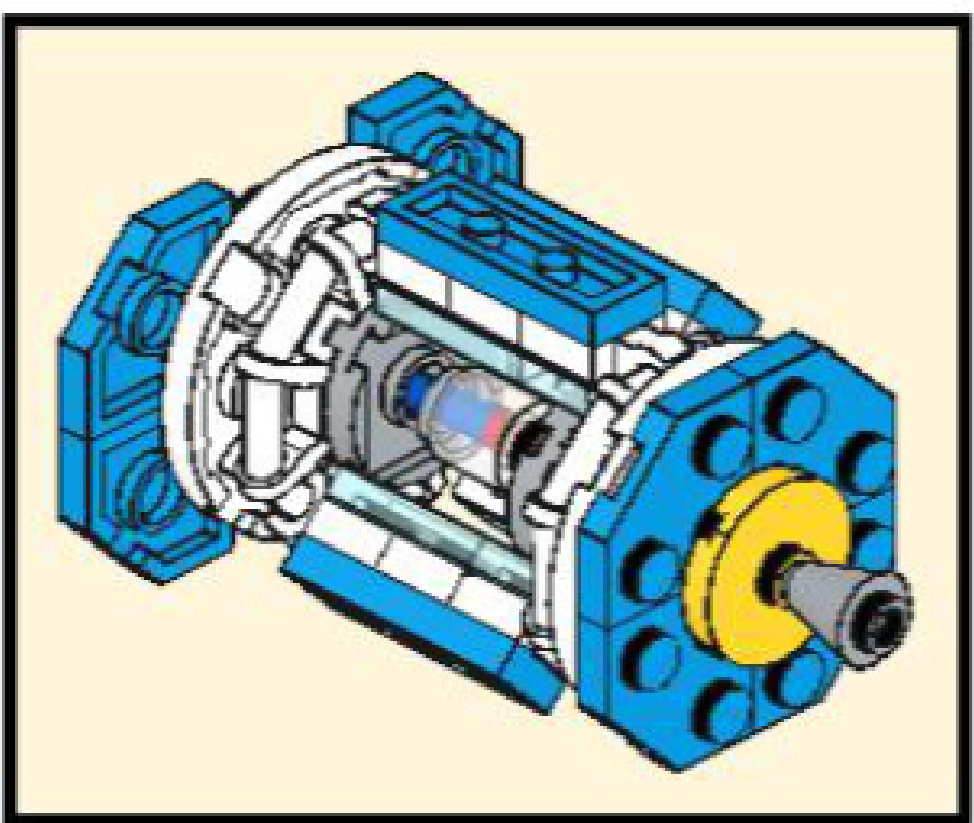
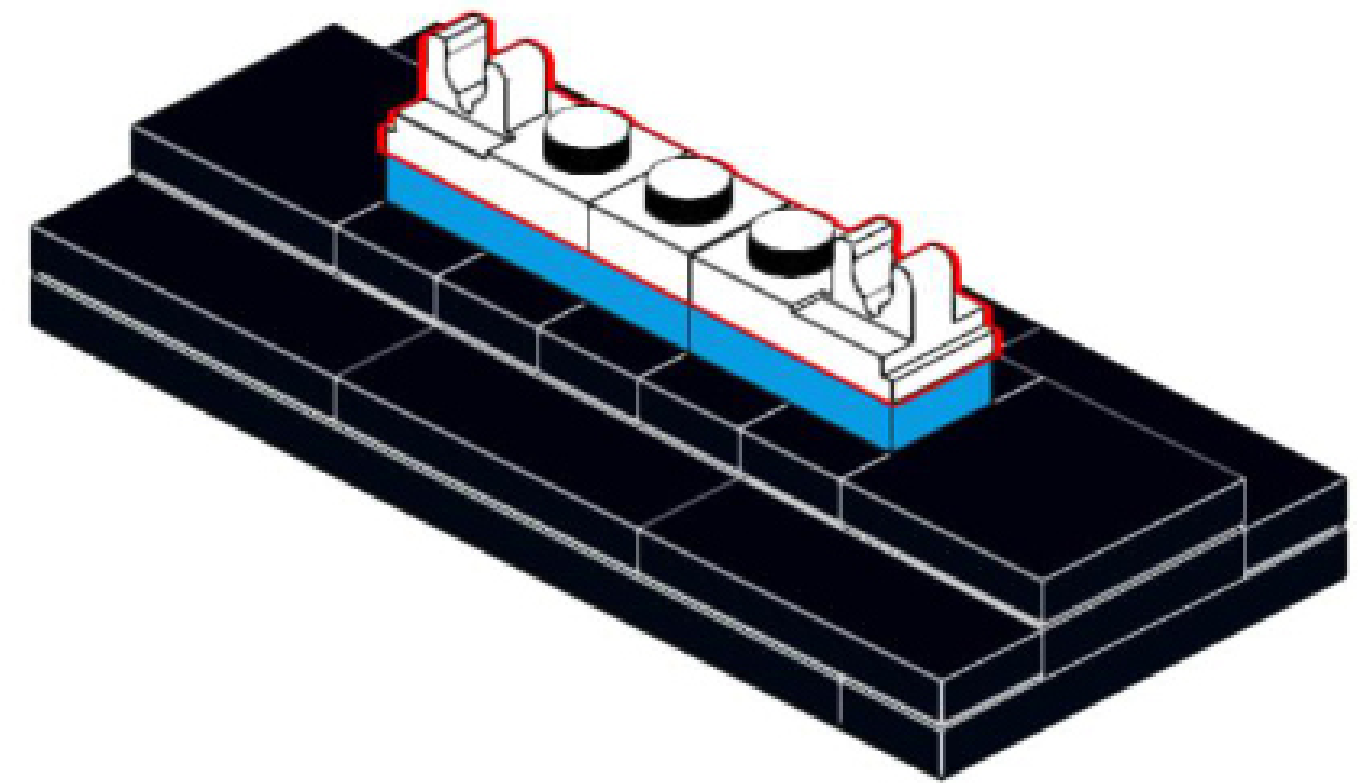
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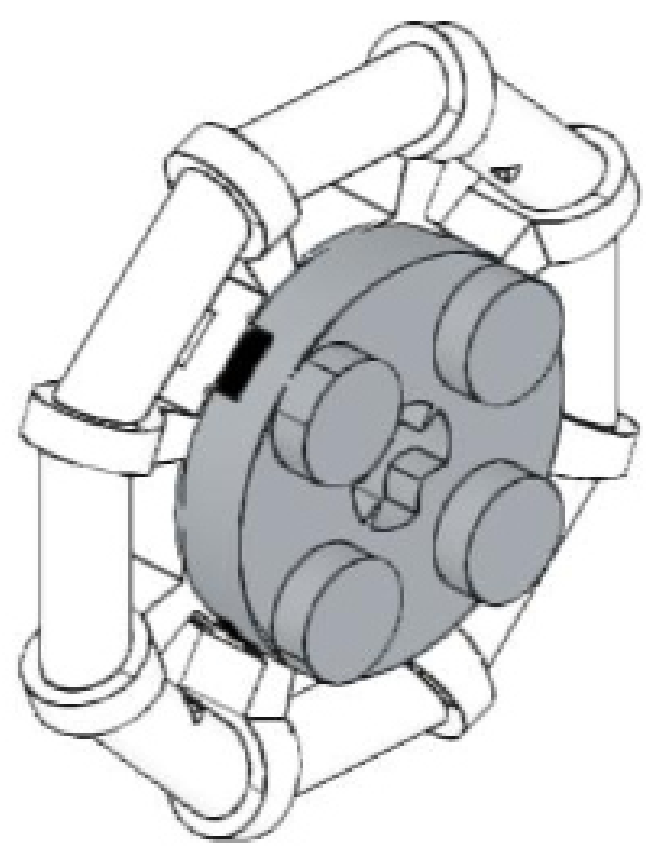
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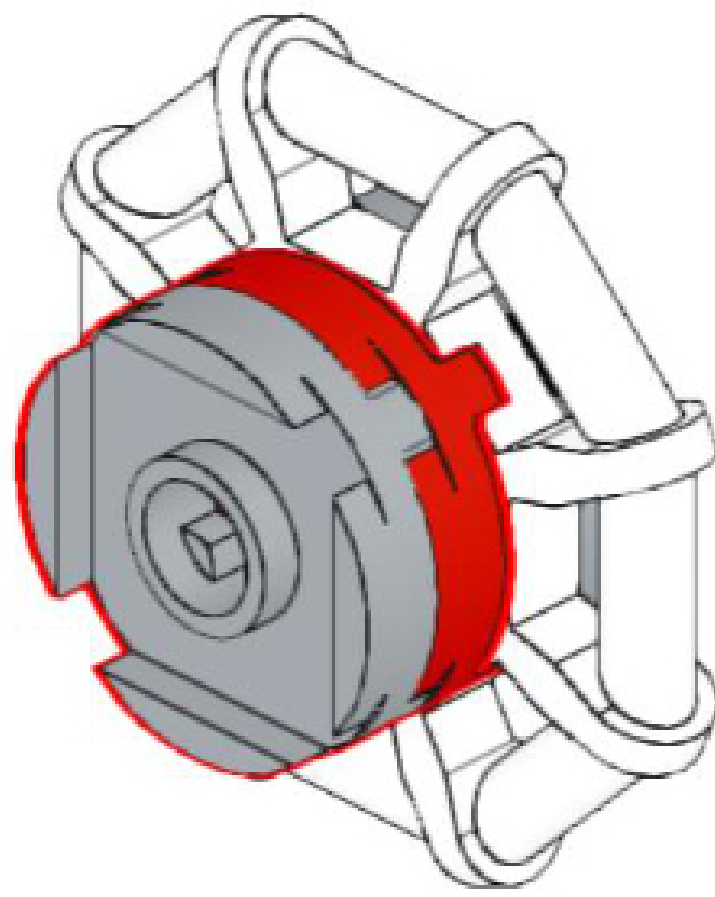
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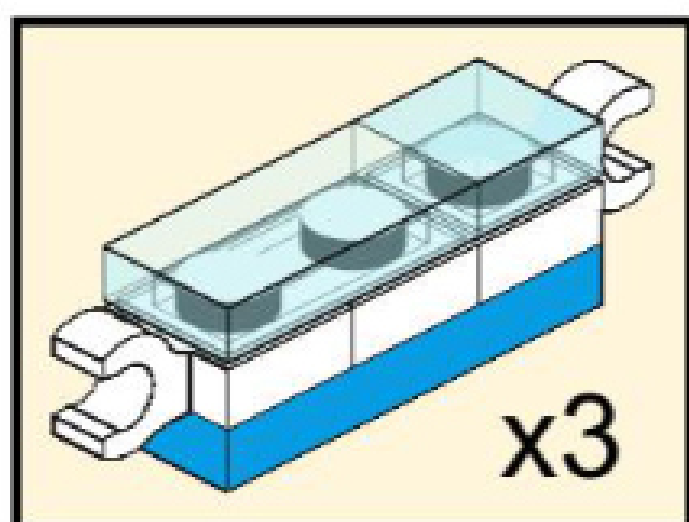
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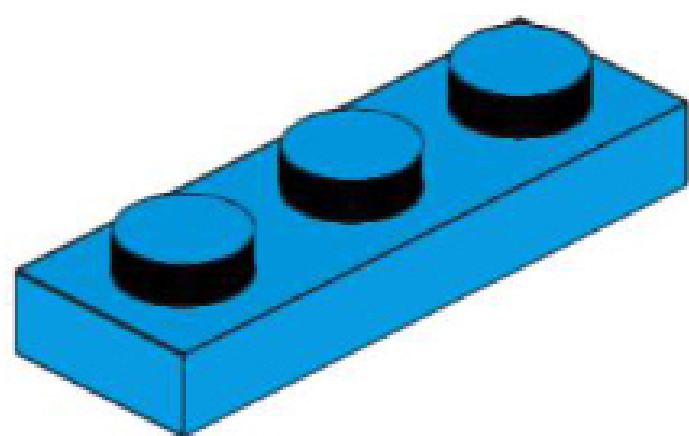
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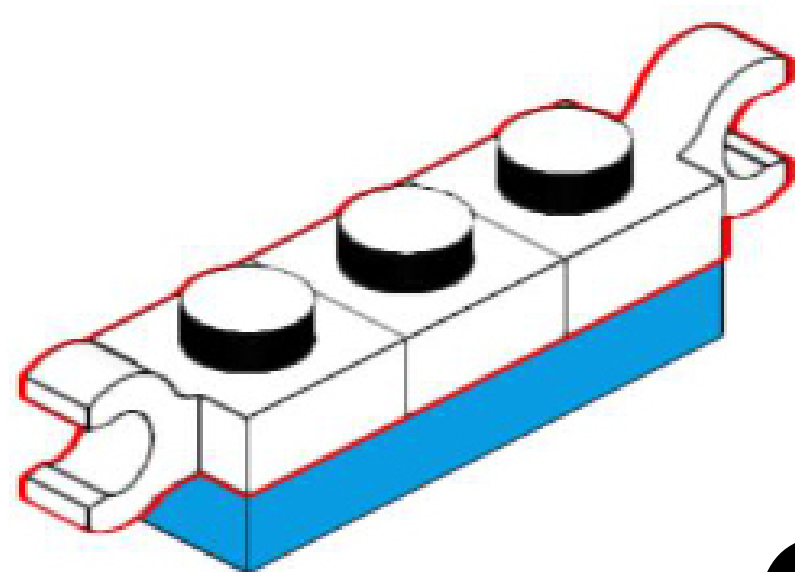
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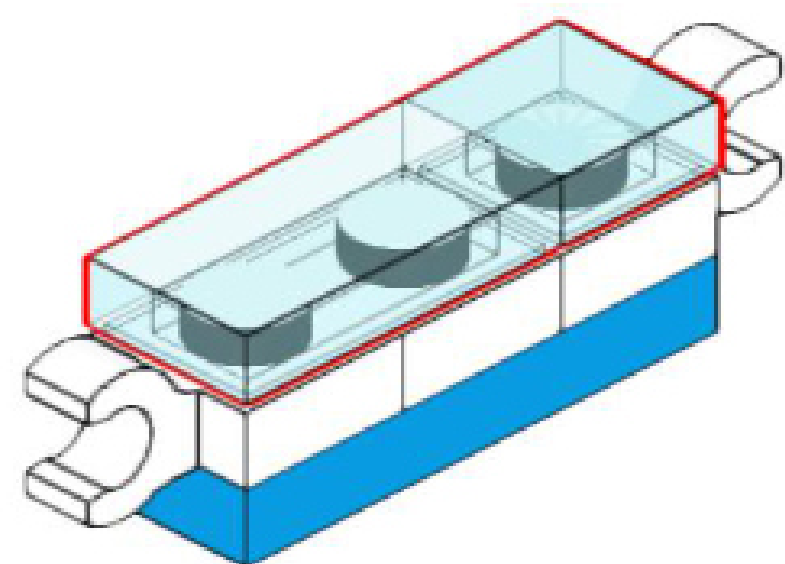
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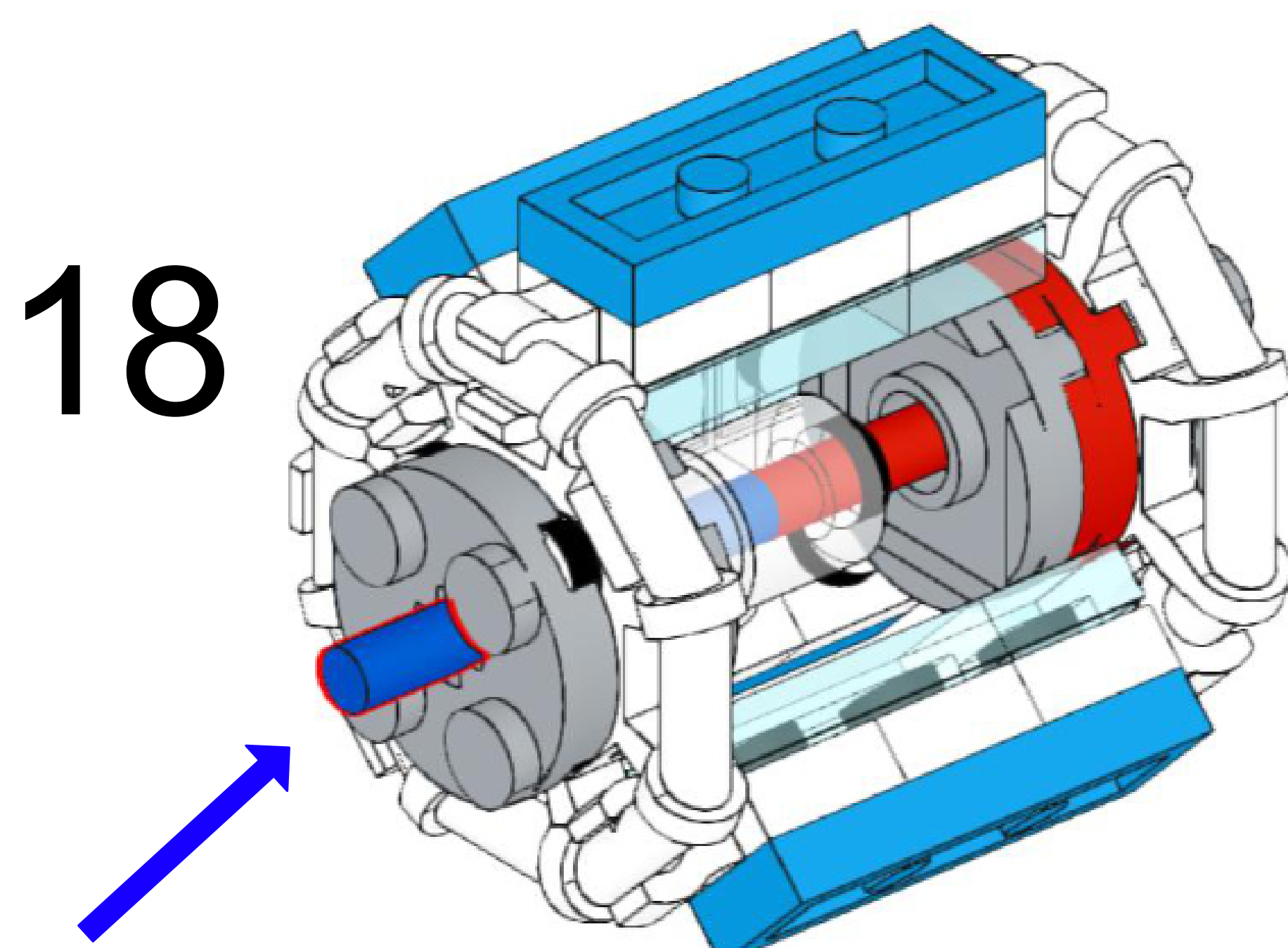
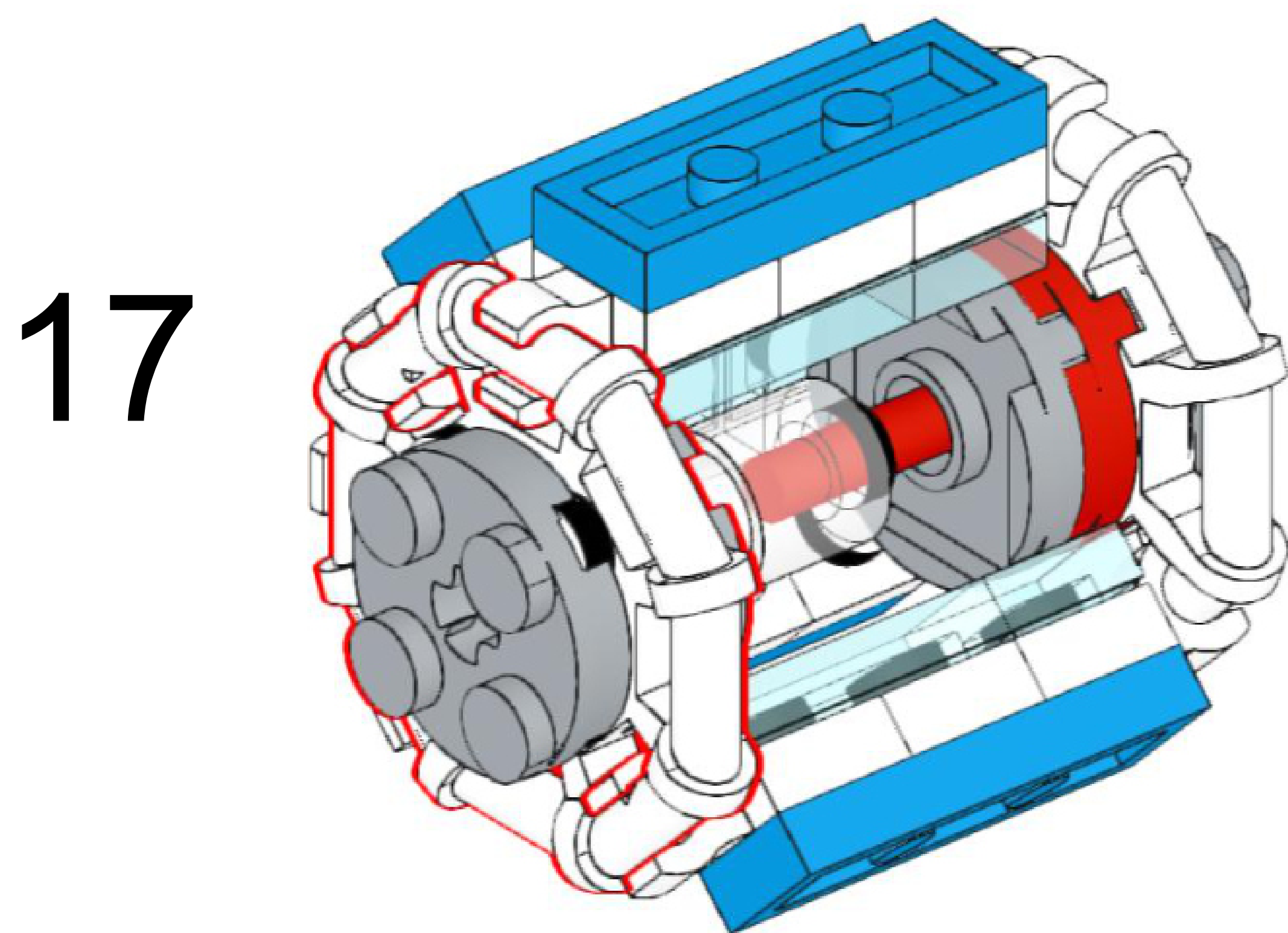
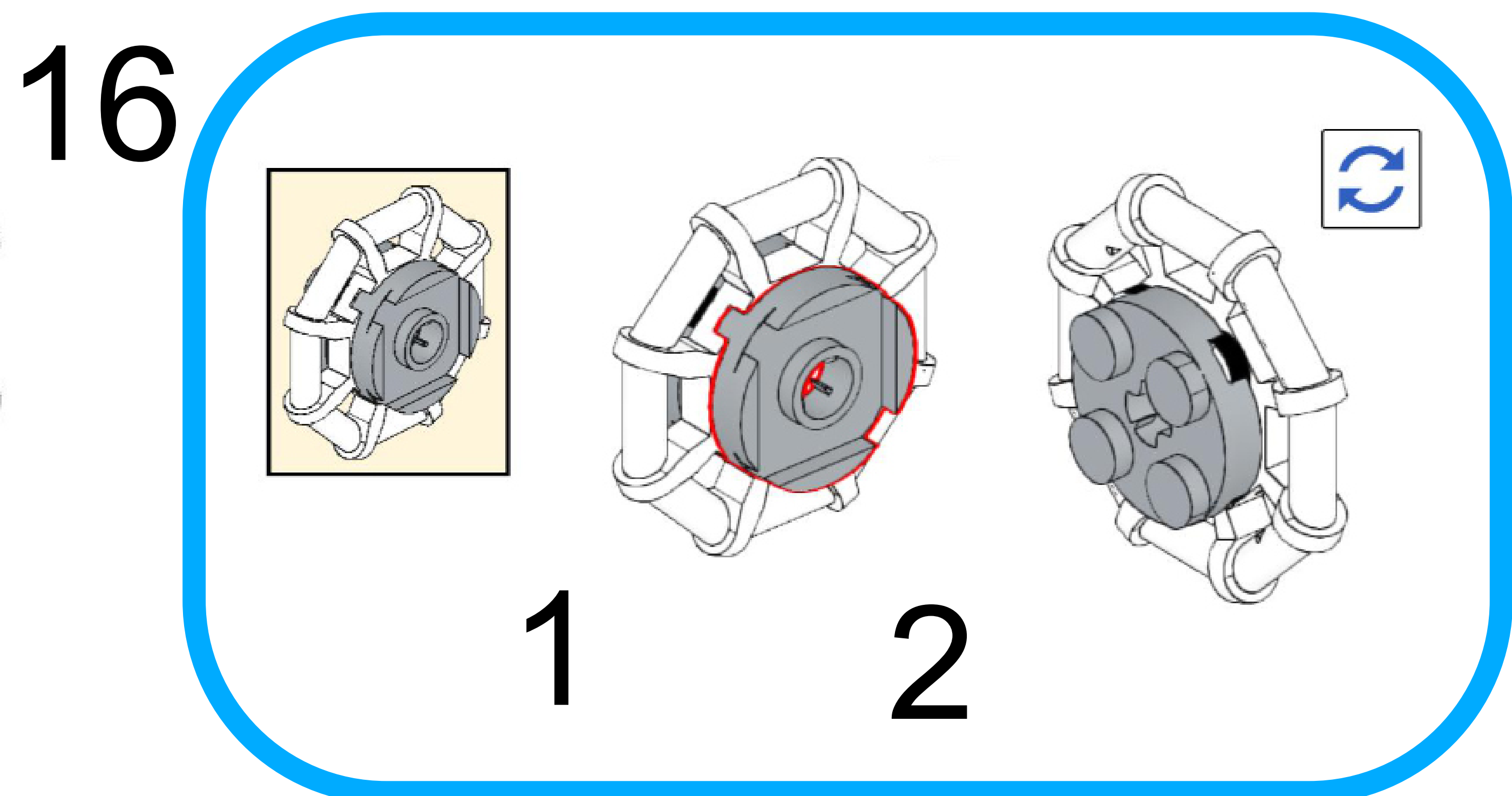
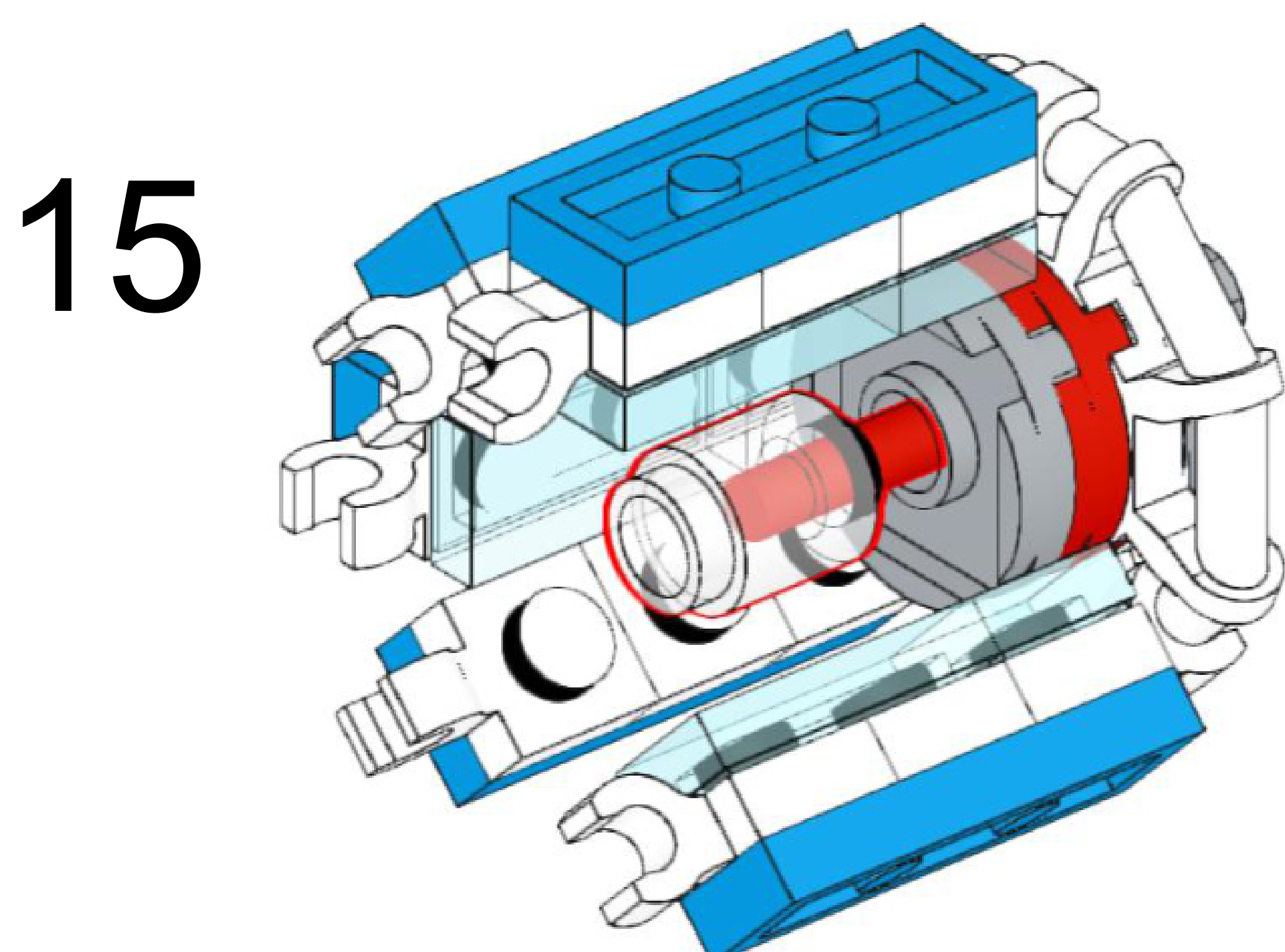
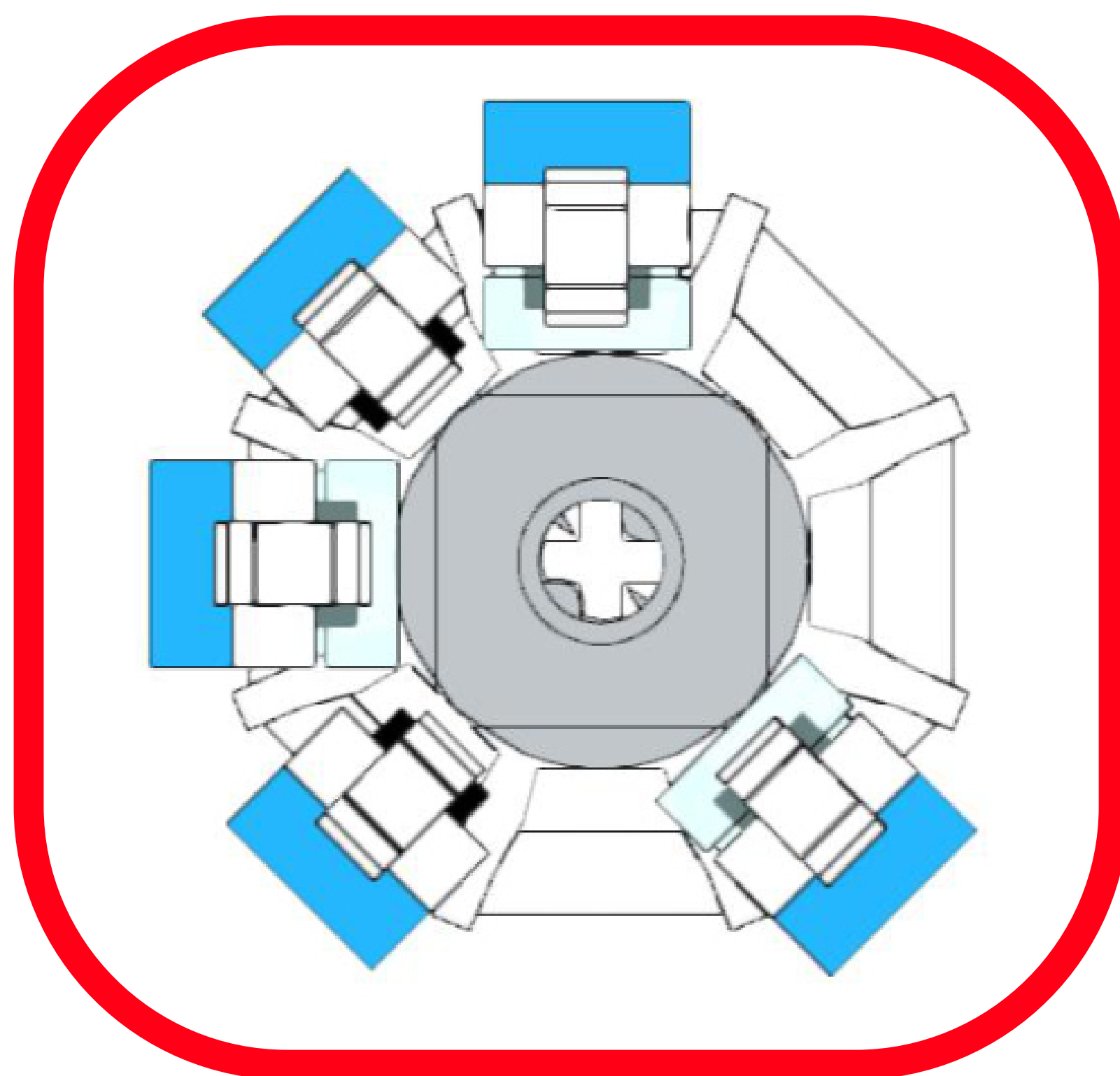
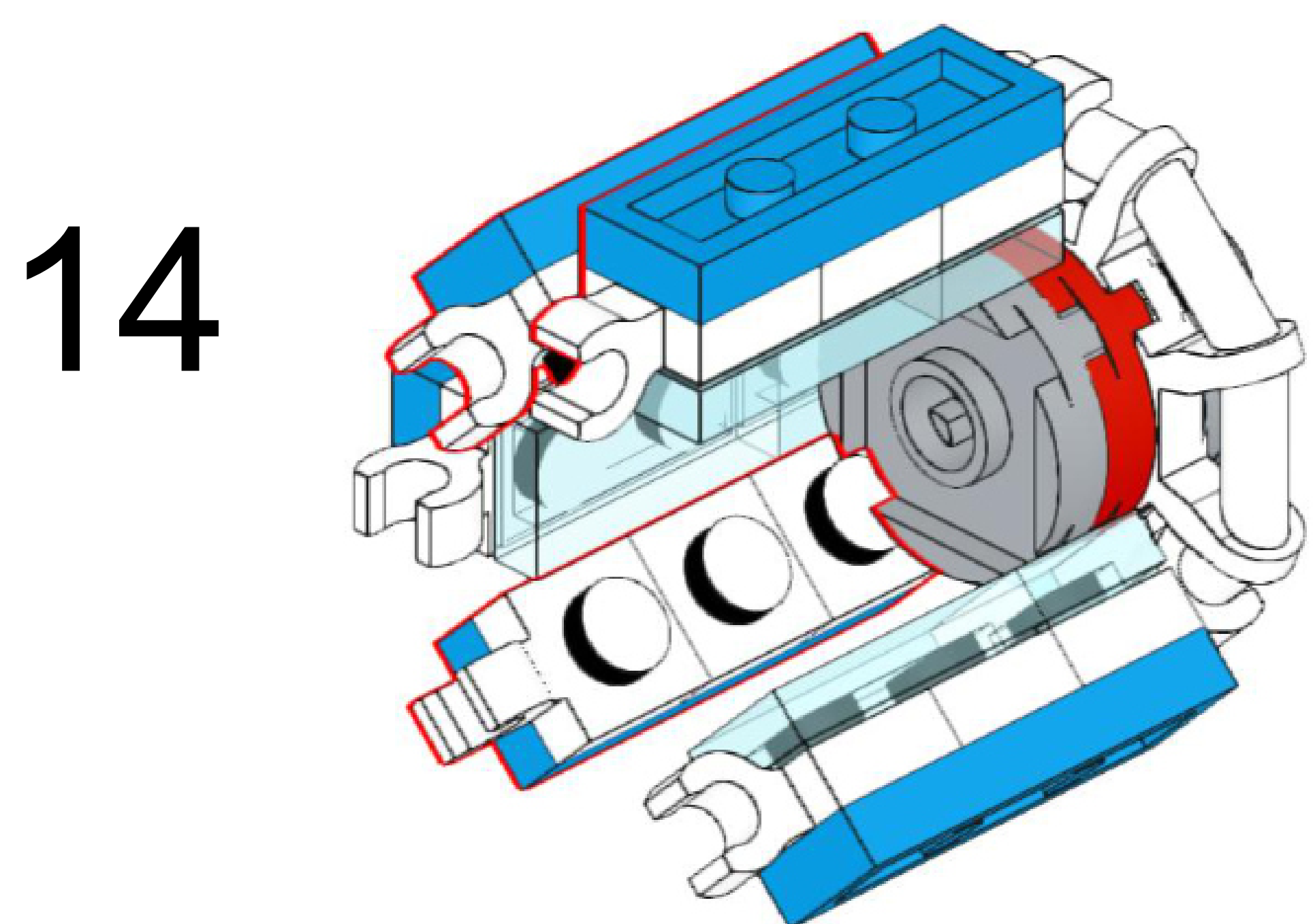
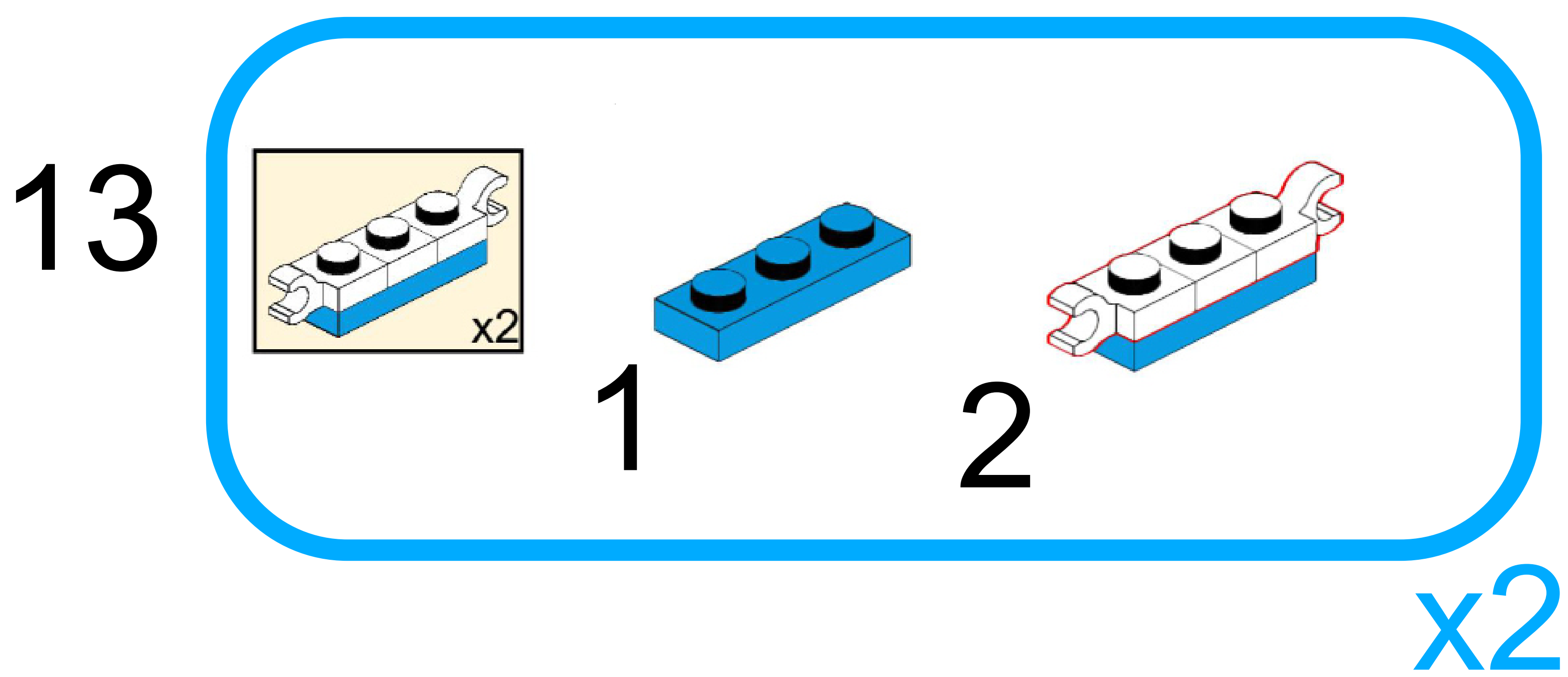
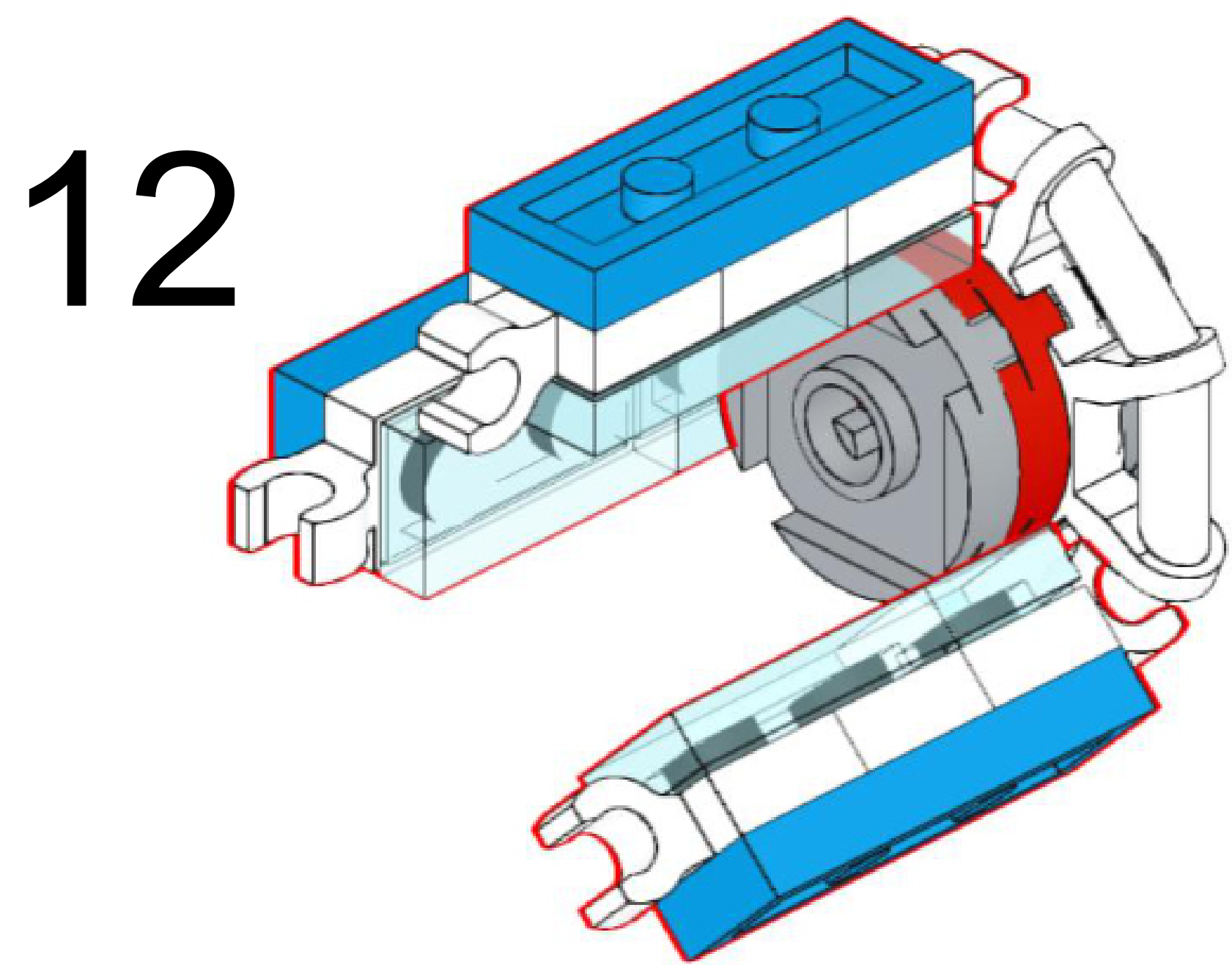
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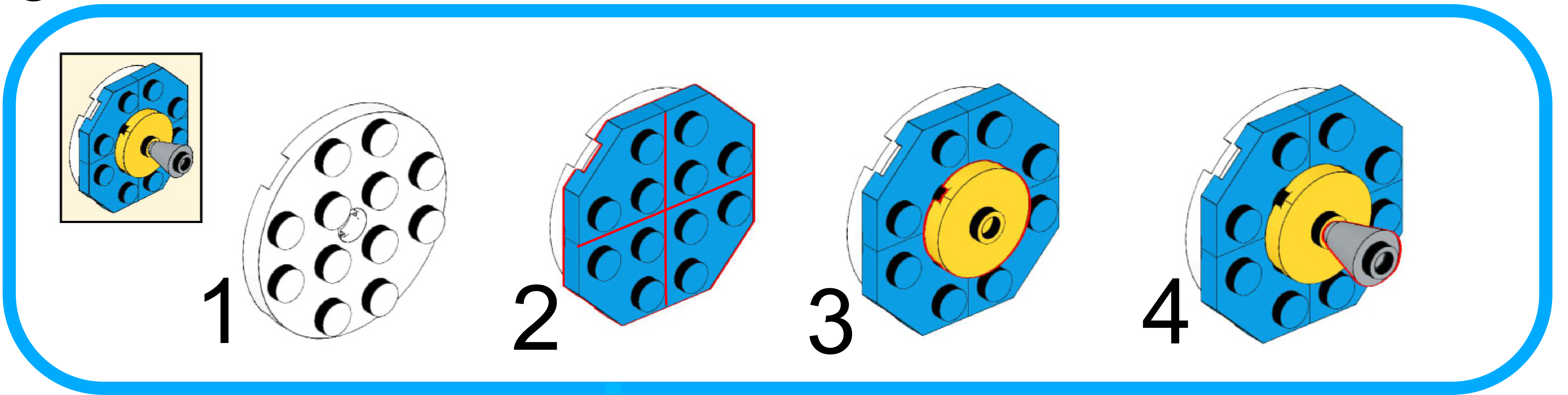
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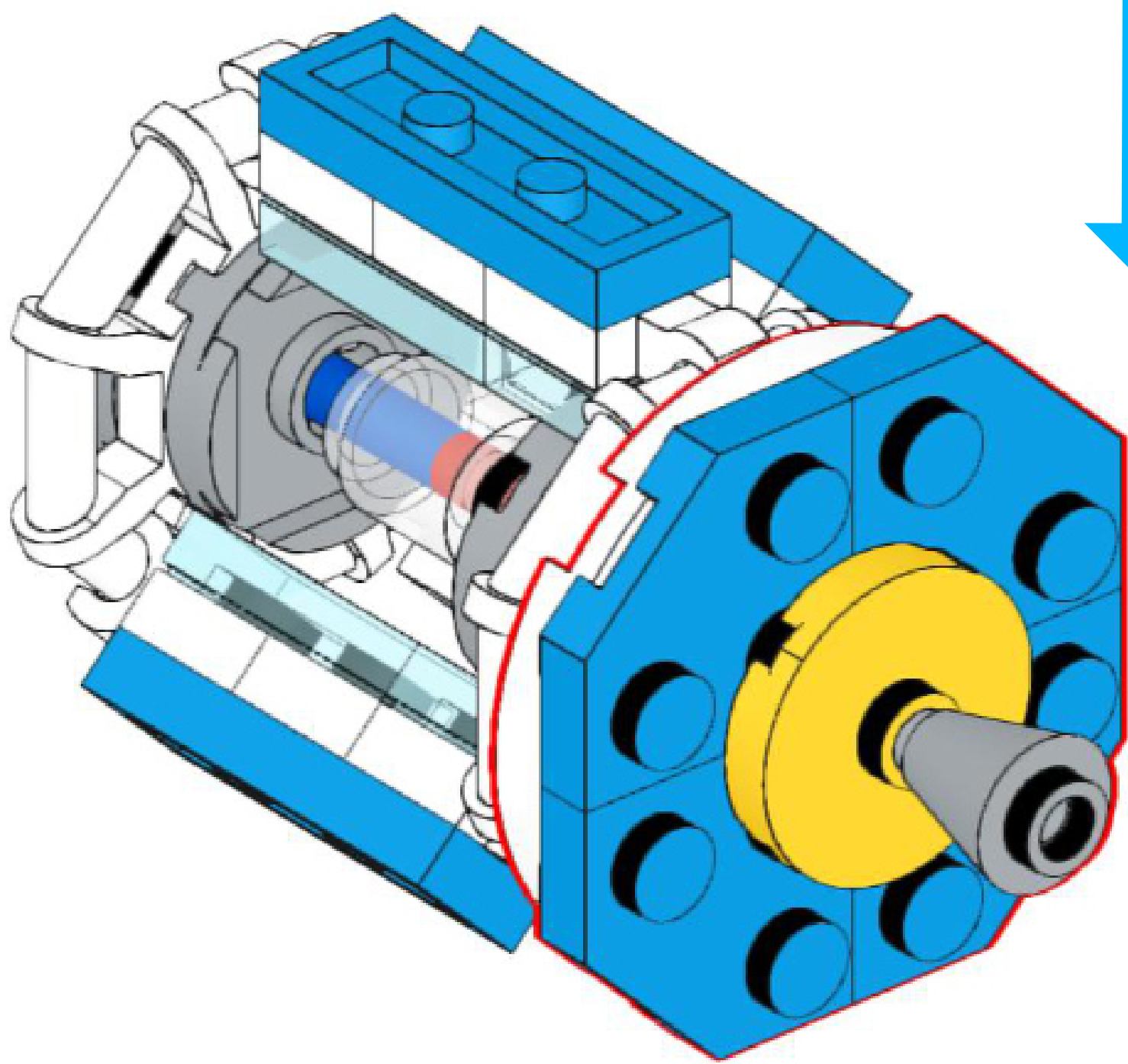
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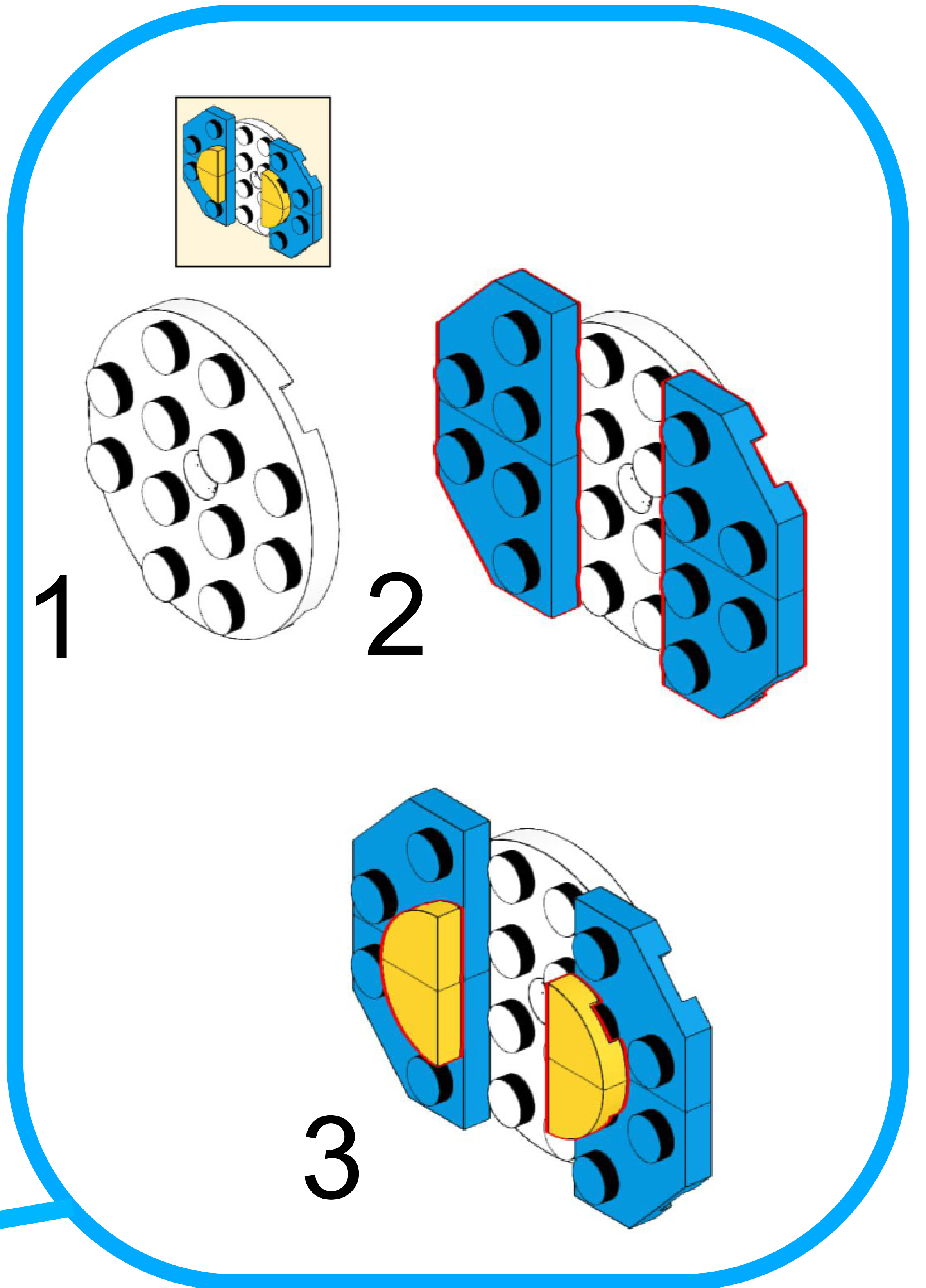
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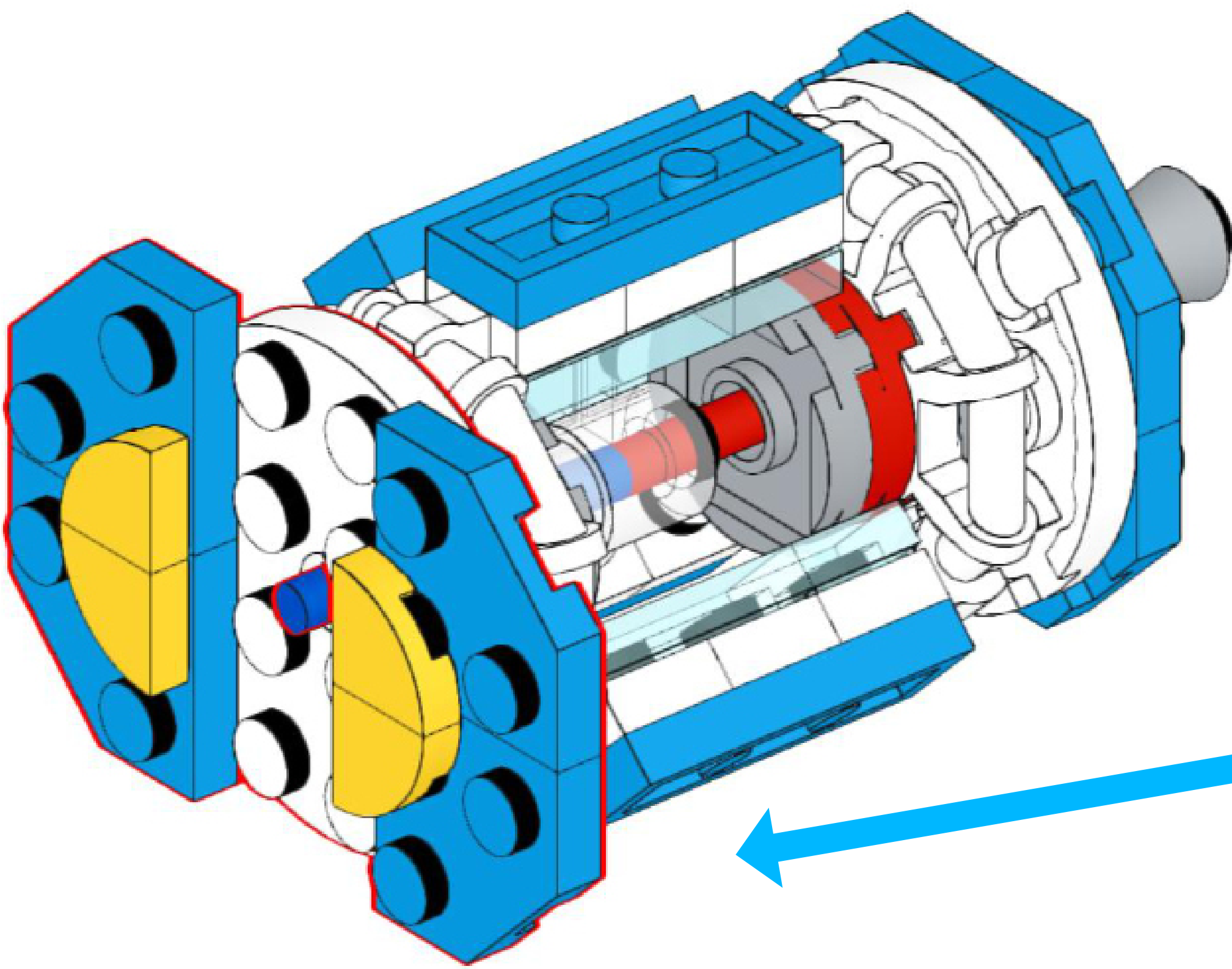
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21



22



23

