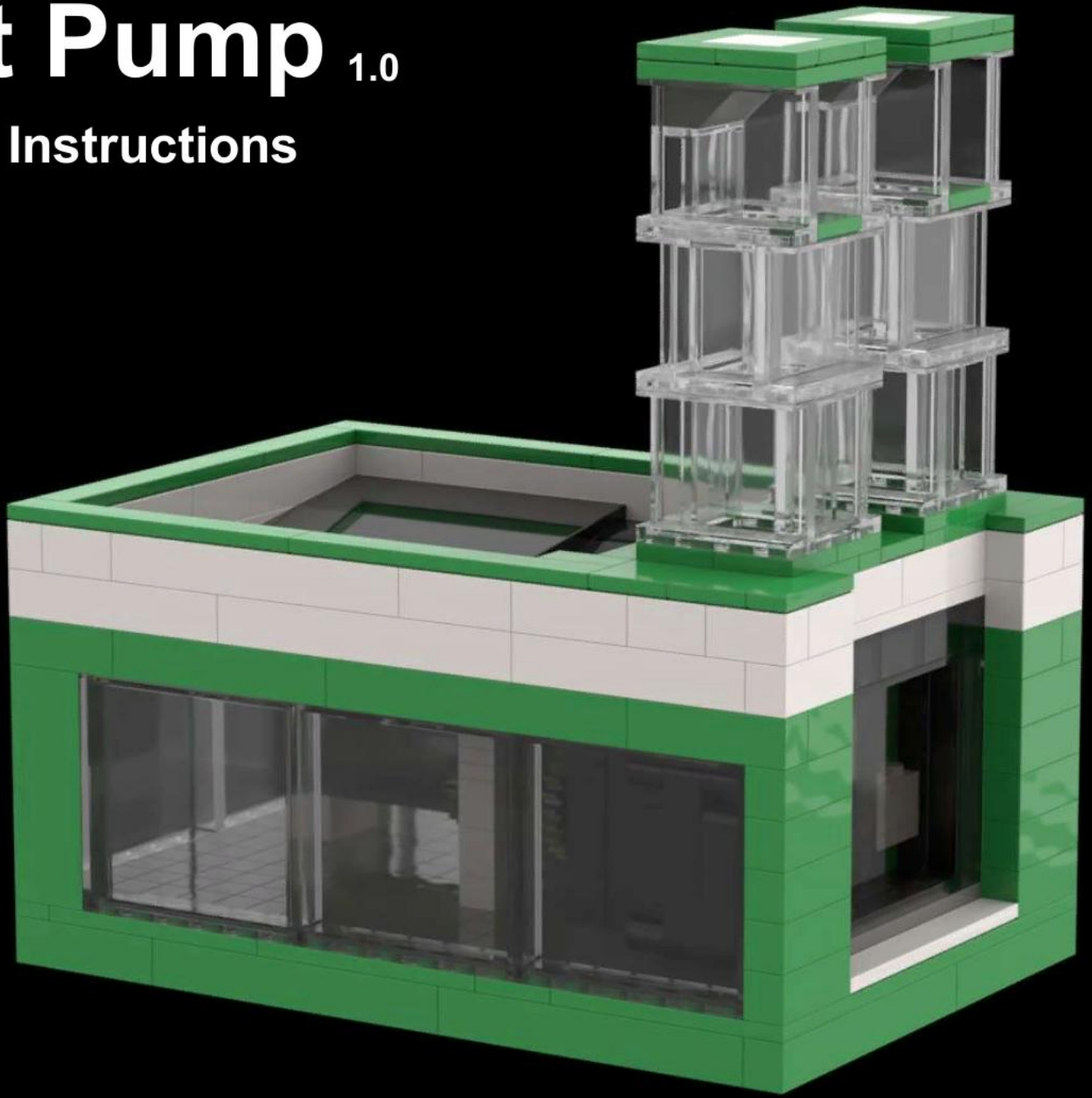
Split Pump 1.0

Building Instructions



original design

05/2021 by mickthebricker

This module was originally designed 05/2021 by mickthebricker.

Split Pump 1.0

The Split Pump 1.0 originally designed 2021 by mickthebricker is a reversion of his Double Pump 2.0 module. It uses the same innovative mechanism with one input and two outputs. The pure architectural design with ribbon window elements provide a clear view of both the mechanism and the ball flow inside the pump.

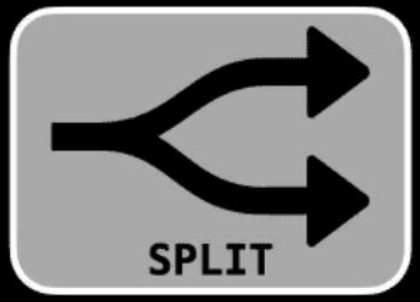
Most splitting mechanisms use gravitiy to split flows in a downward movement of the balls (balls fall or roll down, e.g. on a seesaw or switch). This approach to reverse the Double Pump 2.0 mechanism makes it possible to split ball flows in an upward (!) movement at full GBC requirements - processed within the pump mechanism - a sensational innovation and a huge benefit to manage flows for further modules.

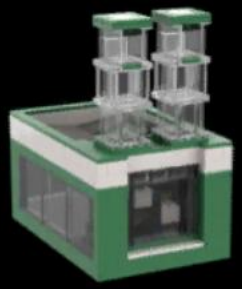
The new, compact Split Pump 1.0 is particularly suitable to split flows in an upward movement and can be used as a single module as well as an integrated mechanism. A forward-looking innovation!

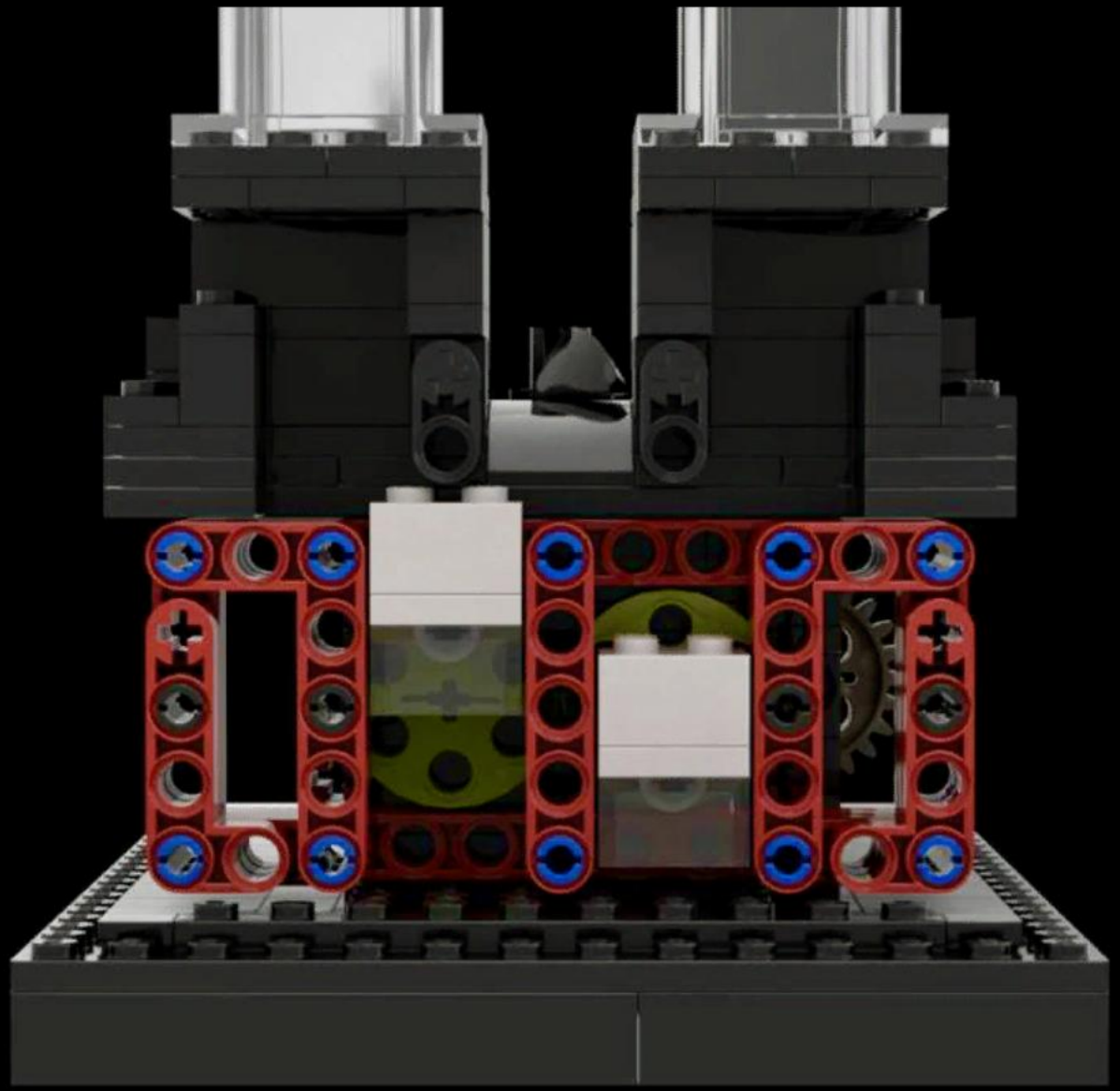
Unit	stud	inch	cm
Width	21,0	6,6	16,8
Length	14,0	4,4	11,2
Height	23,6	7,4	18,9
Total Number of Parts:	436		

This building instructions ist not for commercial but private use only. It is not for sale. You can use it for free to rebuild. If you publish or show your rebuilt and/or improved module, please be so nice to refer to me like: "Originally designed 05/2021 by mickthebricker". Thanks!

Split Pump Mechanism



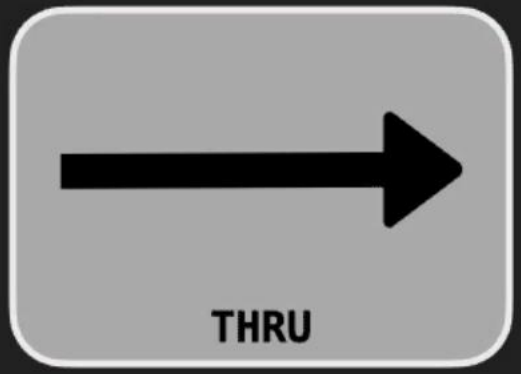




idea & original design 2020/2021 by mickthebricker (based on single pump mechanism)

Single Pump

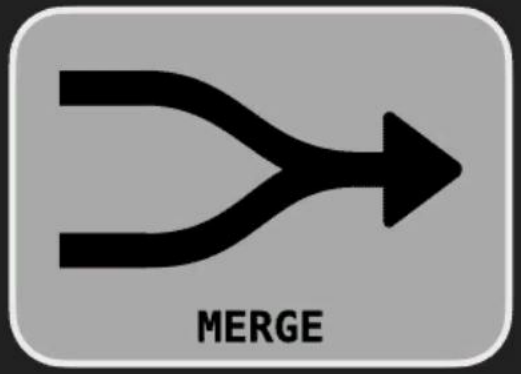
- in line with other modules
- upward movement
- very reliable



Double Pump

by mickthebricker

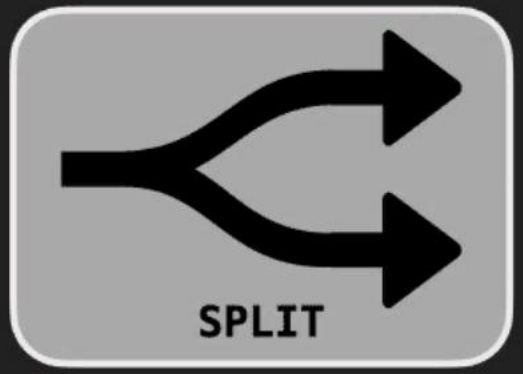
- mechanism has nearly the same size as the single pump mechanism
- capacity doubled at one travel
- manages high loads
- useful to merge ball flows



Split Pump

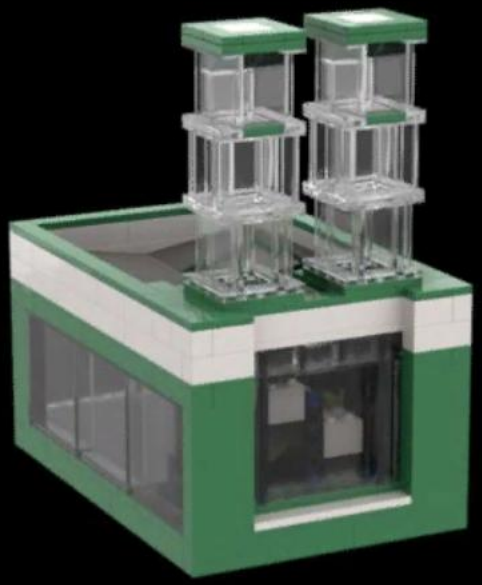
by mickthebricker

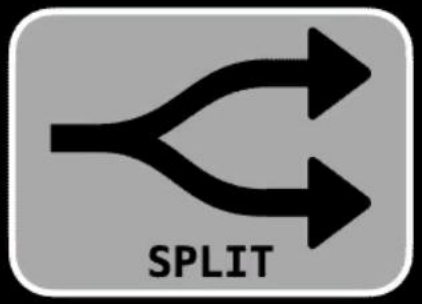
- same size & capacity as double pump
- useful to split ball flows
- in an upward movement
- into submodules or
- divergent directions



idea & original design 2020/2021 by mickthebricker (based on single pump mechanism)

Split Pump 1.0





- reverses the double pump mechanism originally designed by mickthebricker
- one input and two outputs
- two pistons
- same capacity as the double pump
- useful to split ball flows into submodules
- or into divergent directions
- can create lower ball density (output flows)

- most splitting mechanisms use gravity to split ball flows in a downward movement
- balls fall or roll down e.g. on a seasaw or switch, tilt mechanism or pusher
- this approach to reverse the double pump mechanism makes it possible to split ball flows in an upward movement
- processed directly within the ball pump

idea & original design 2020/2021 by mickthebricker (based on single pump mechanism)

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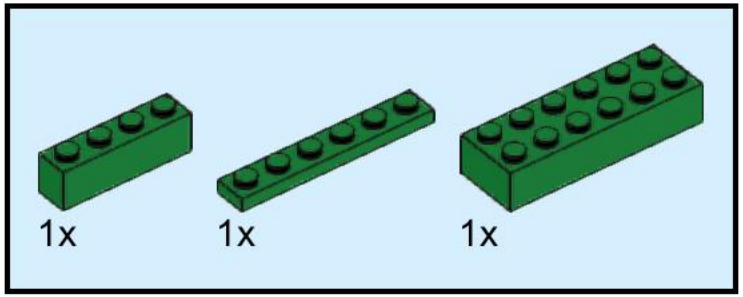

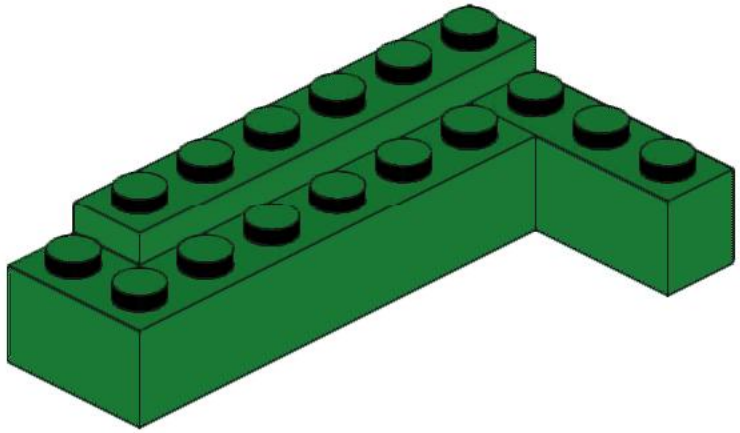

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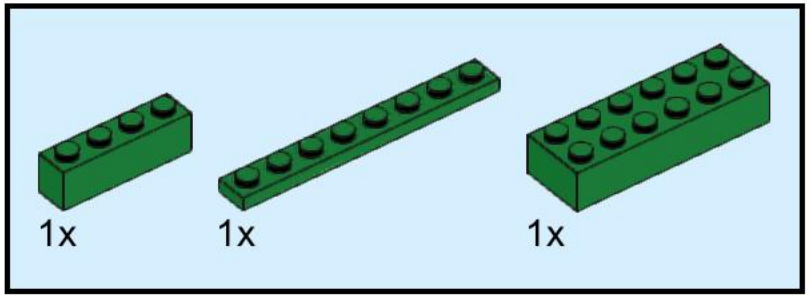

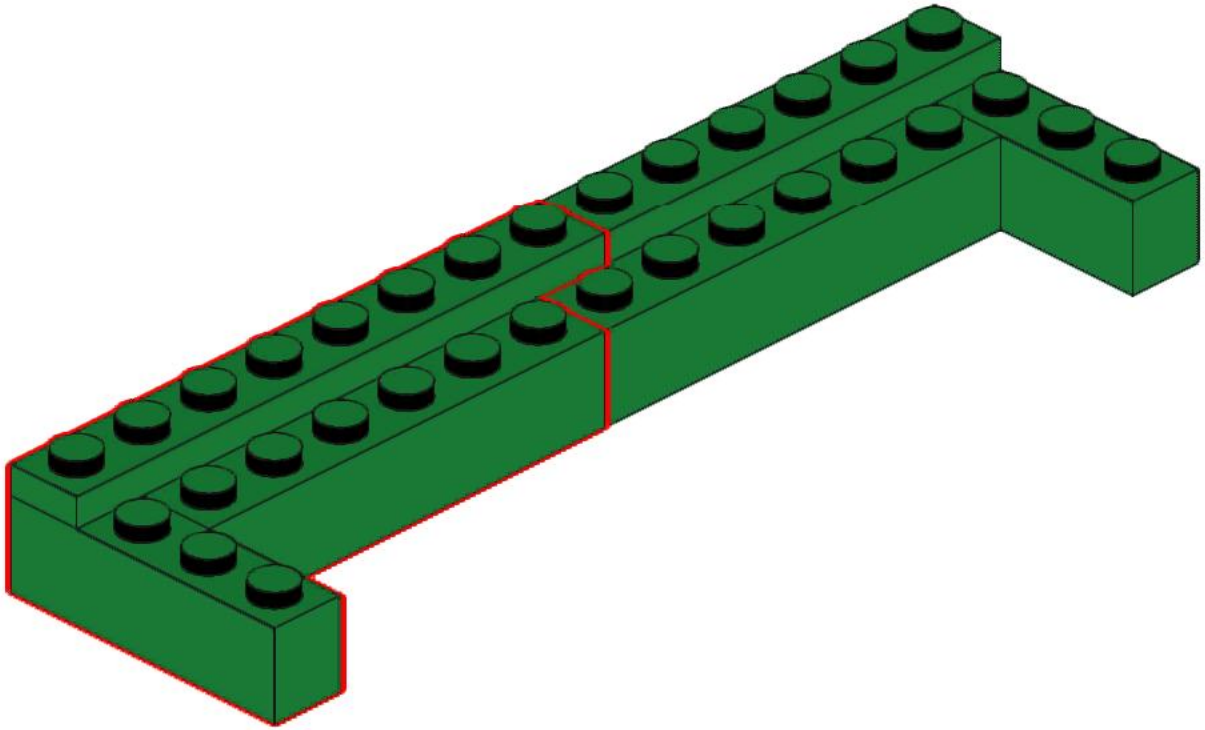

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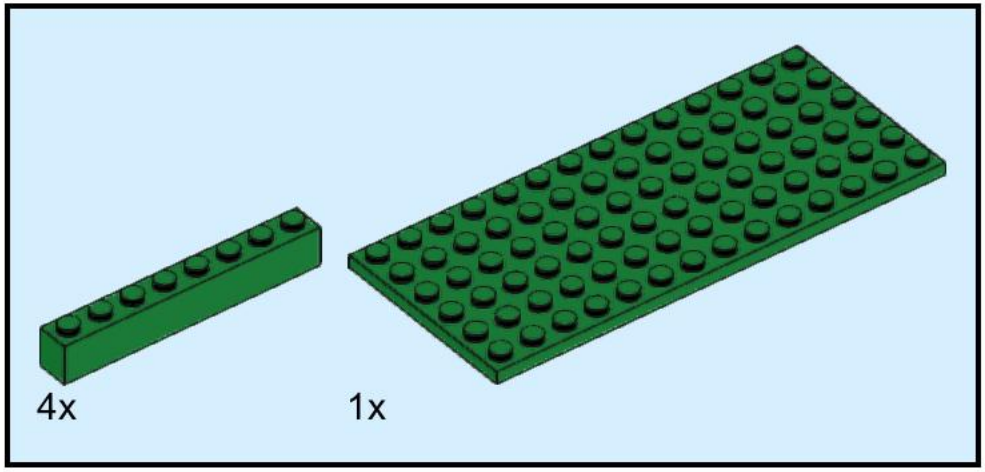

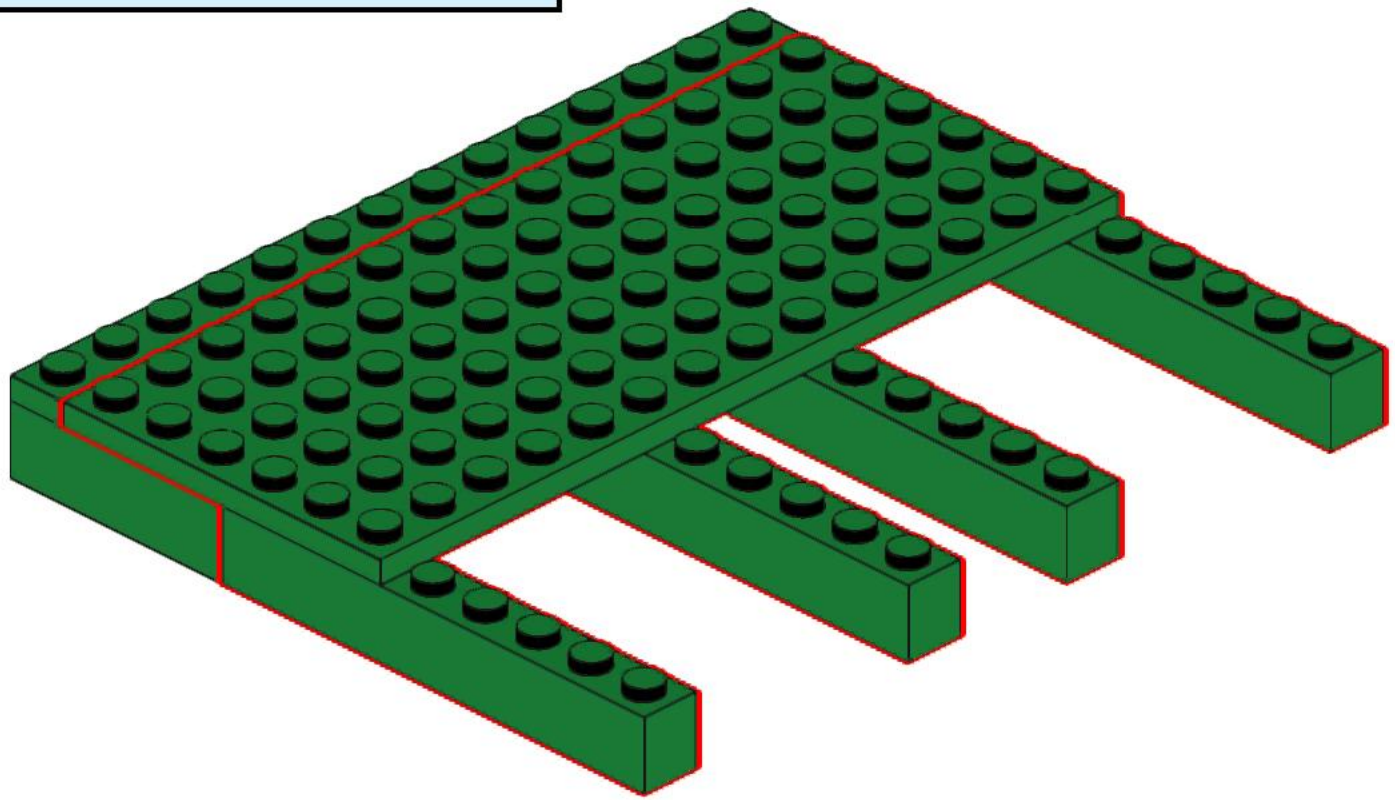

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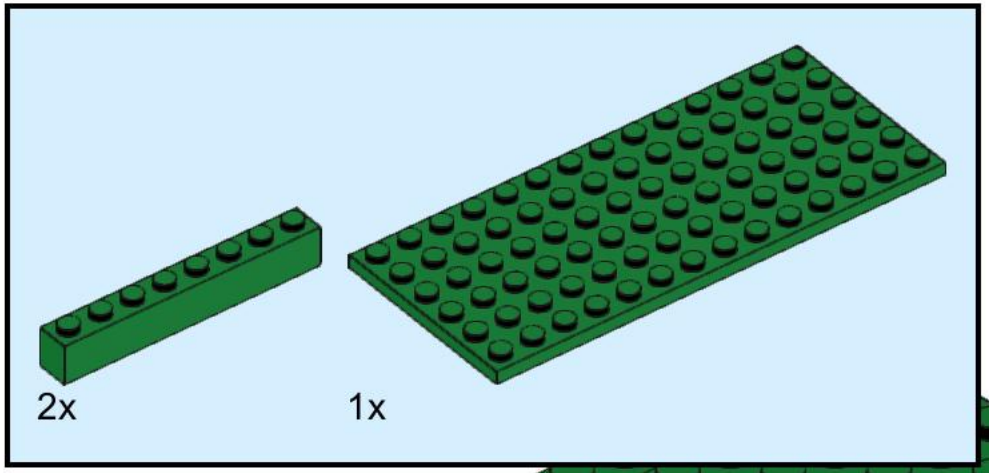

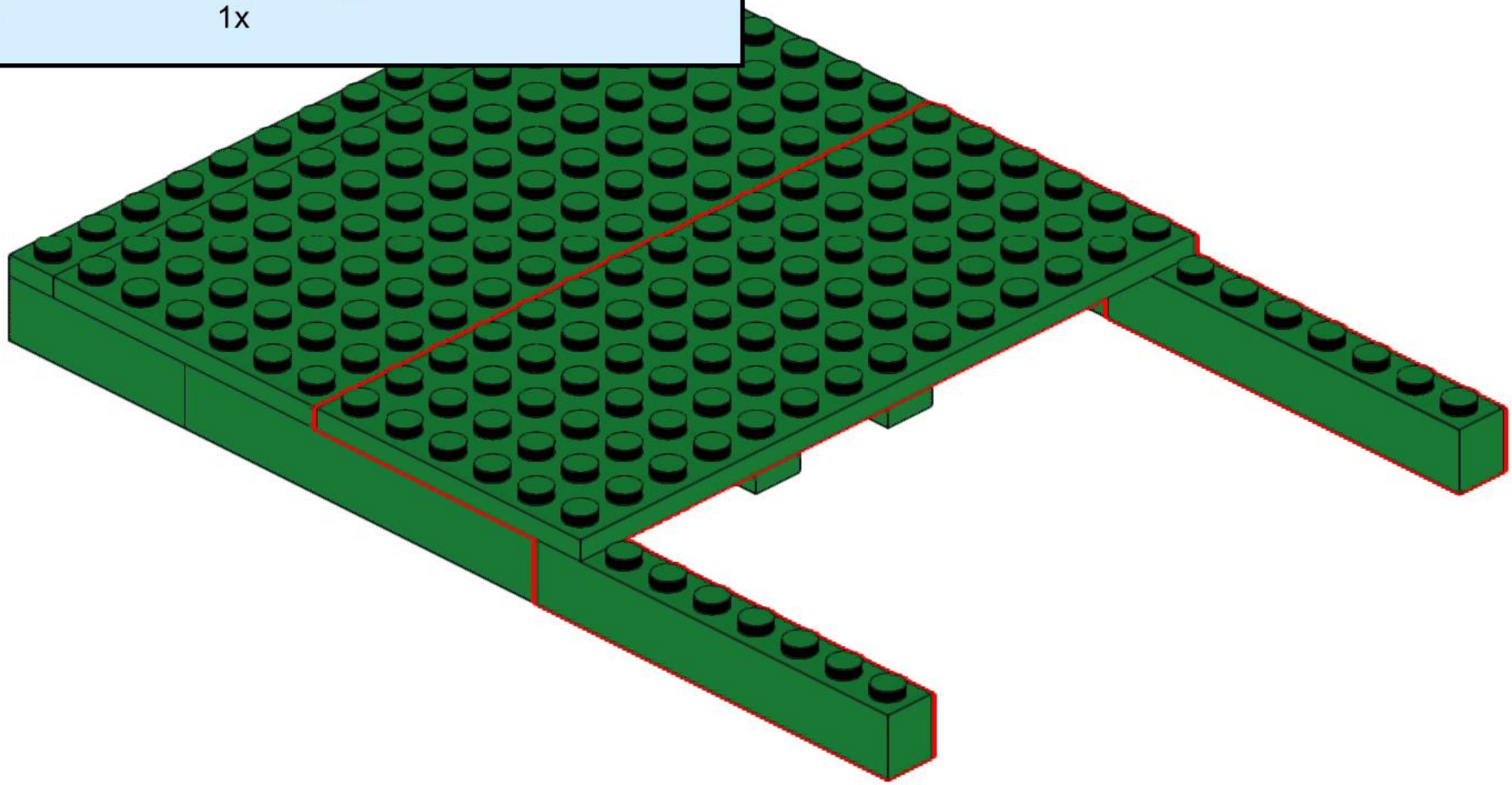

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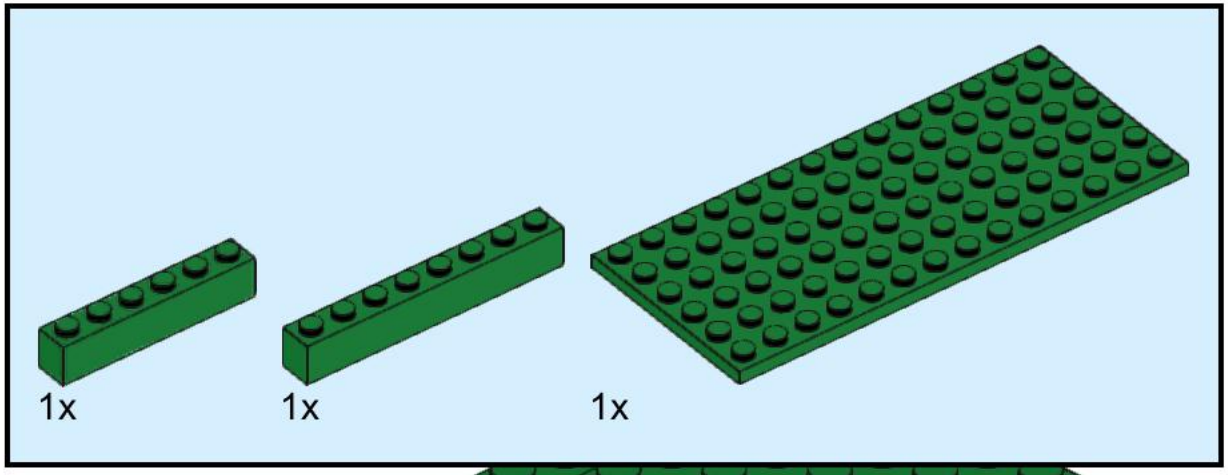

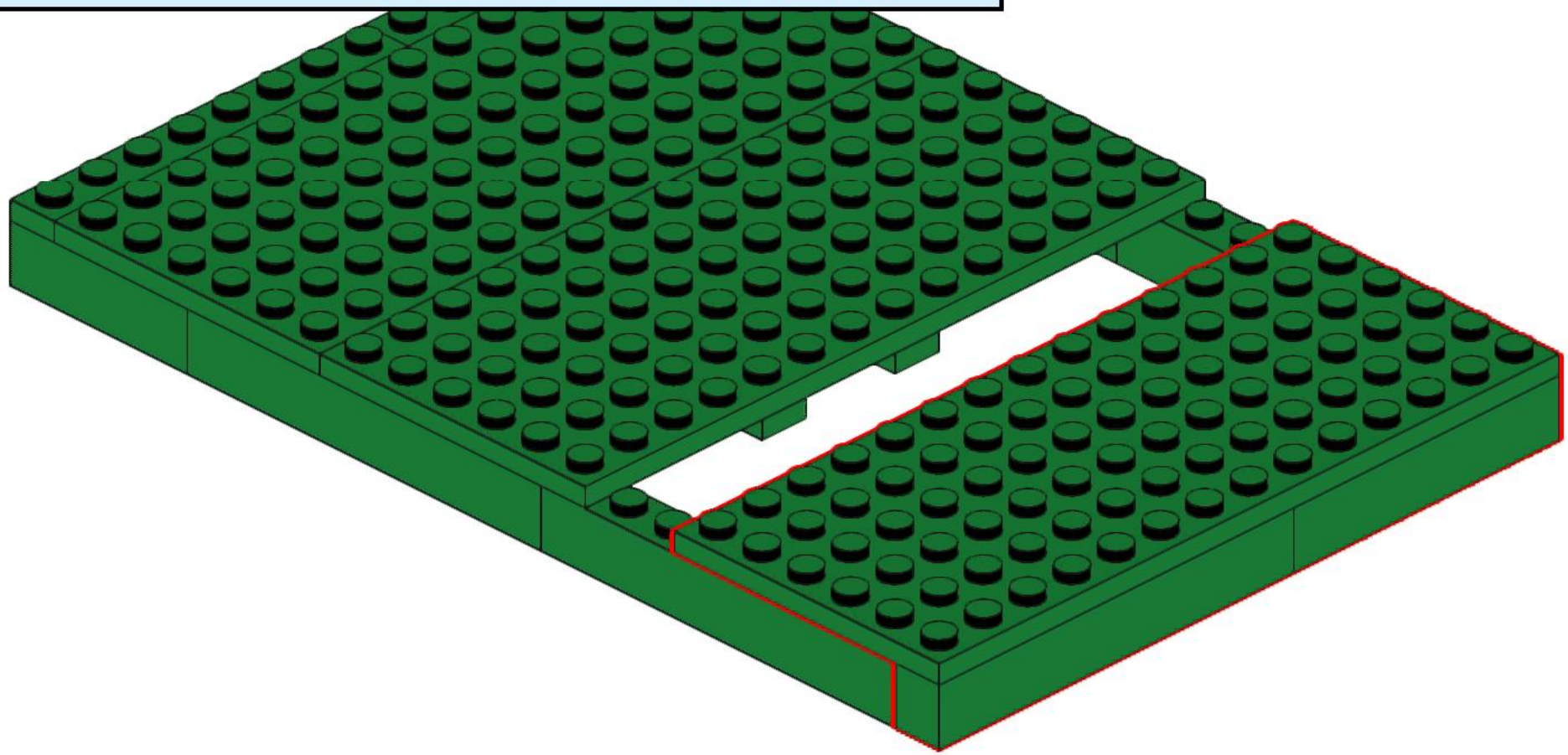

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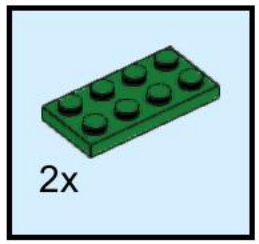

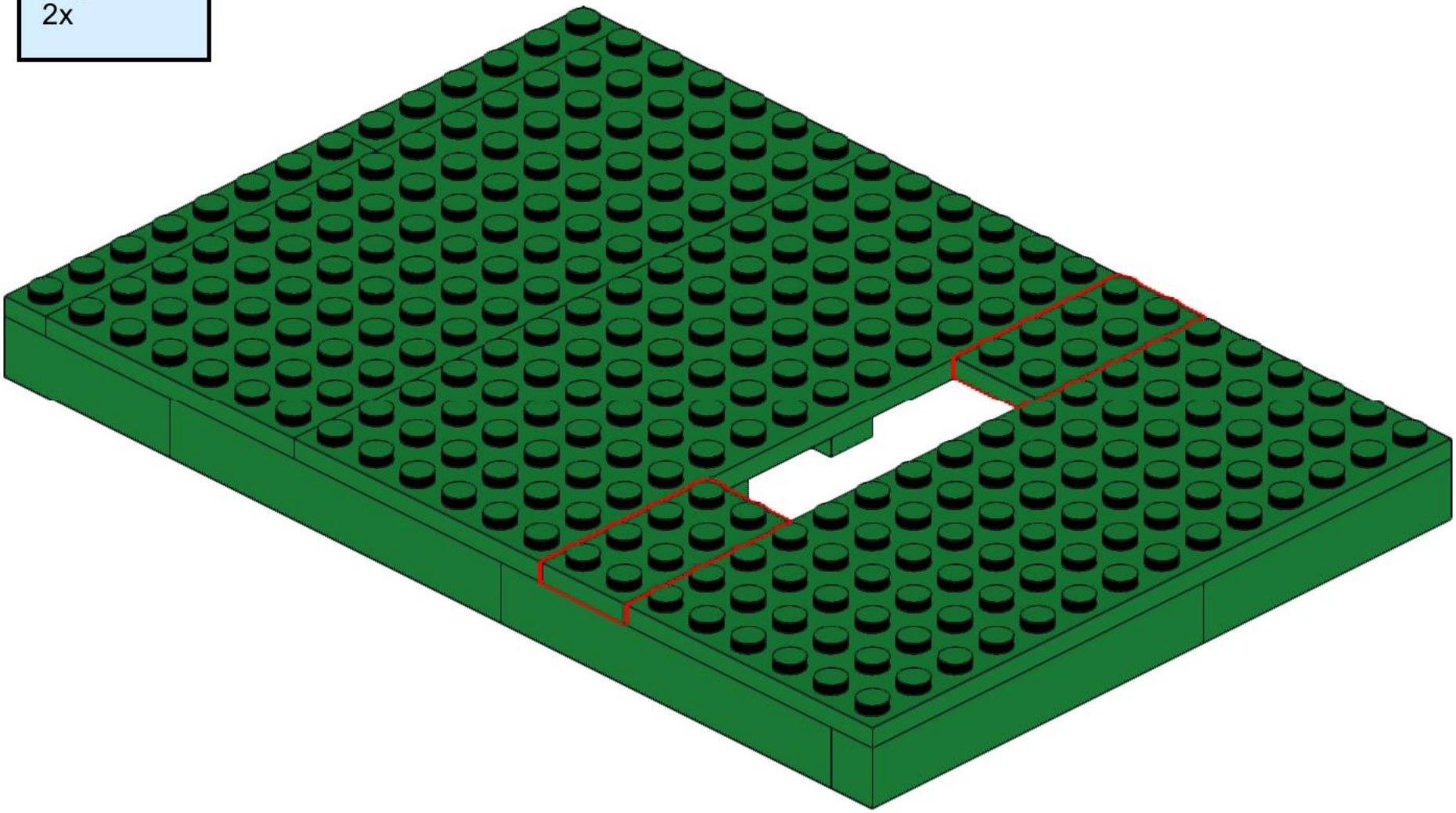

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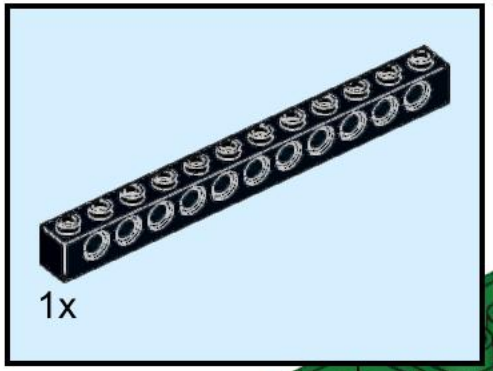

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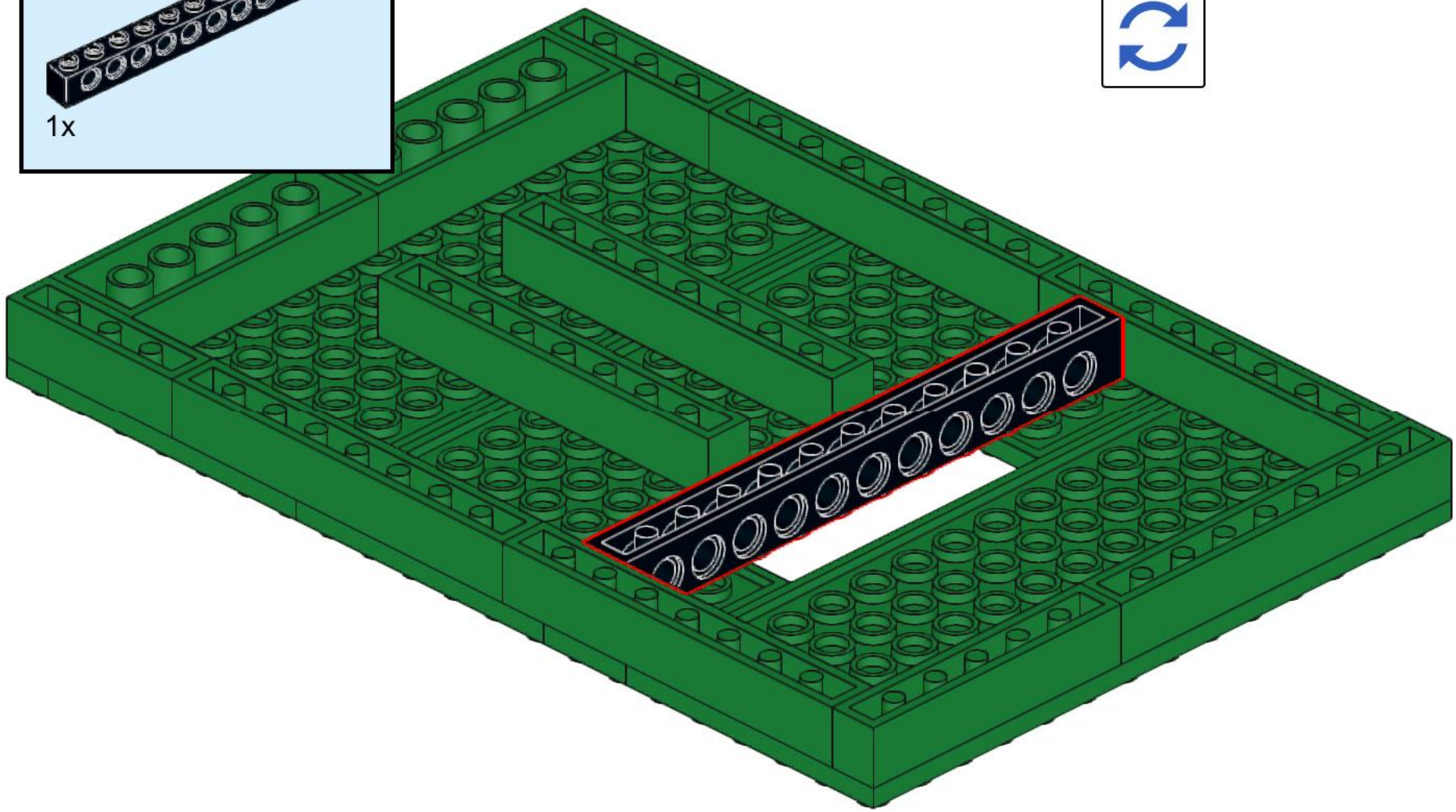

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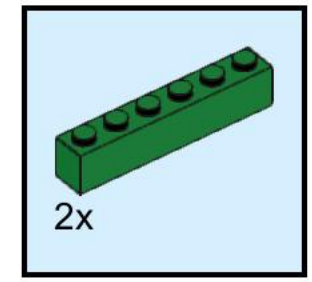

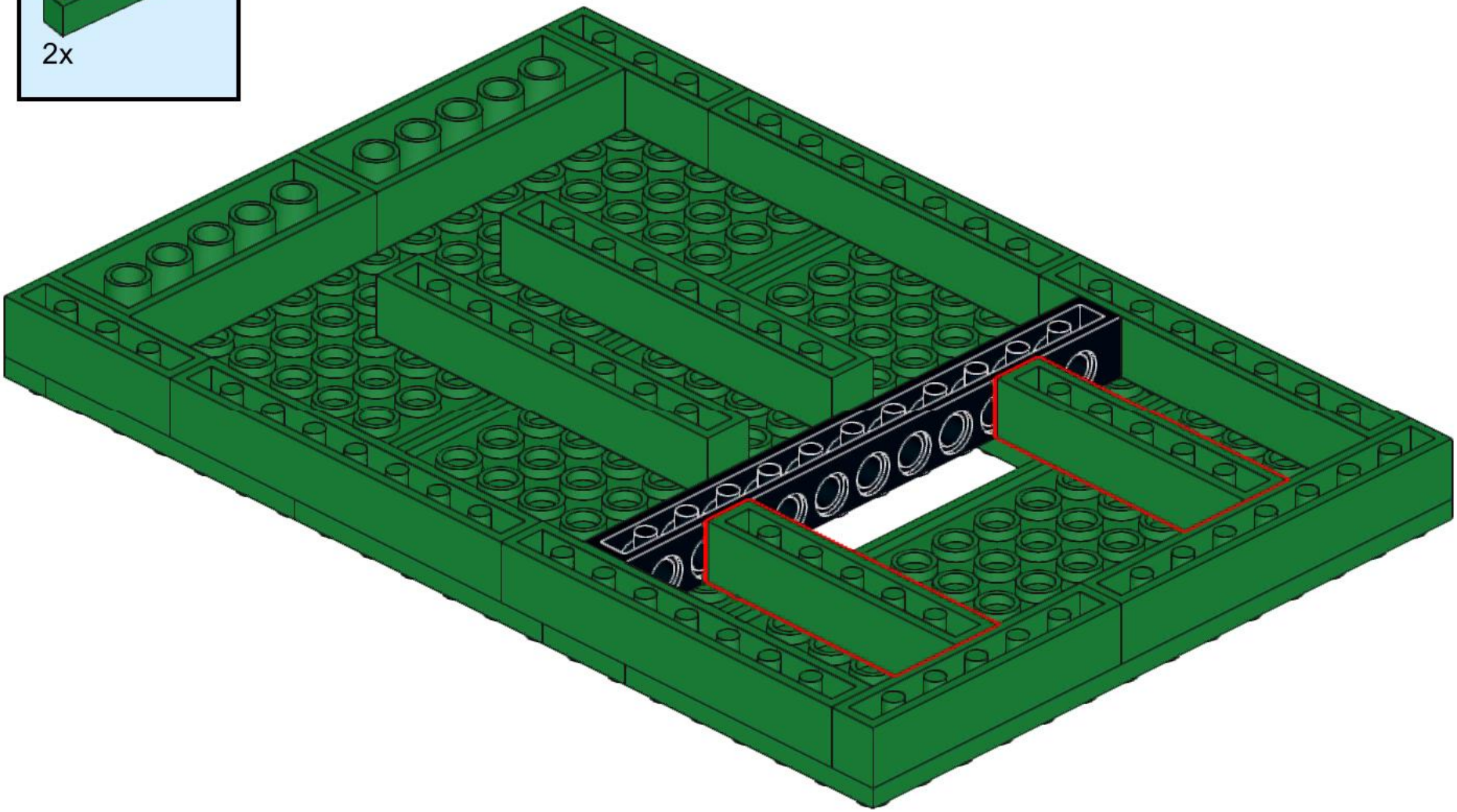

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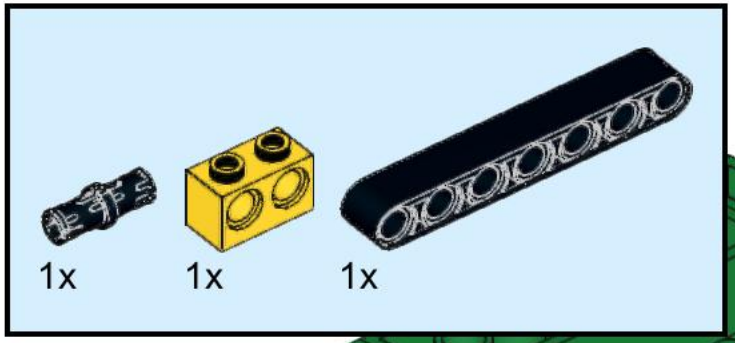

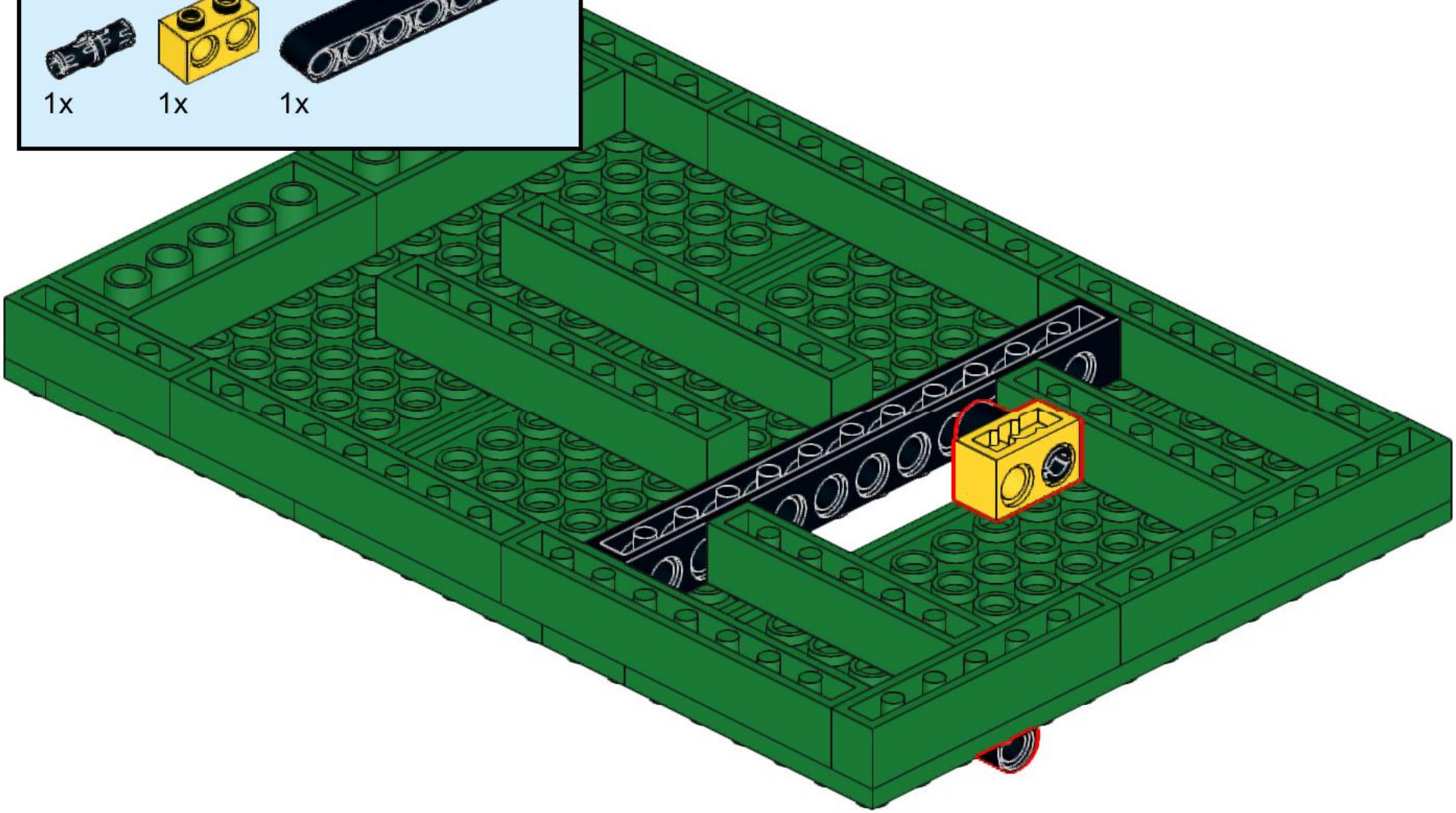

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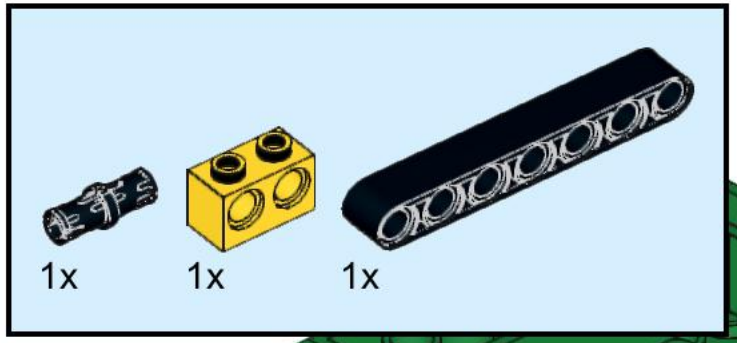

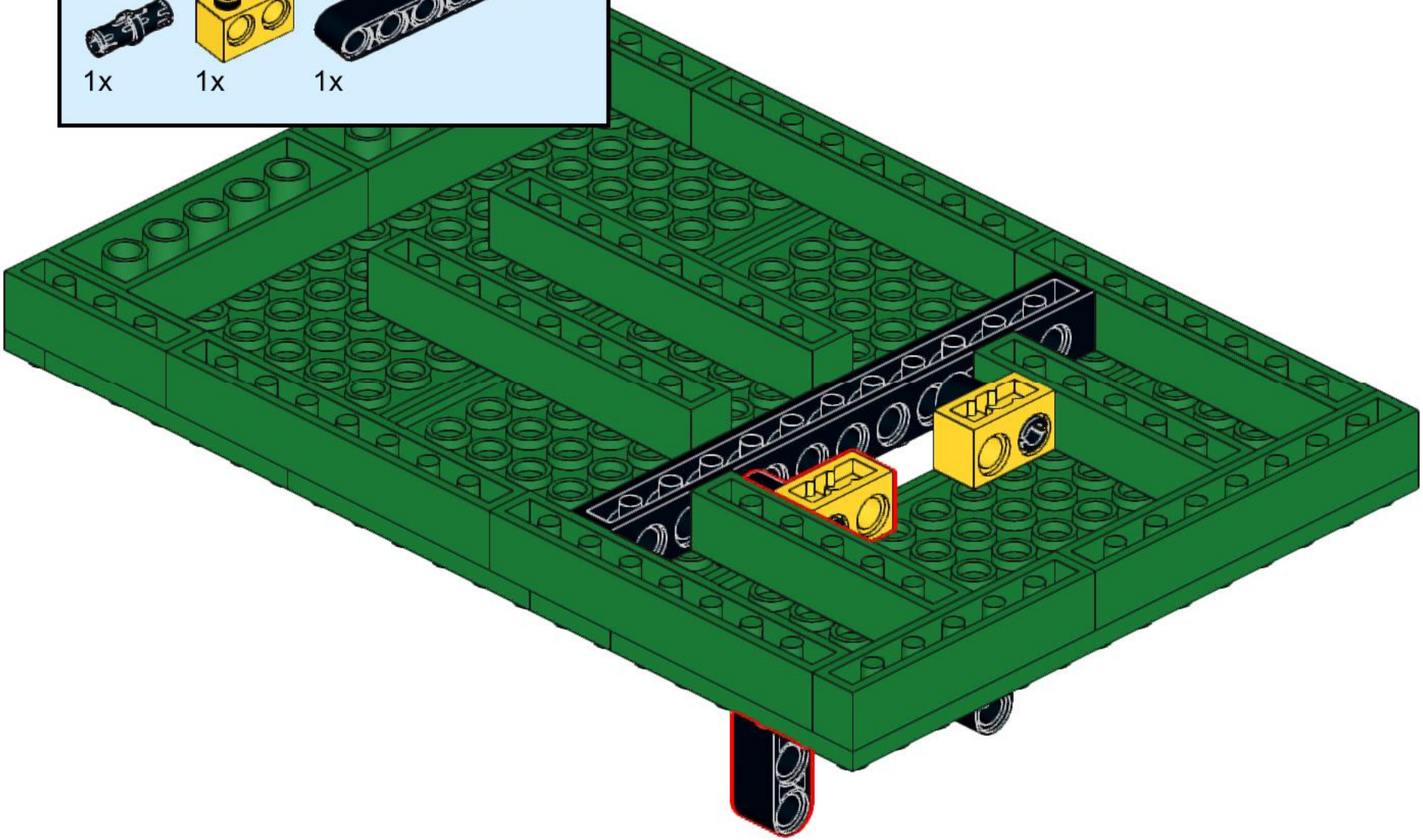

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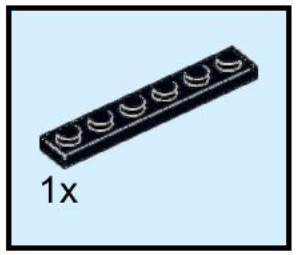

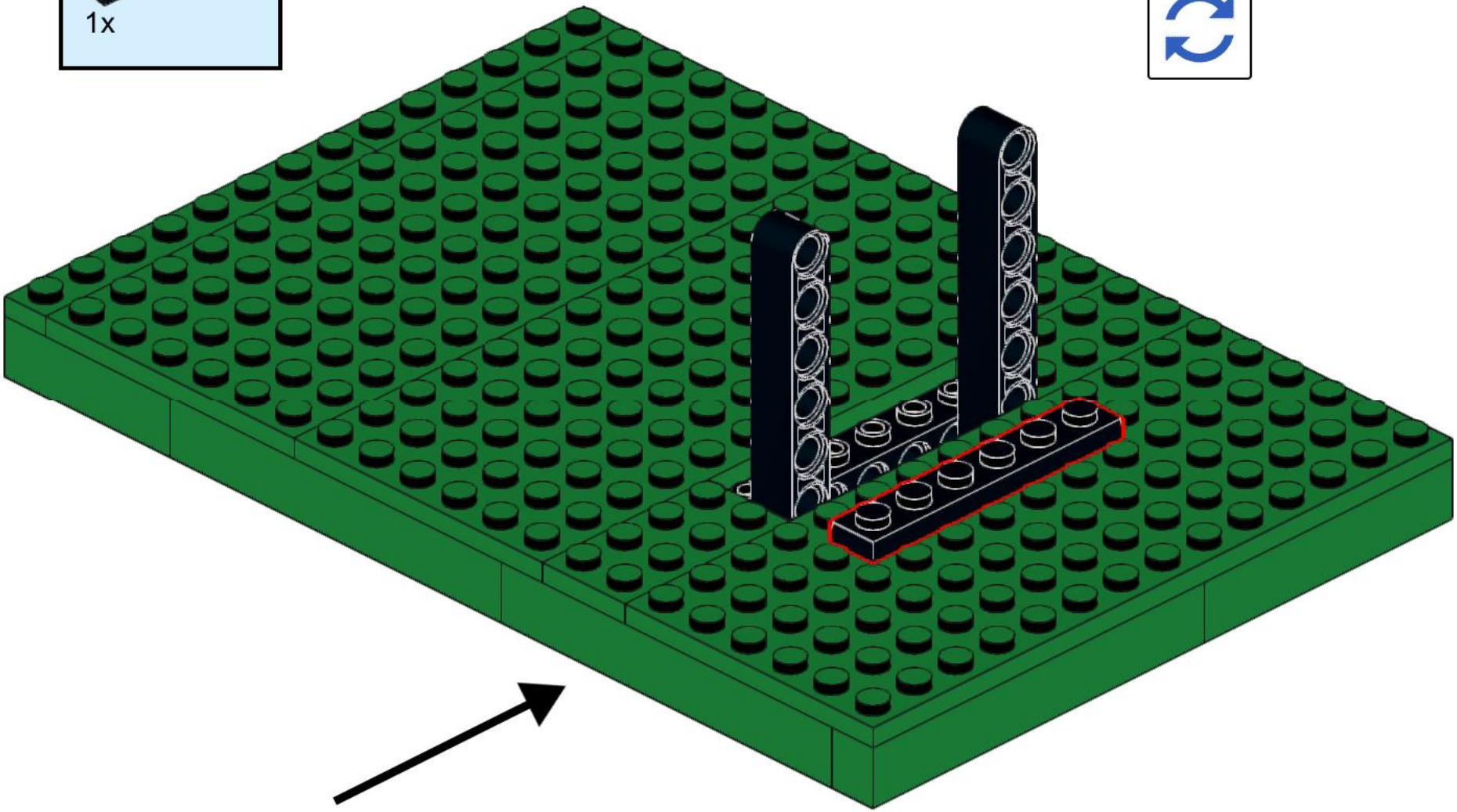

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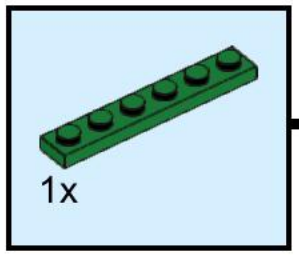

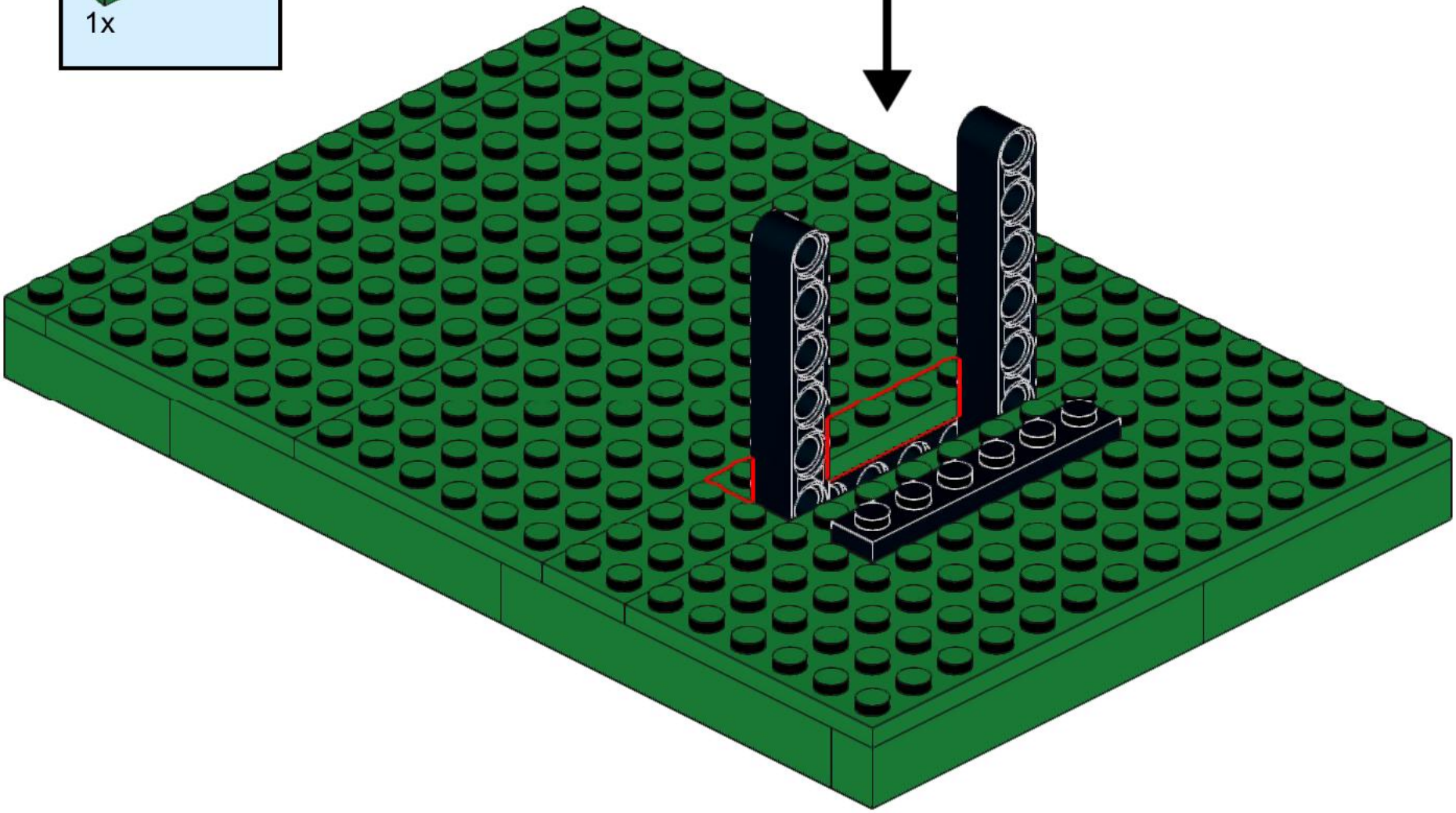

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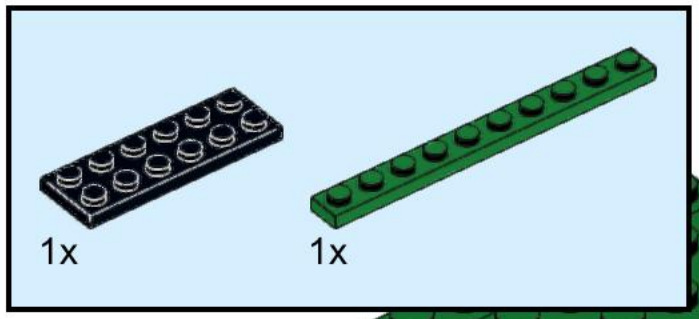

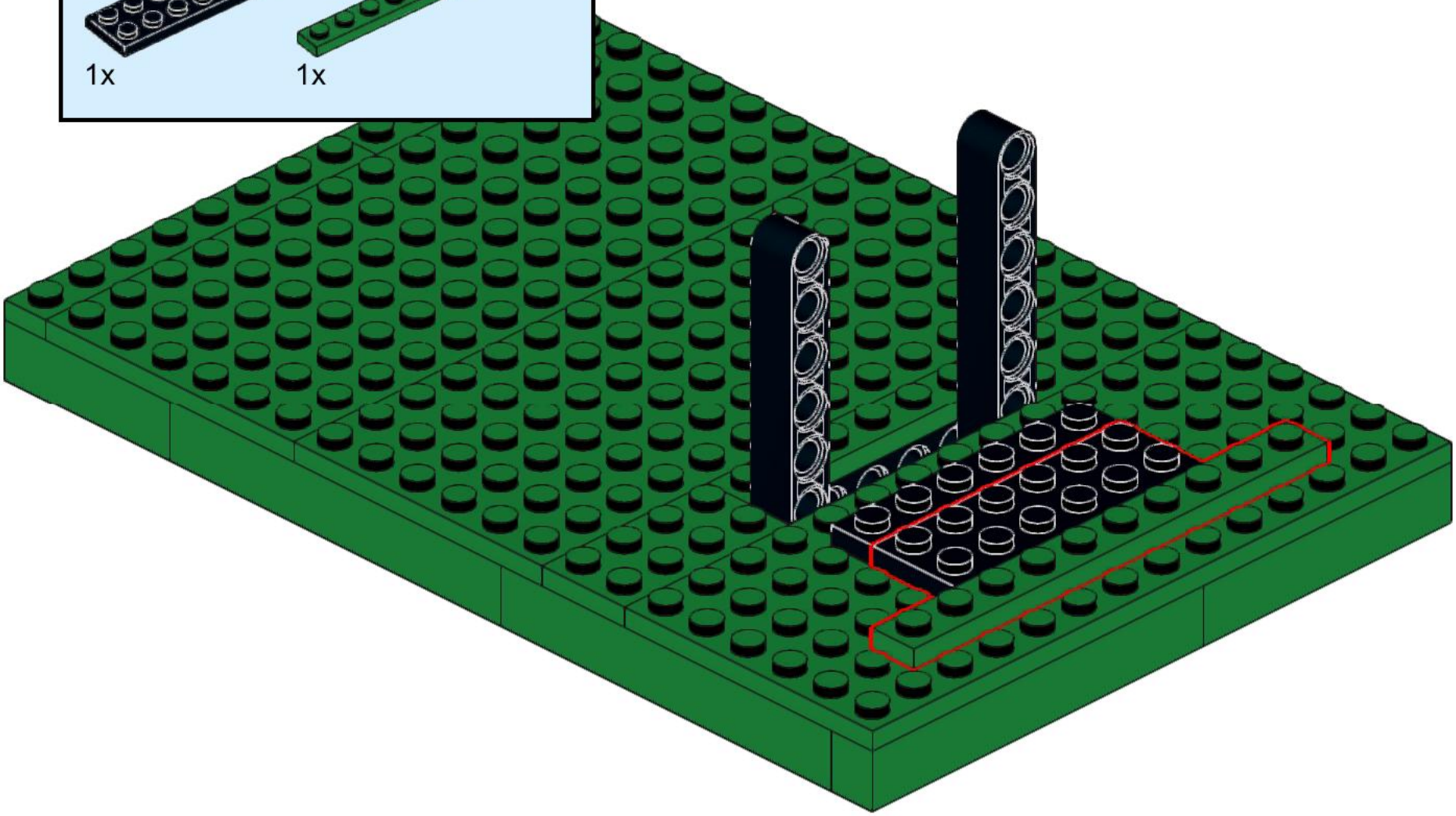

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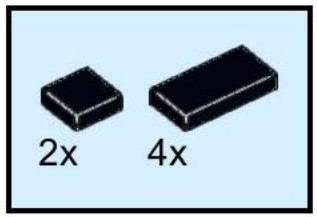

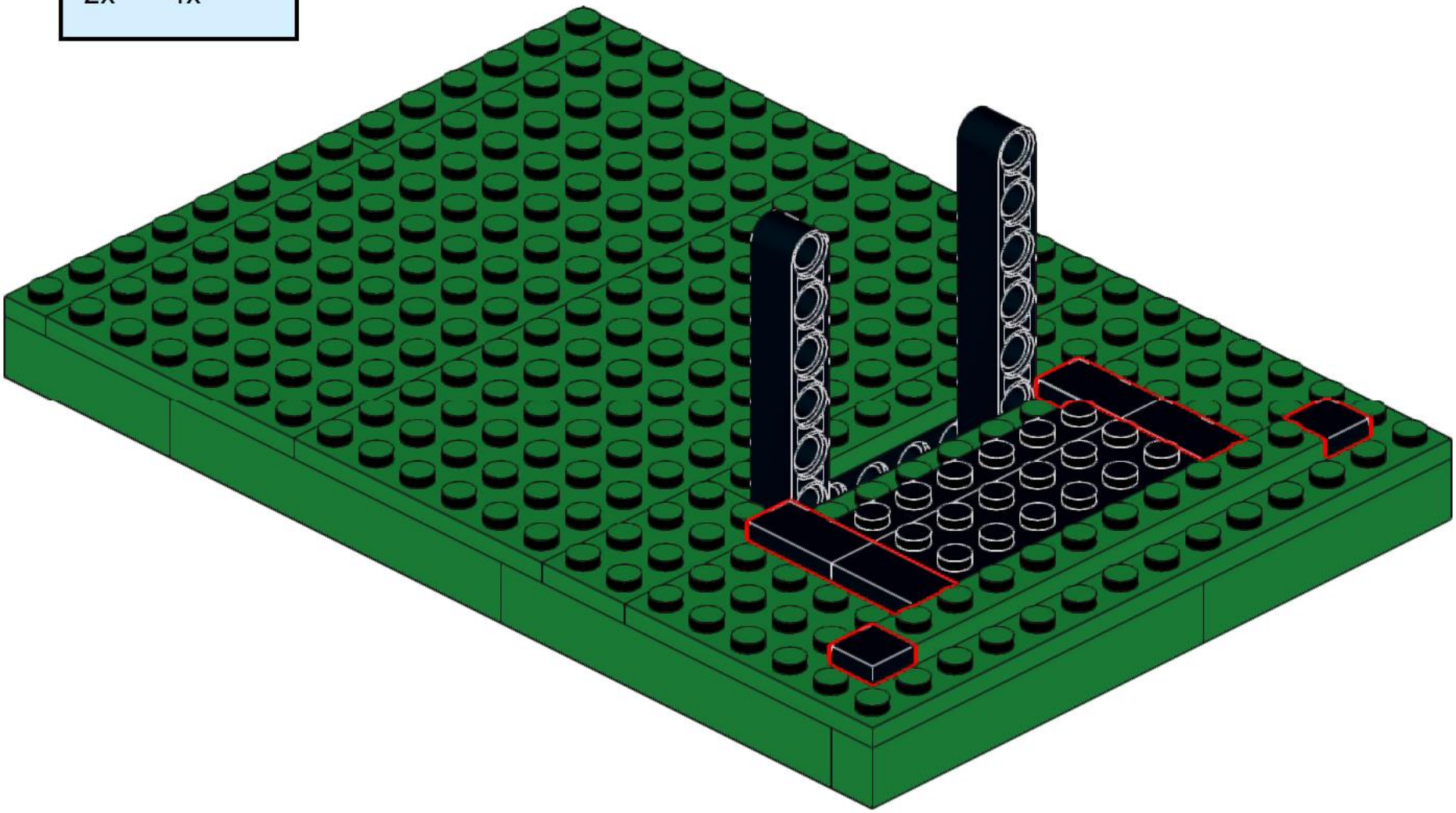

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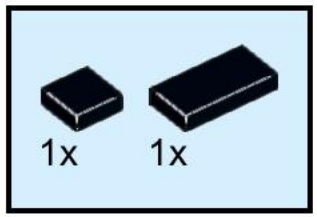

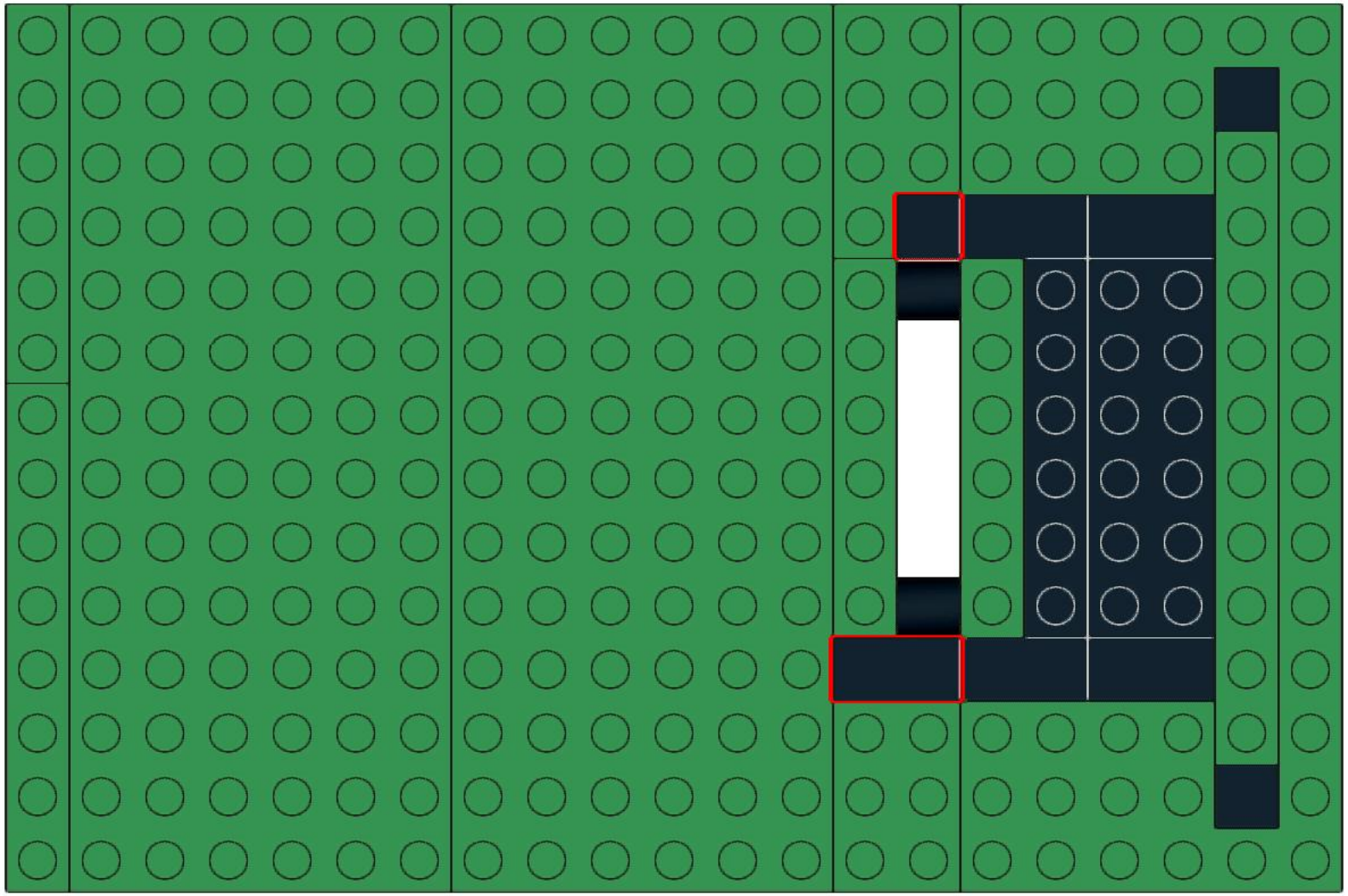

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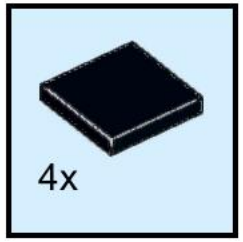

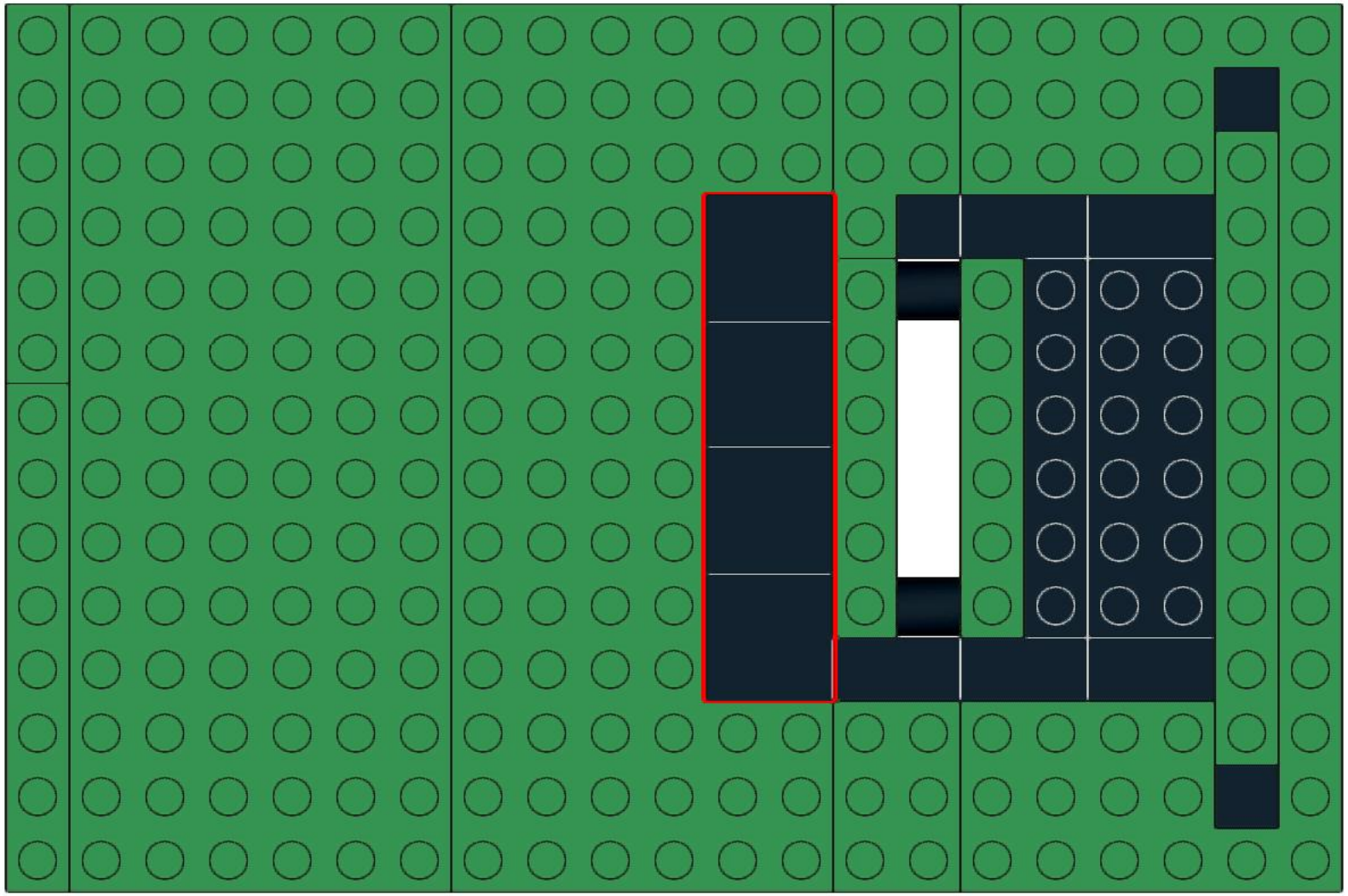

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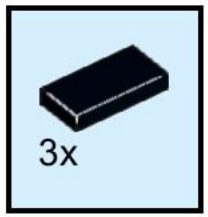

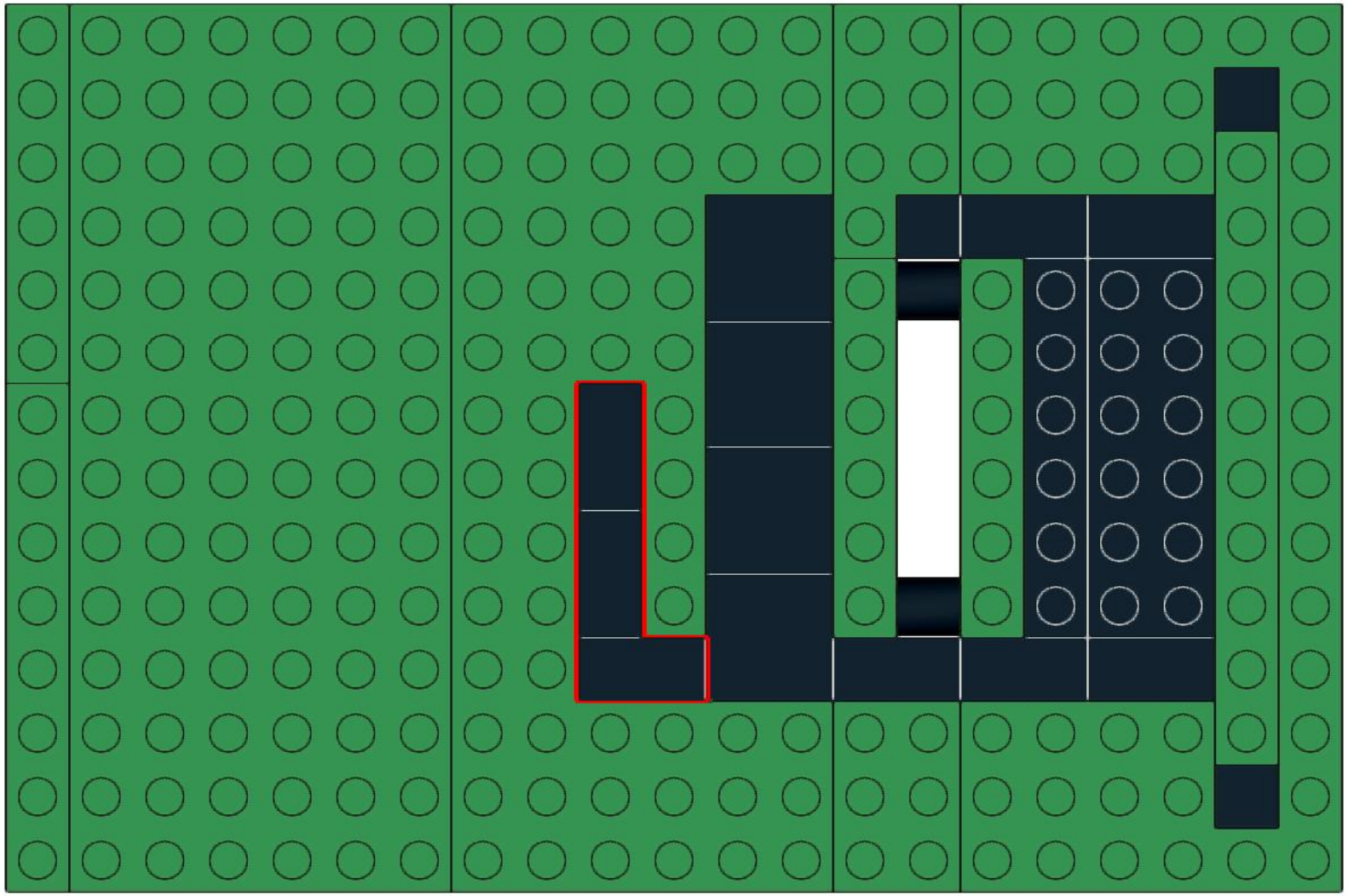

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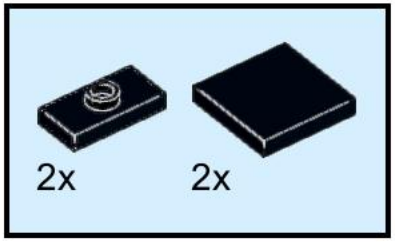

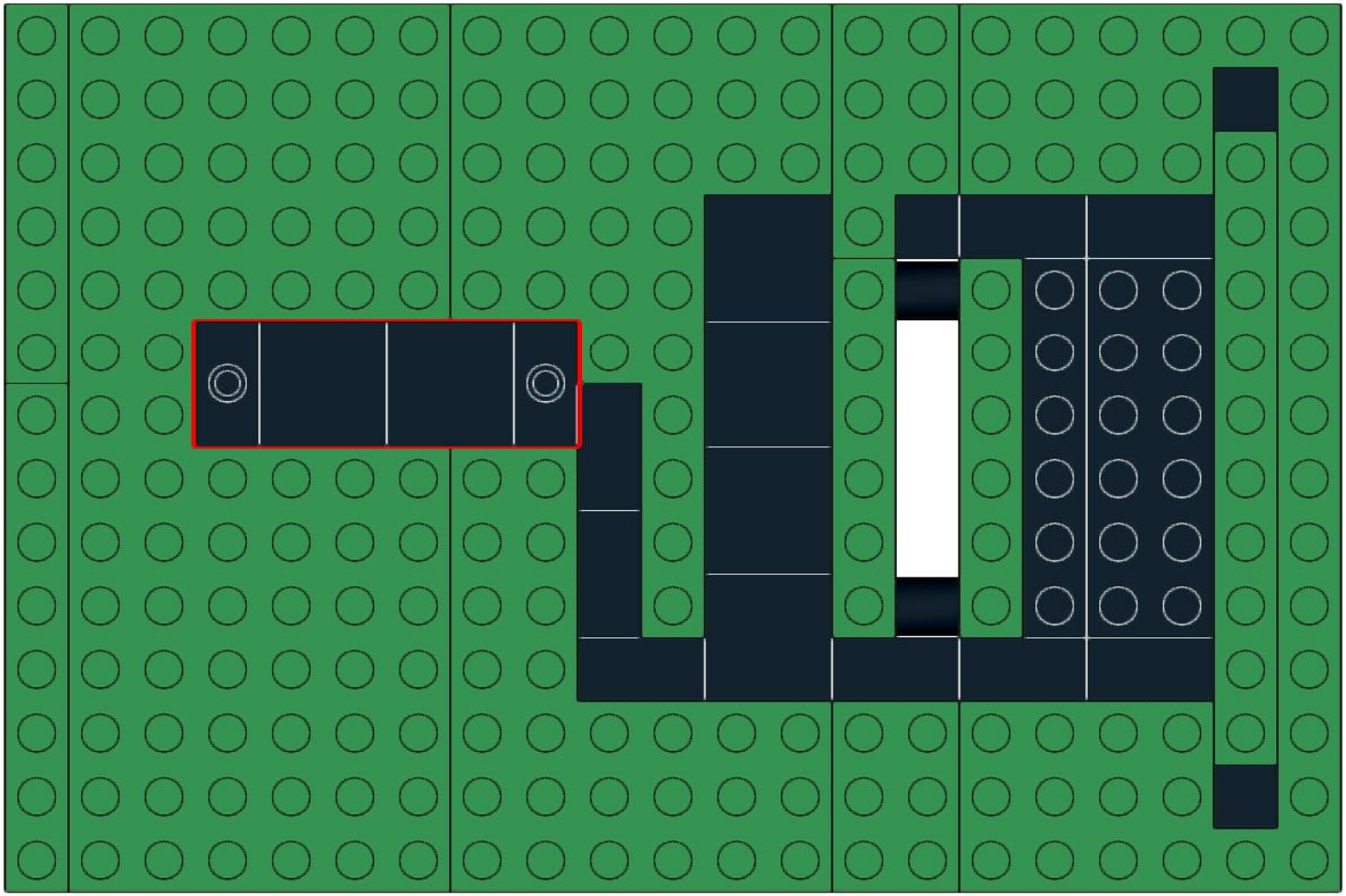

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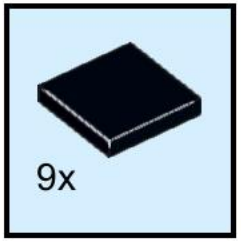

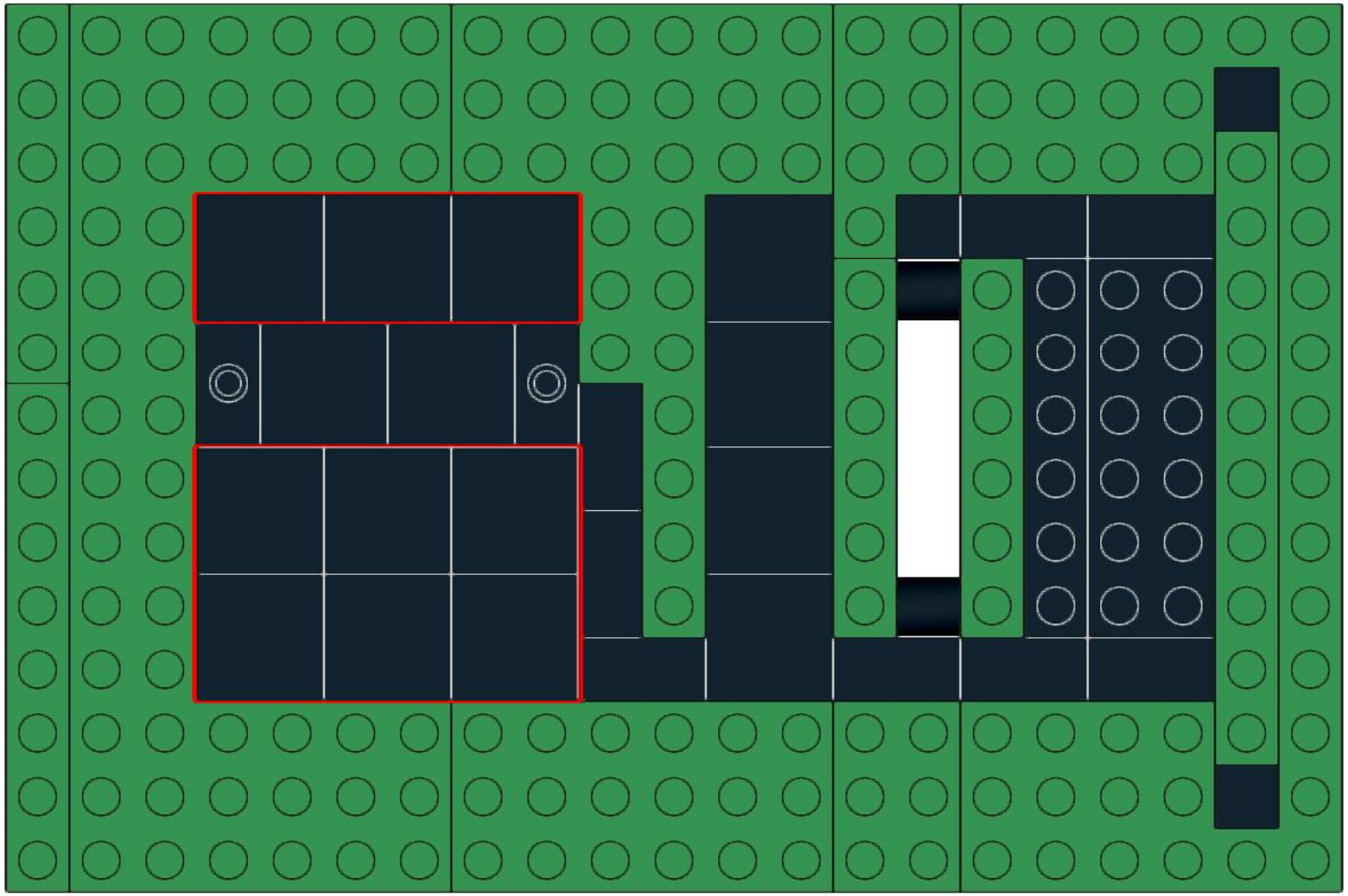

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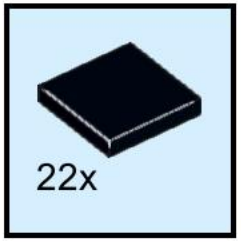

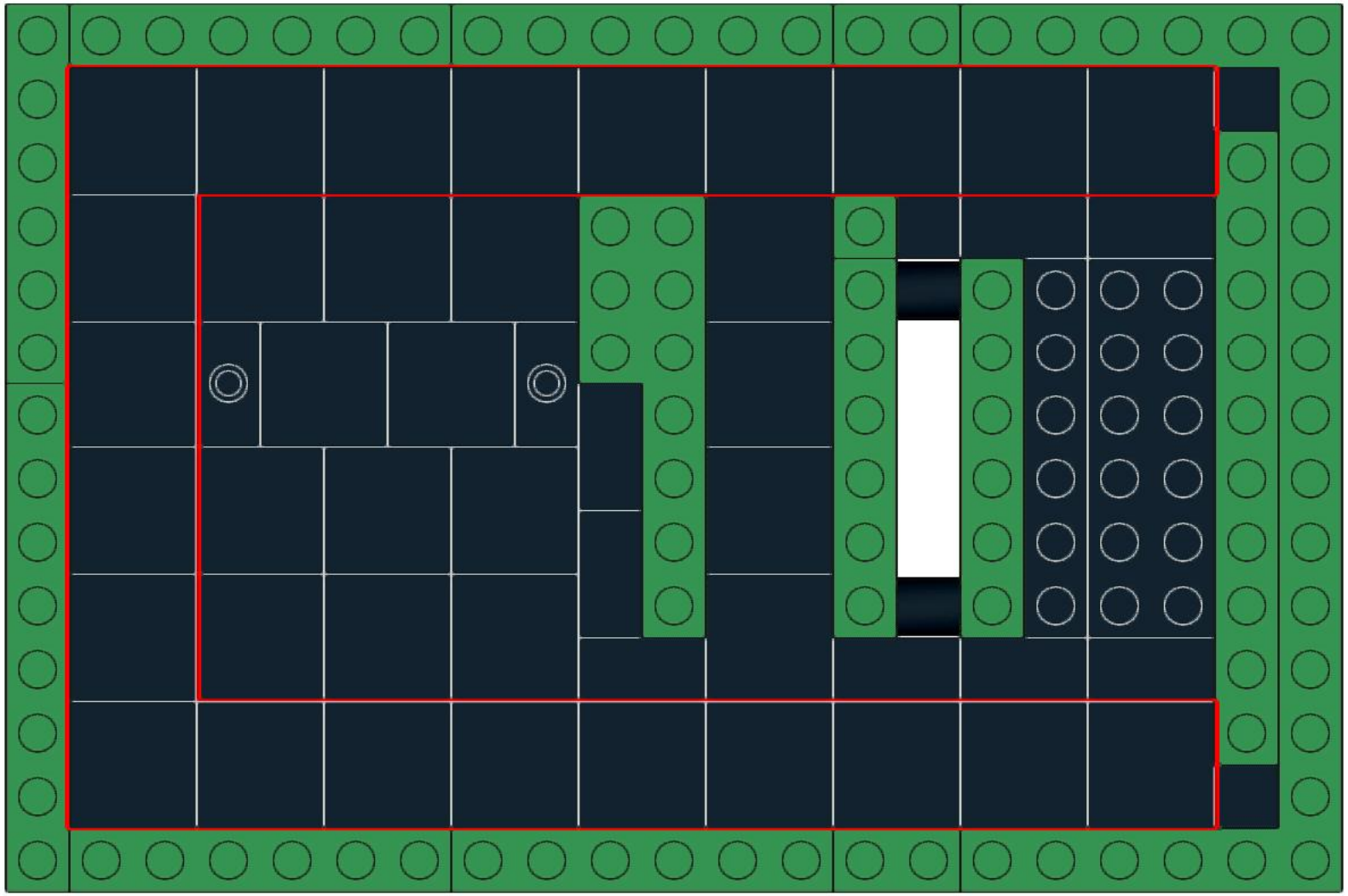

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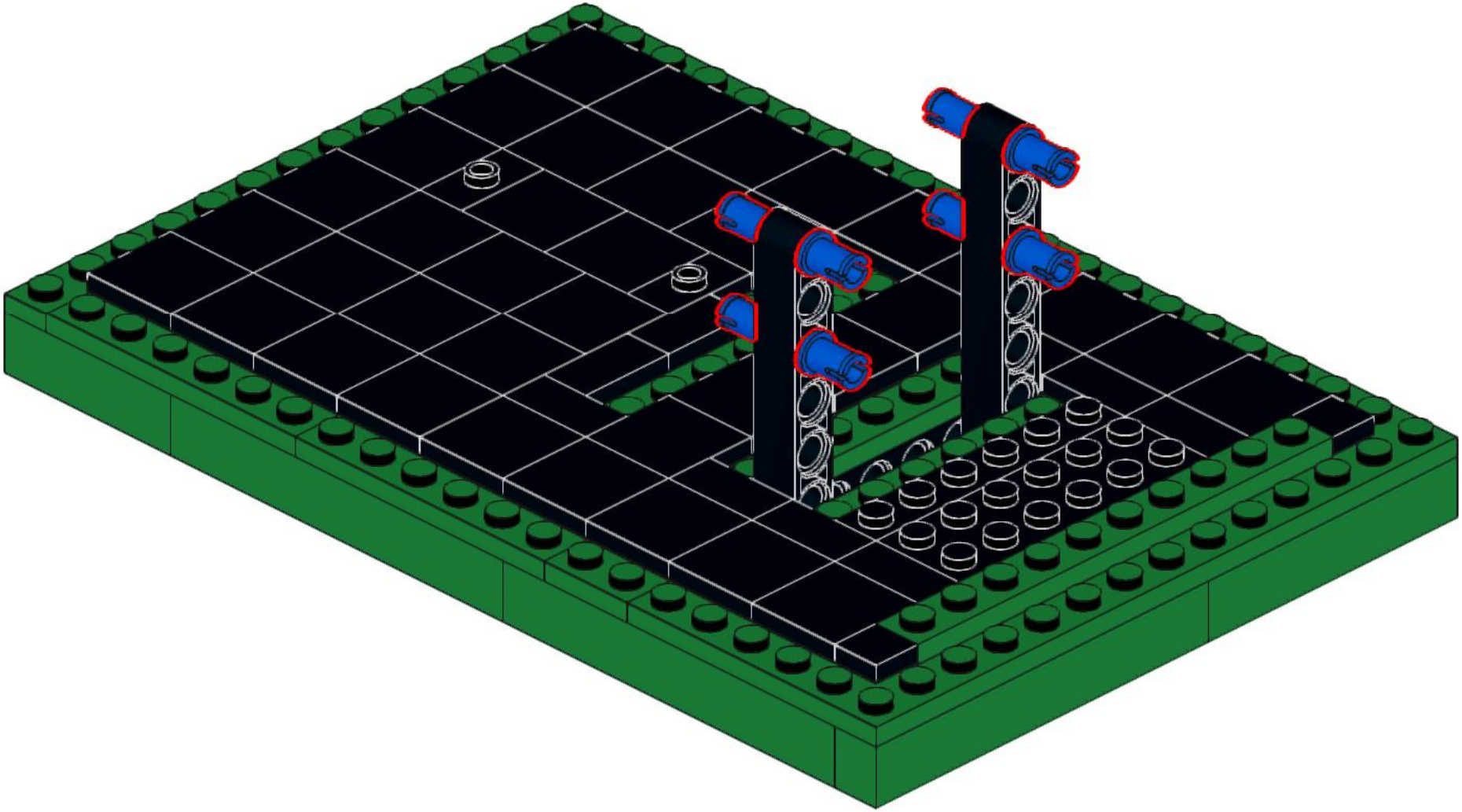

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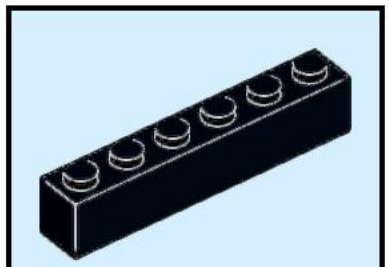

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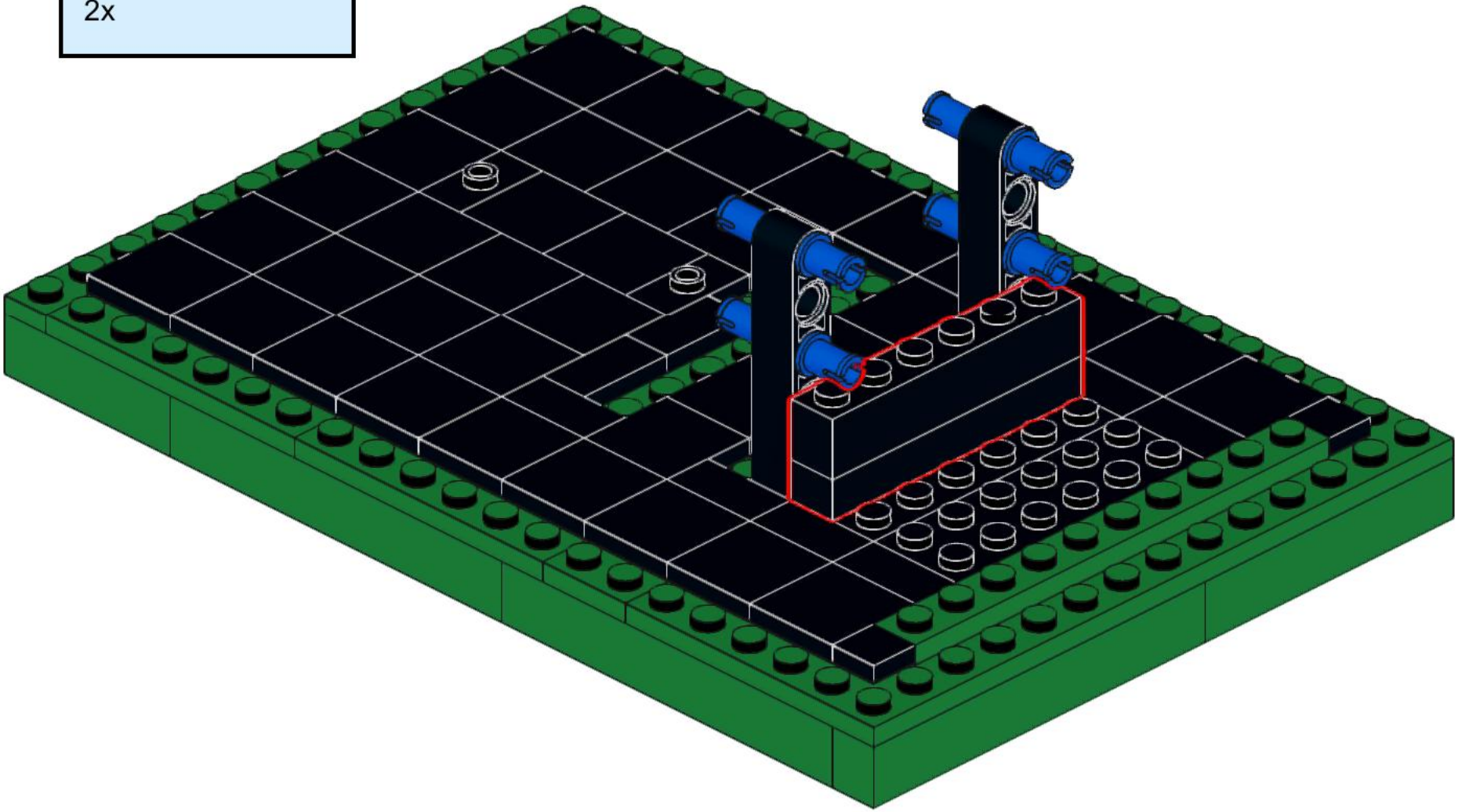

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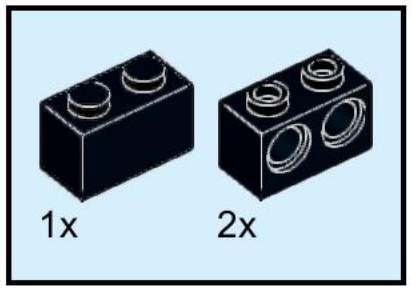

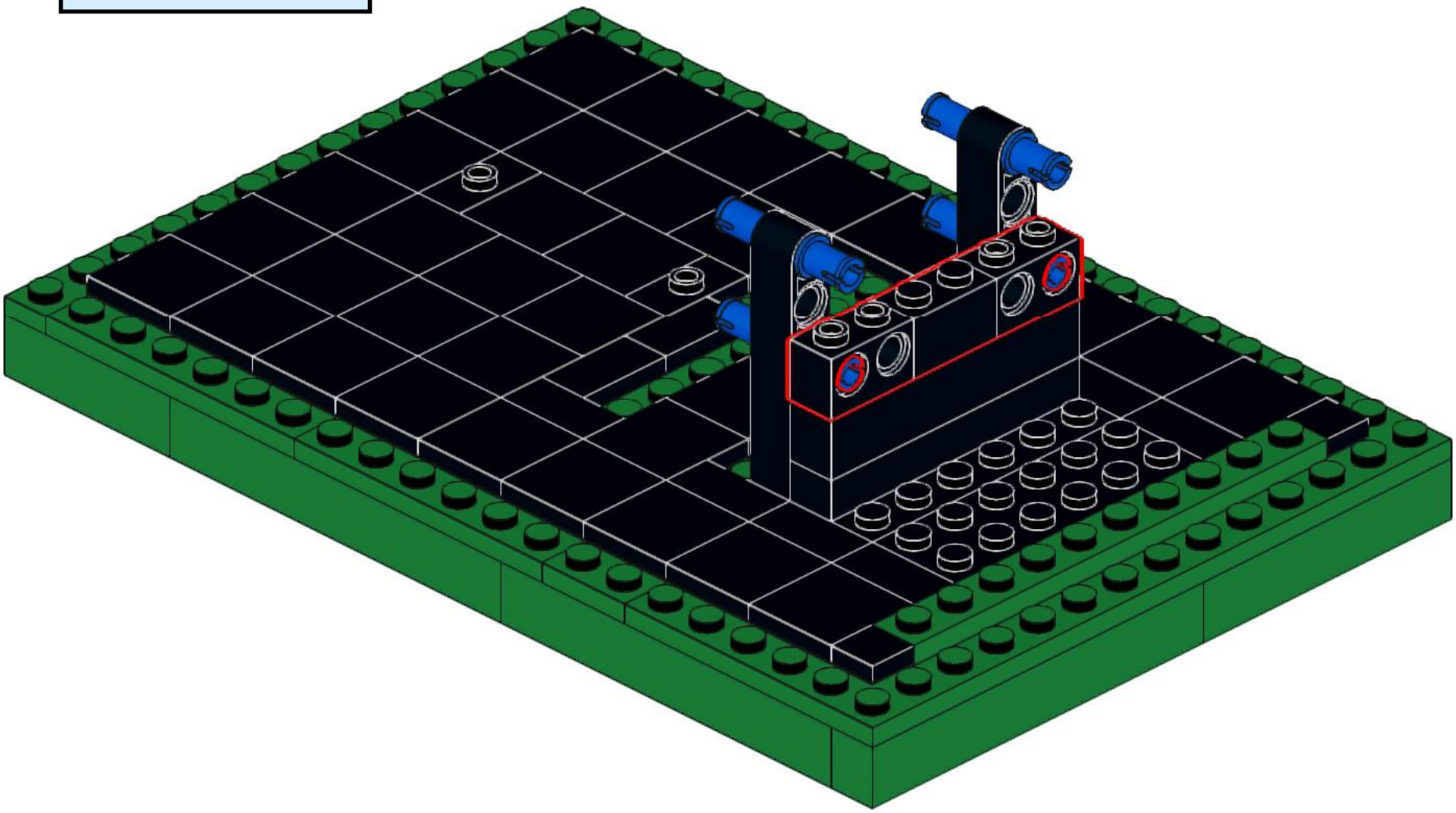

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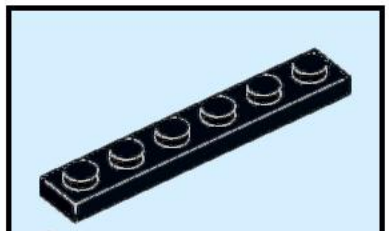

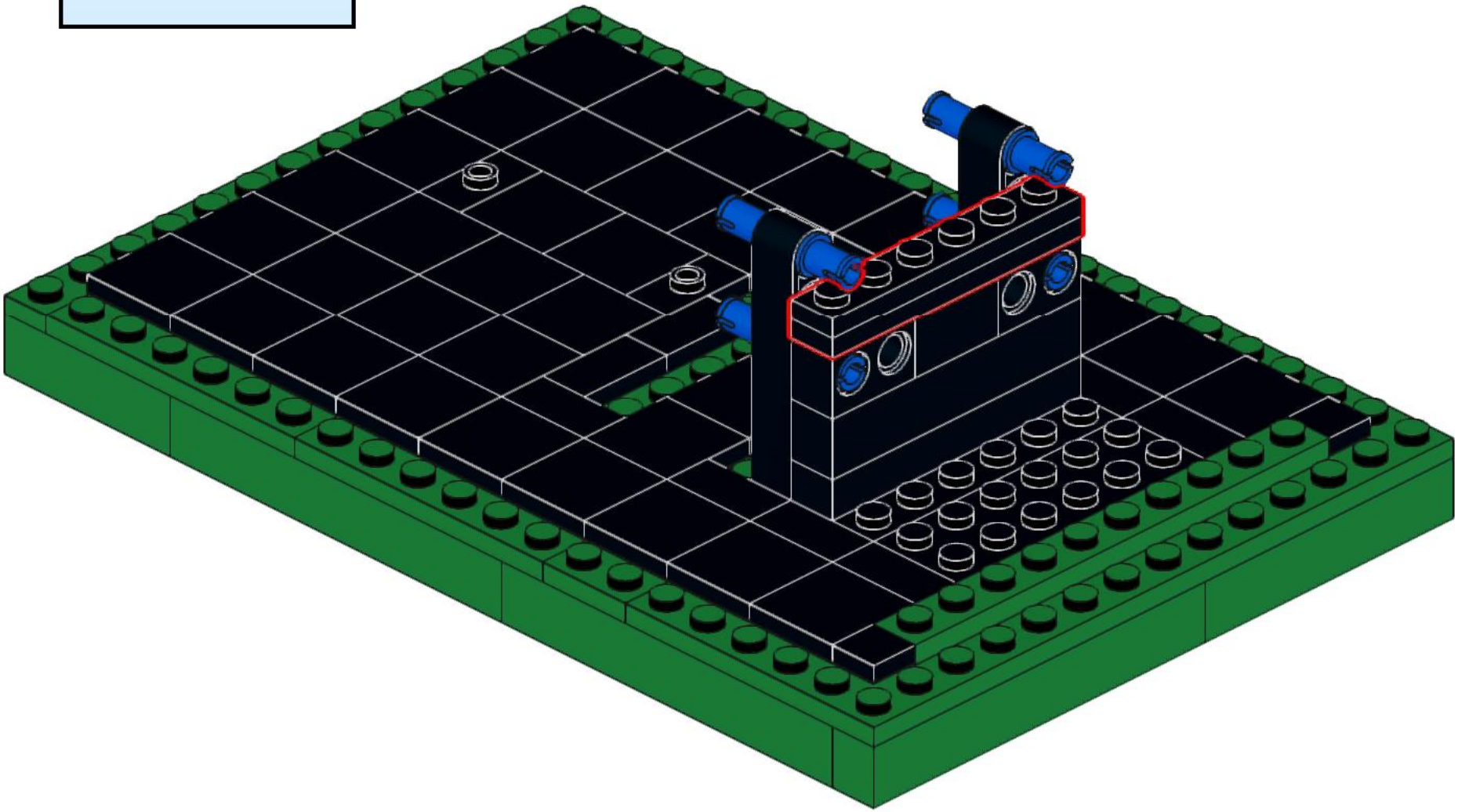

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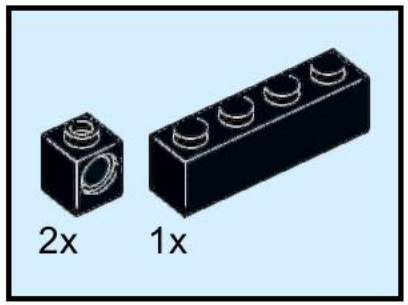

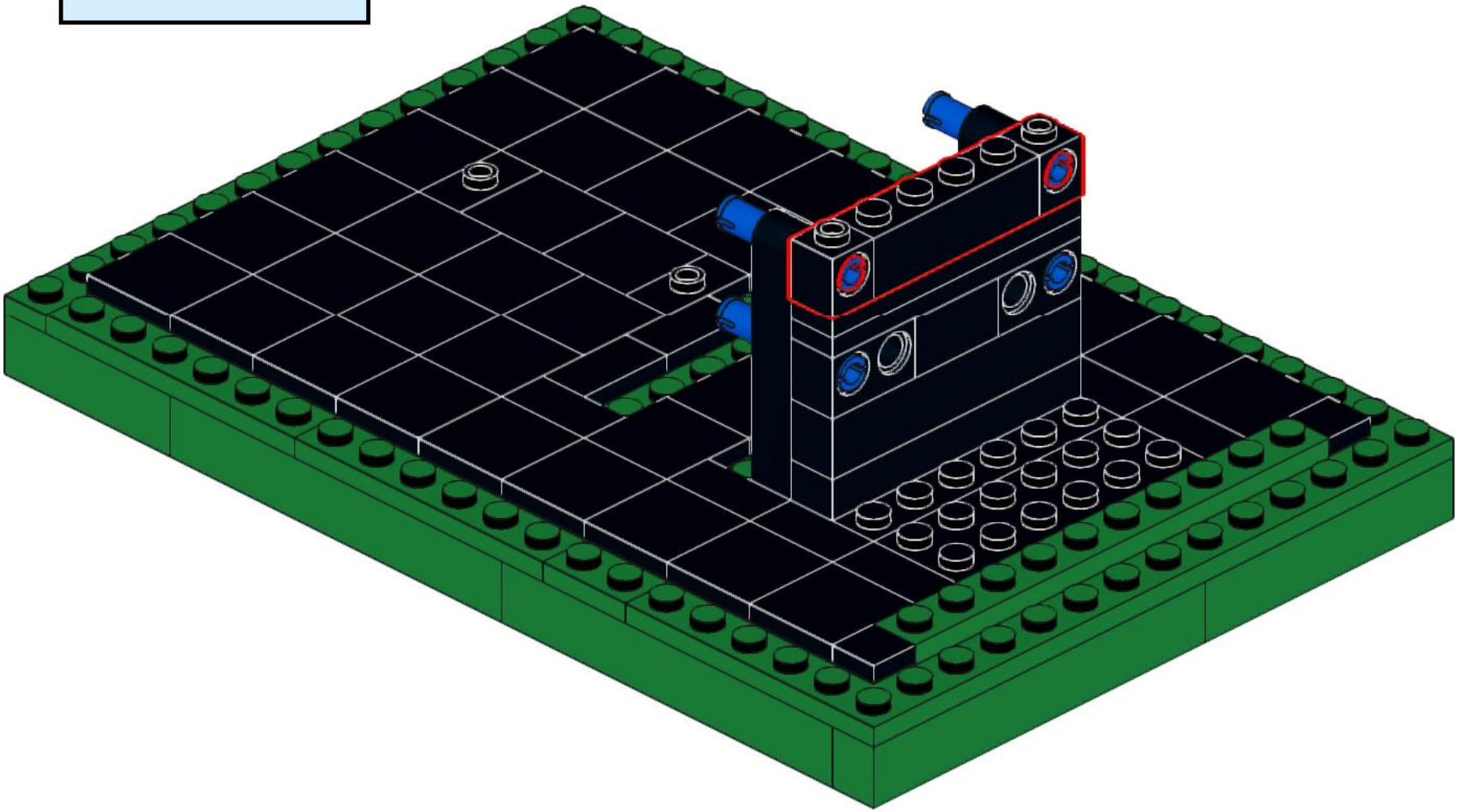

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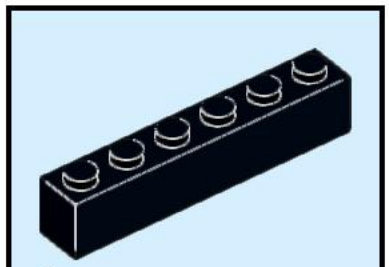

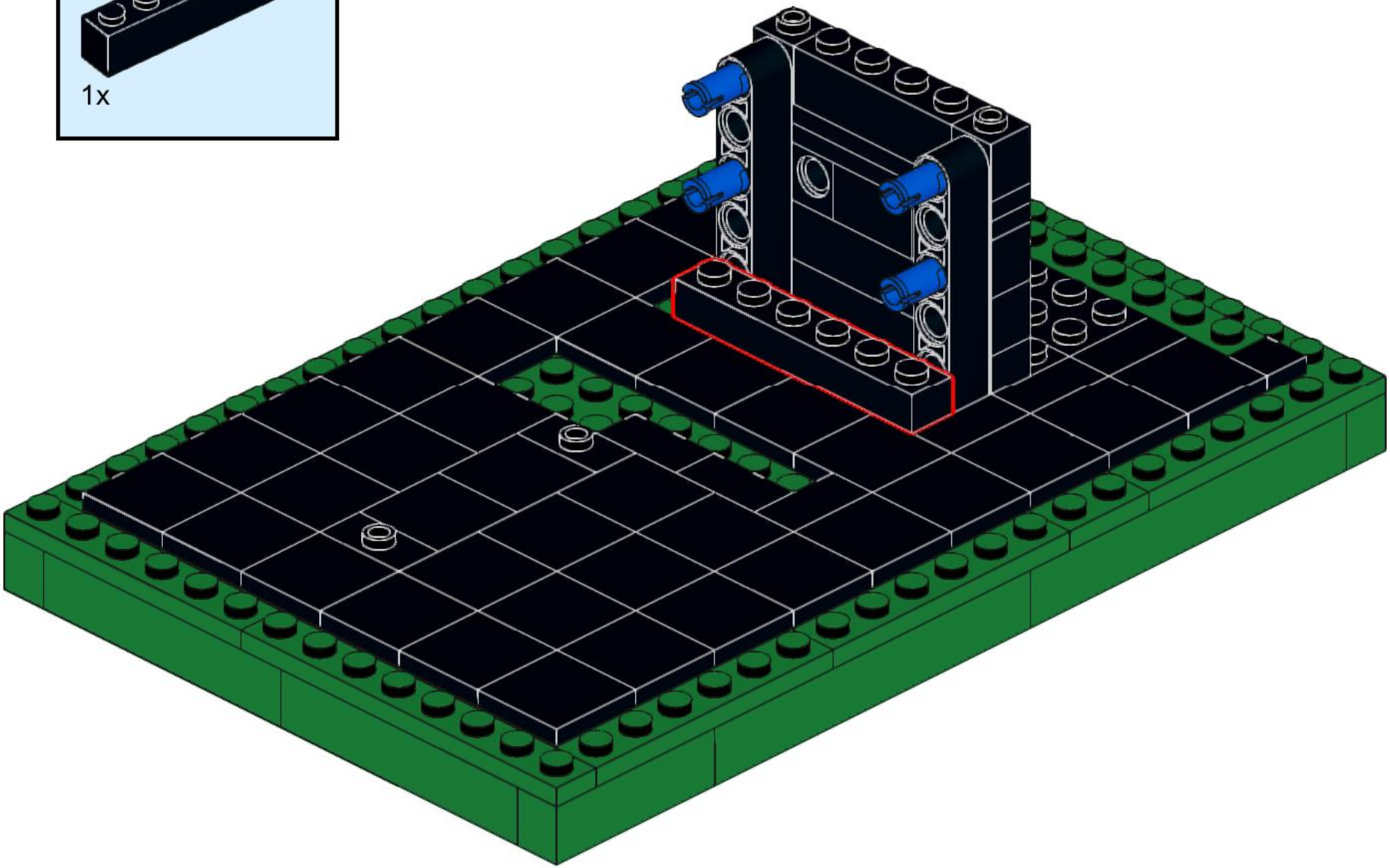

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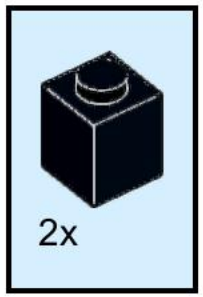

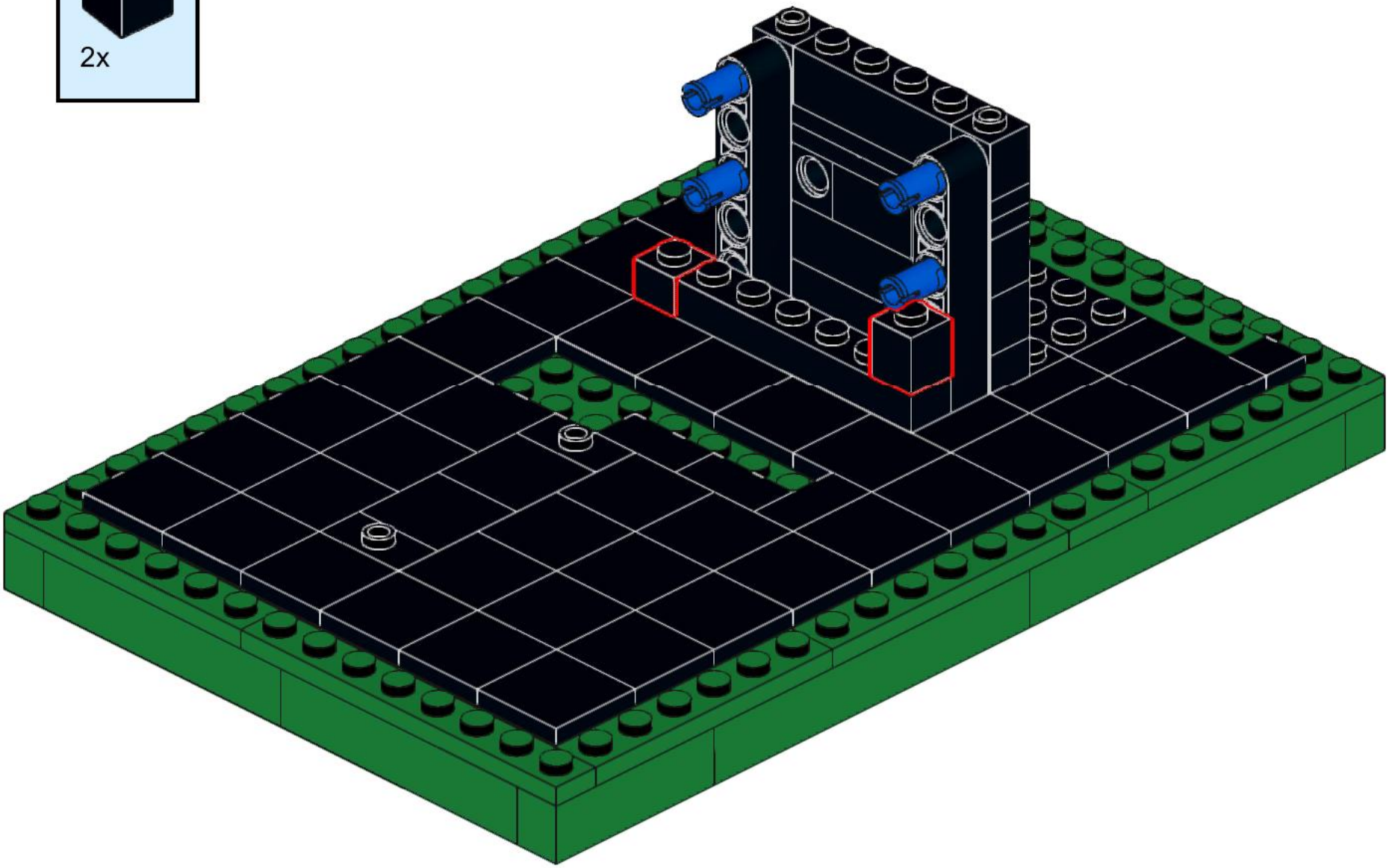

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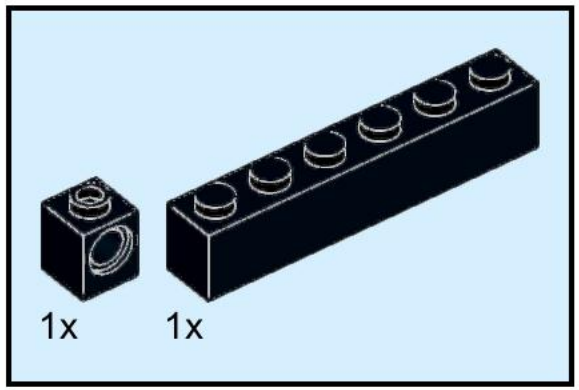

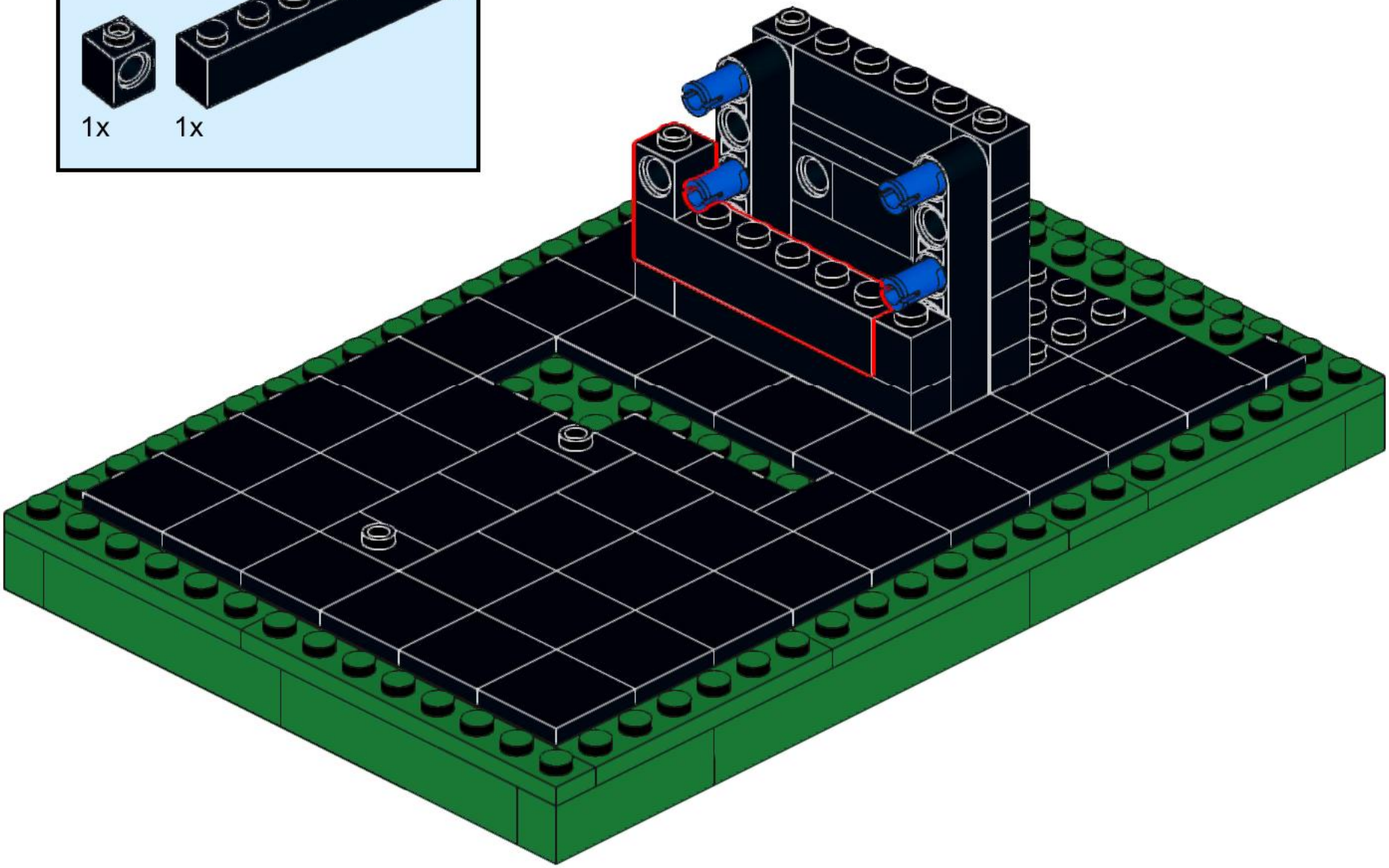

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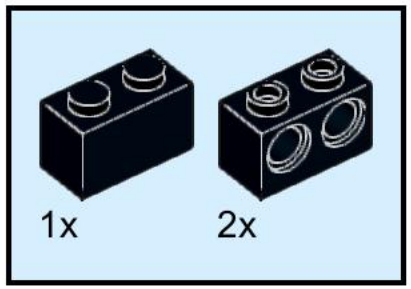

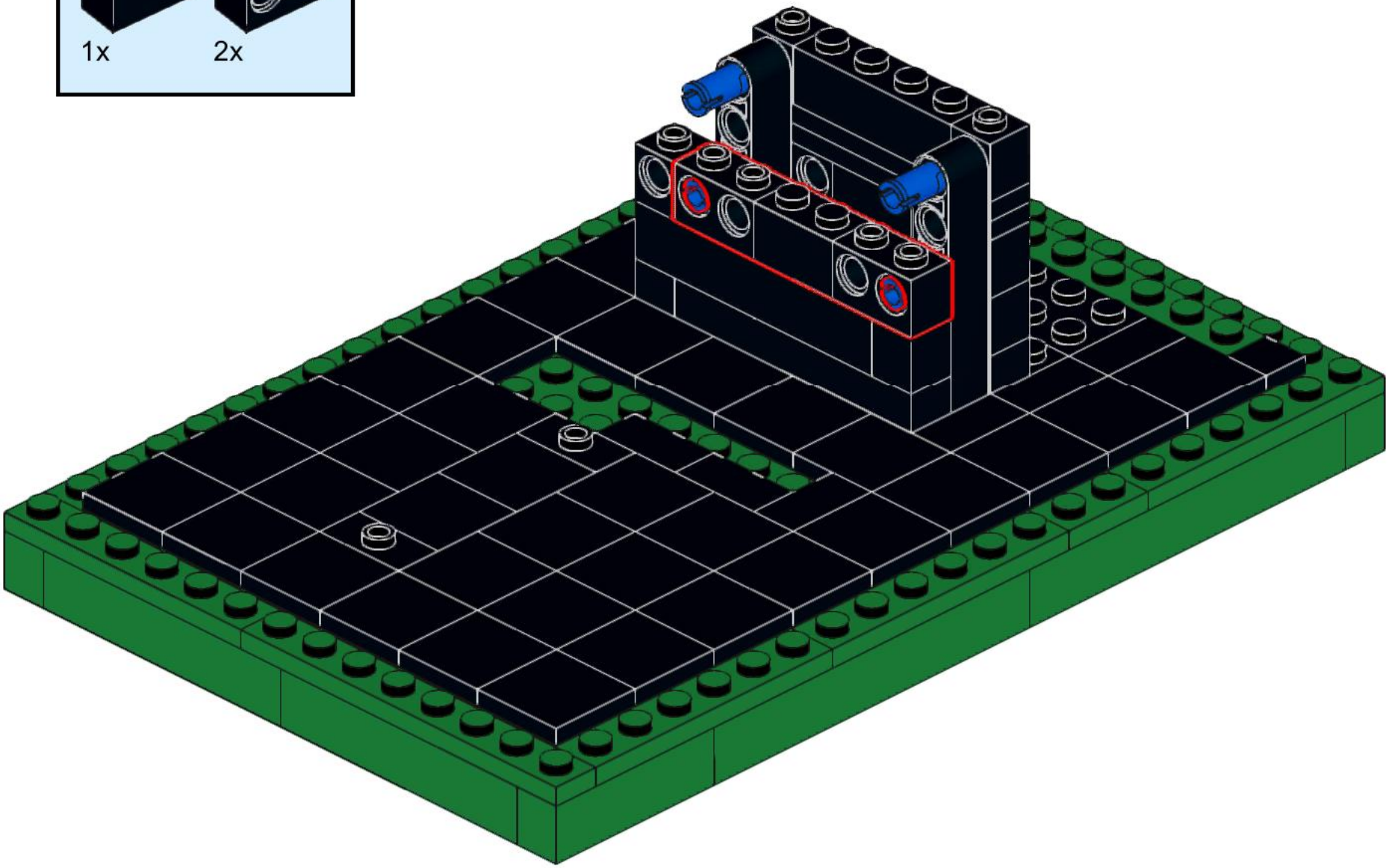

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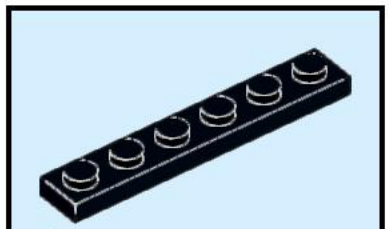

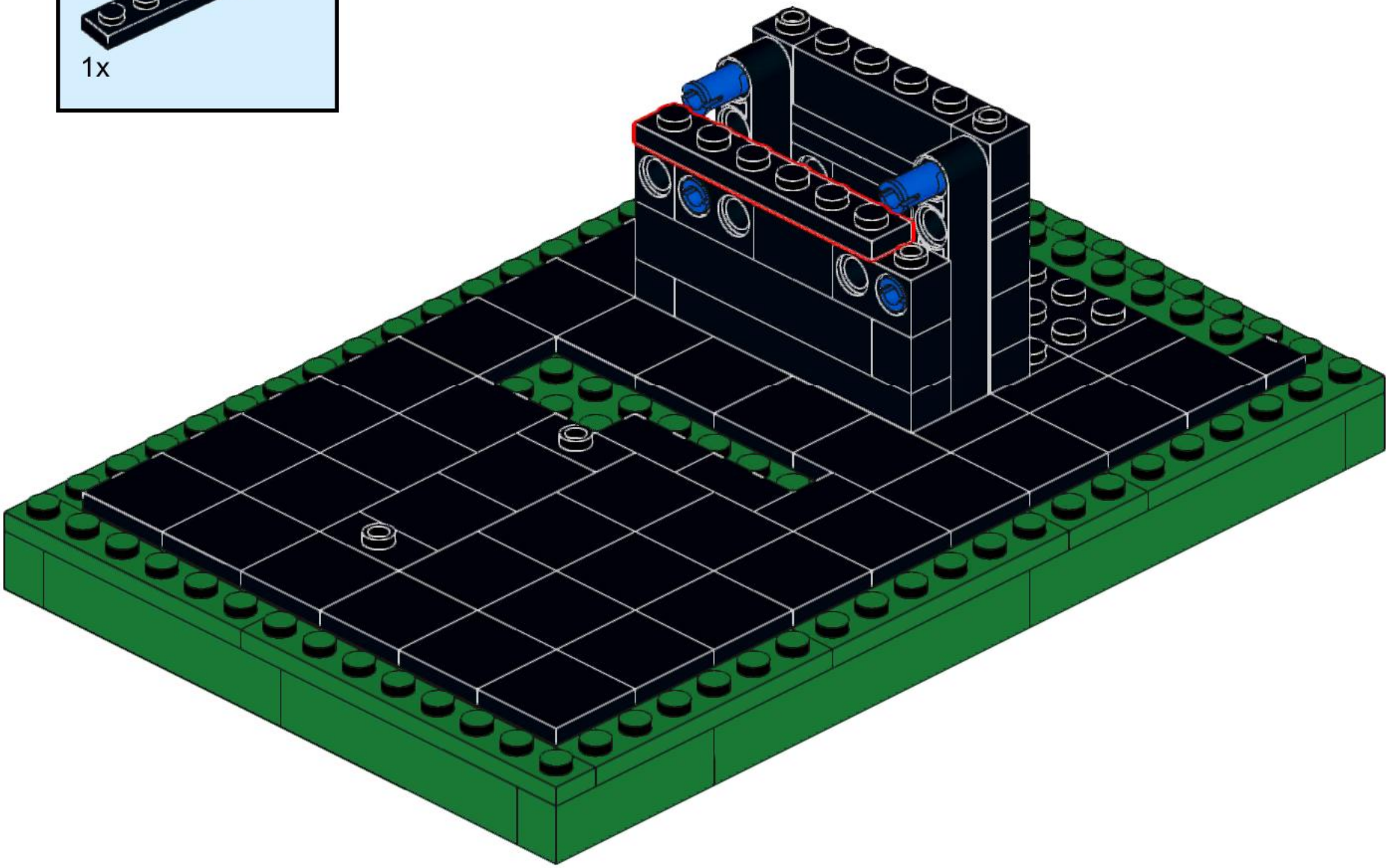

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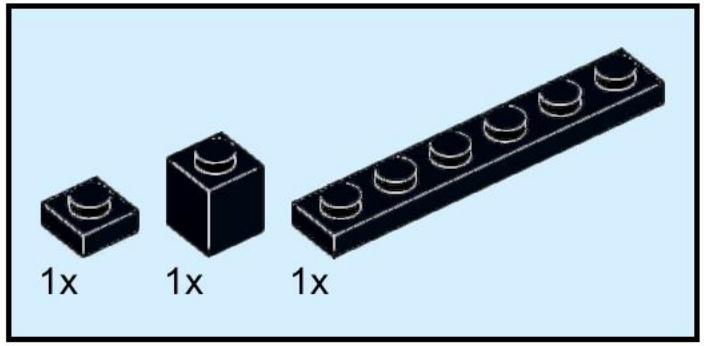

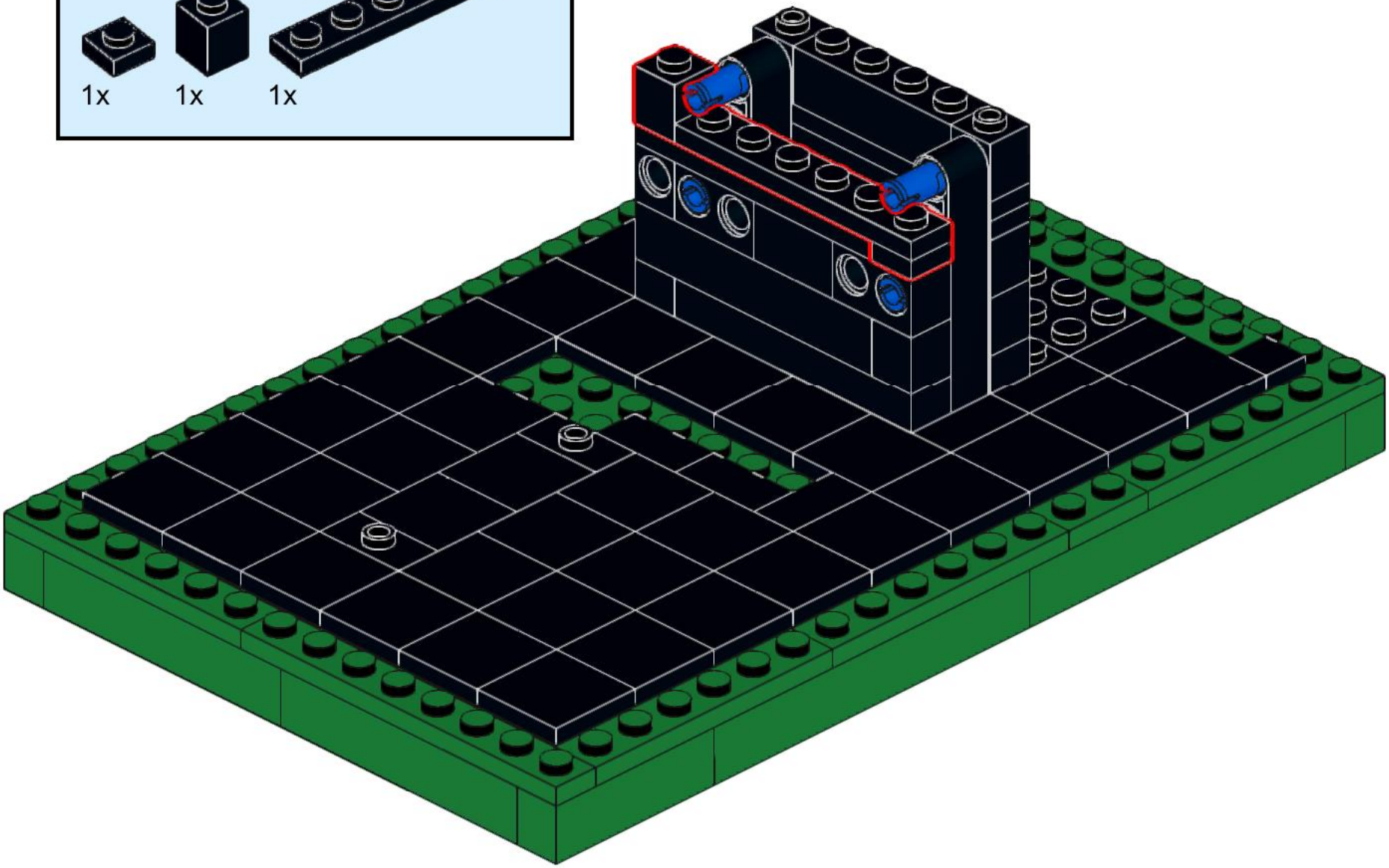

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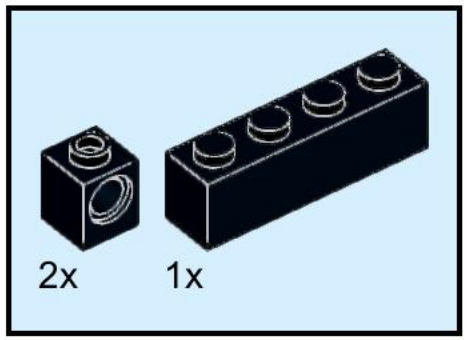

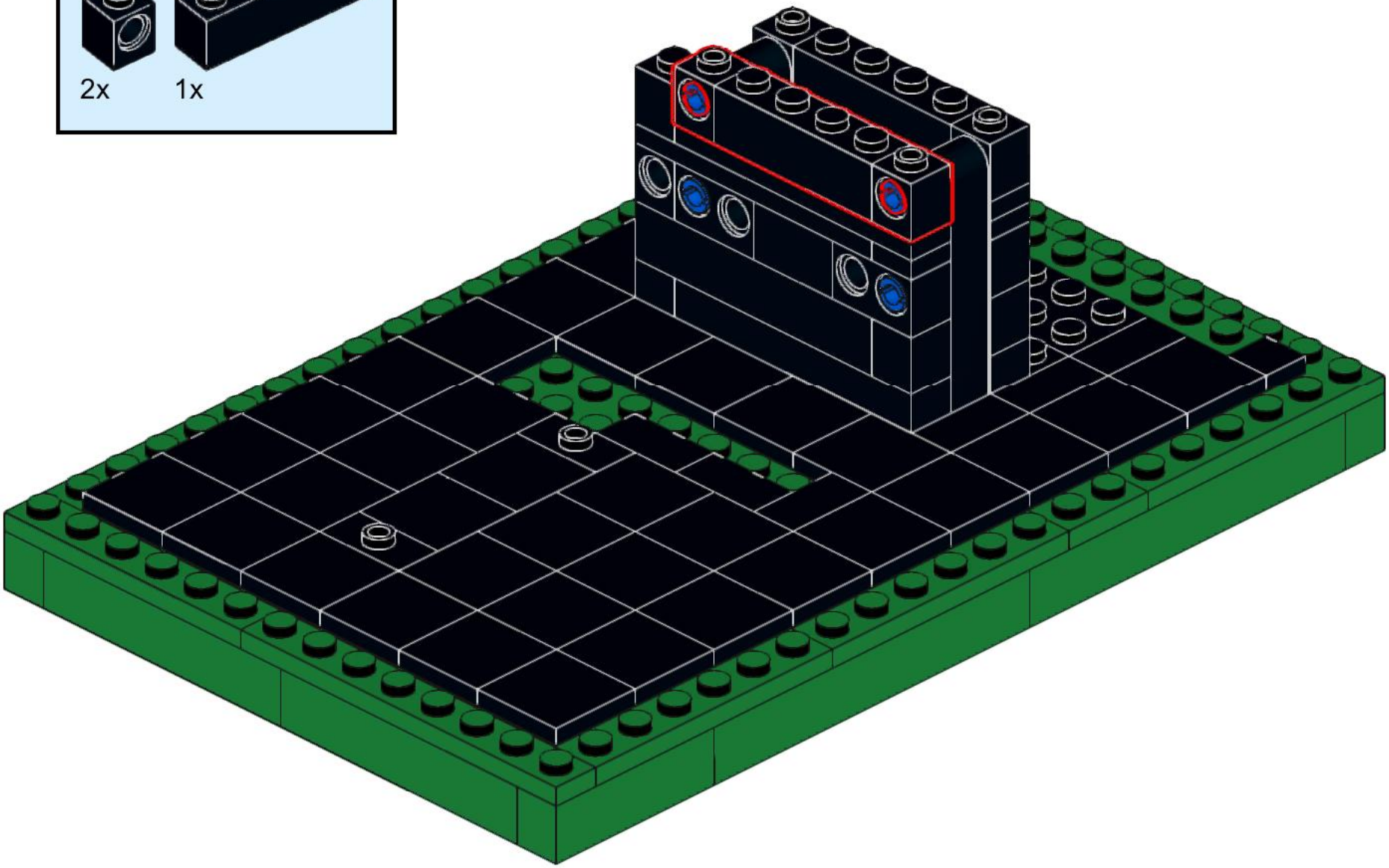

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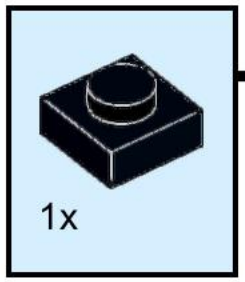

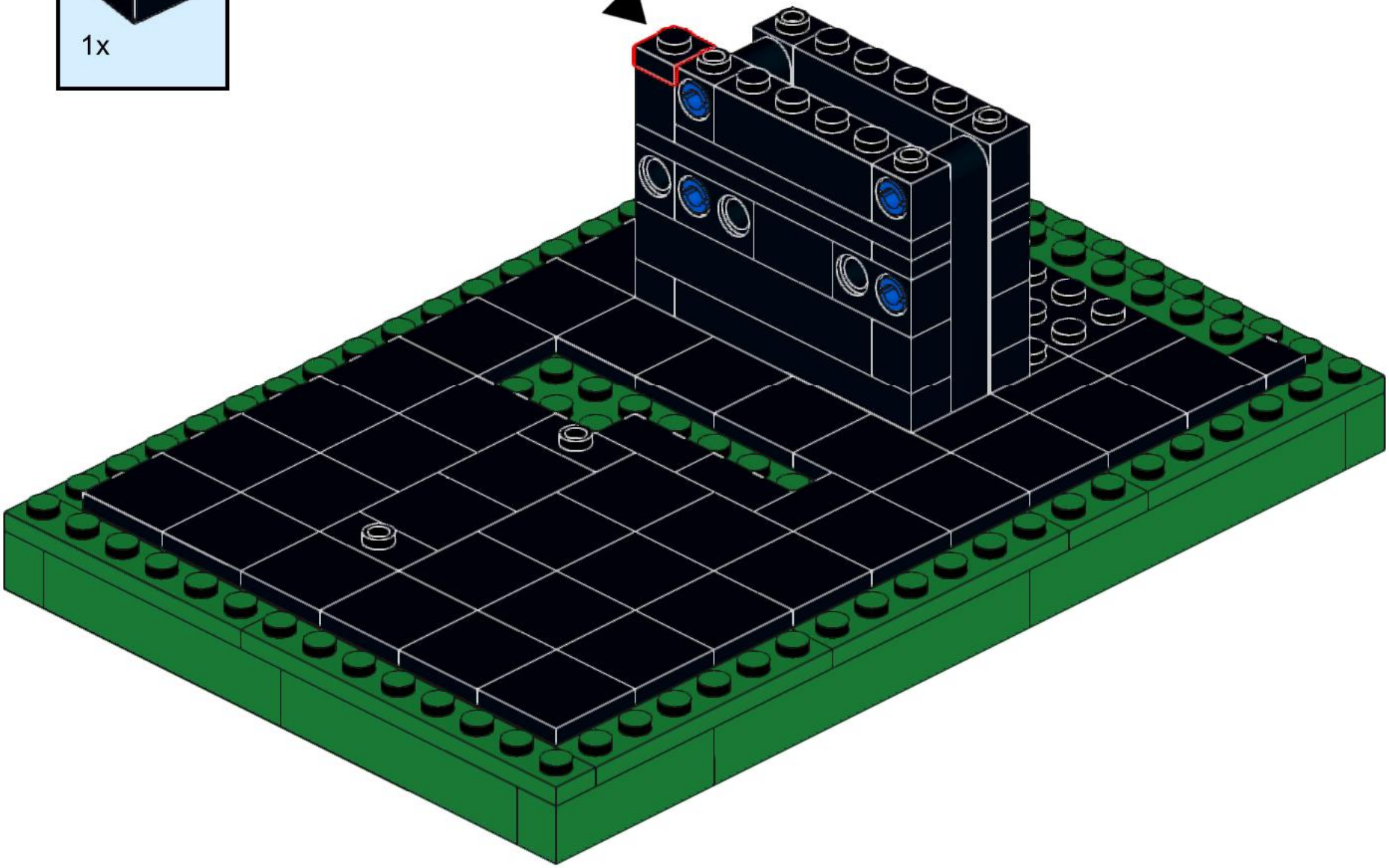

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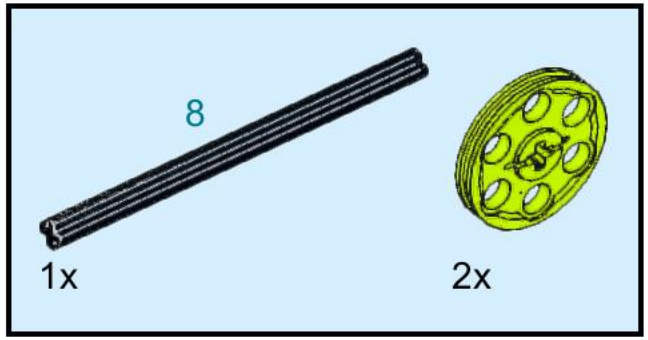

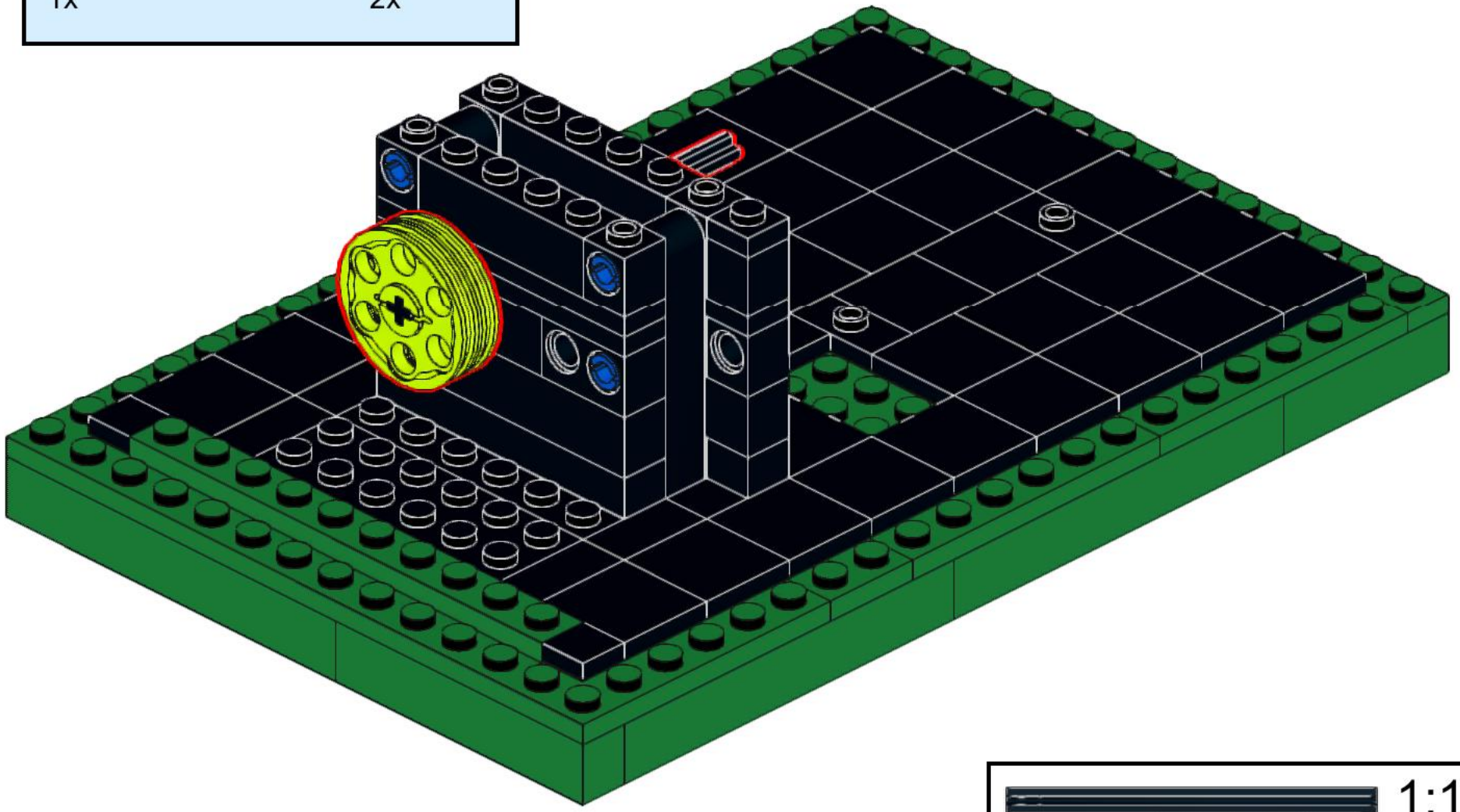

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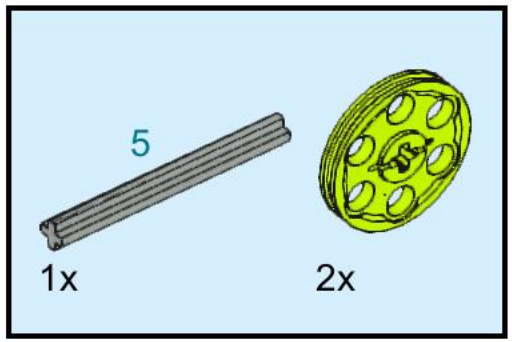

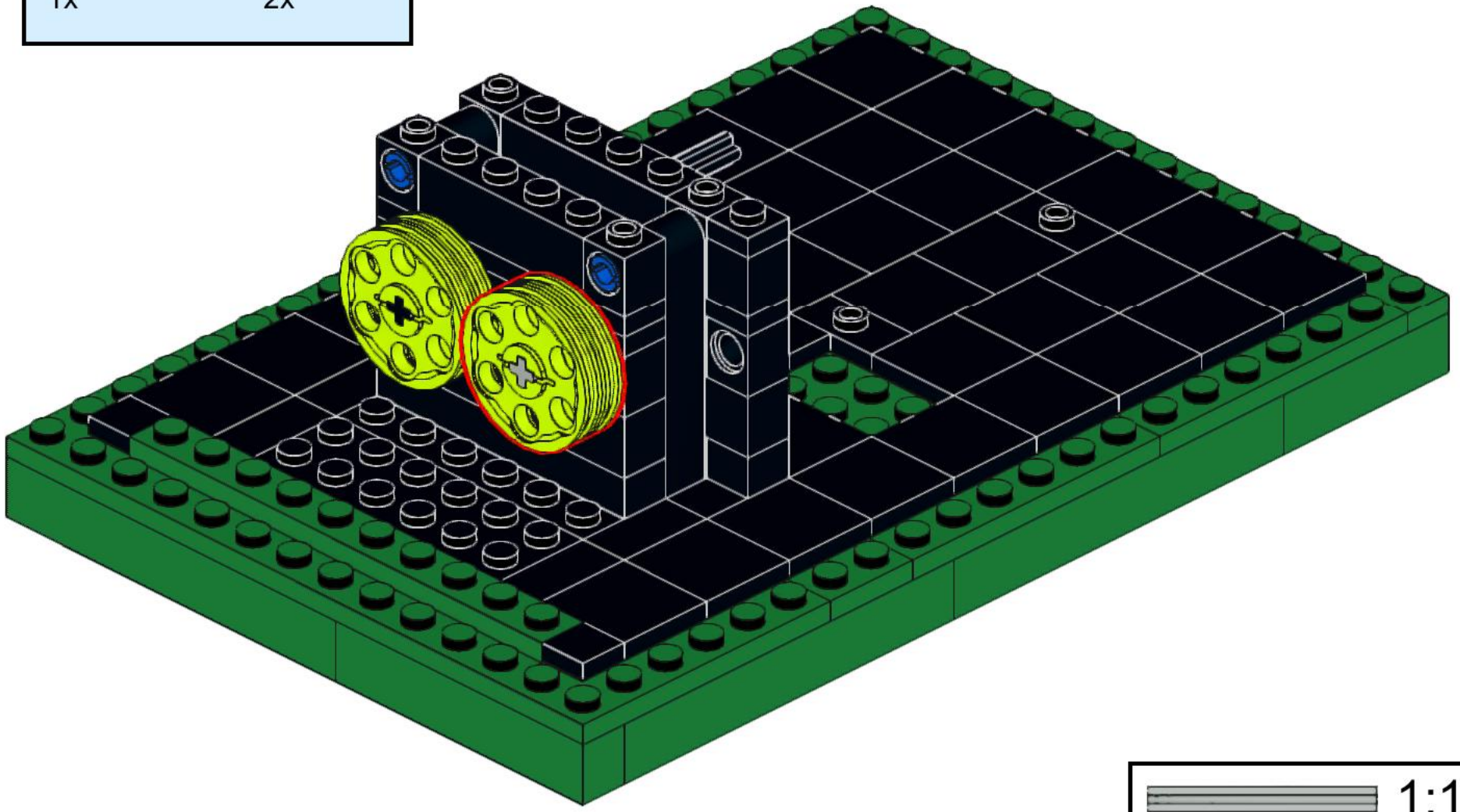

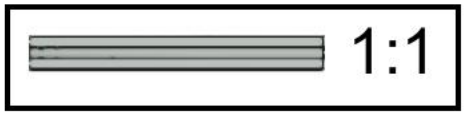

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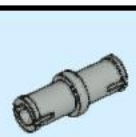

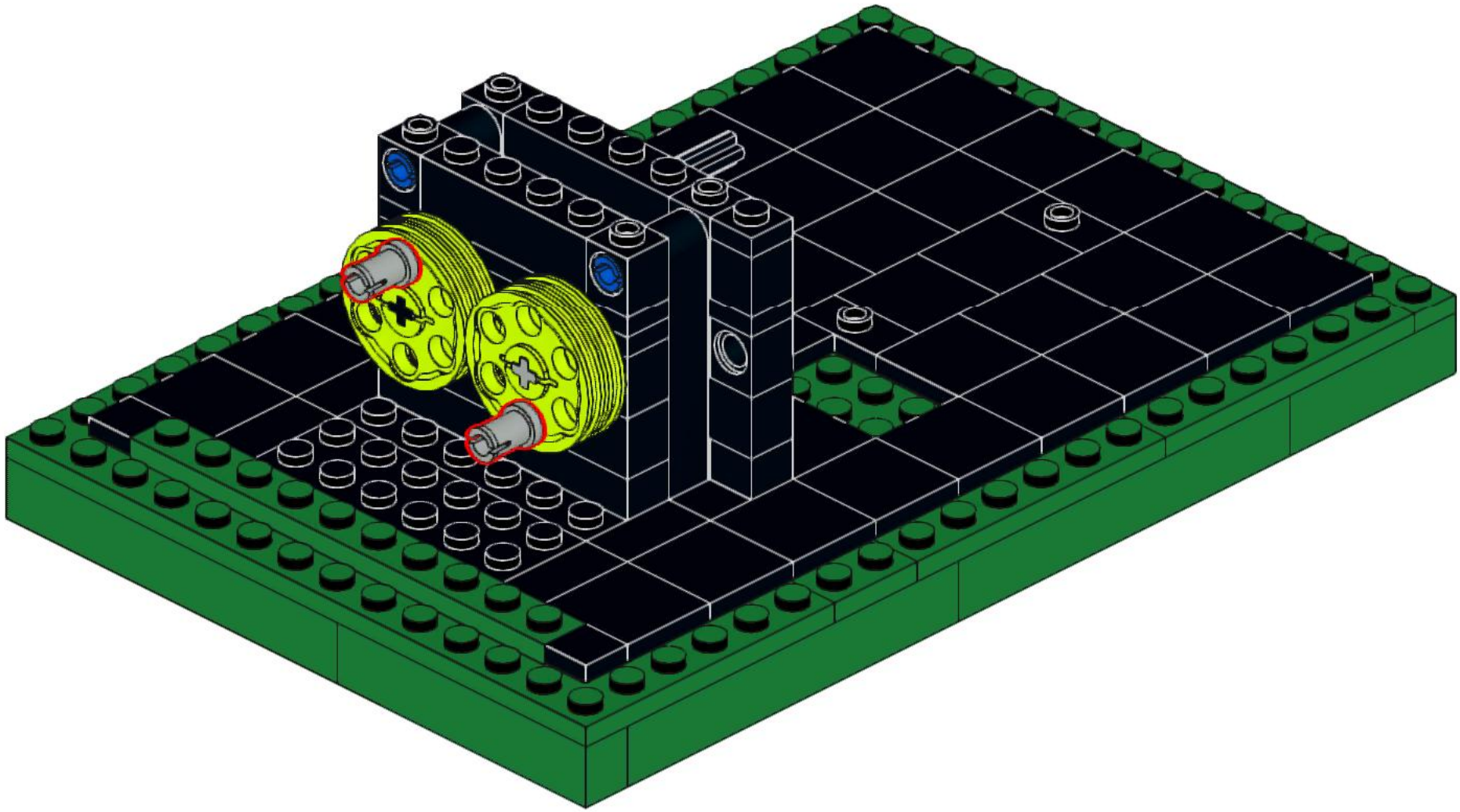

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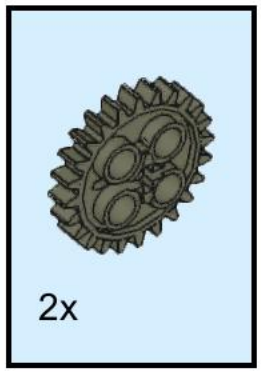

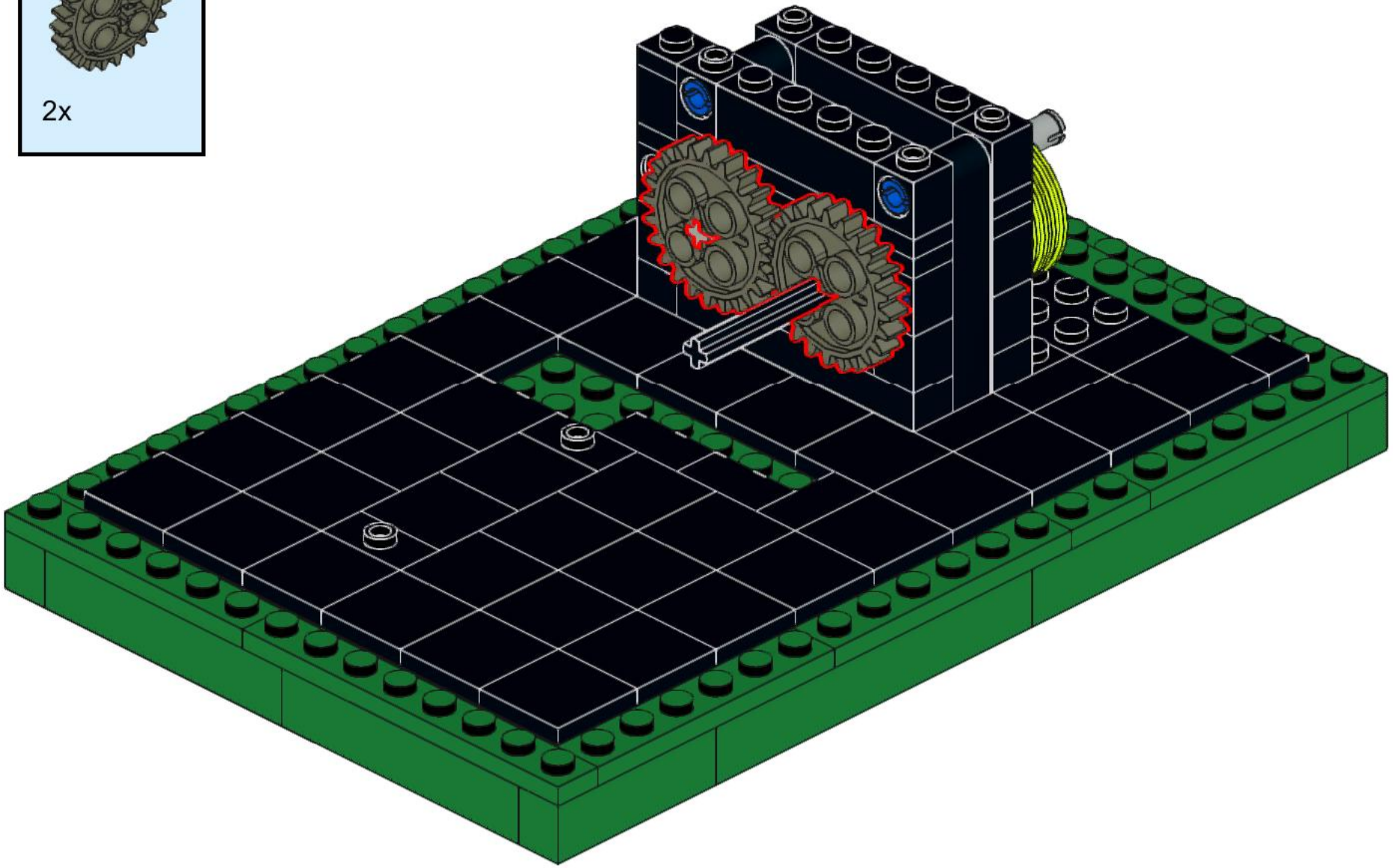

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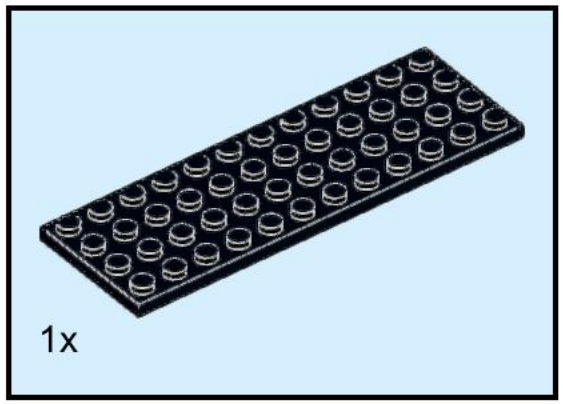

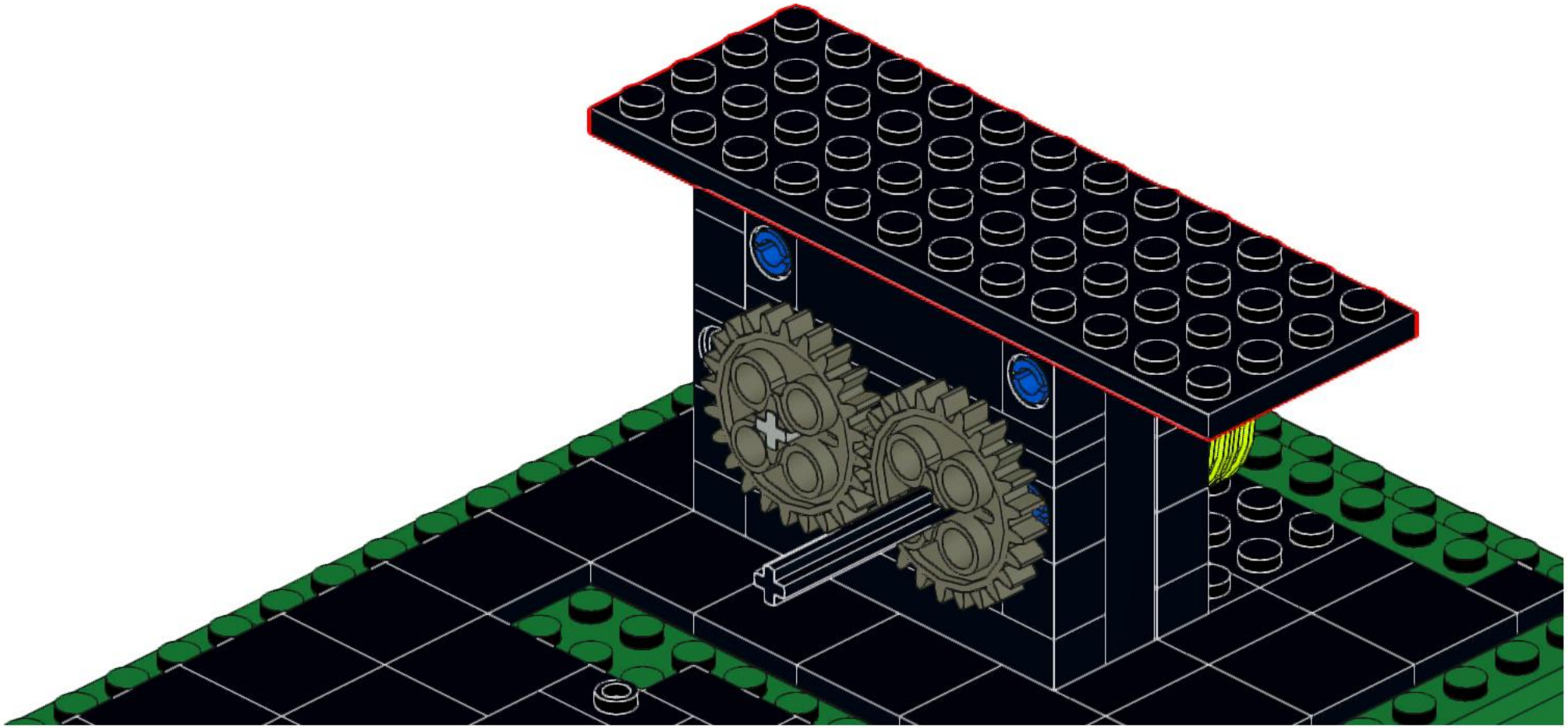

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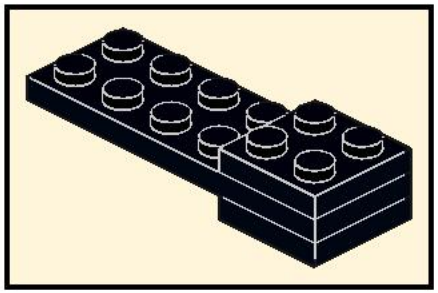

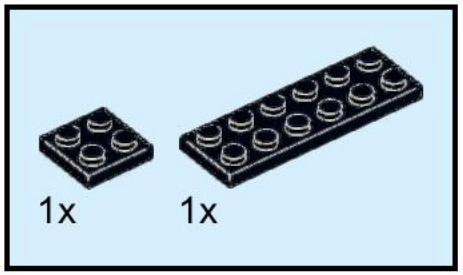

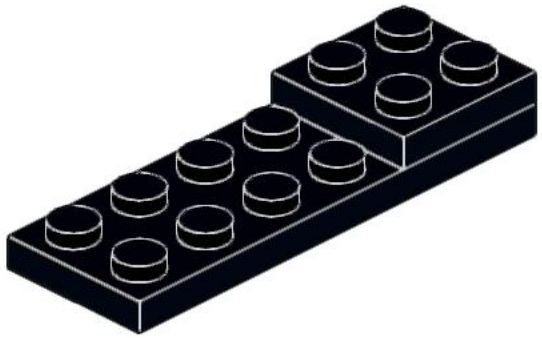

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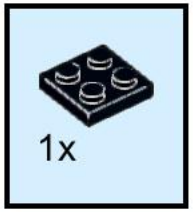

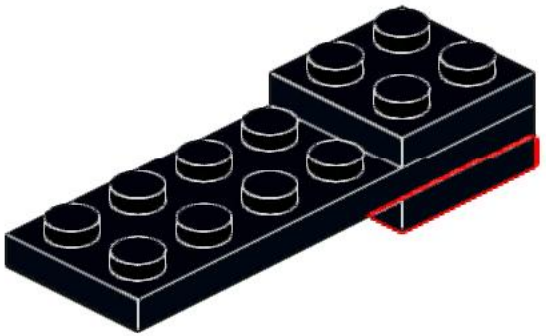

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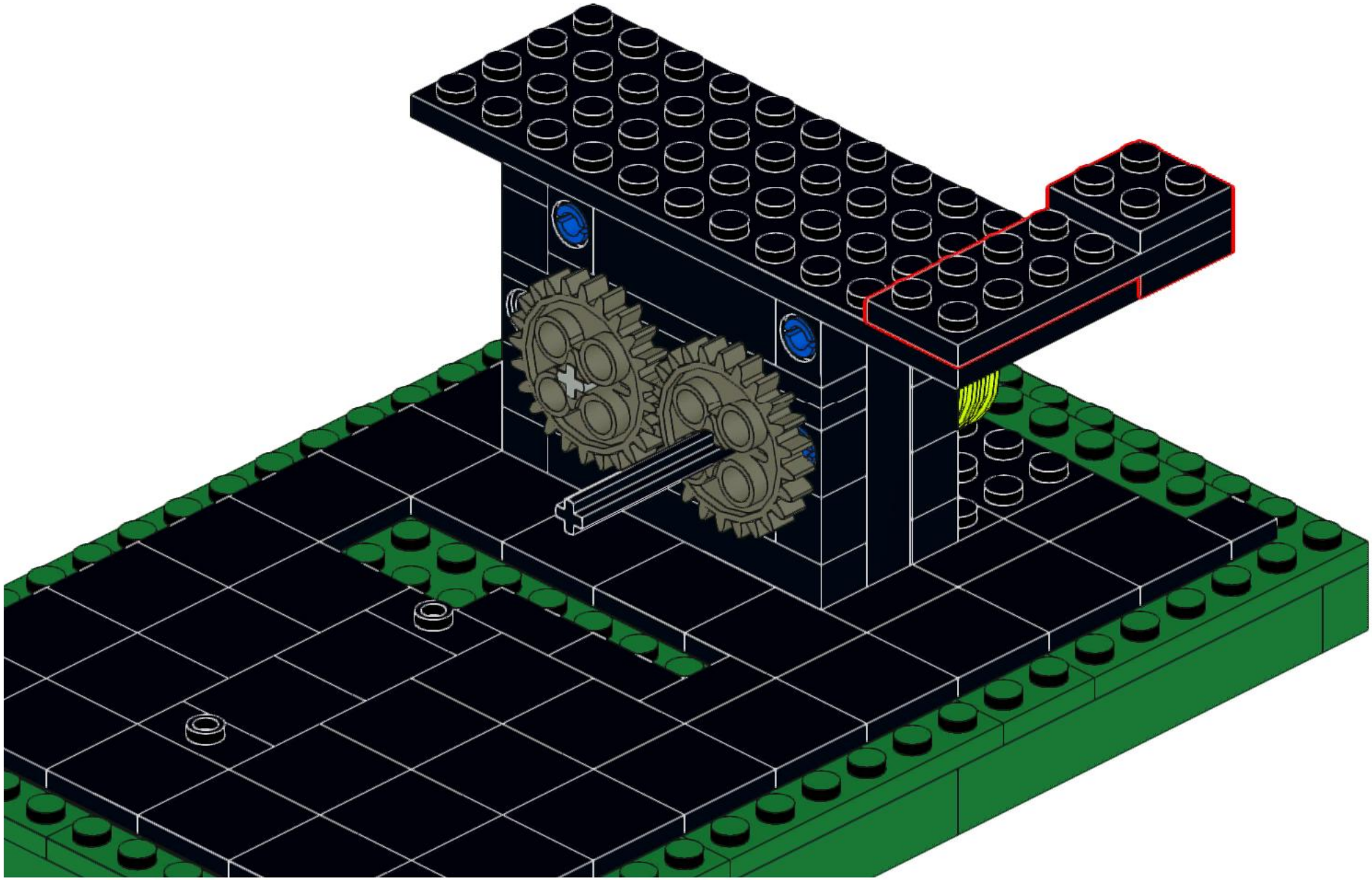

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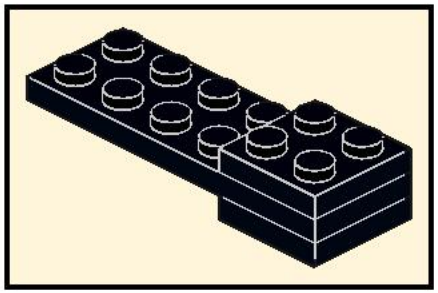

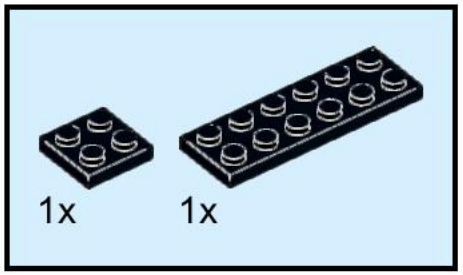

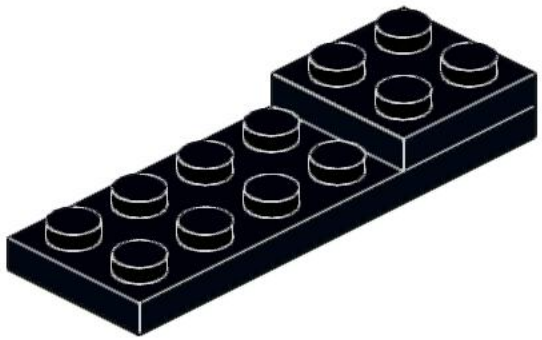

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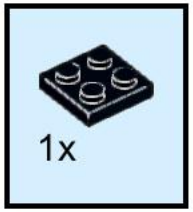

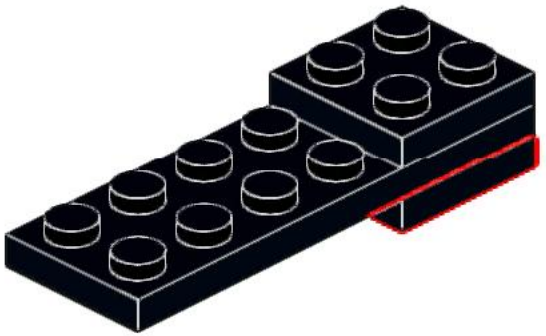

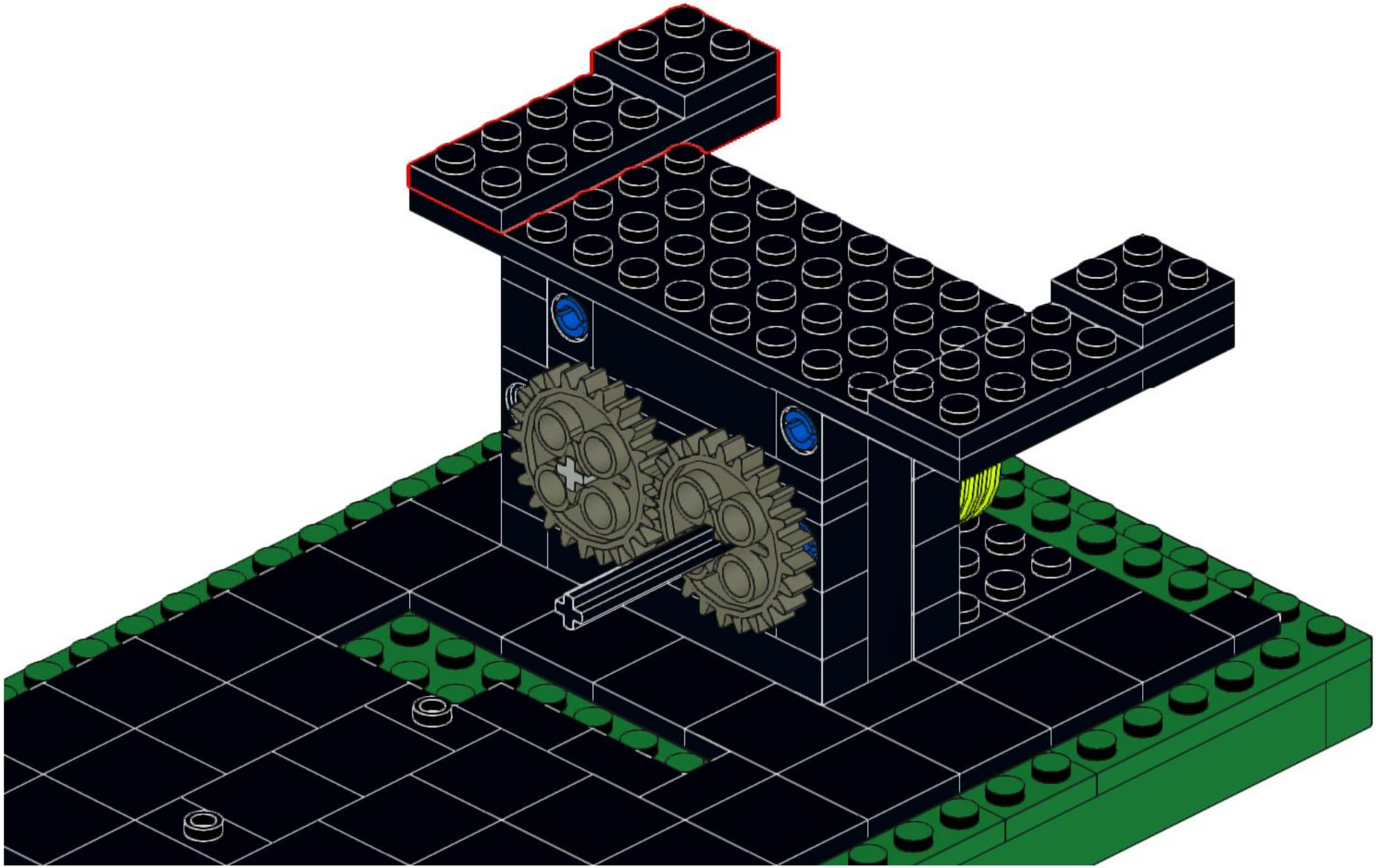

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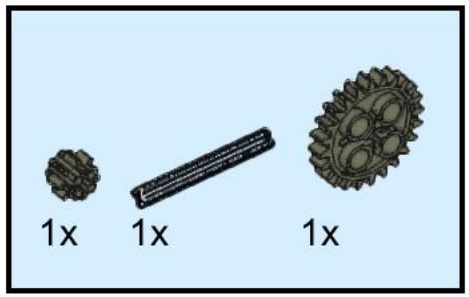

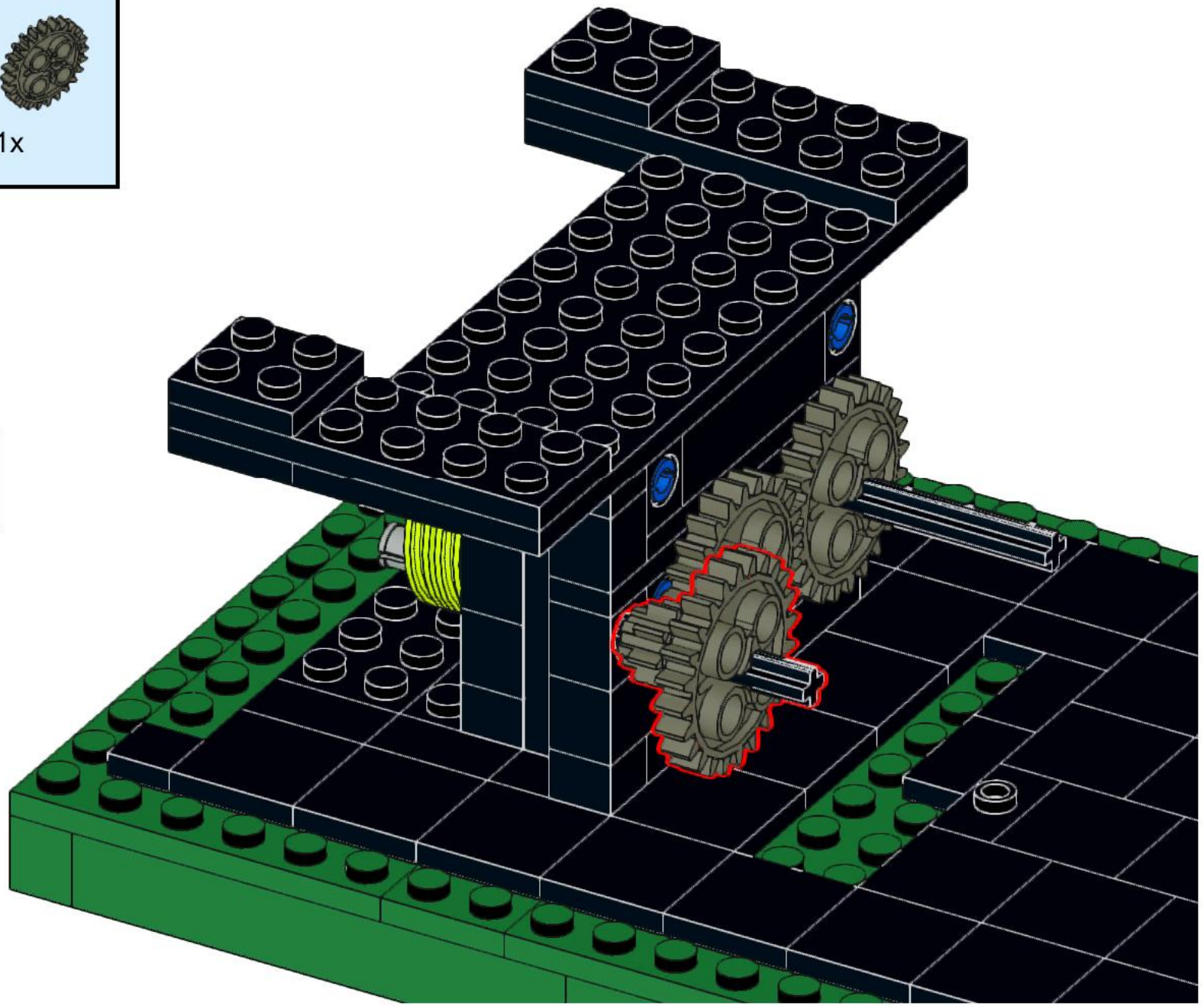

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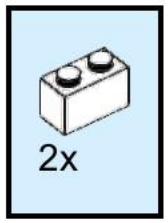

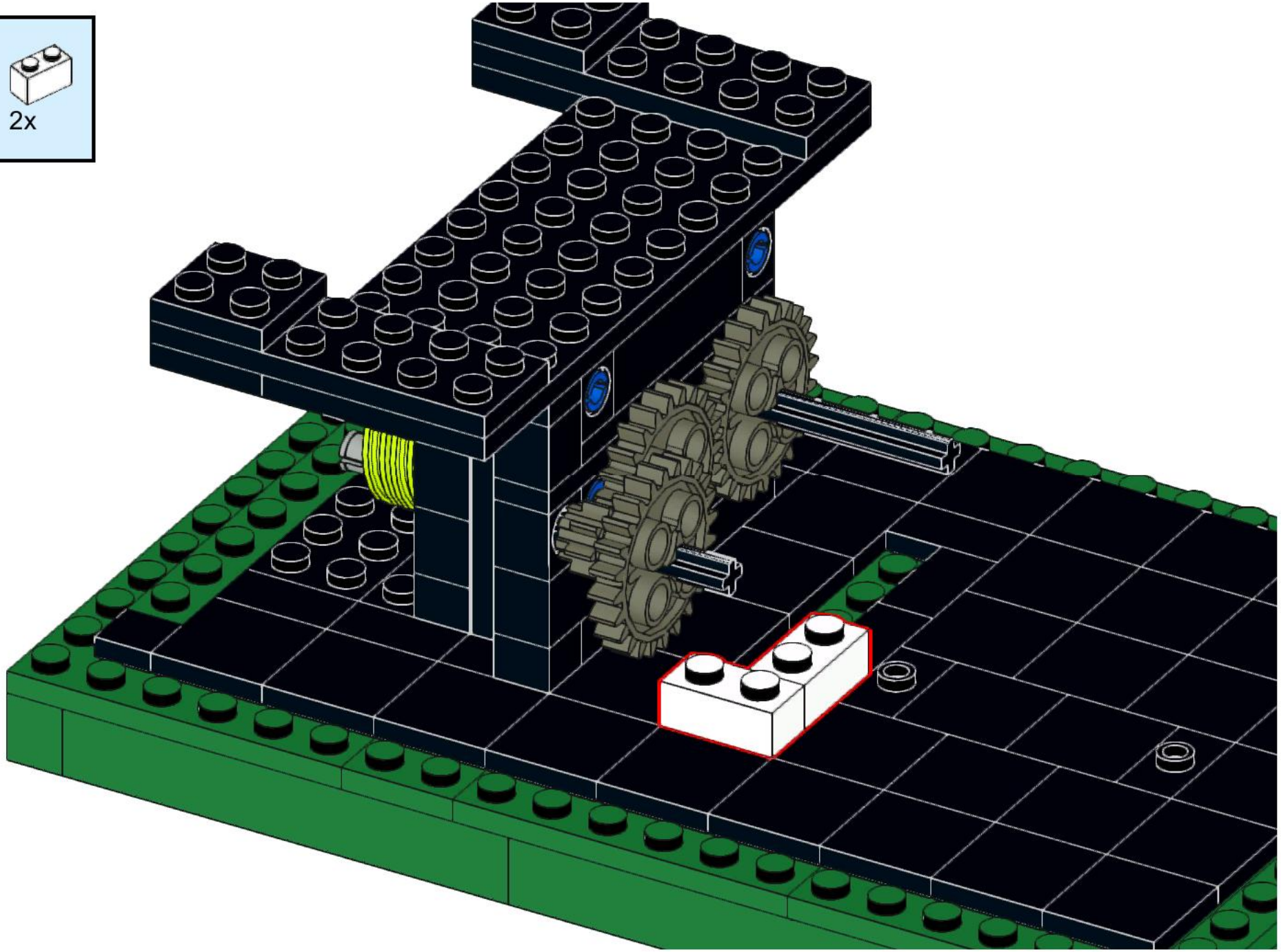

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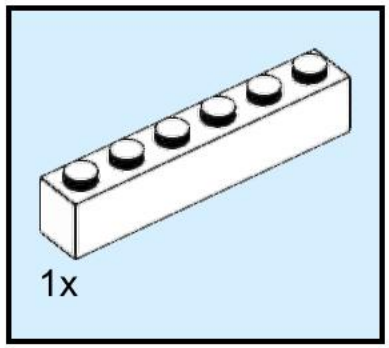

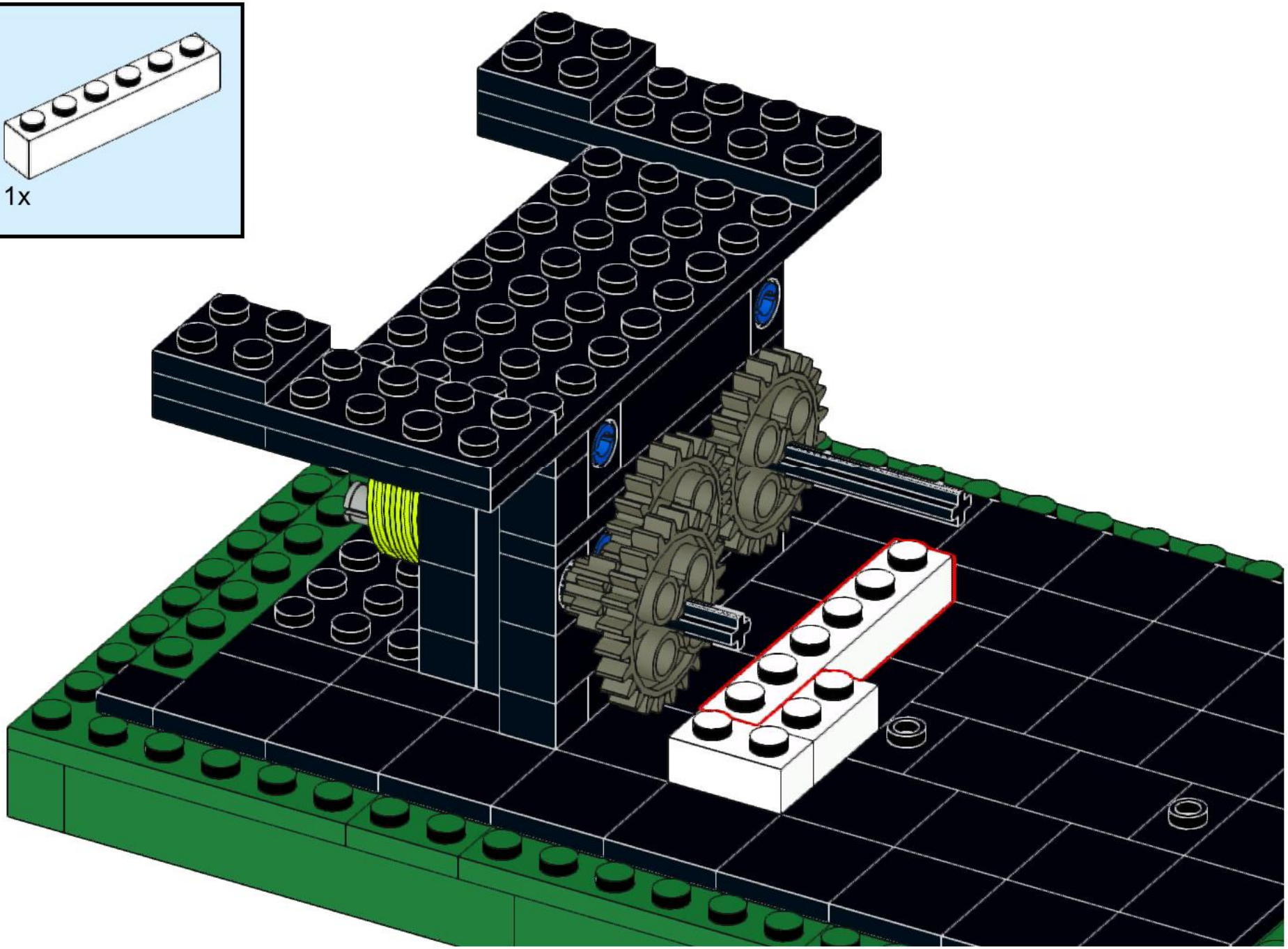

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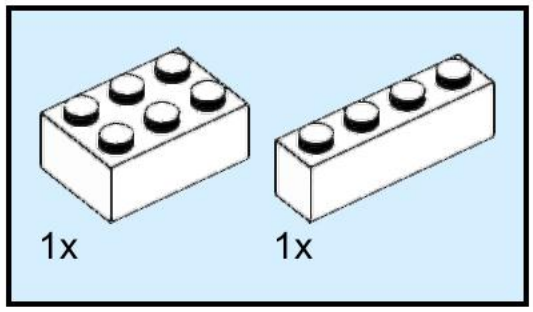

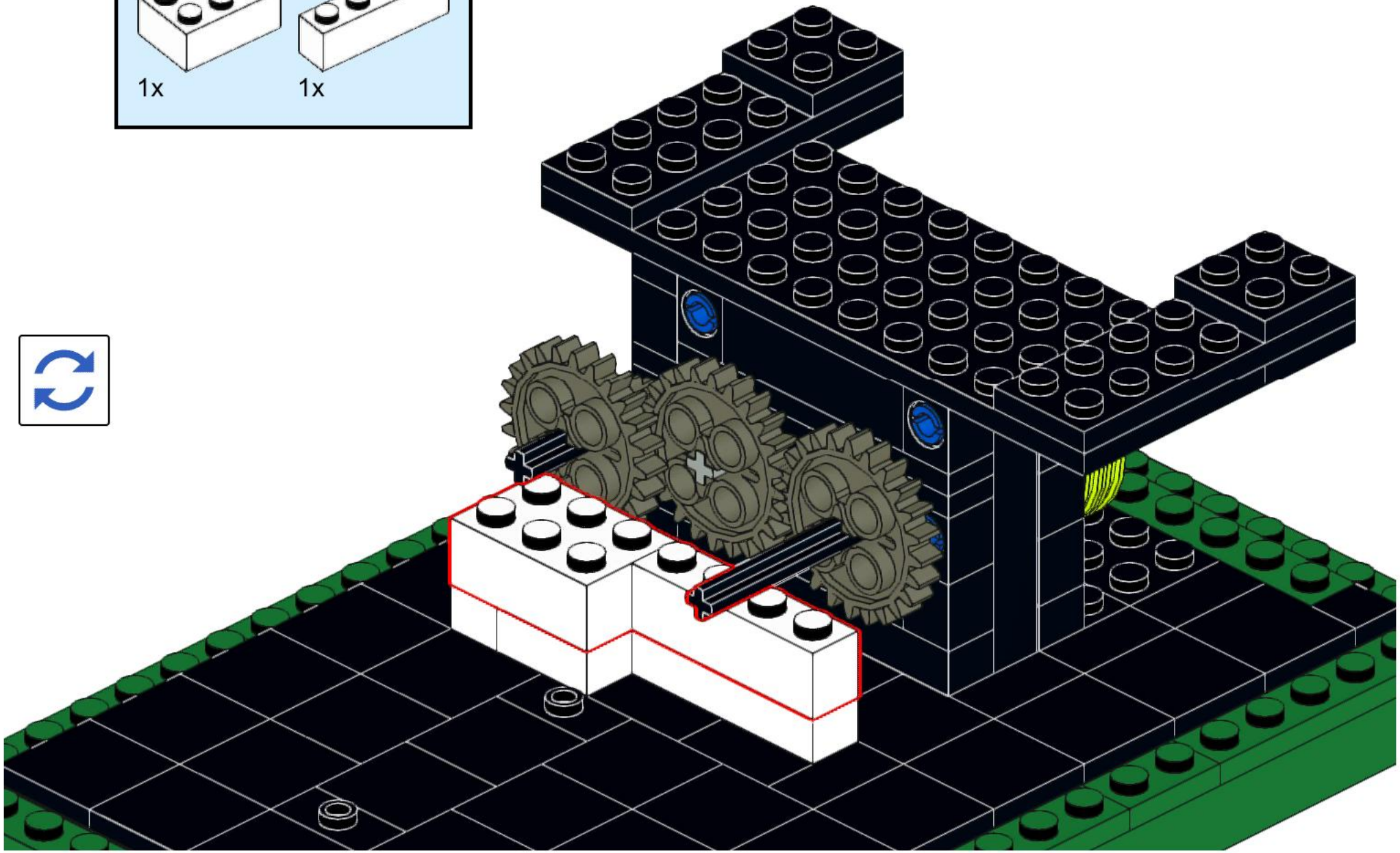

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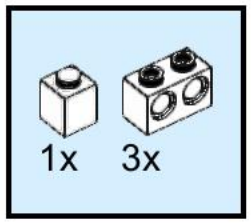

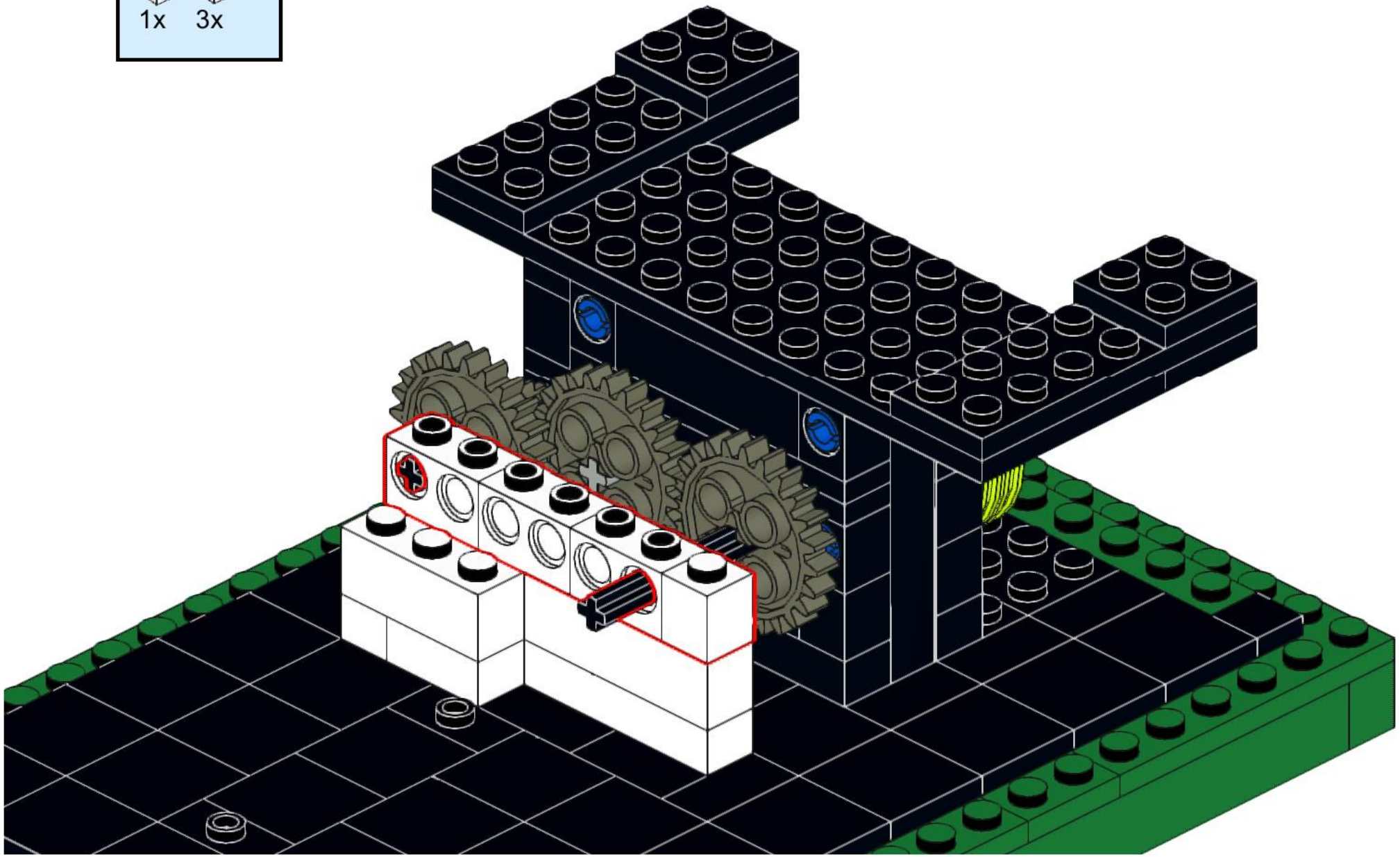

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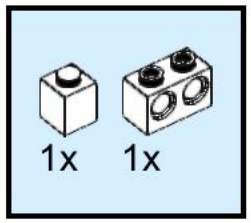

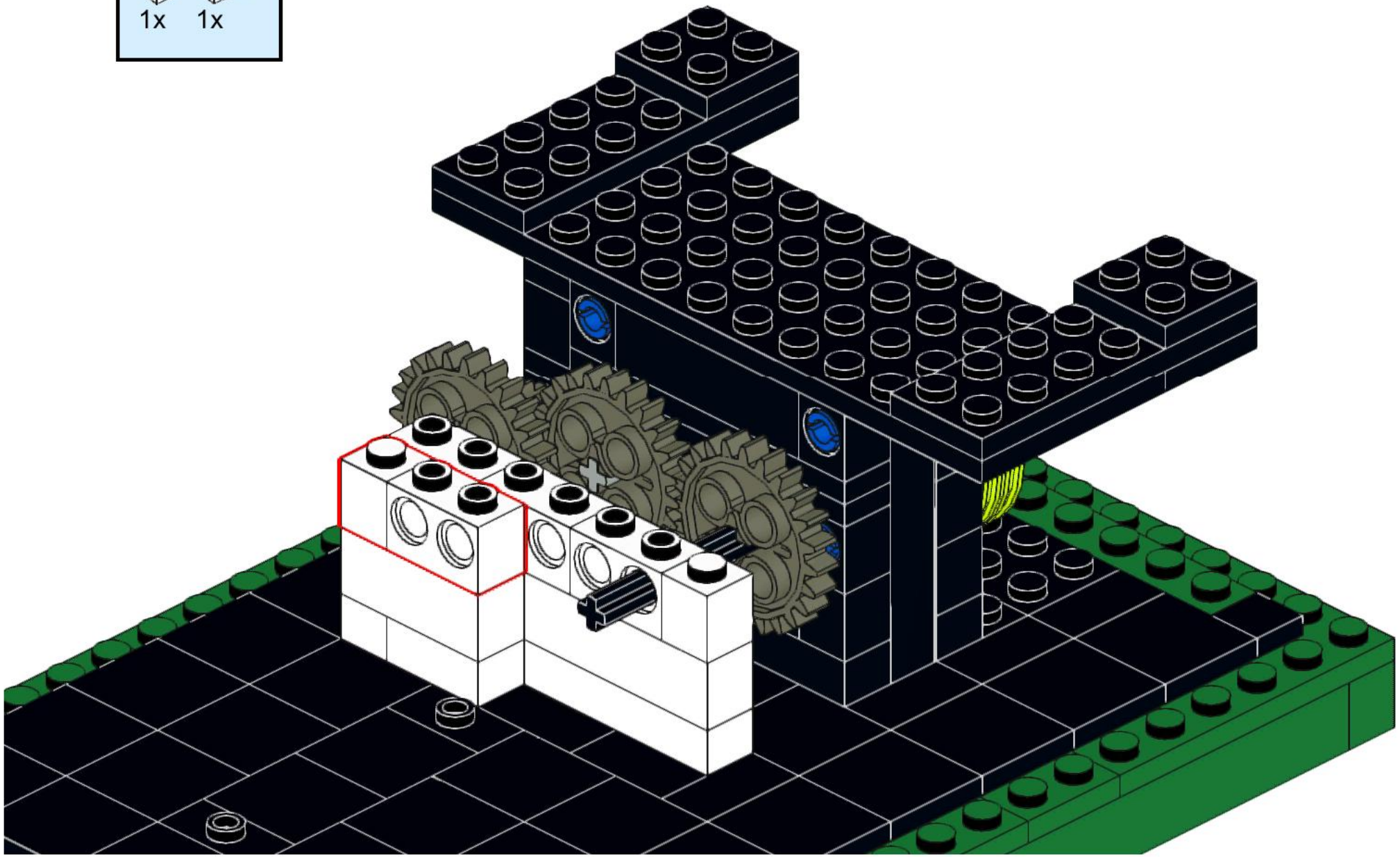

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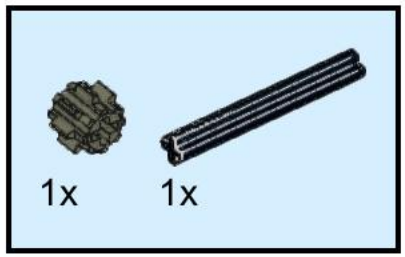

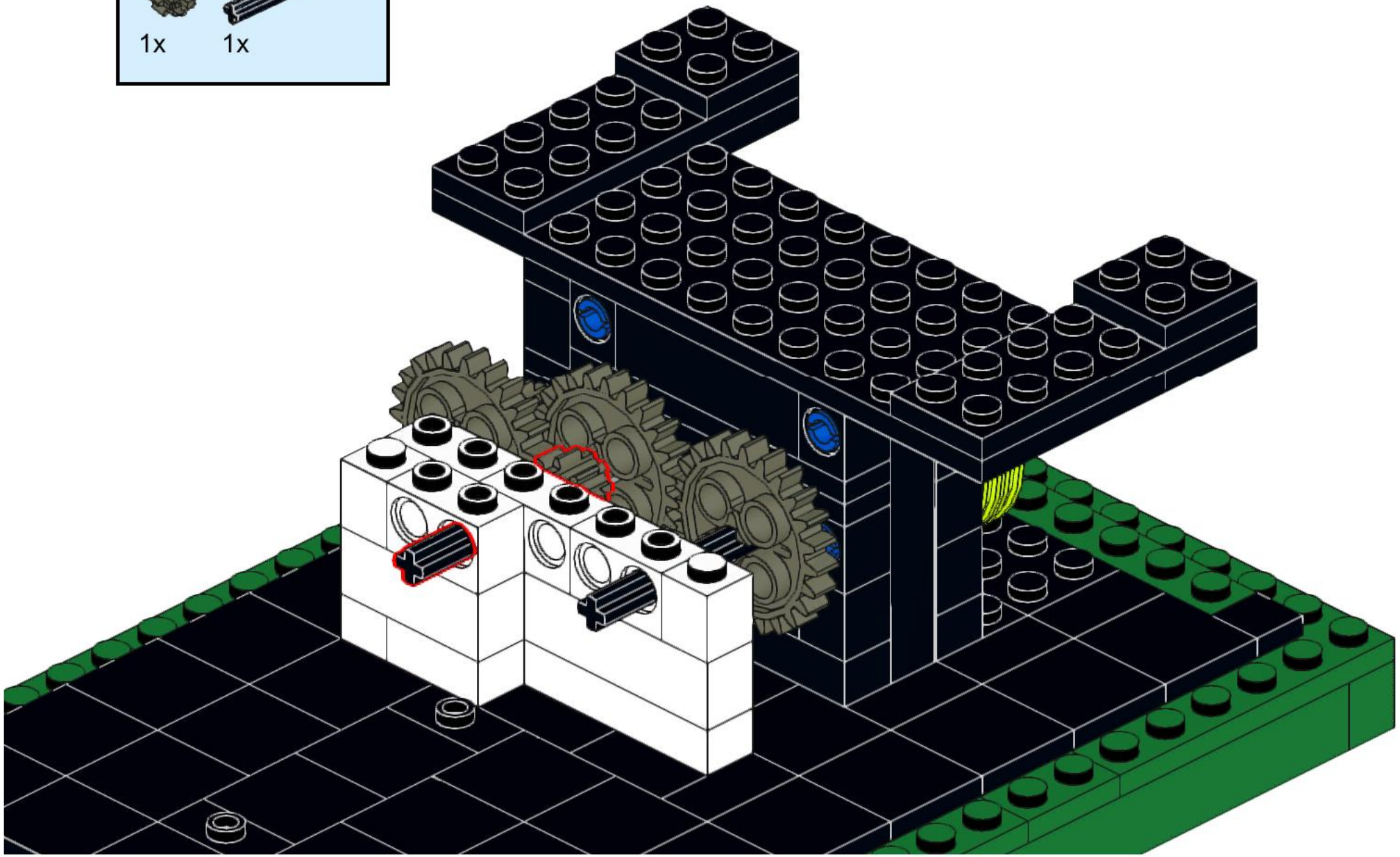

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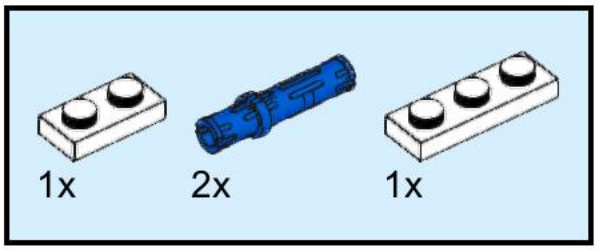

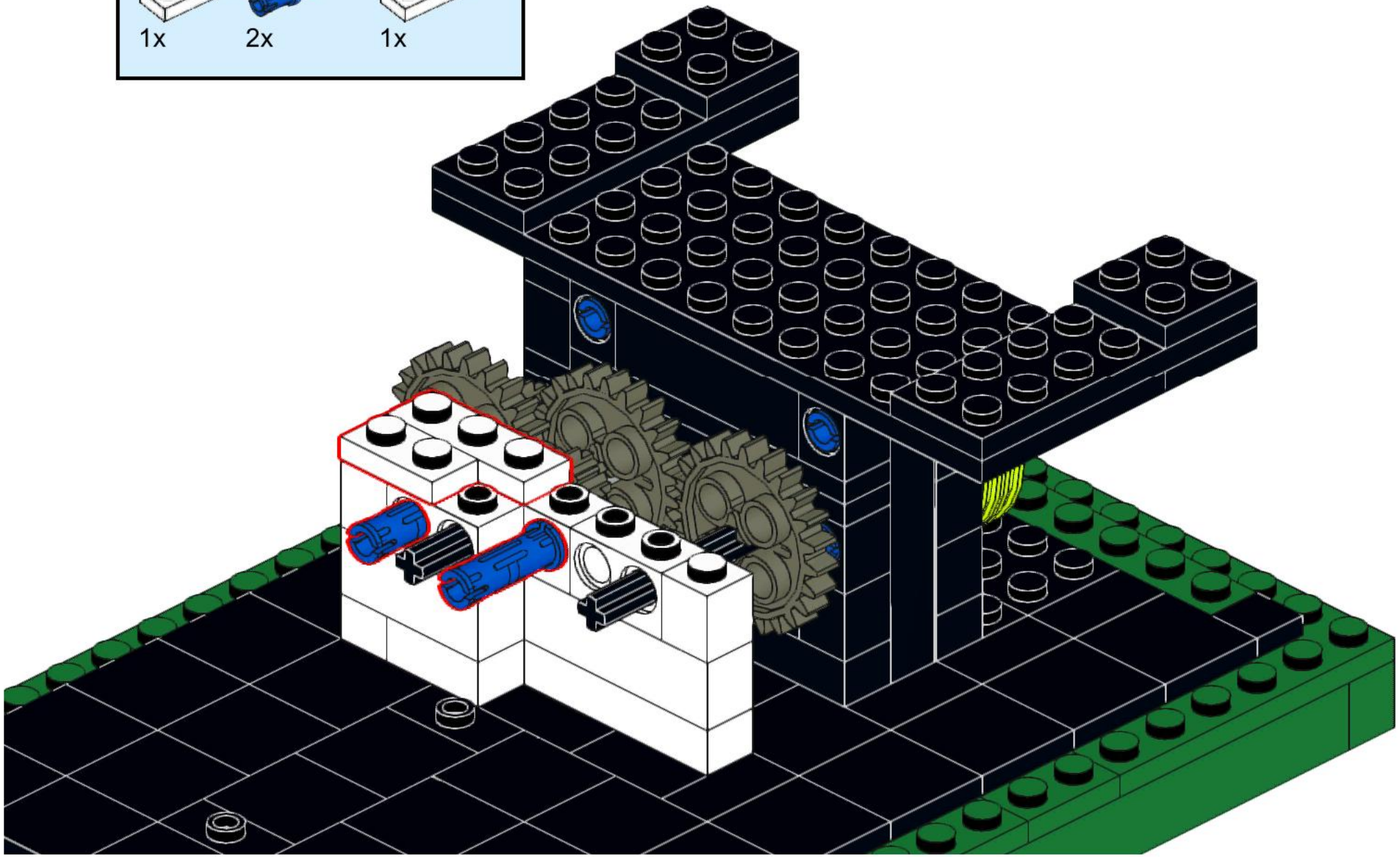

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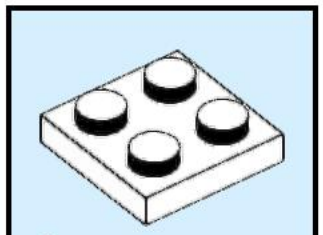

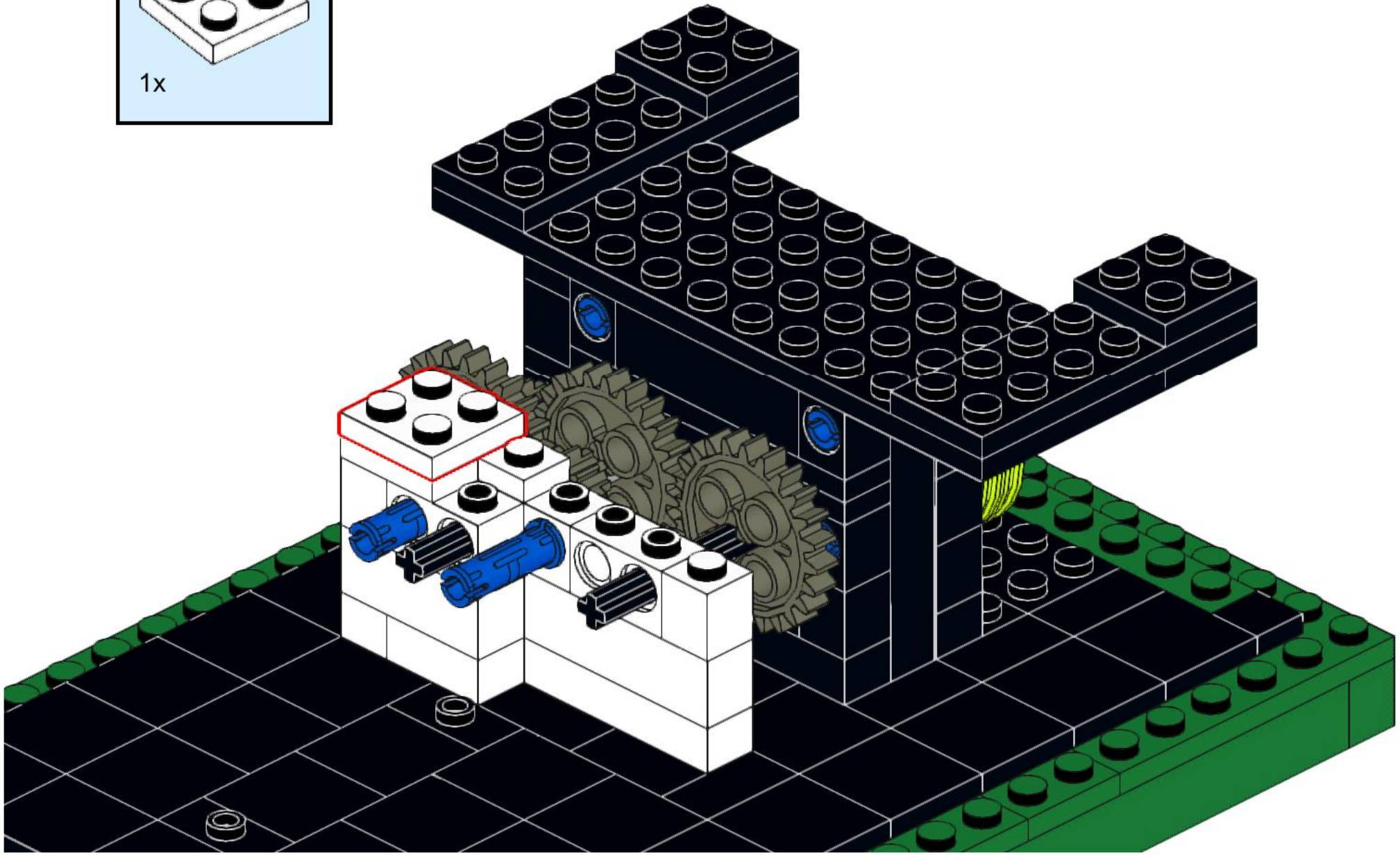

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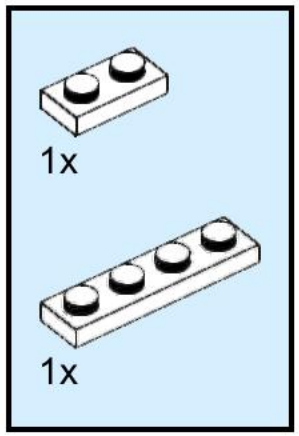

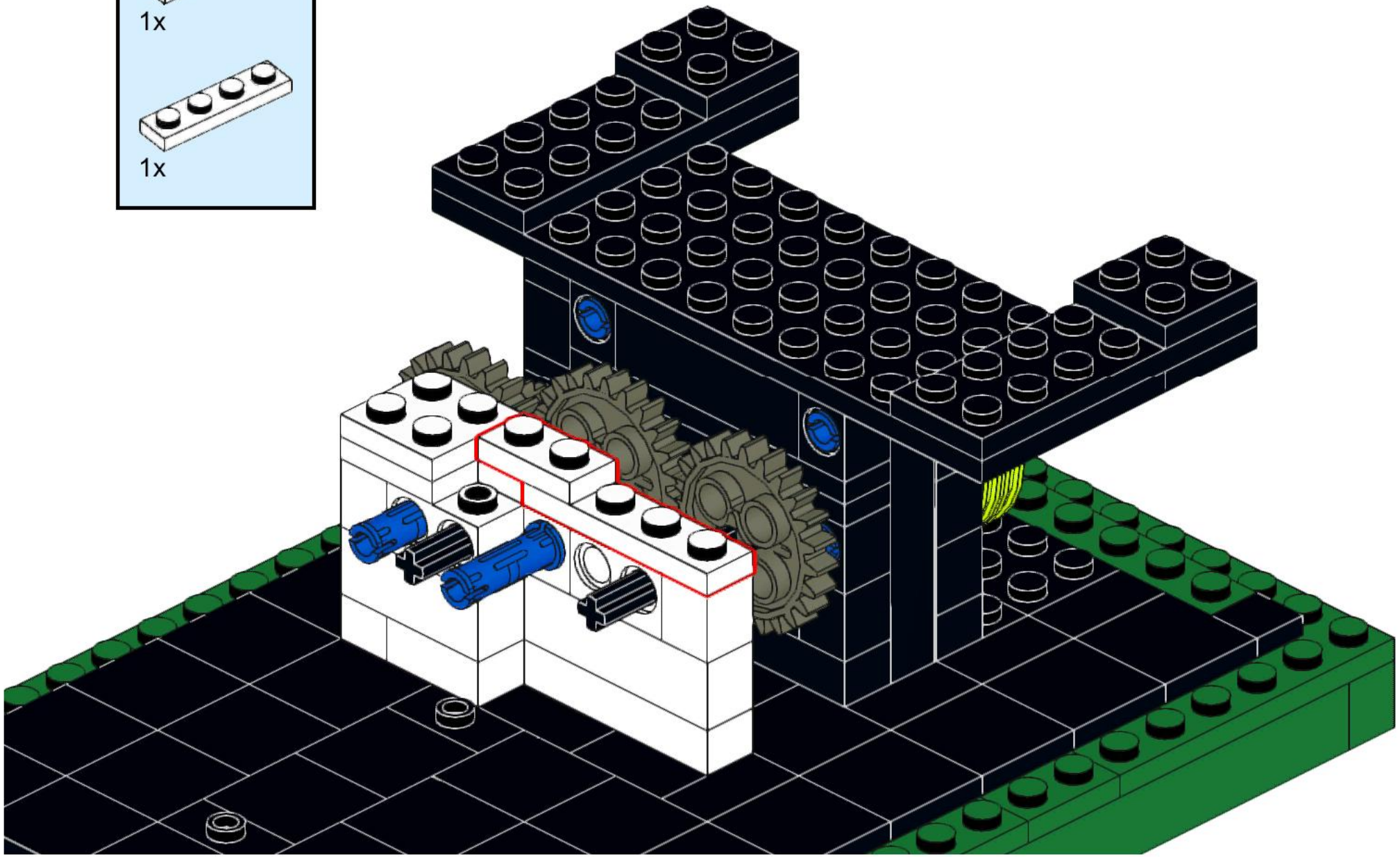

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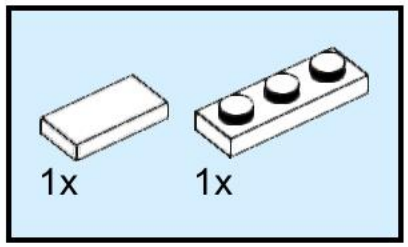

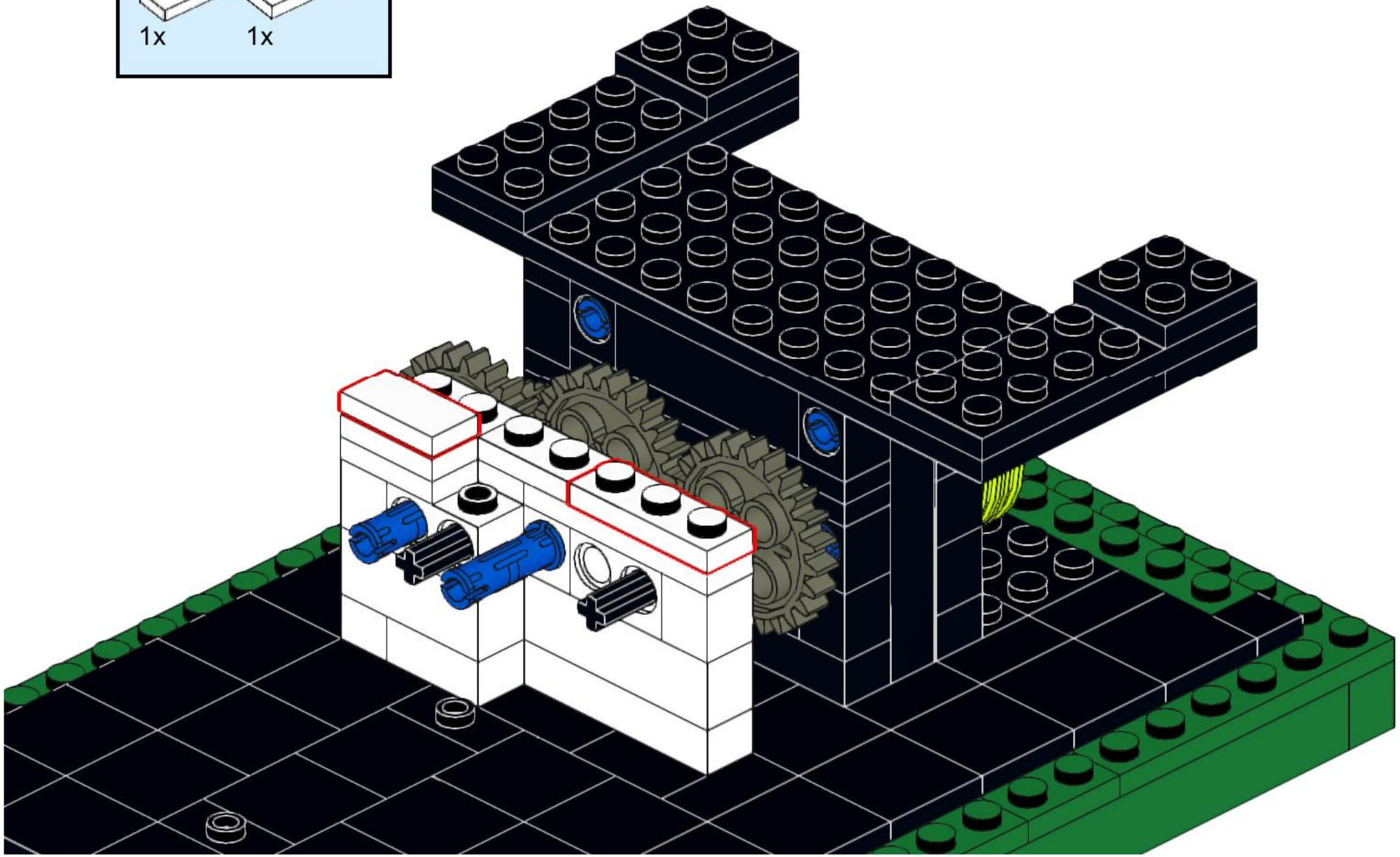

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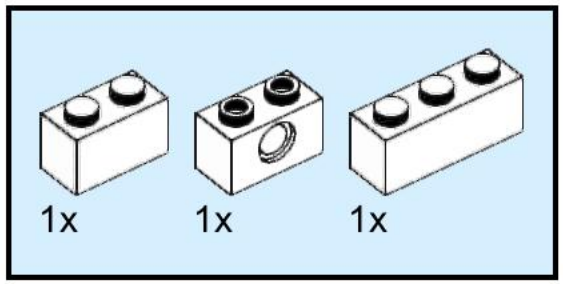

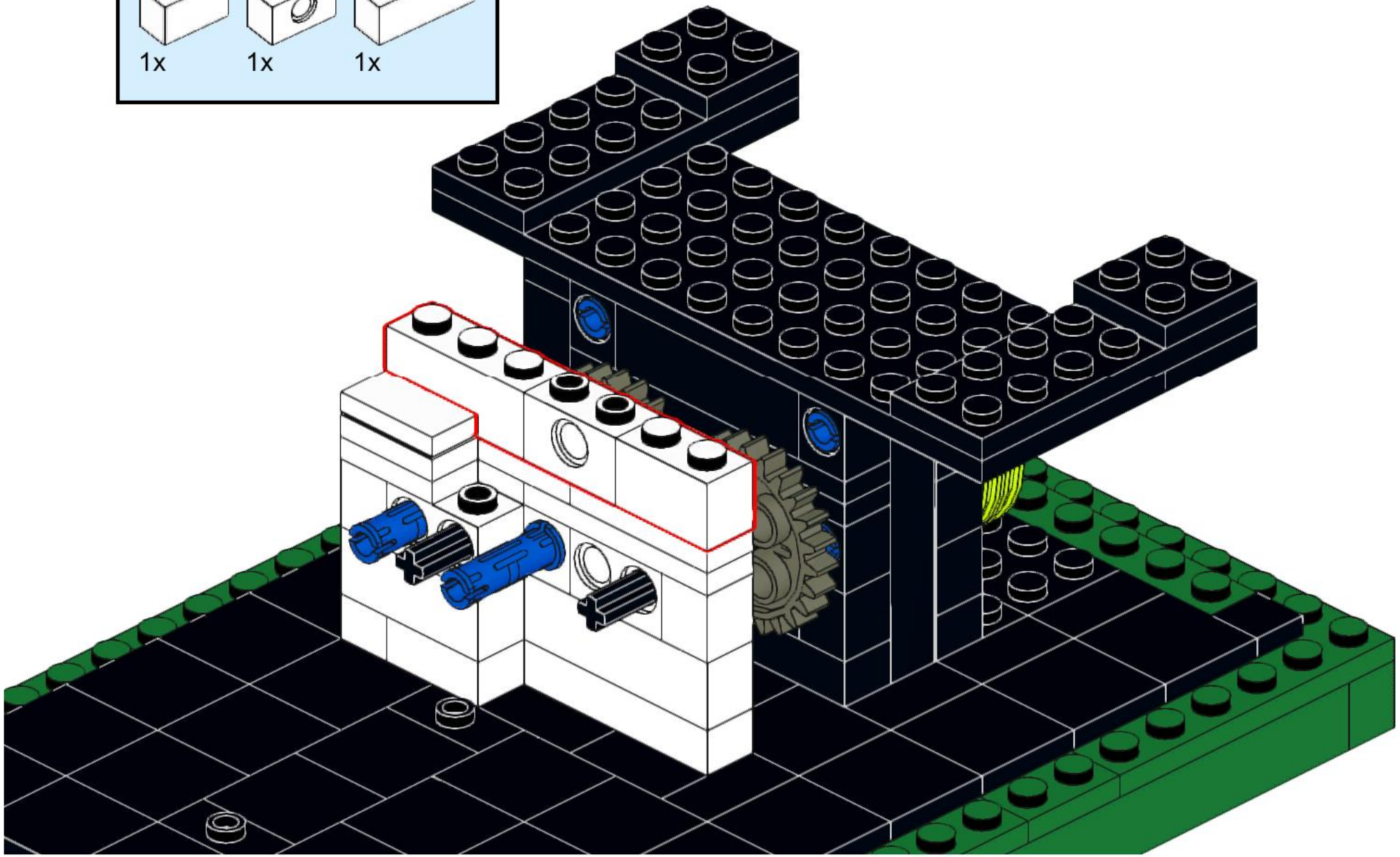

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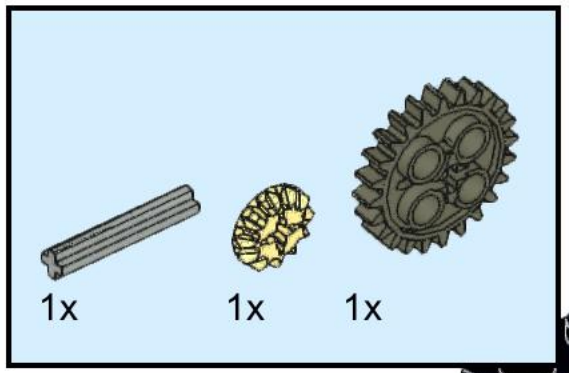

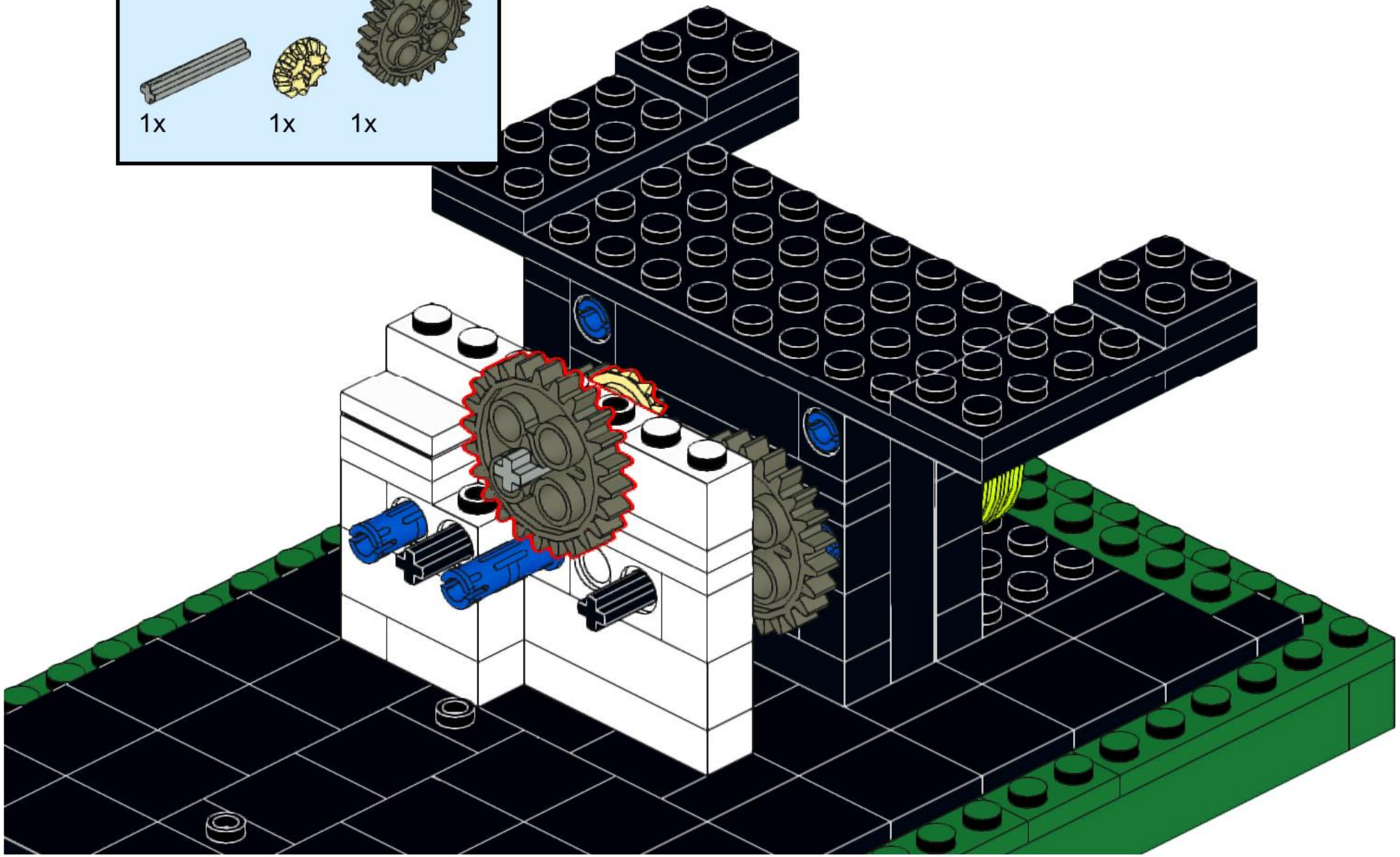

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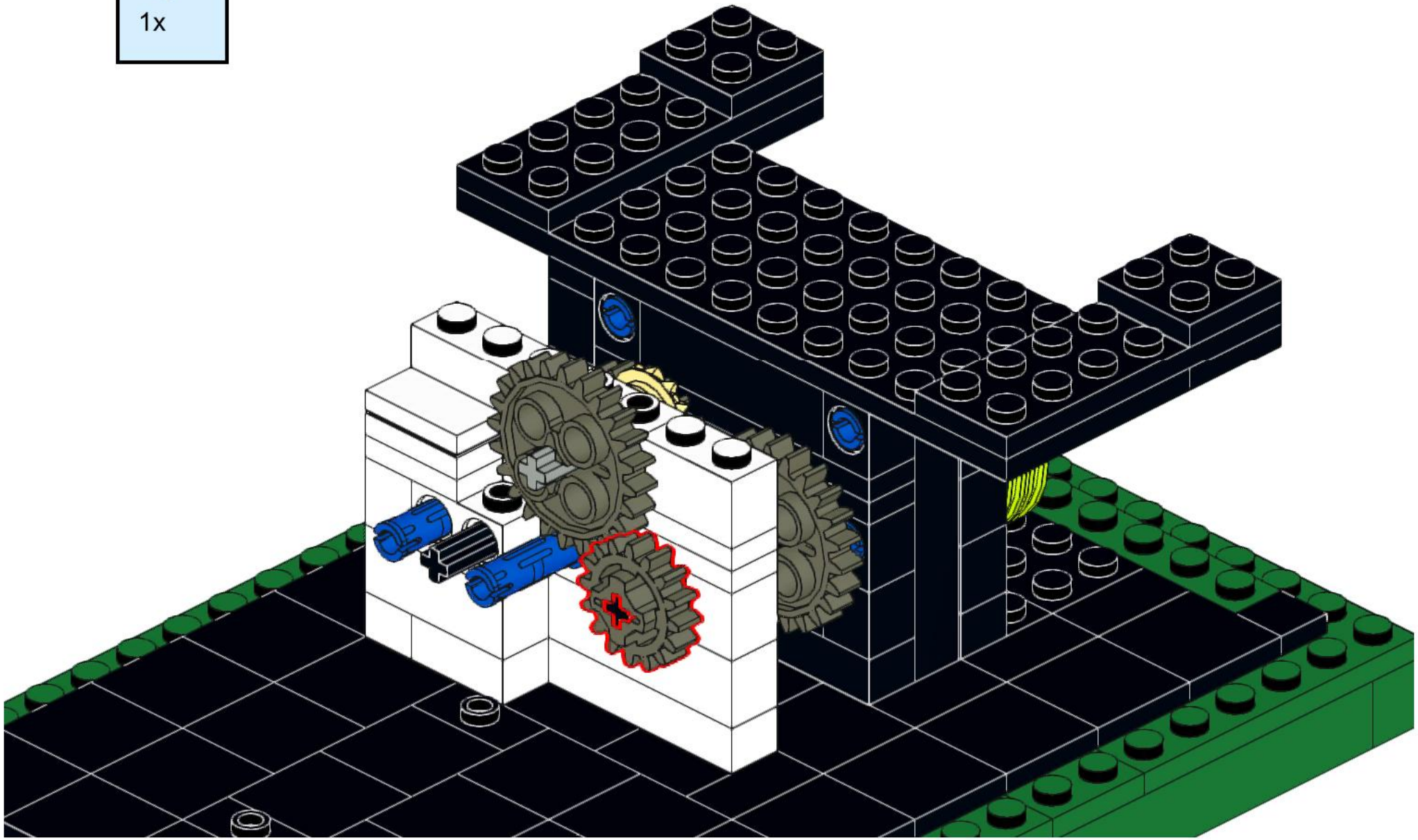

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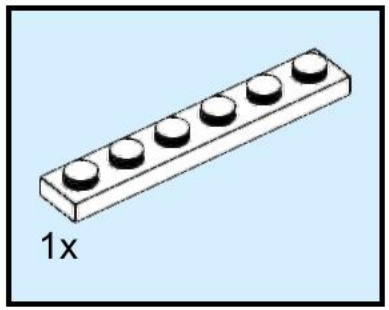

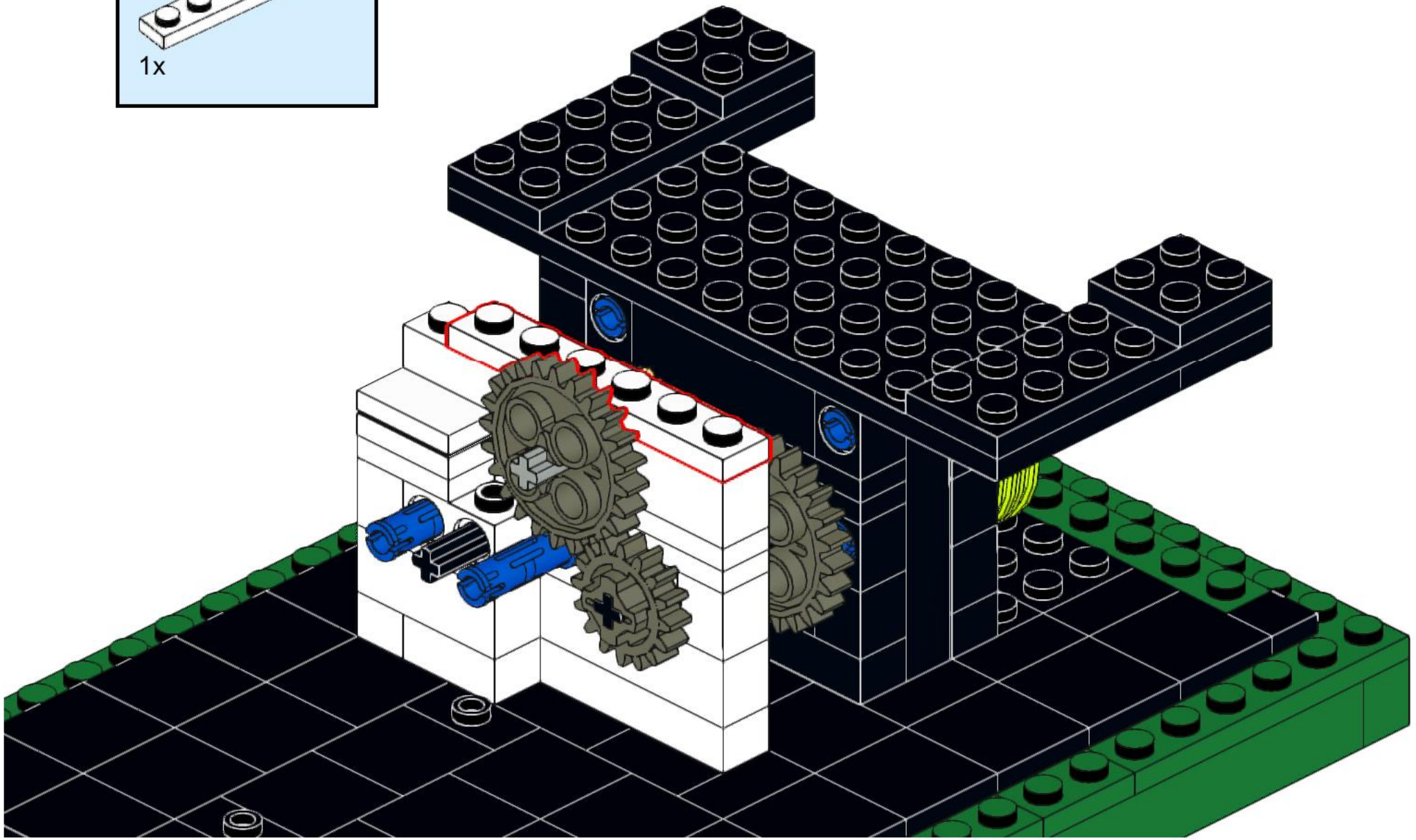

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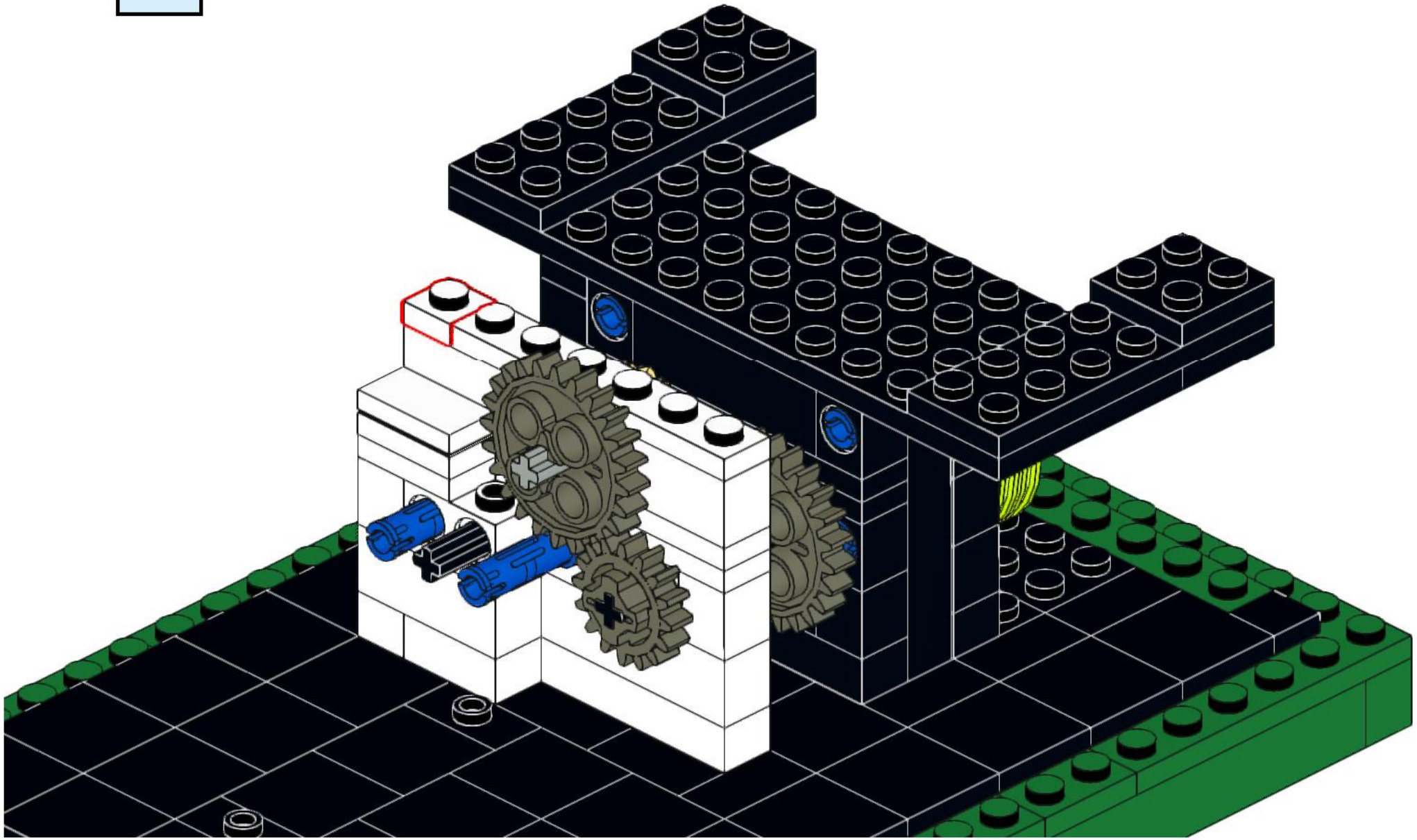

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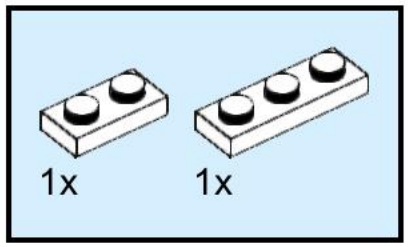

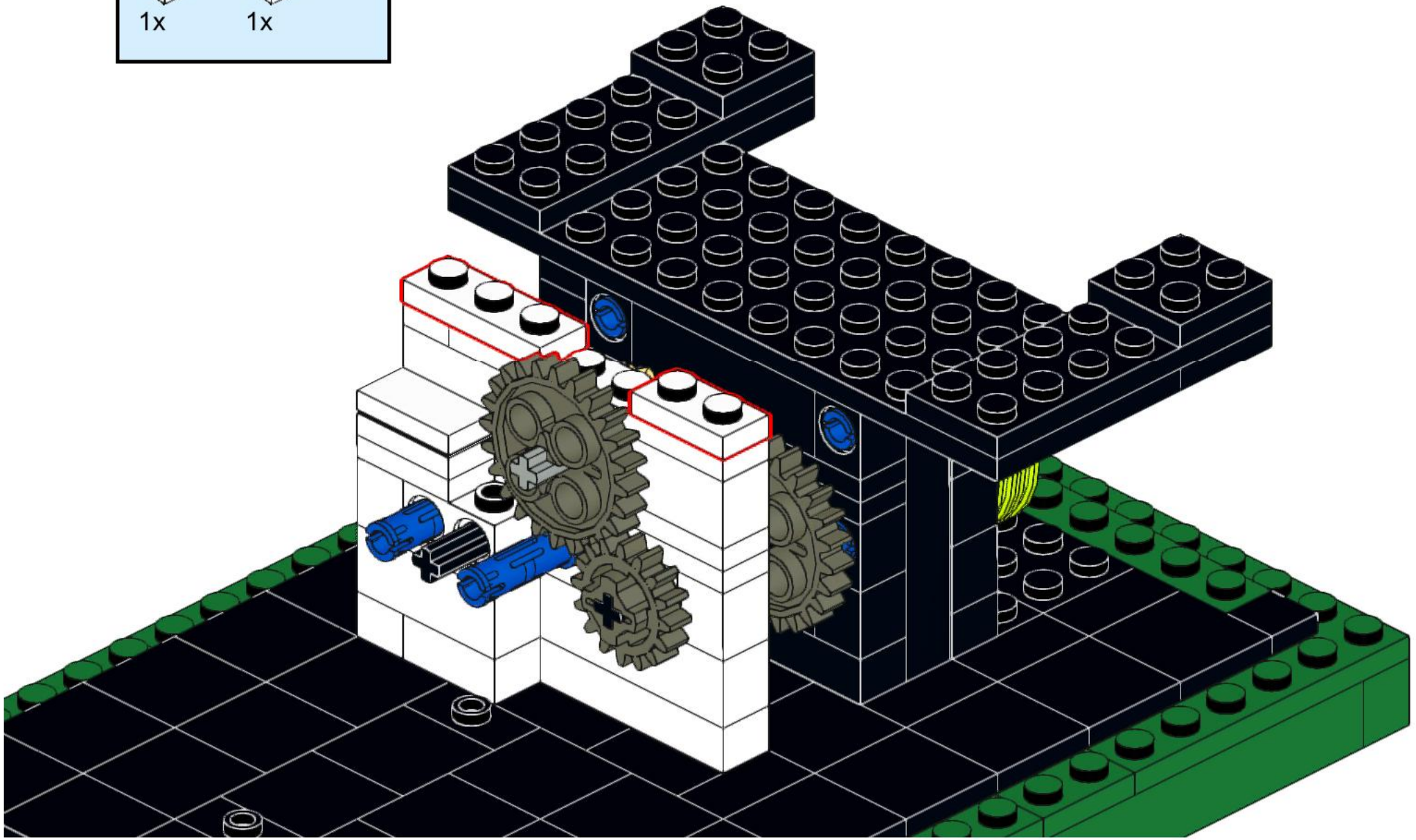

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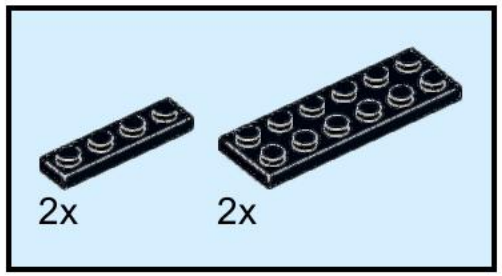

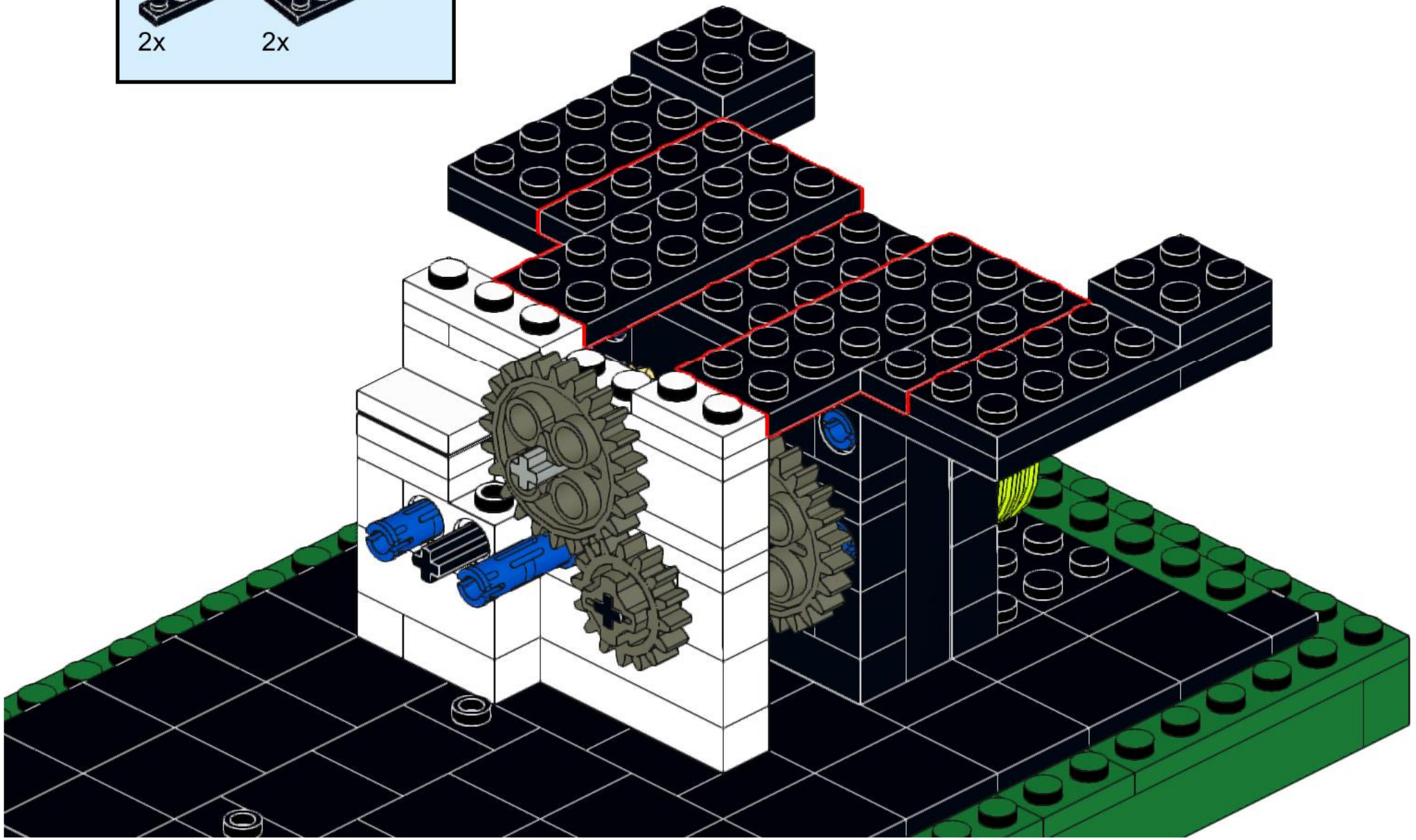

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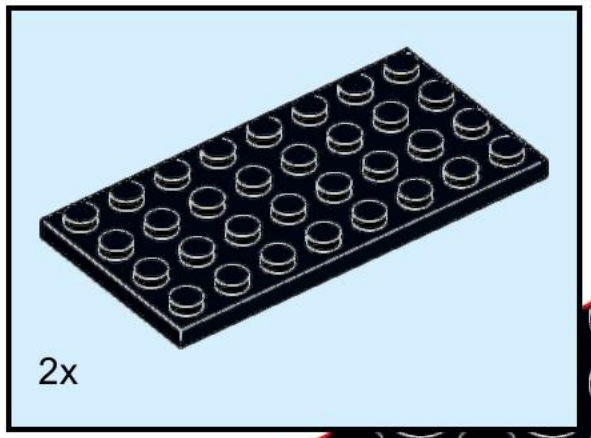

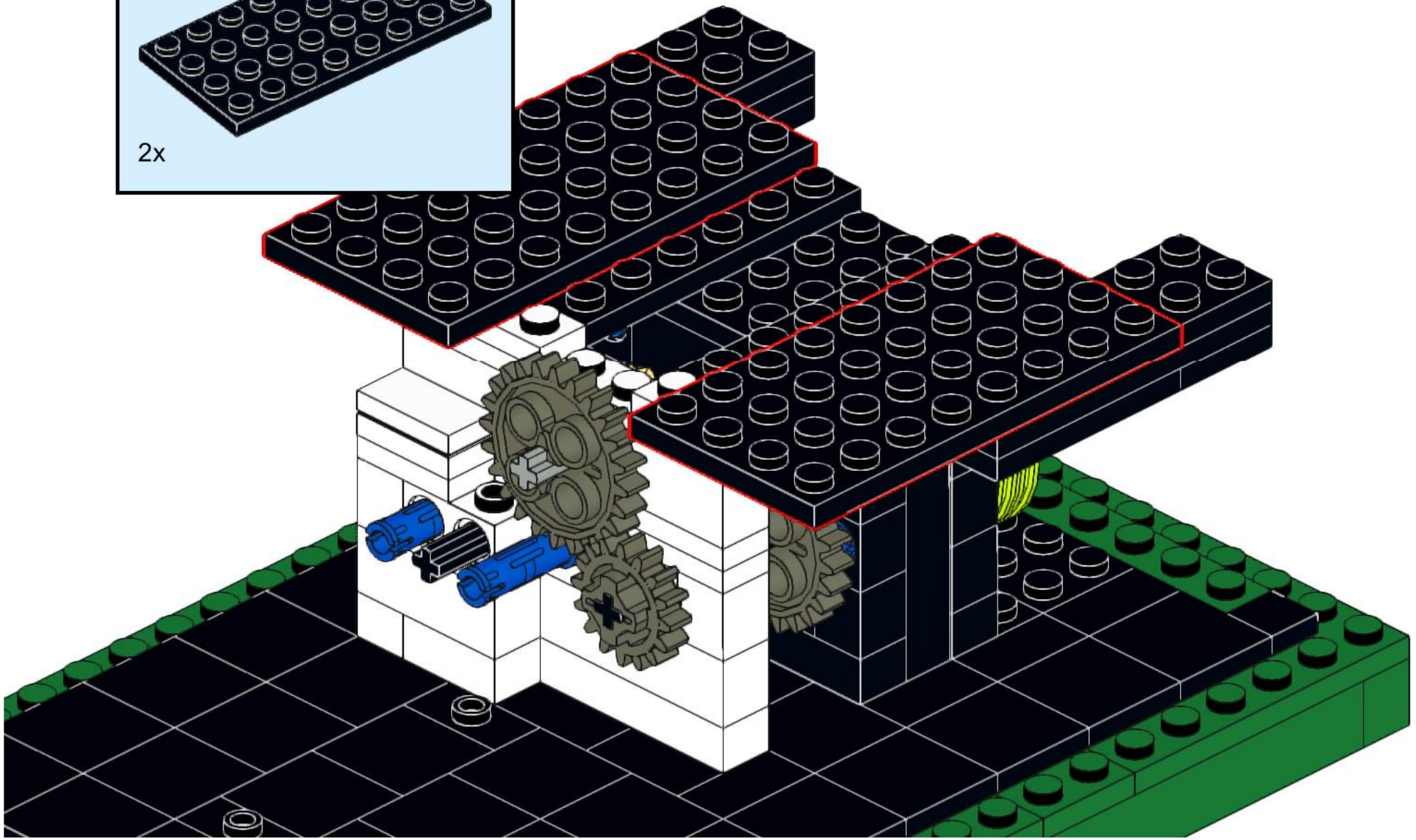

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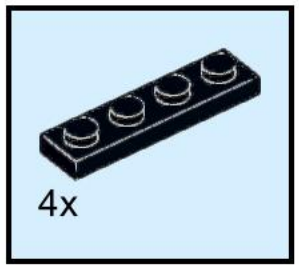

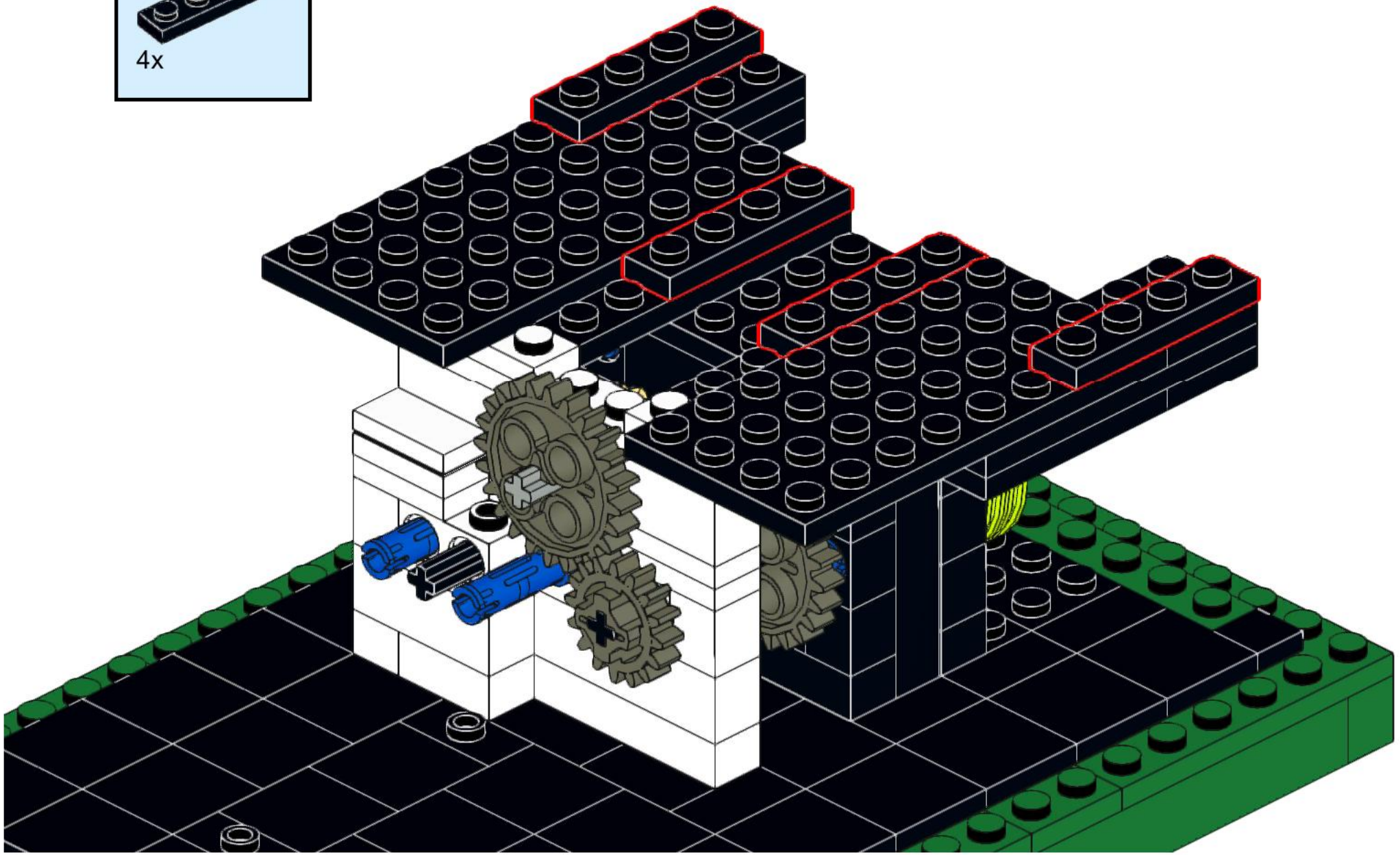

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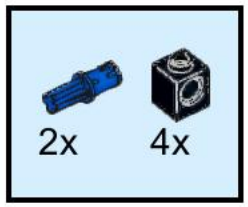

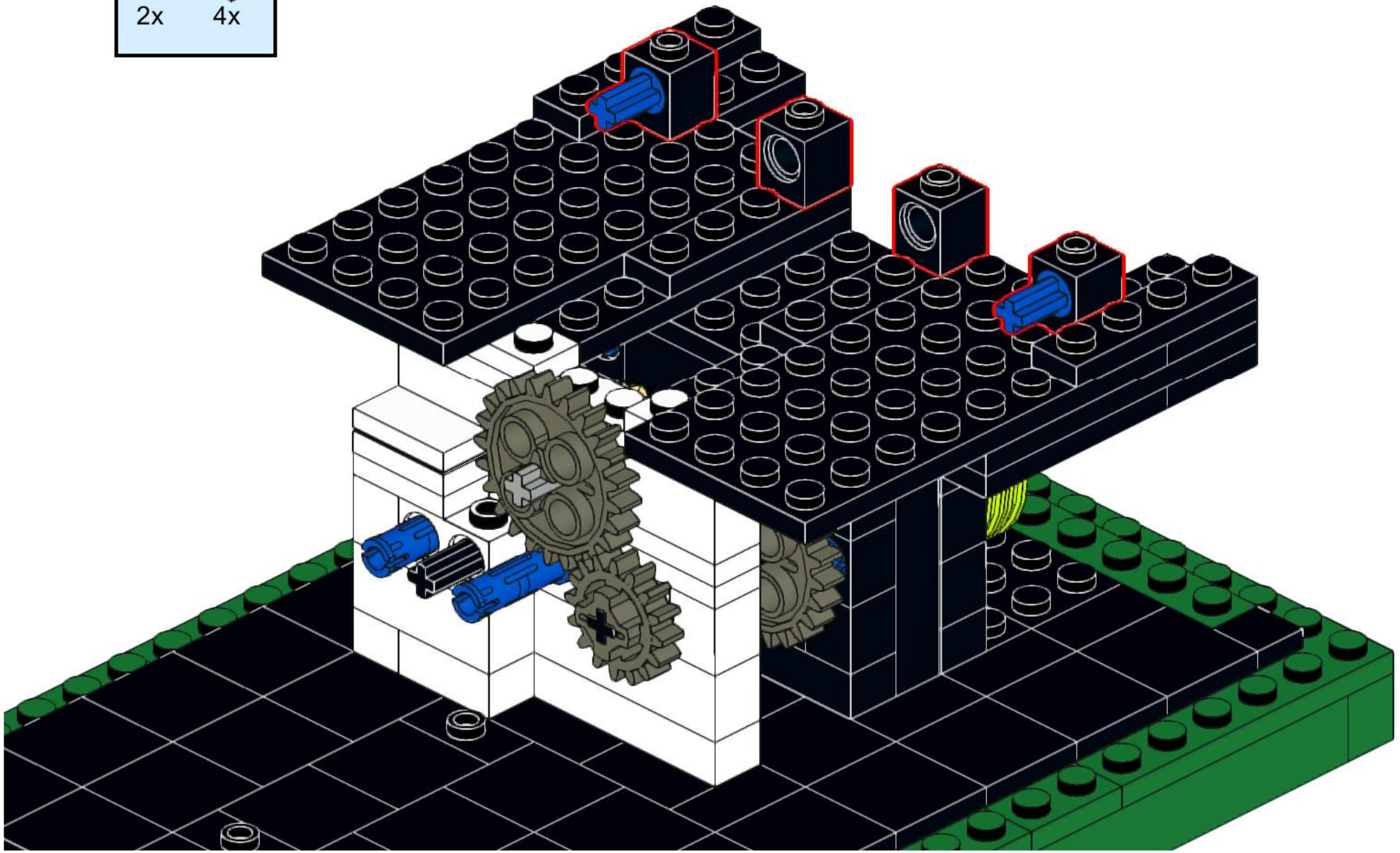

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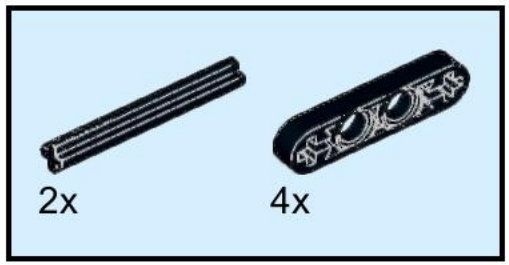

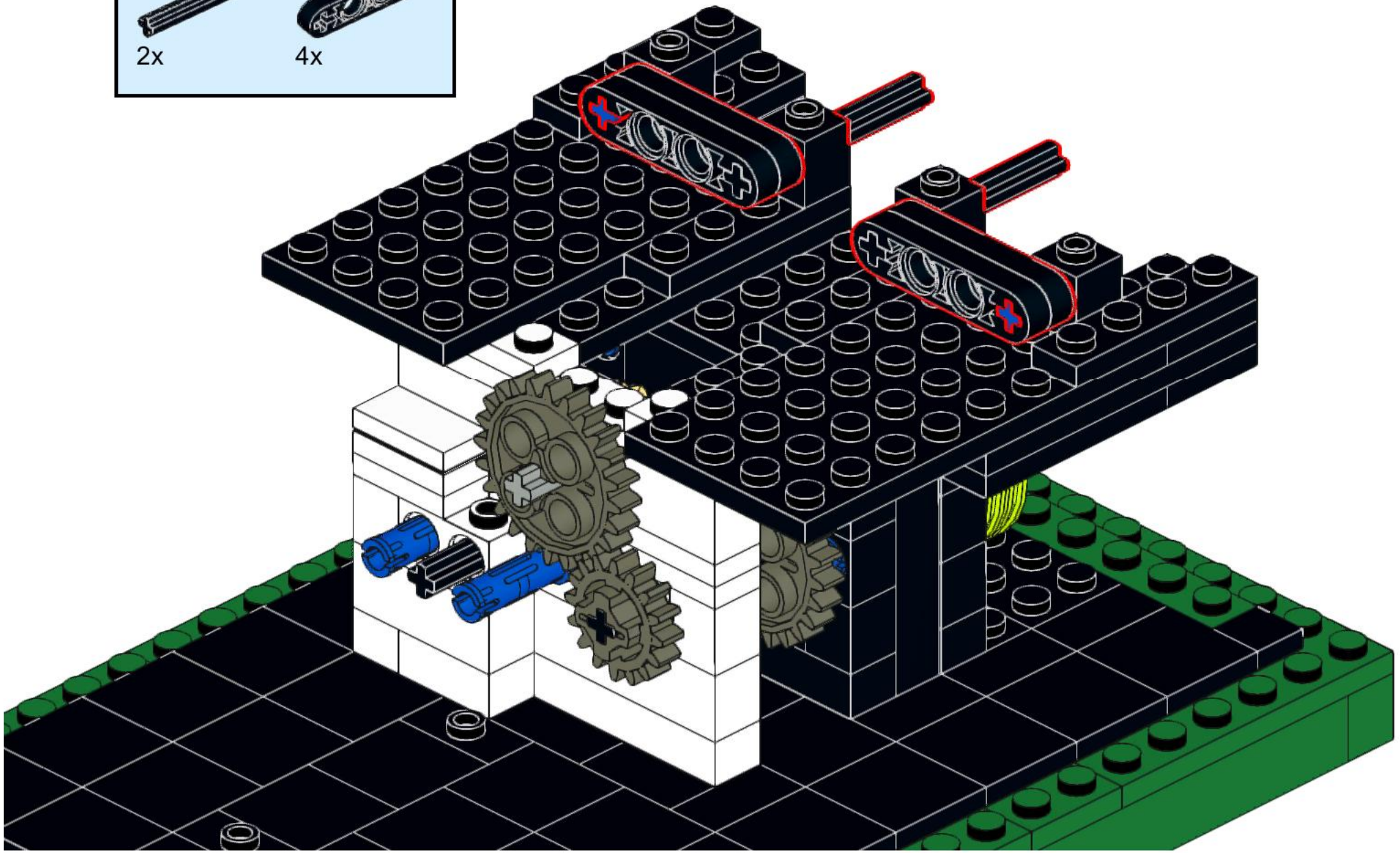

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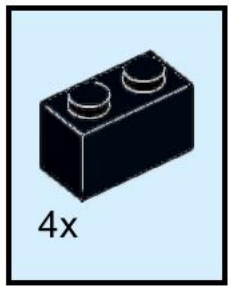

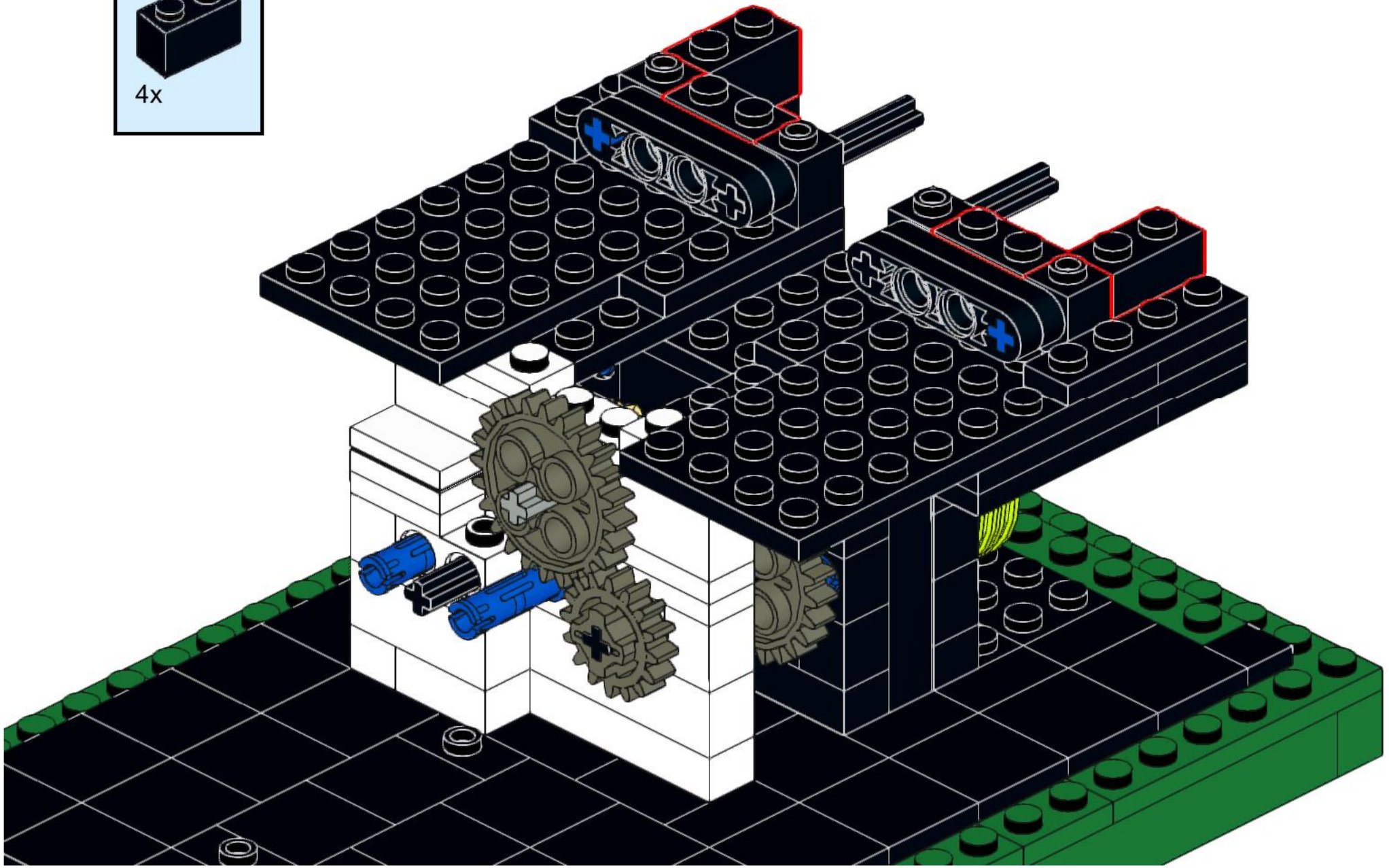

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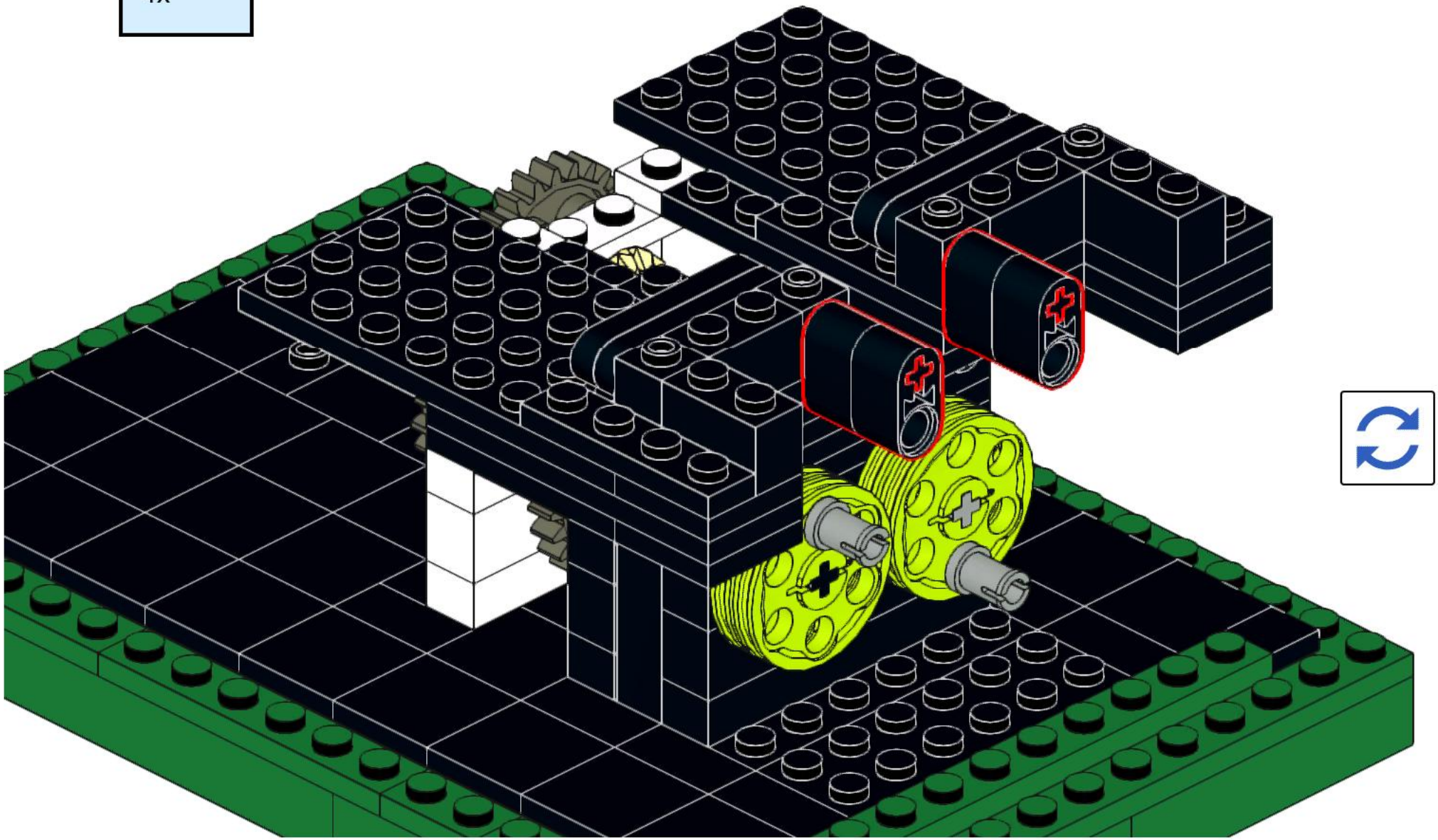

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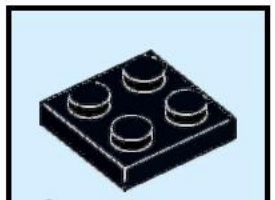

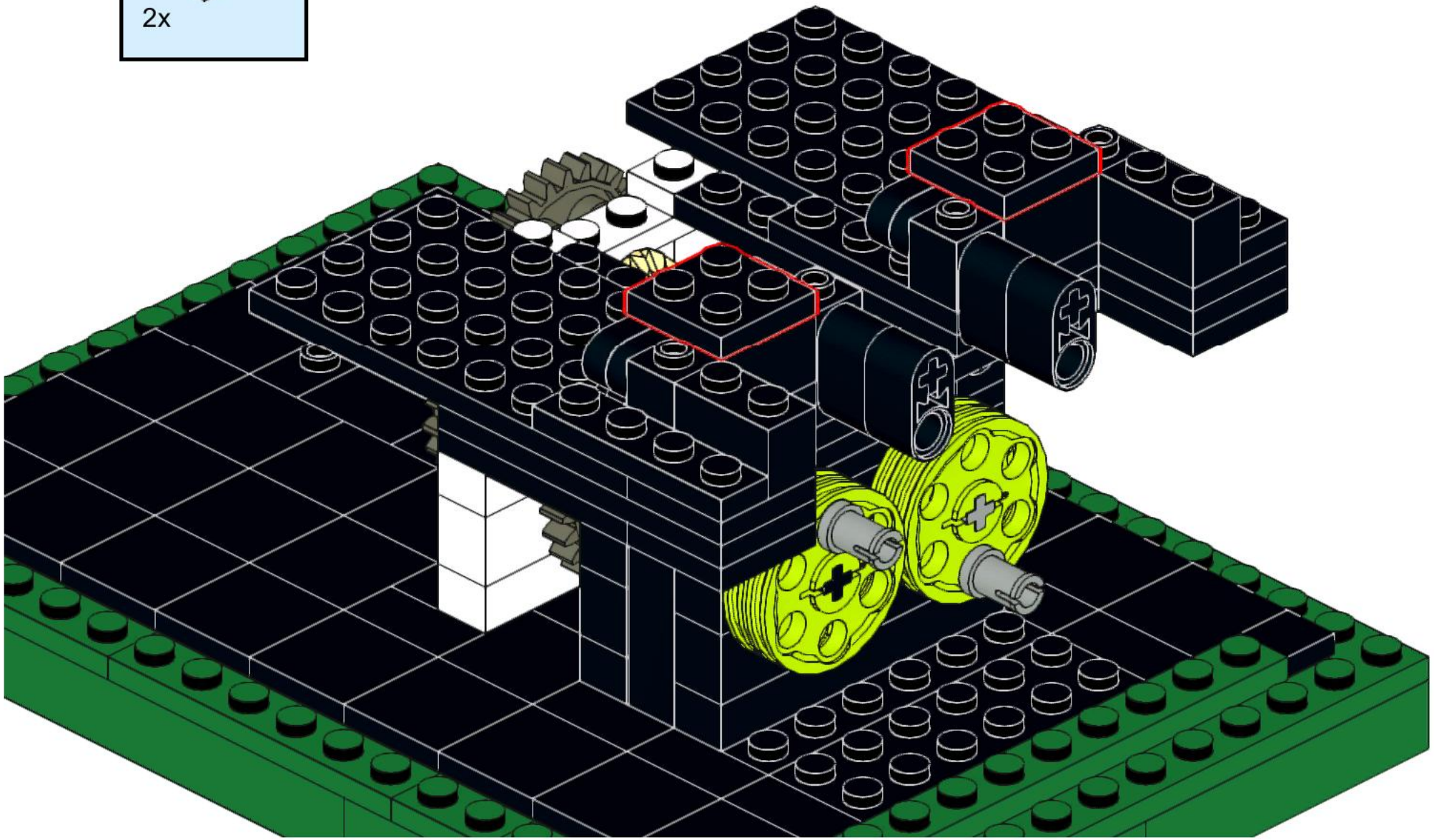

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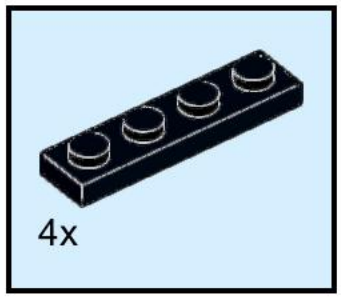

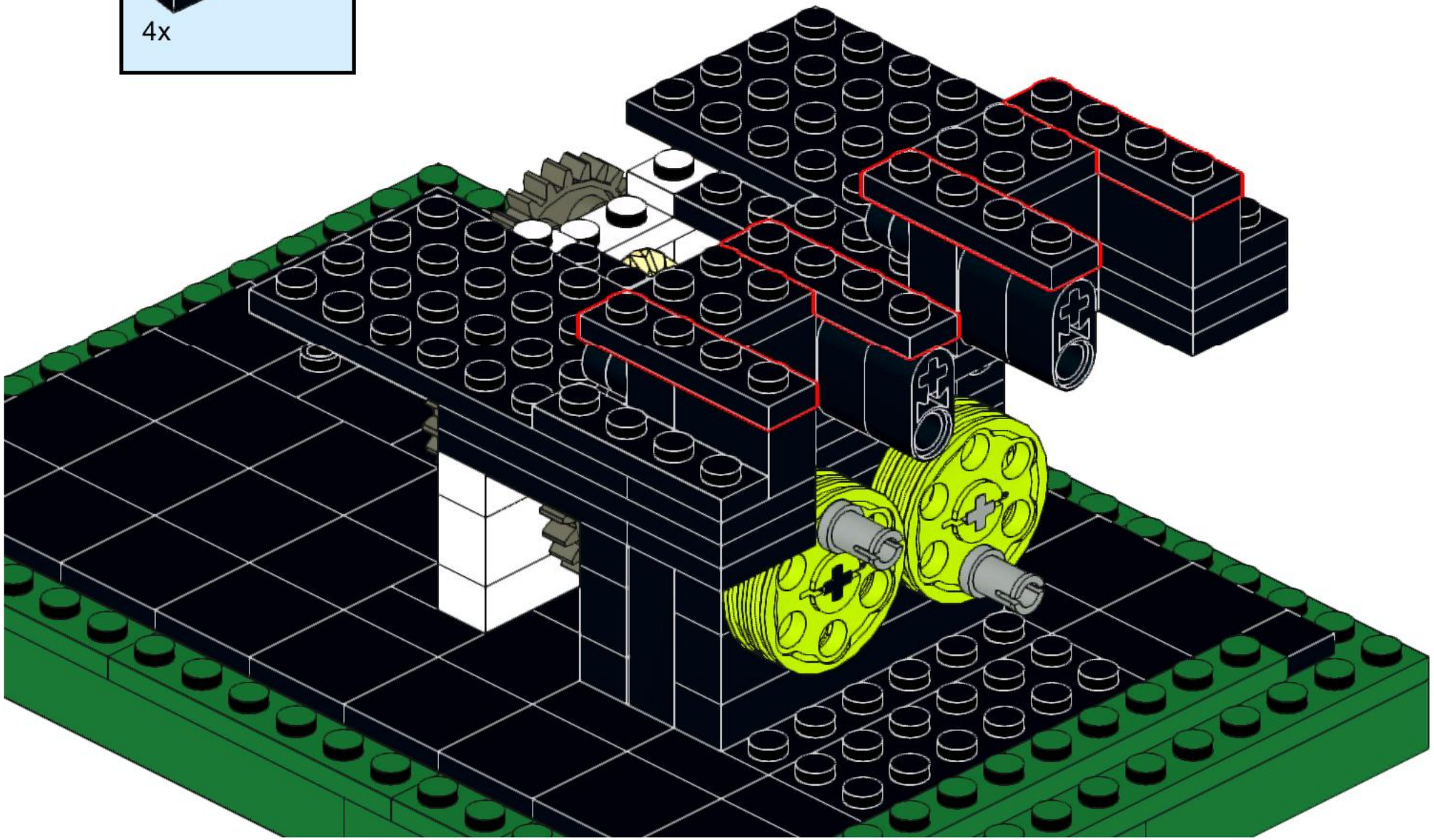

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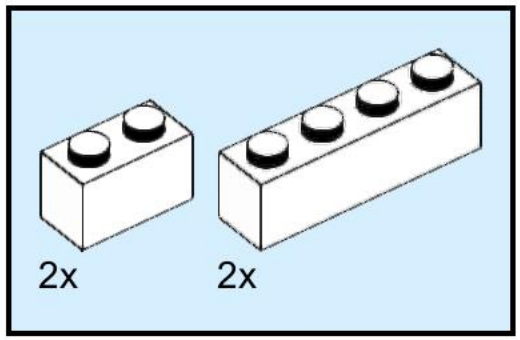

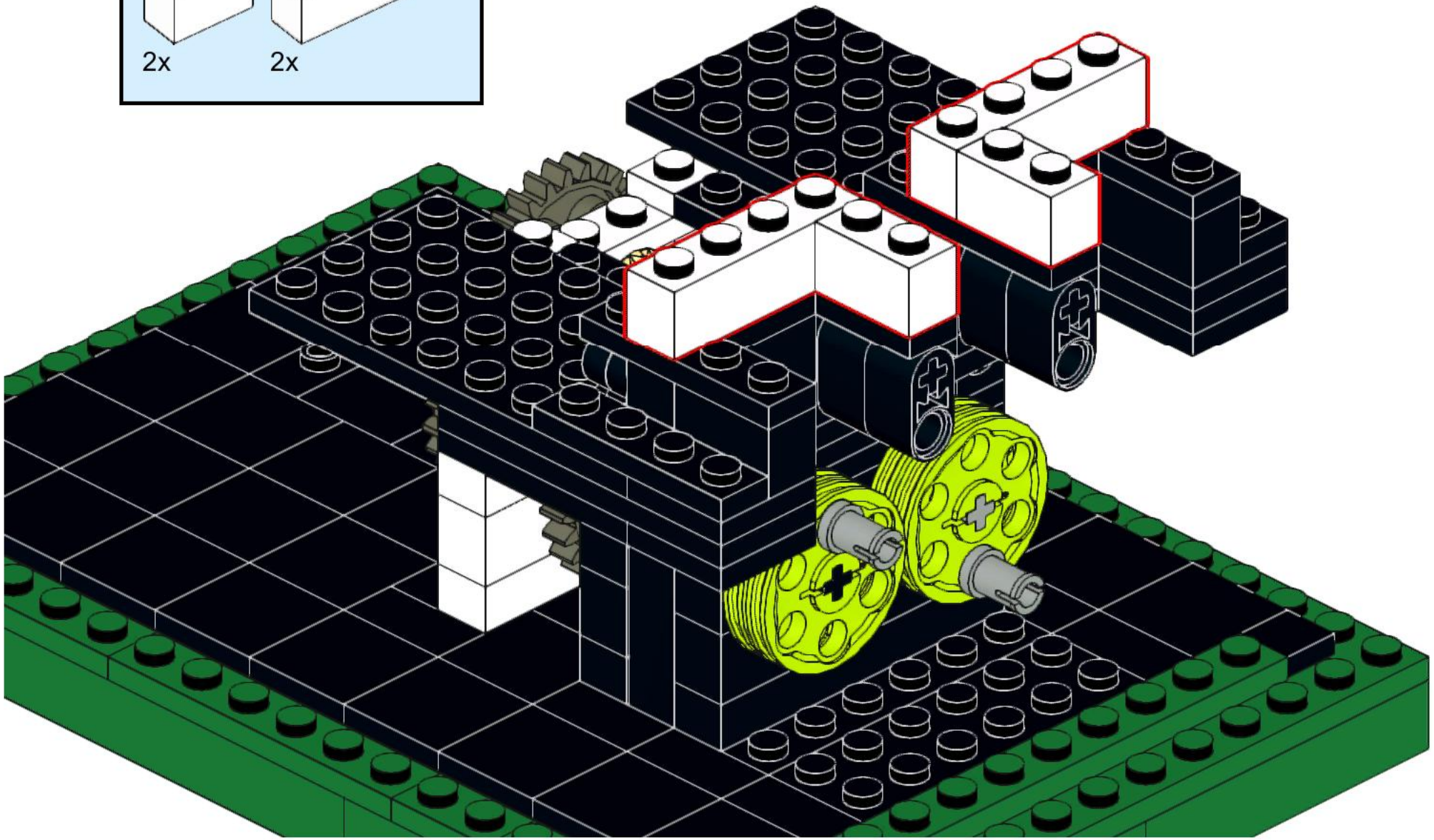

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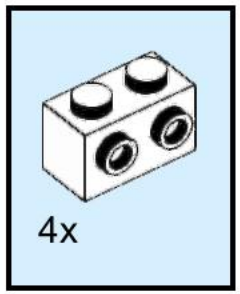

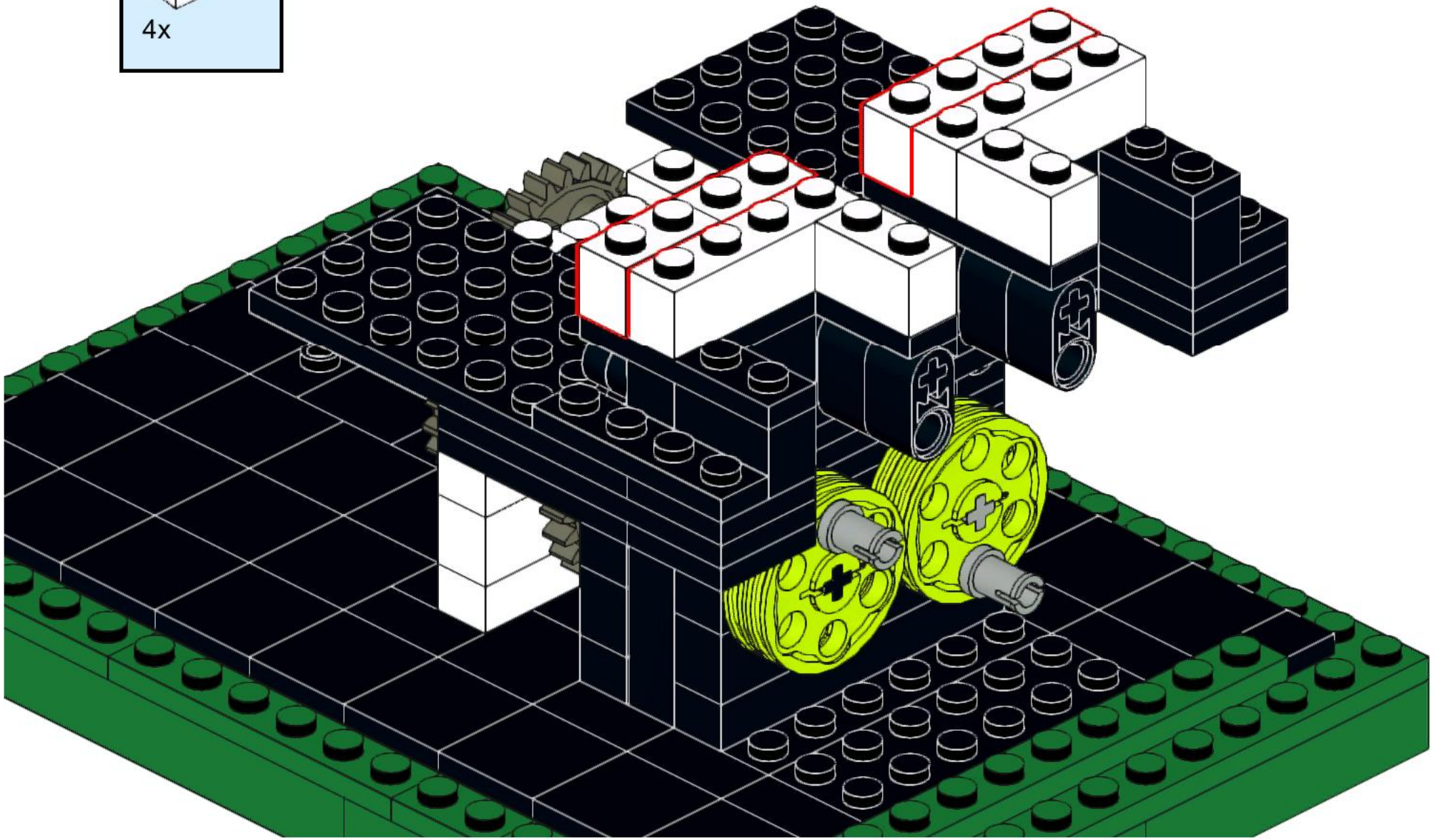

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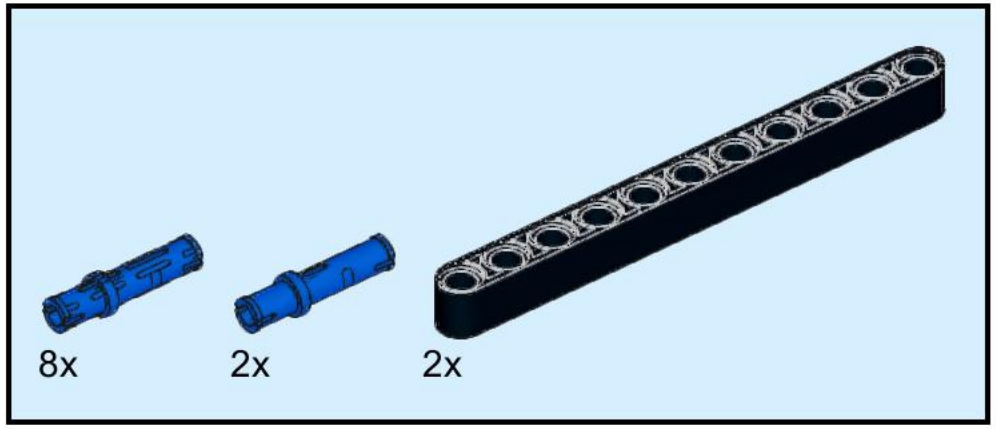

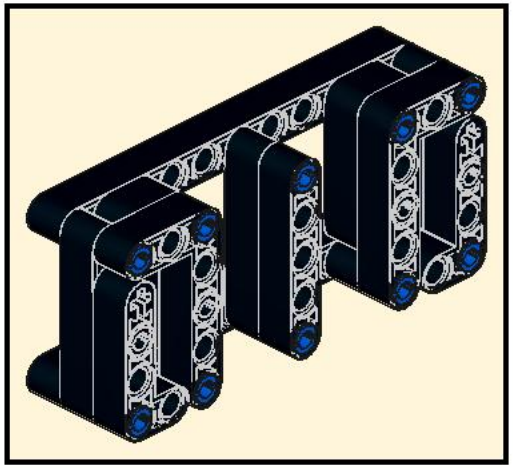

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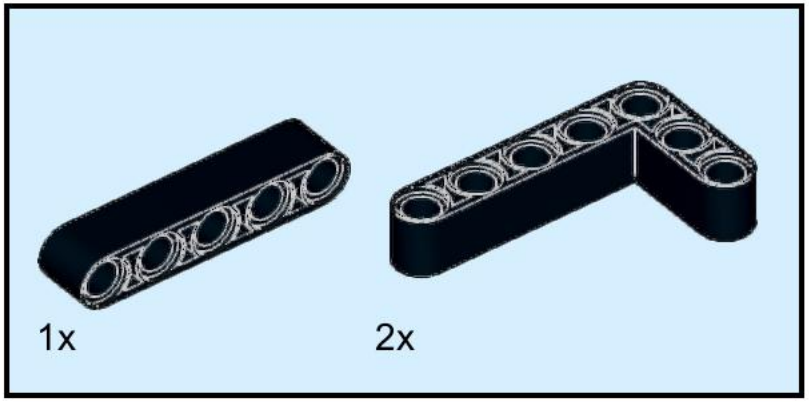

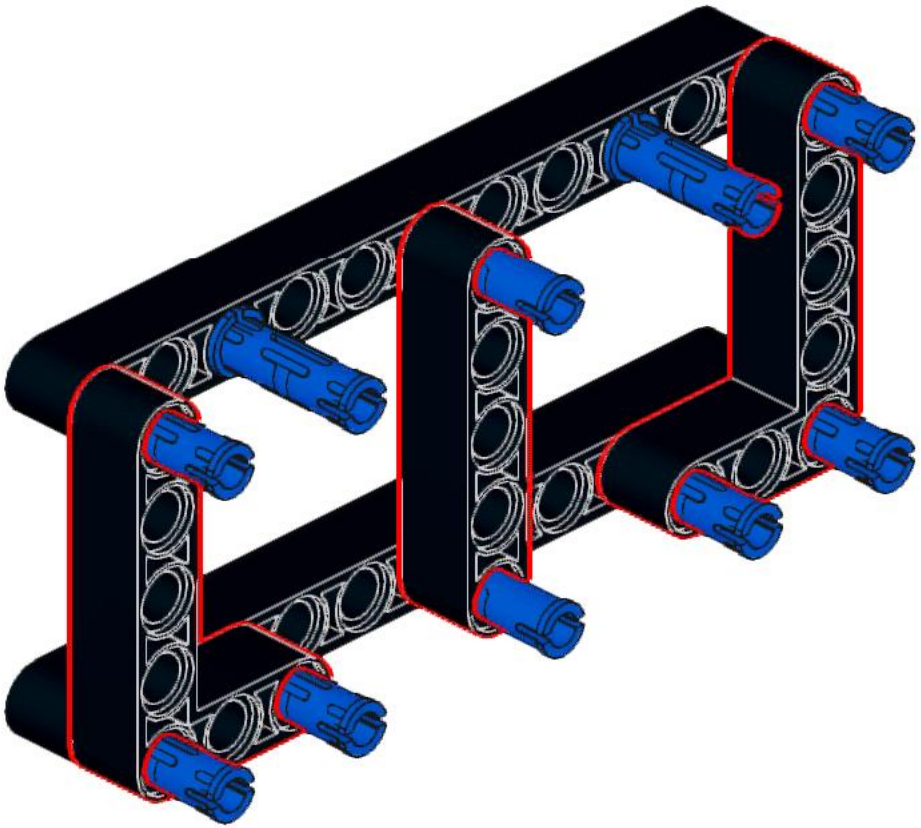

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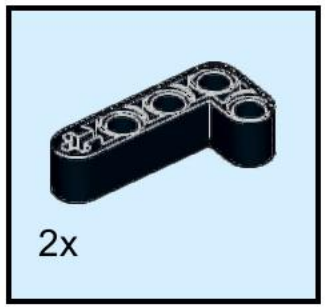

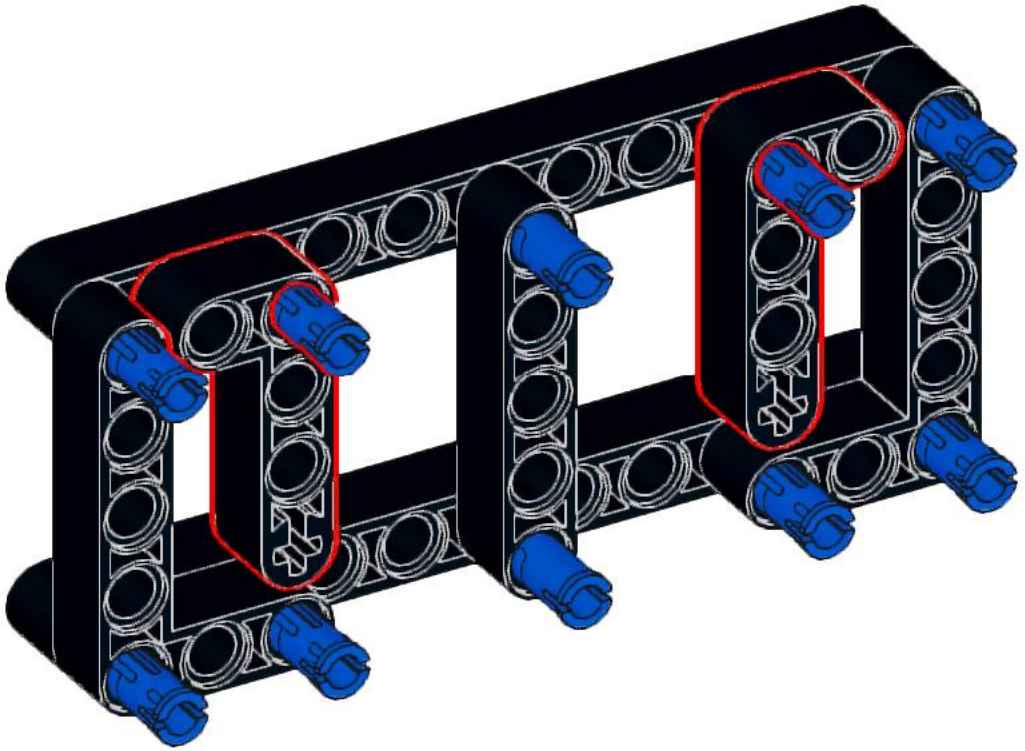

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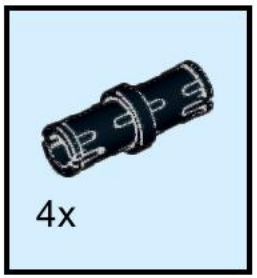

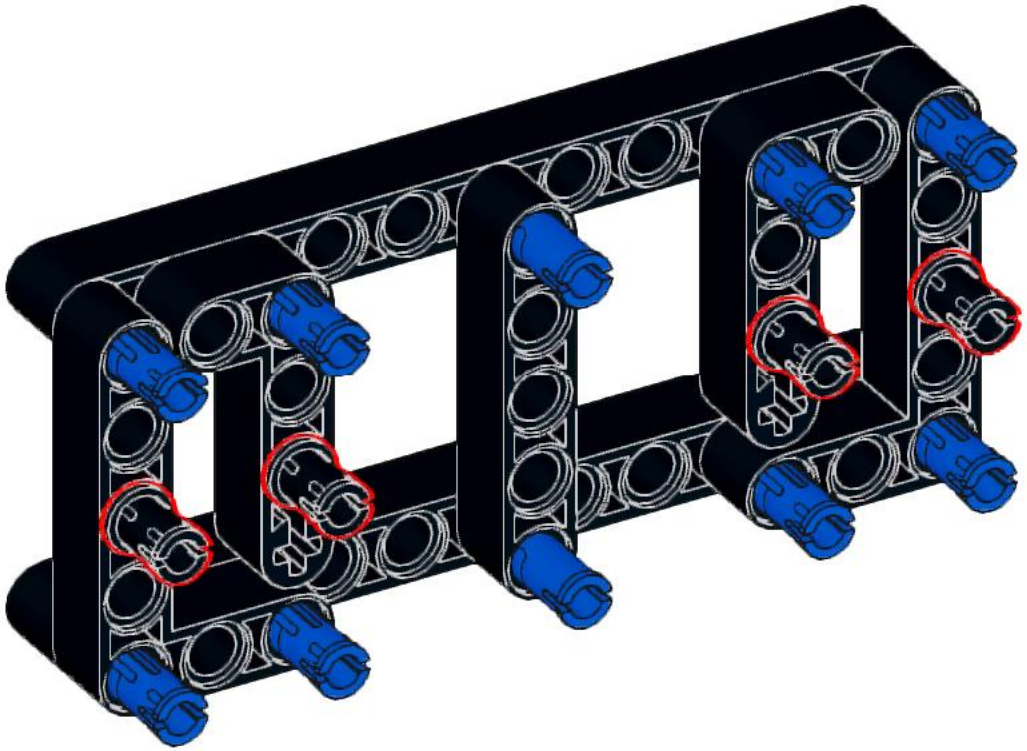

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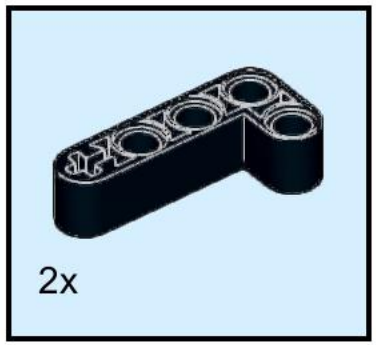

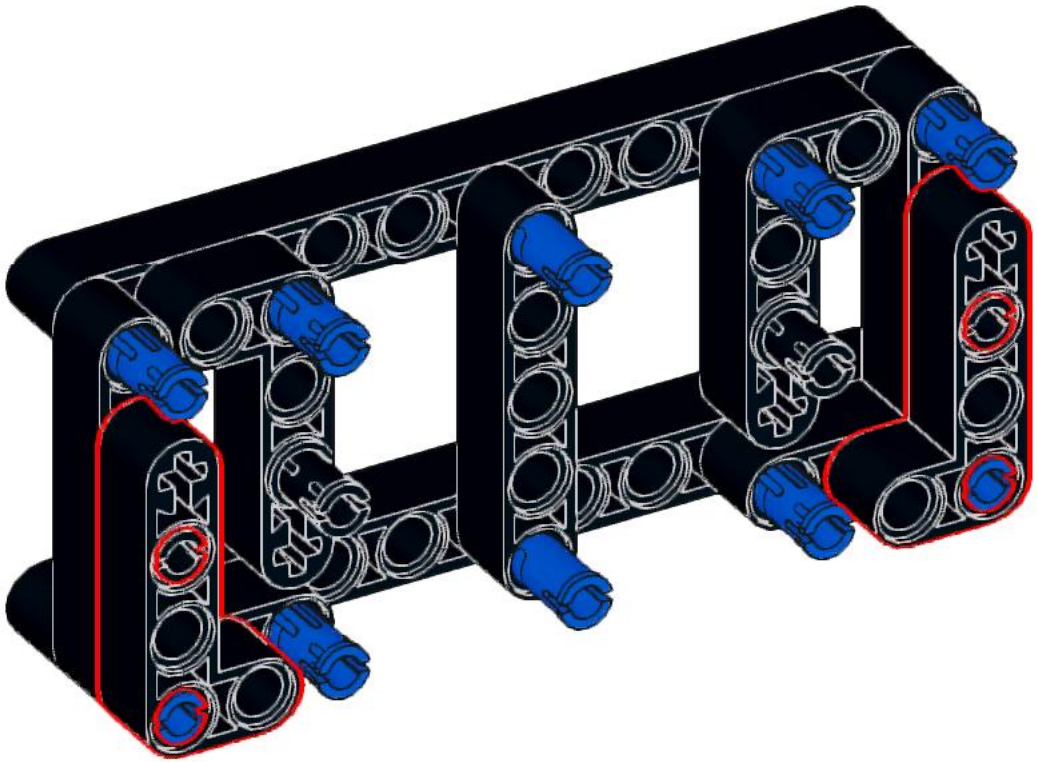

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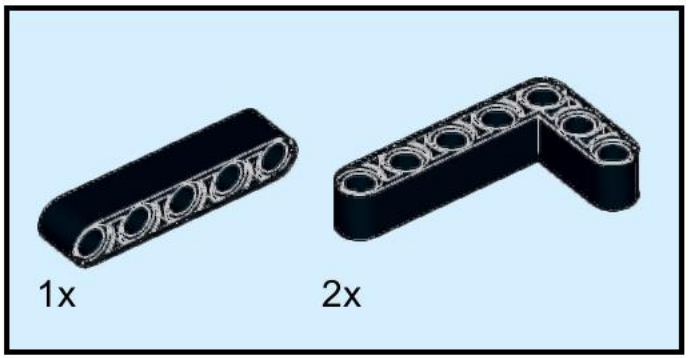

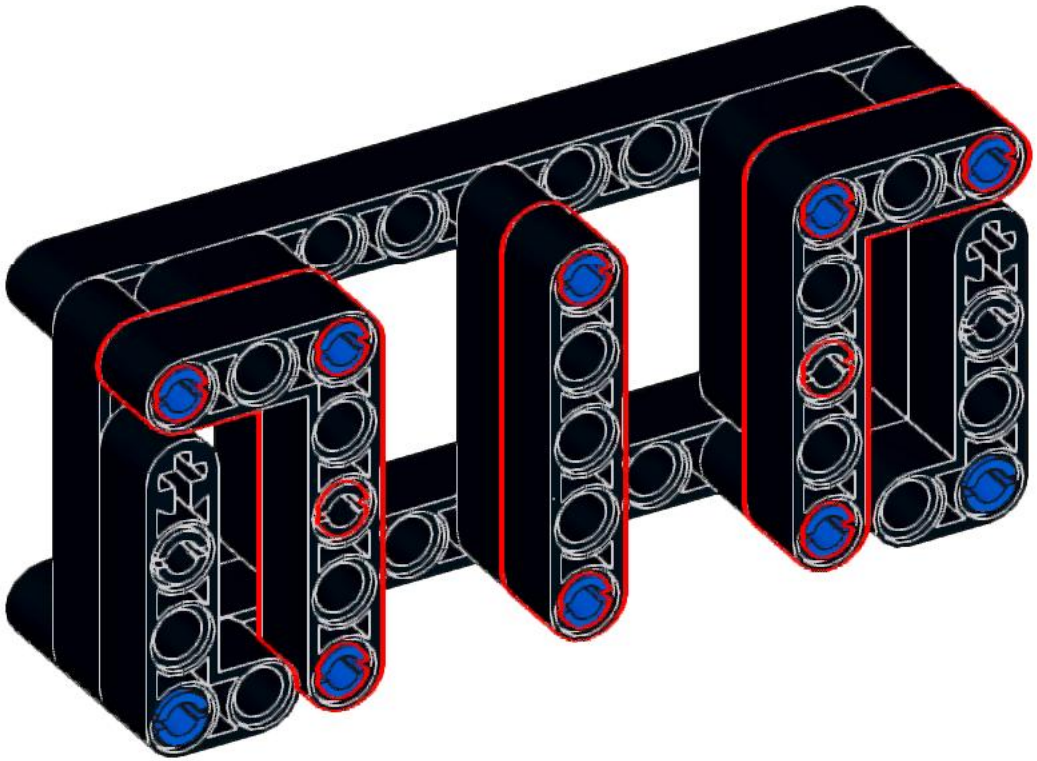

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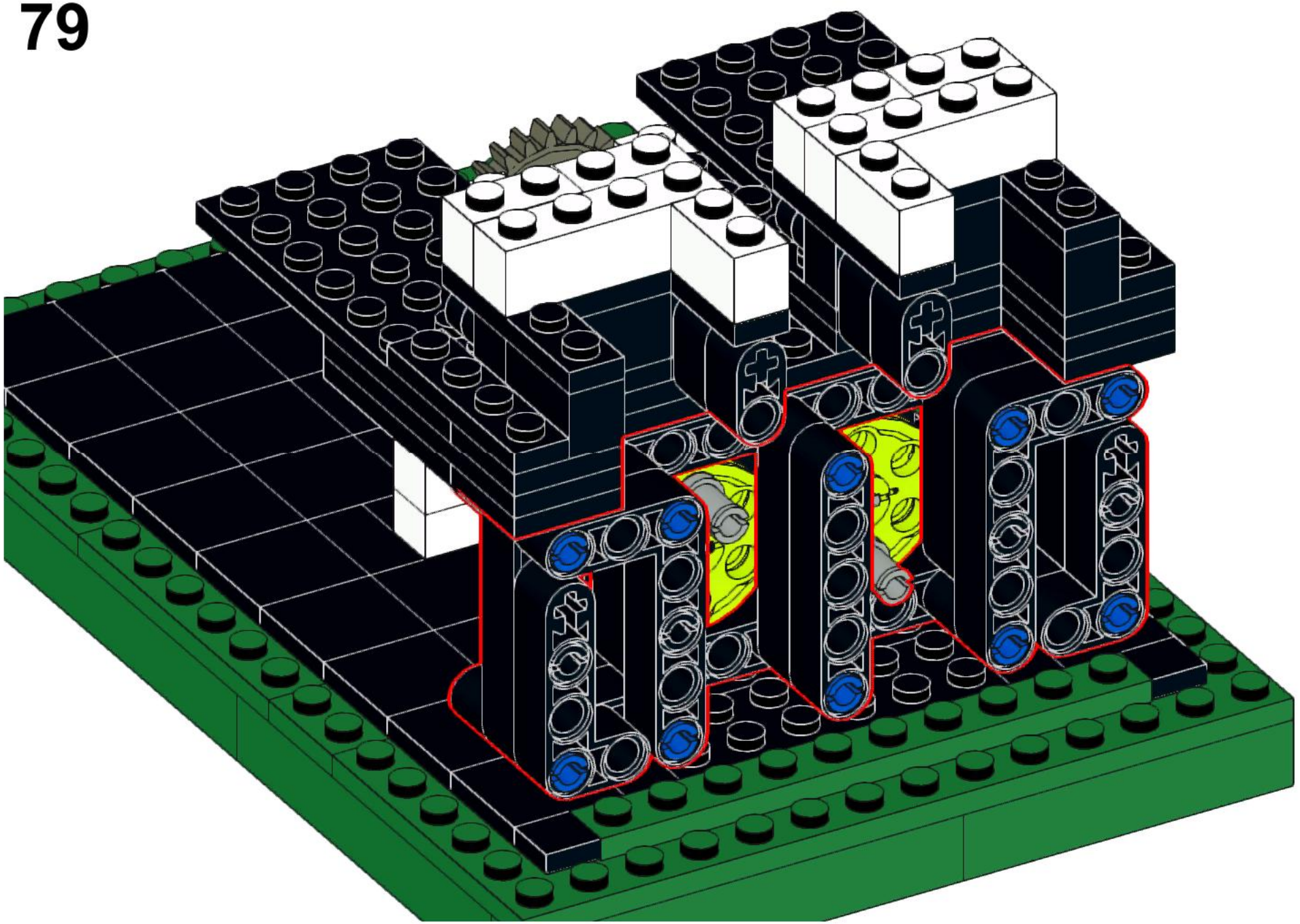

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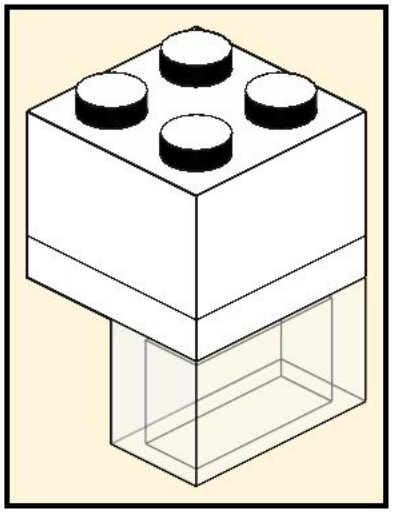

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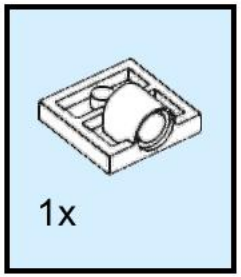

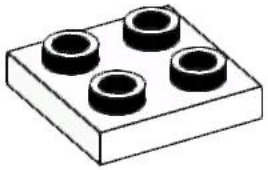

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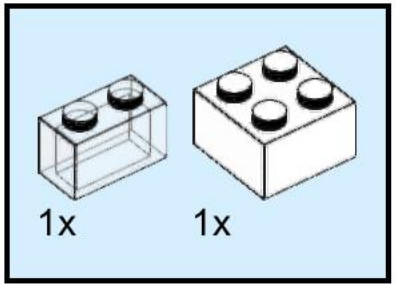

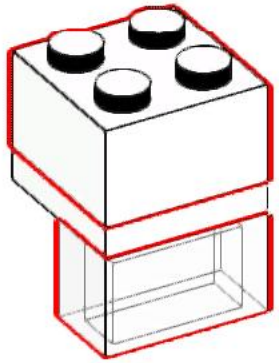

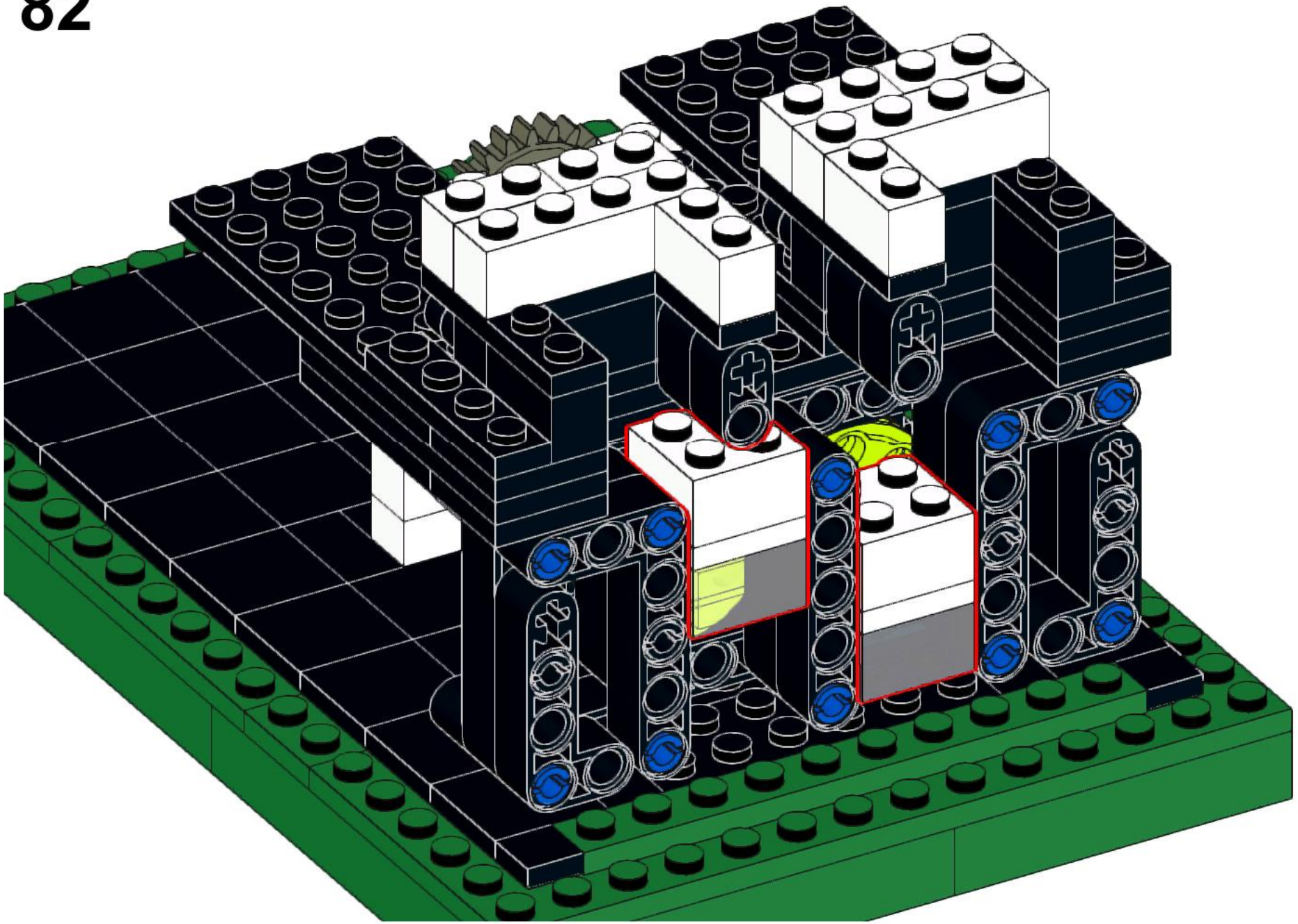

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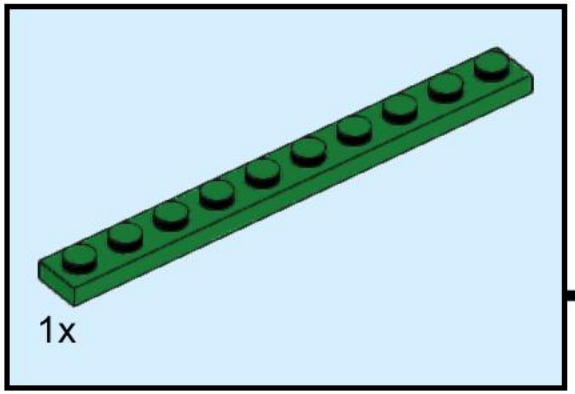

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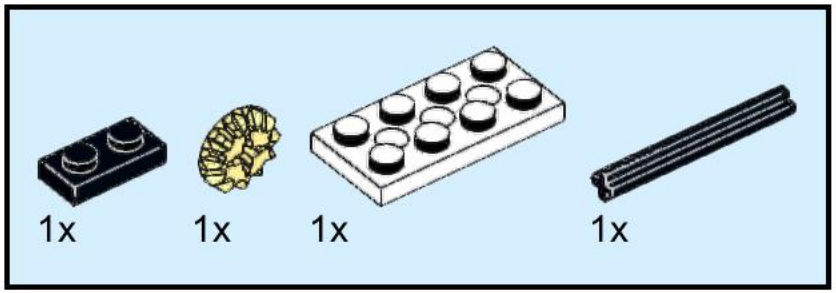

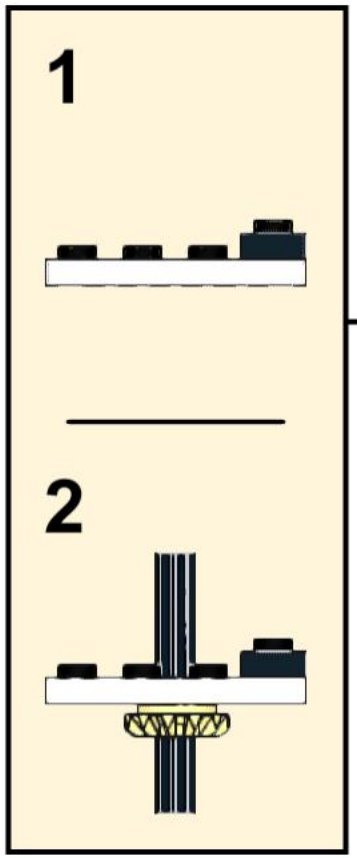

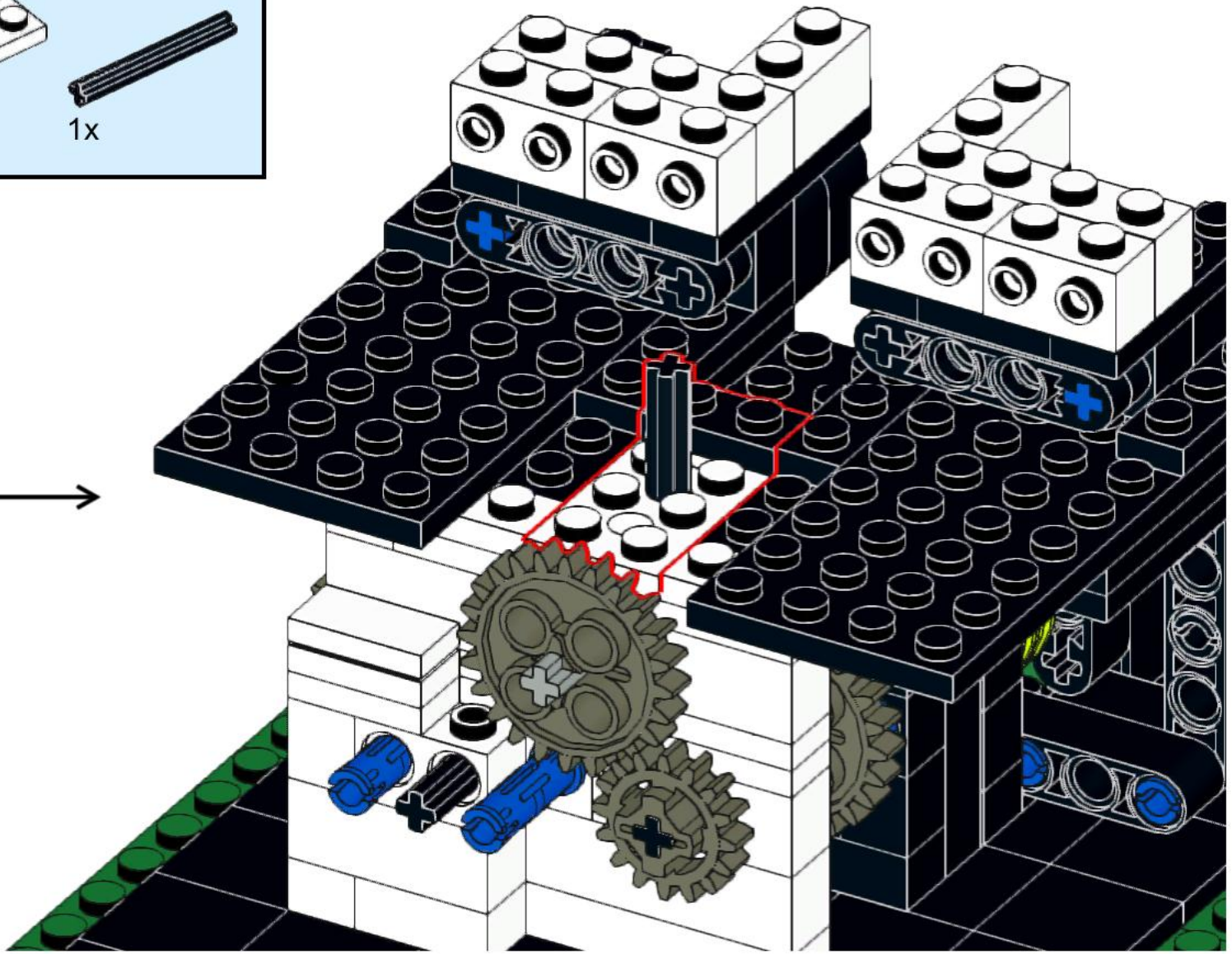

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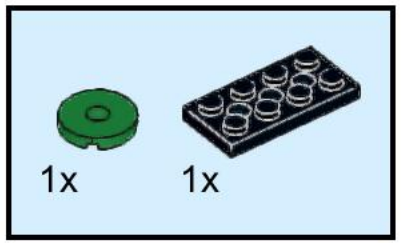

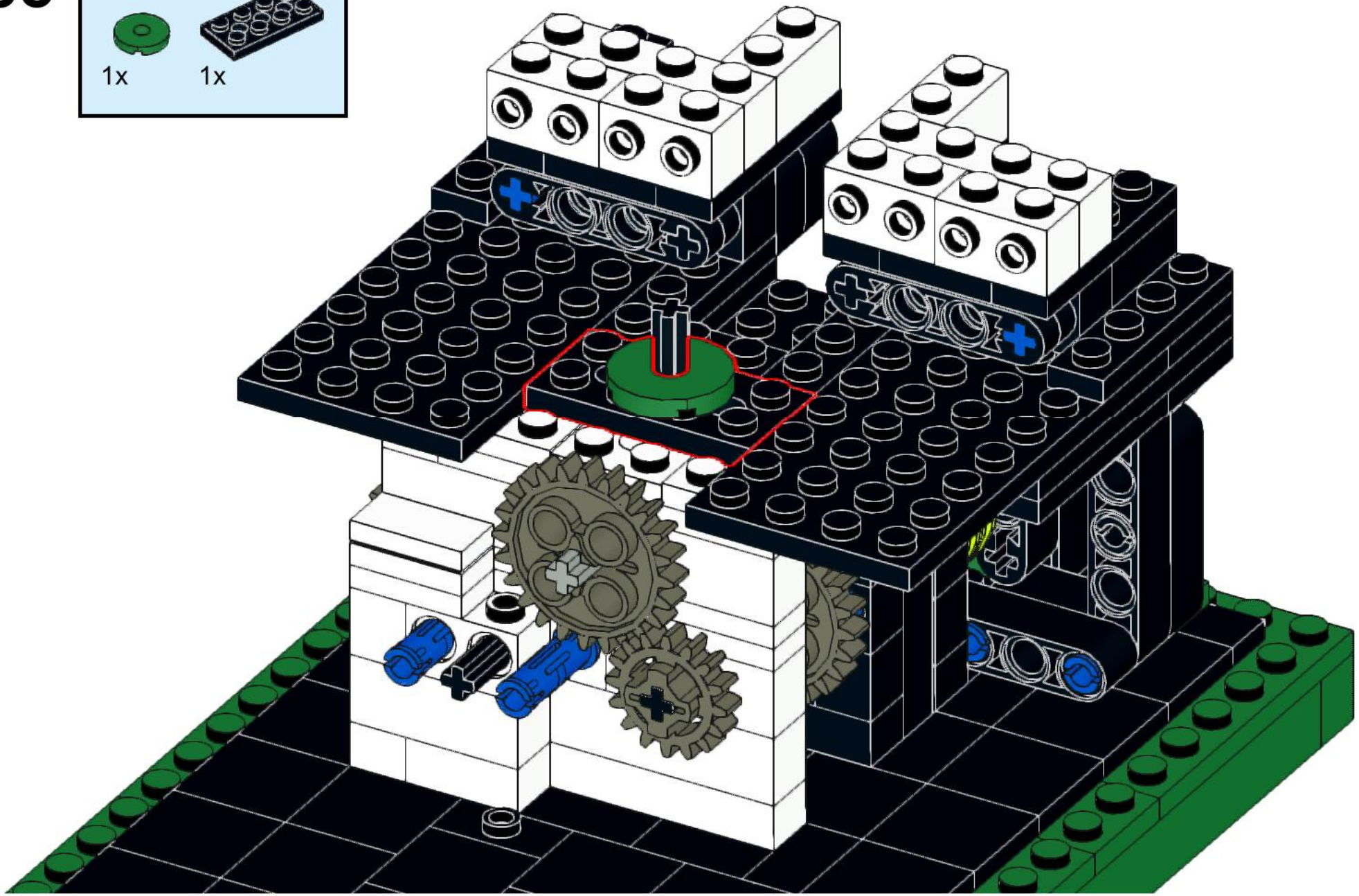

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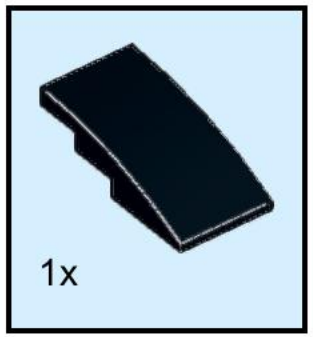

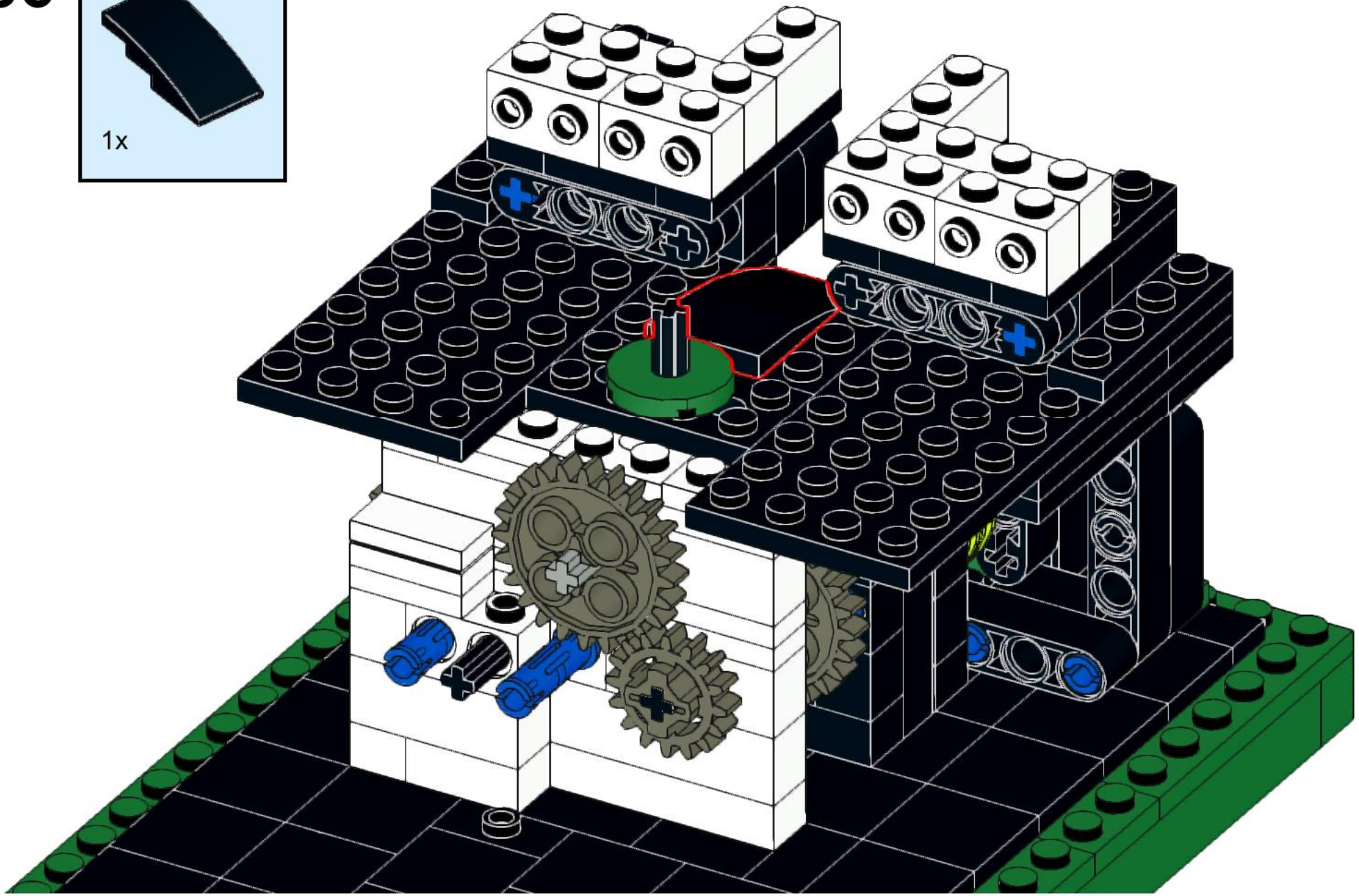

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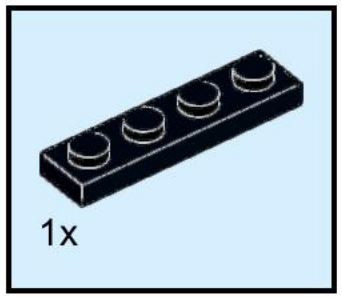

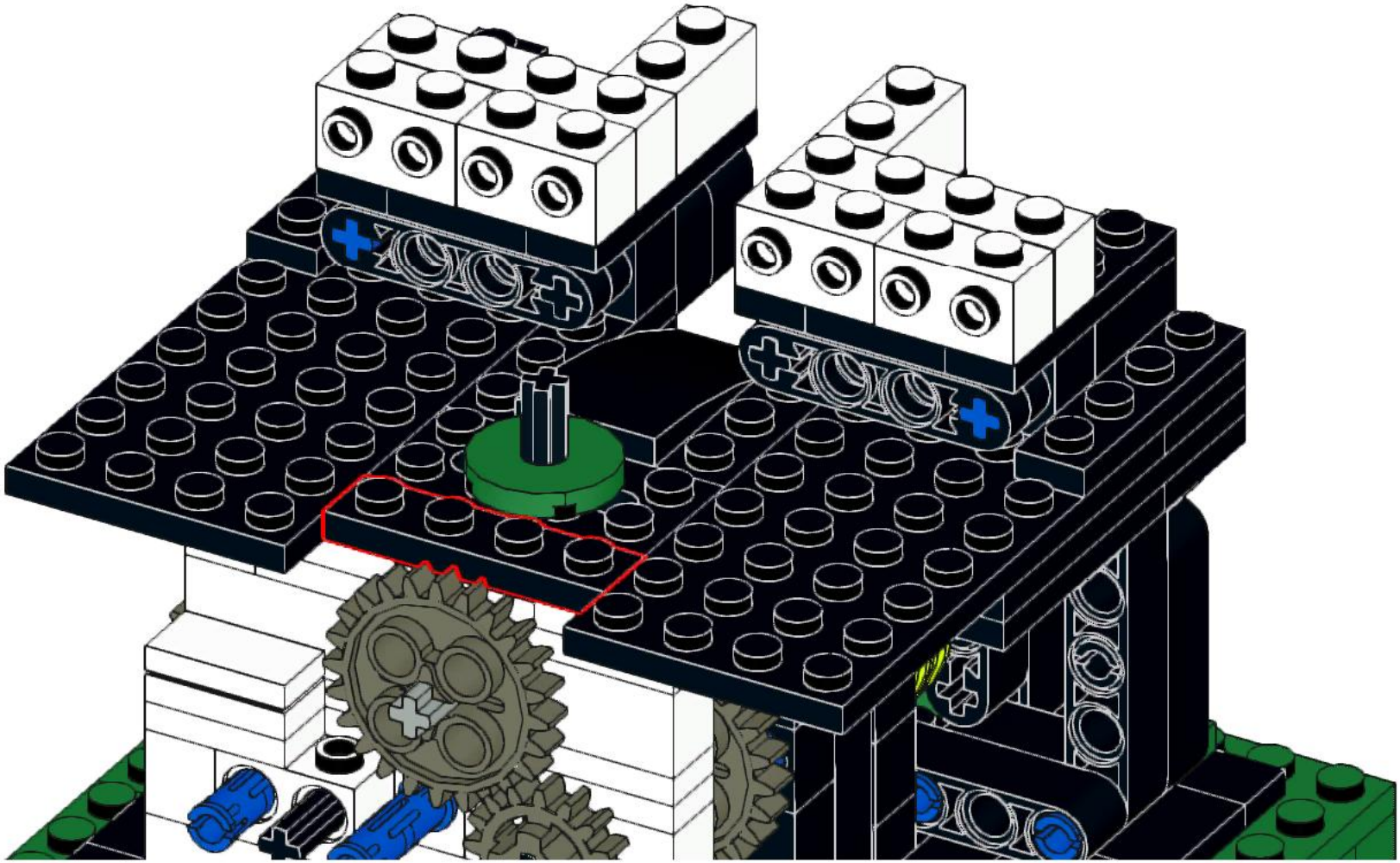

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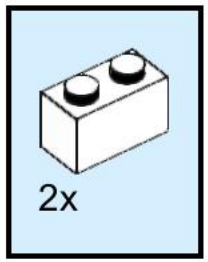

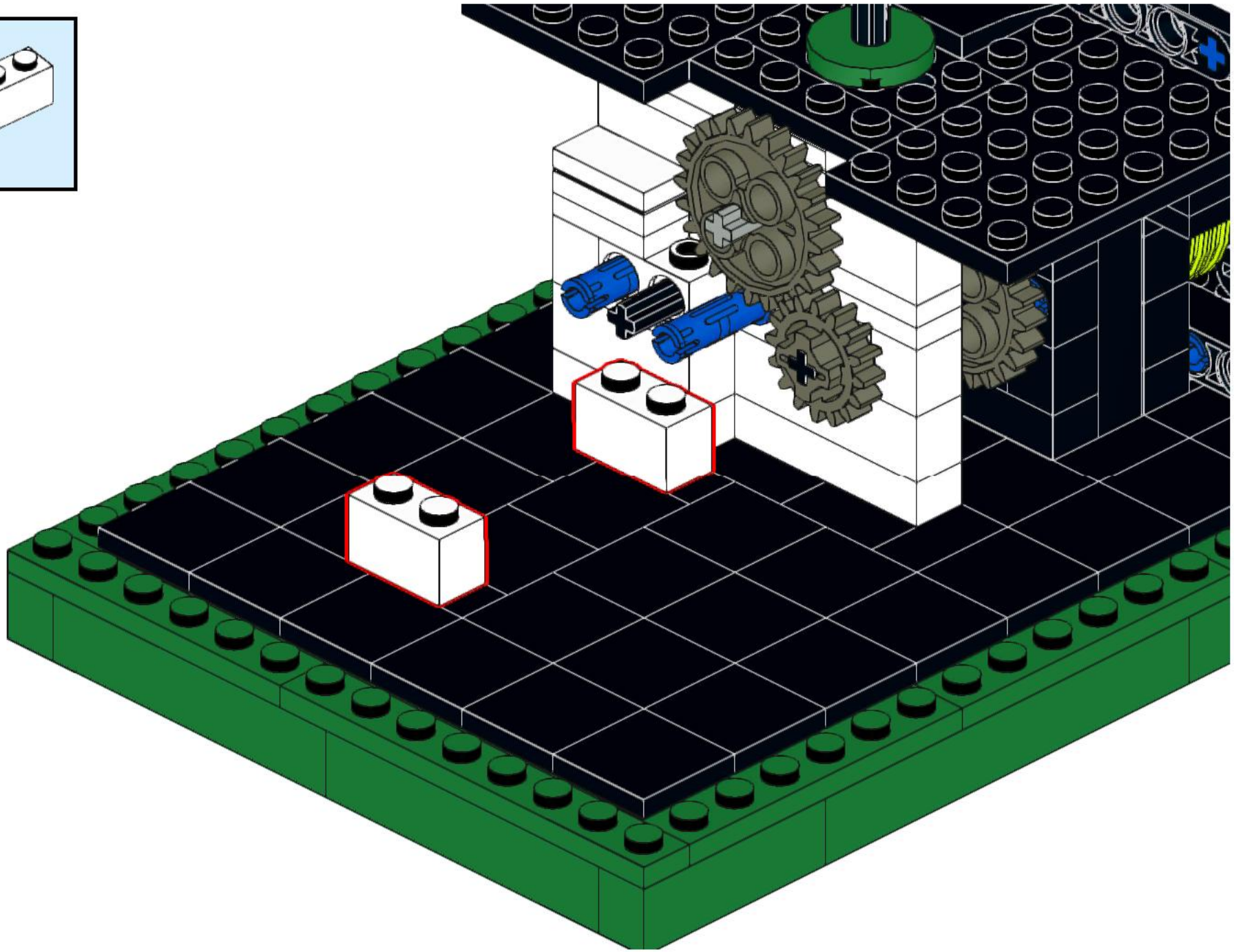

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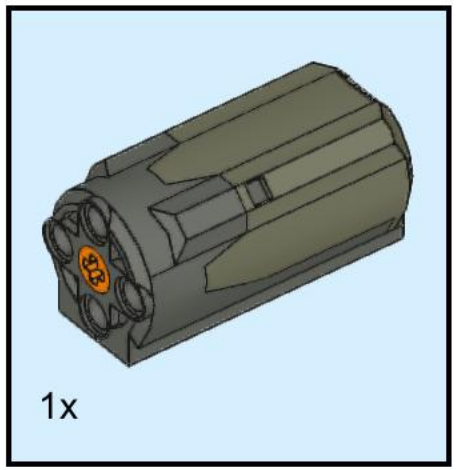

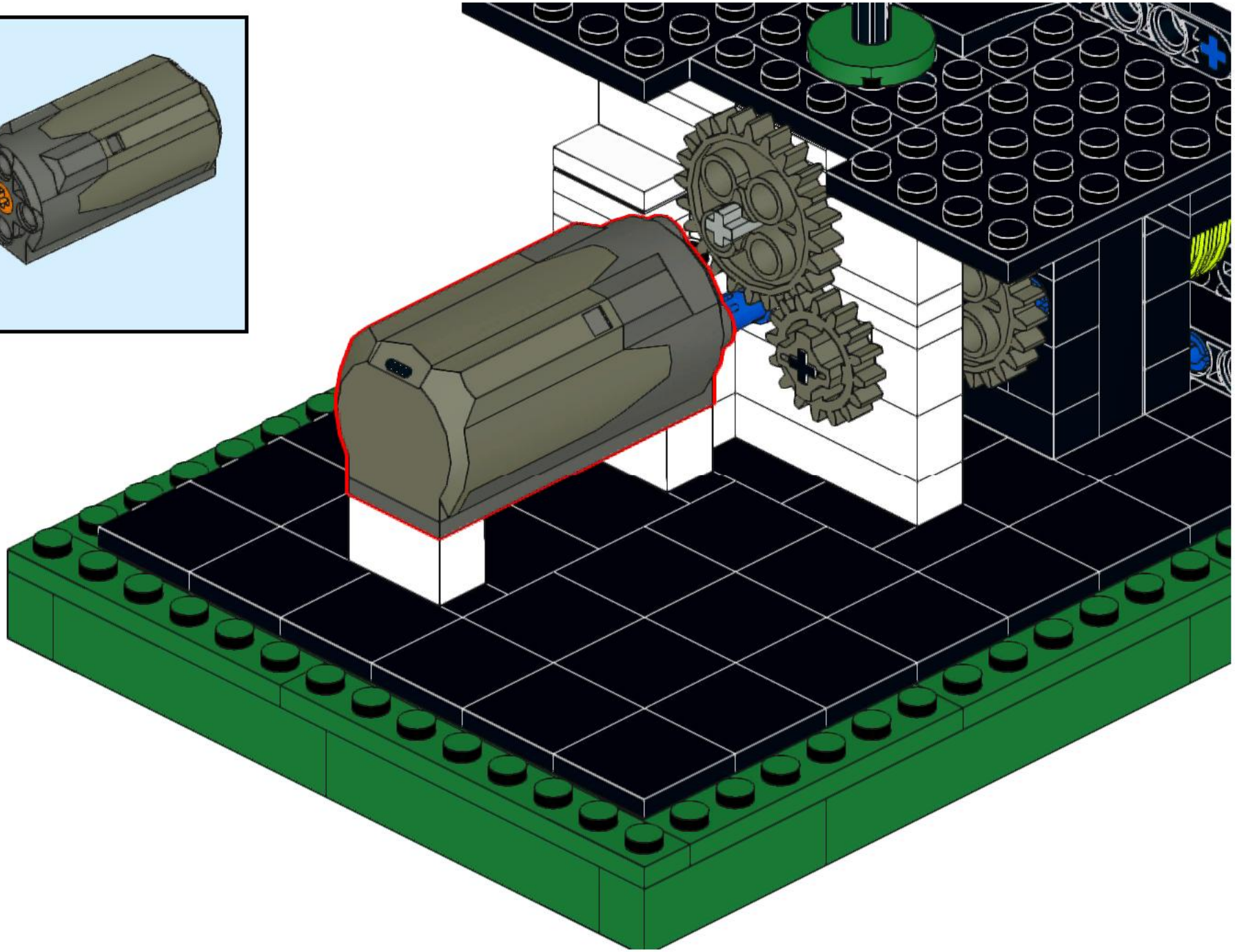

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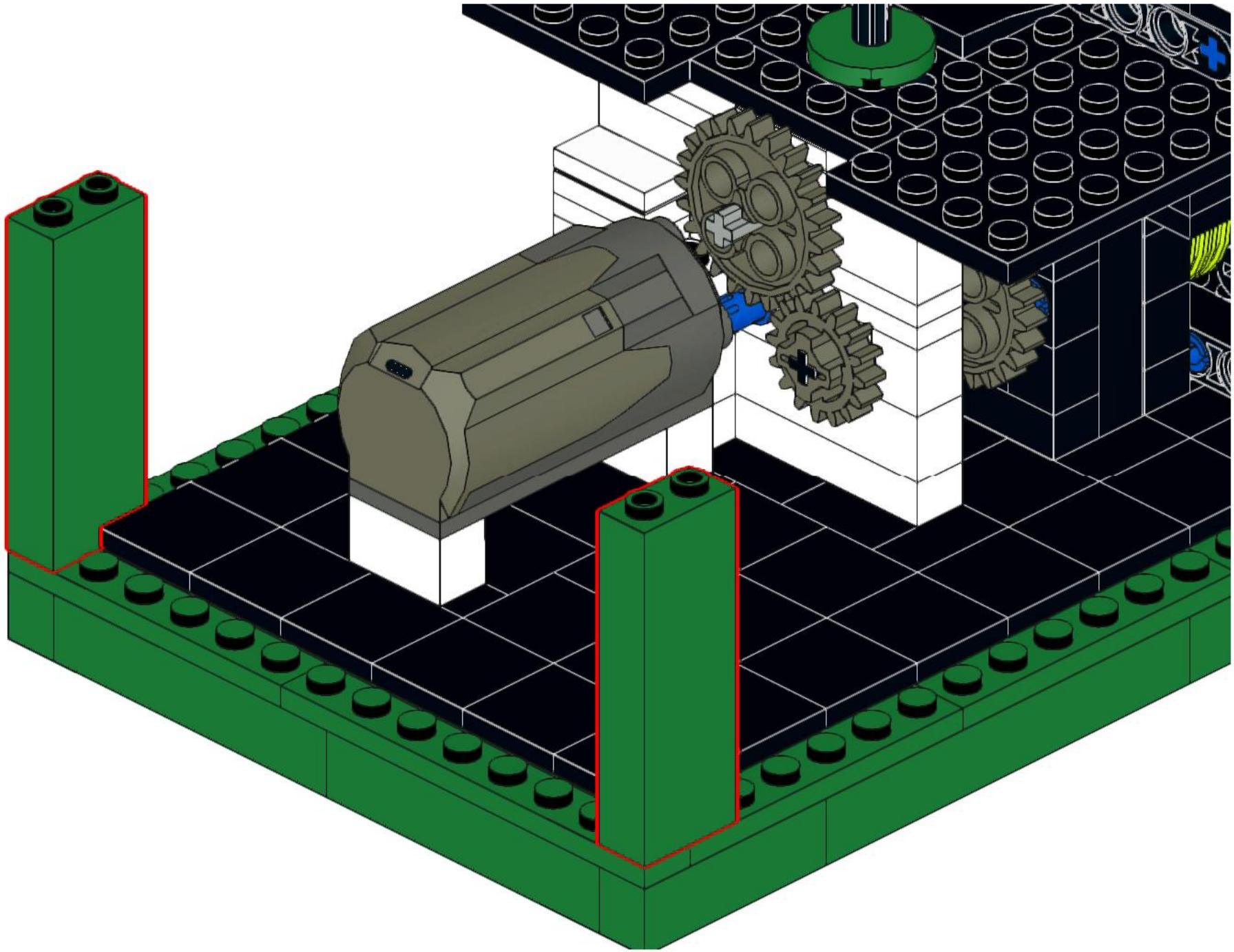

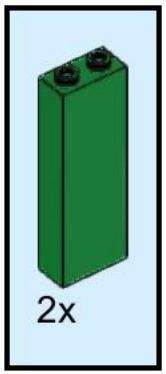

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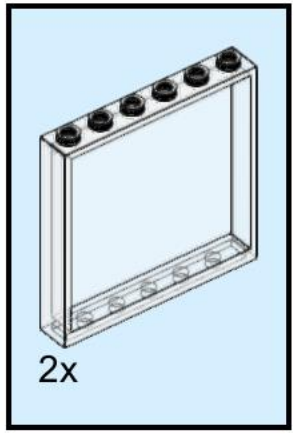

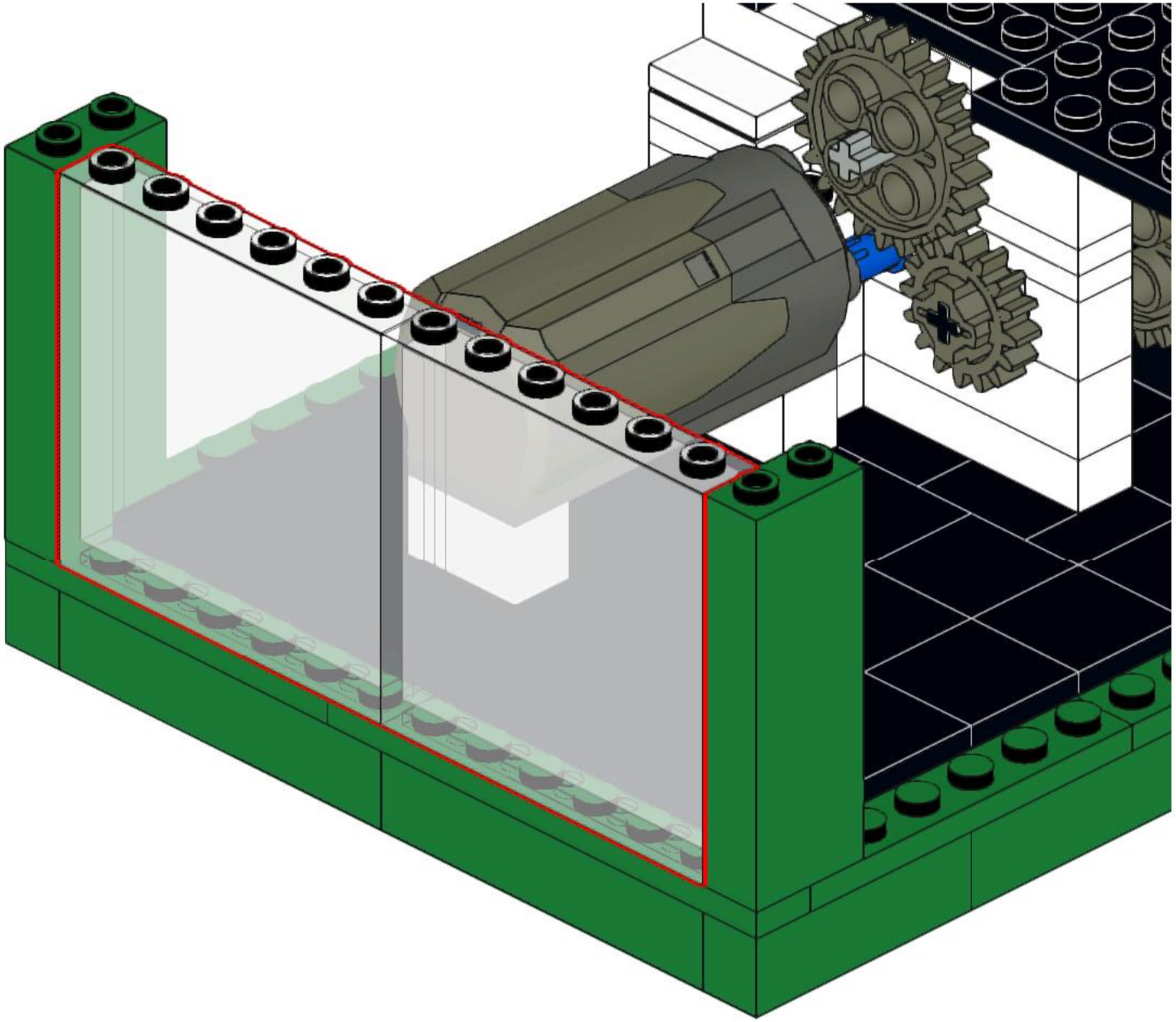

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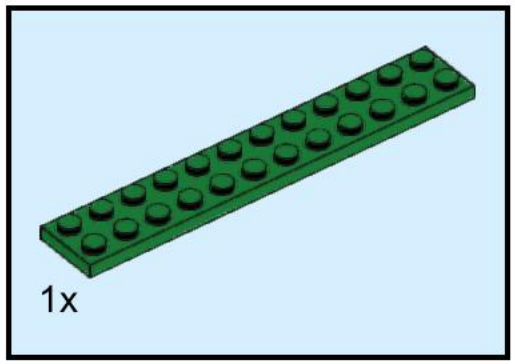

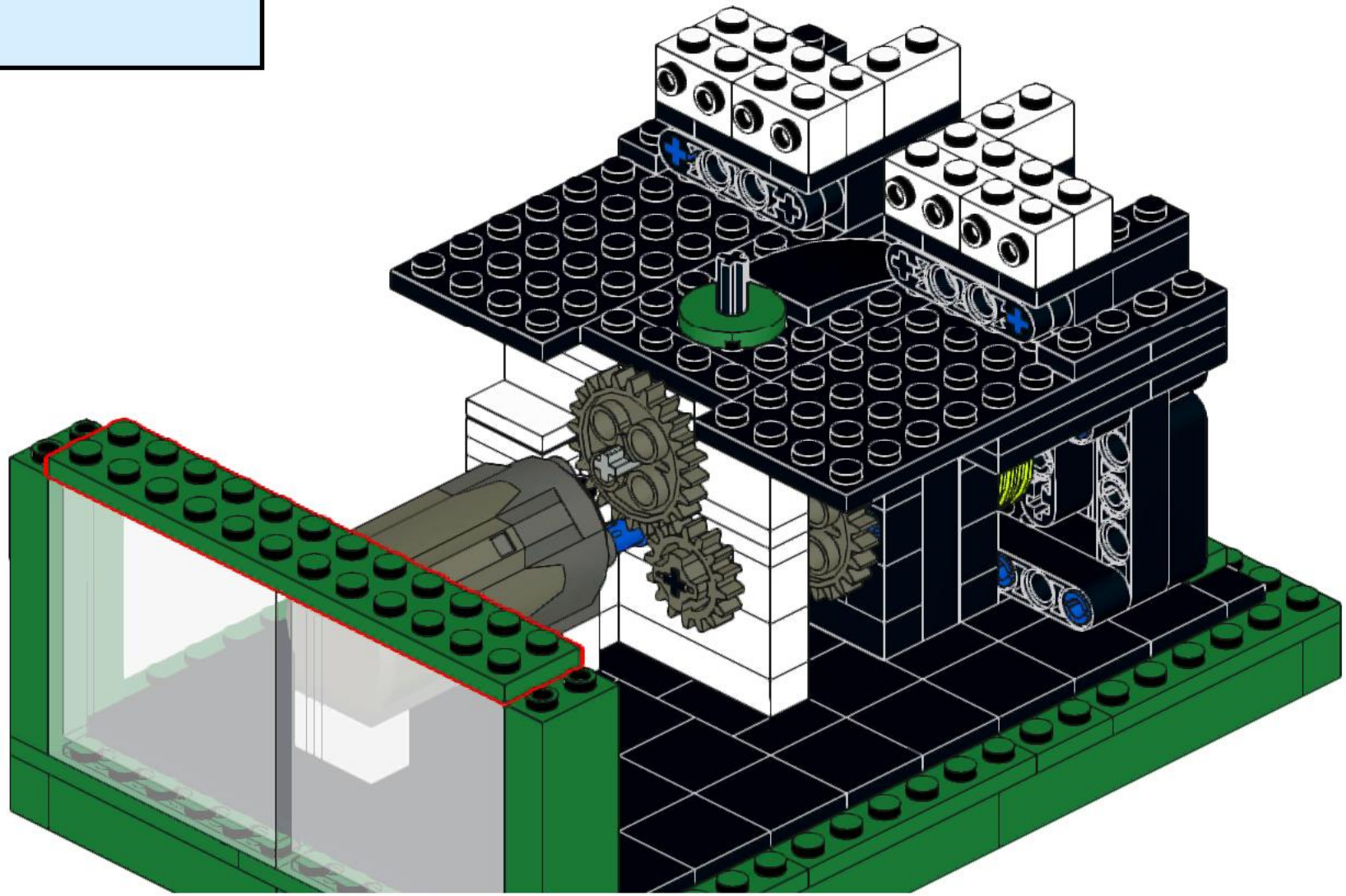

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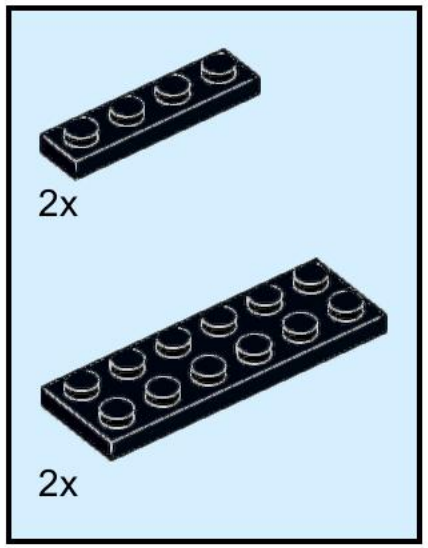

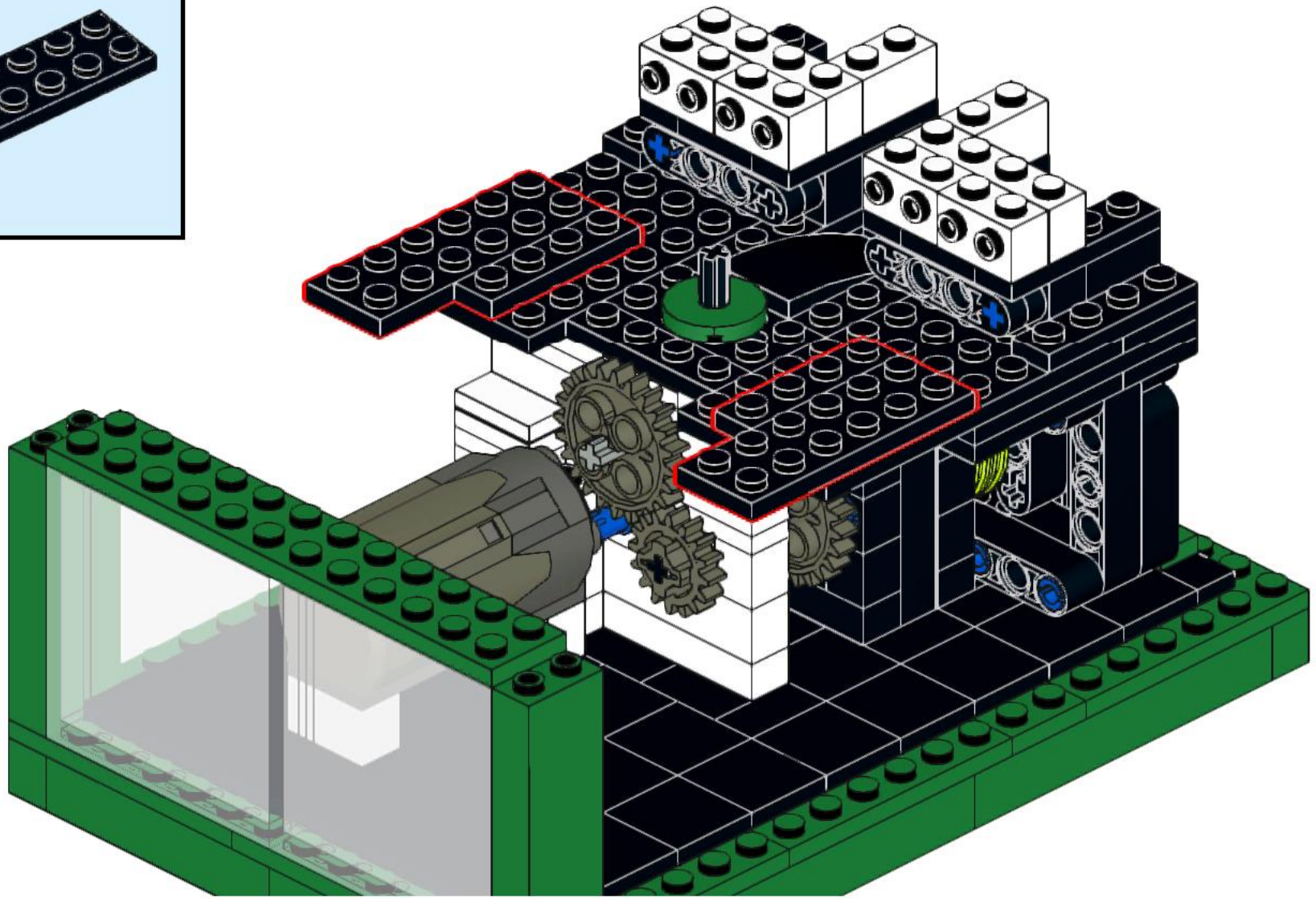

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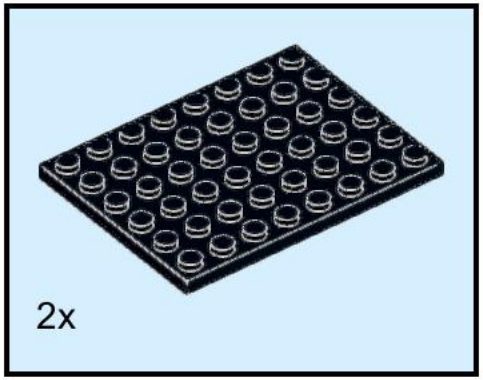

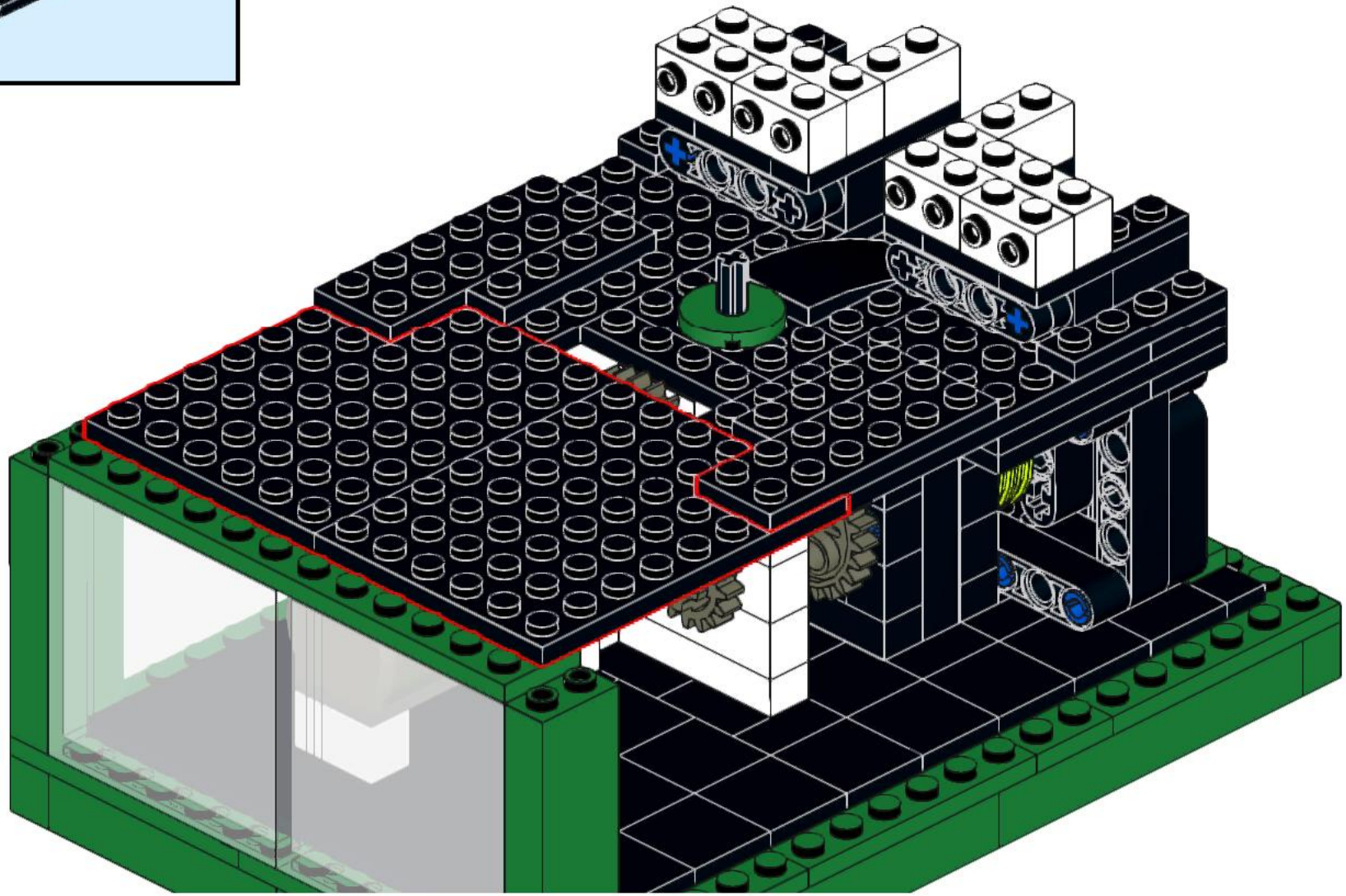

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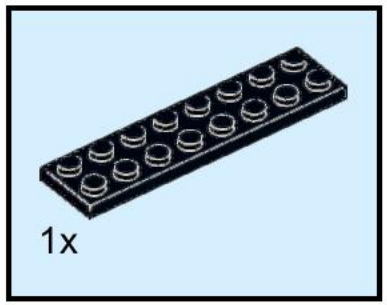

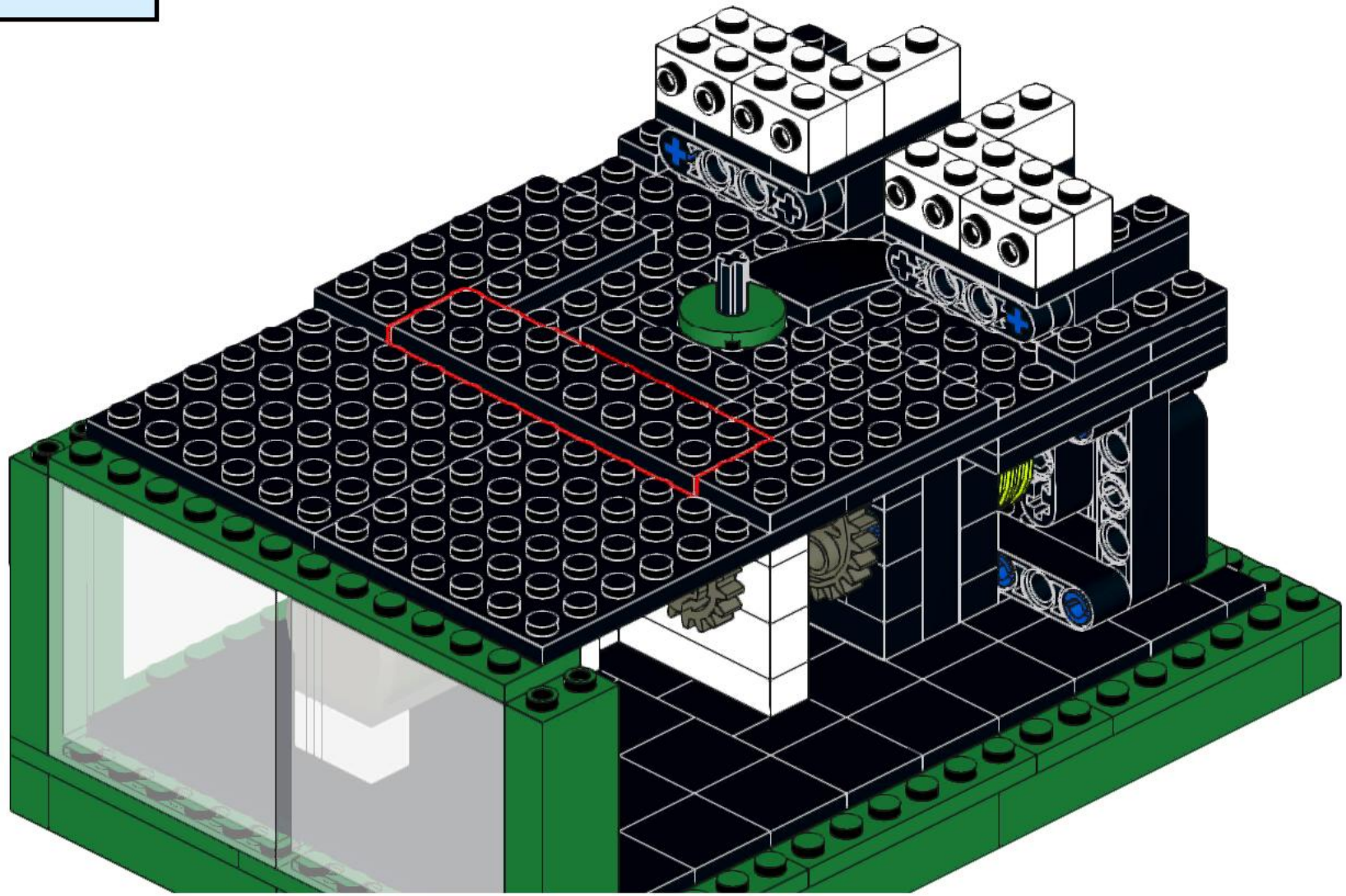

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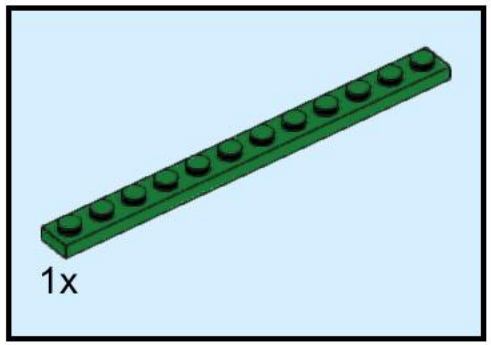

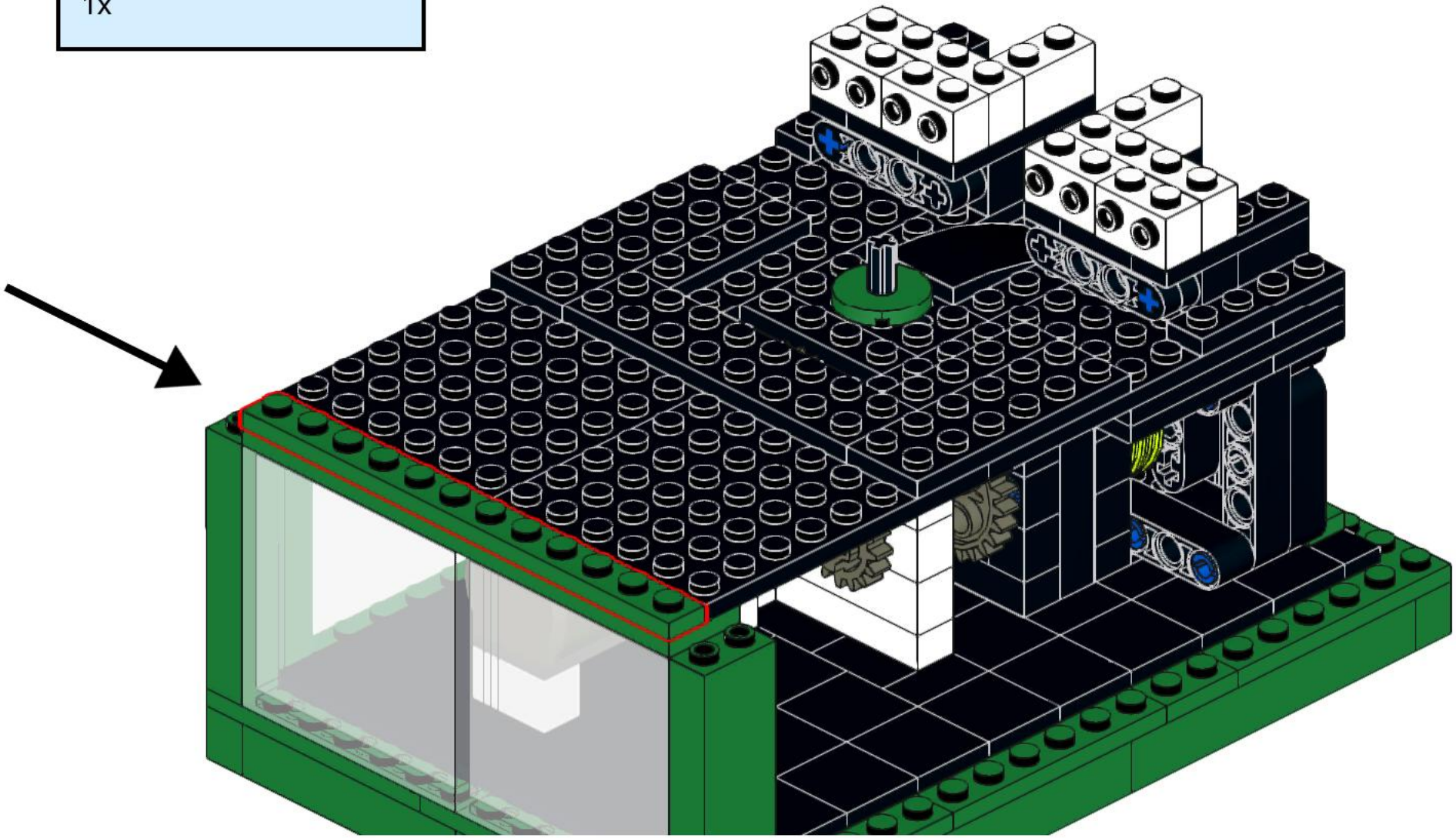

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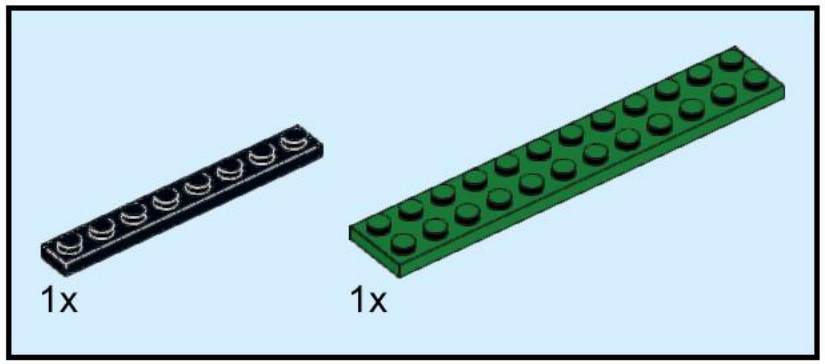

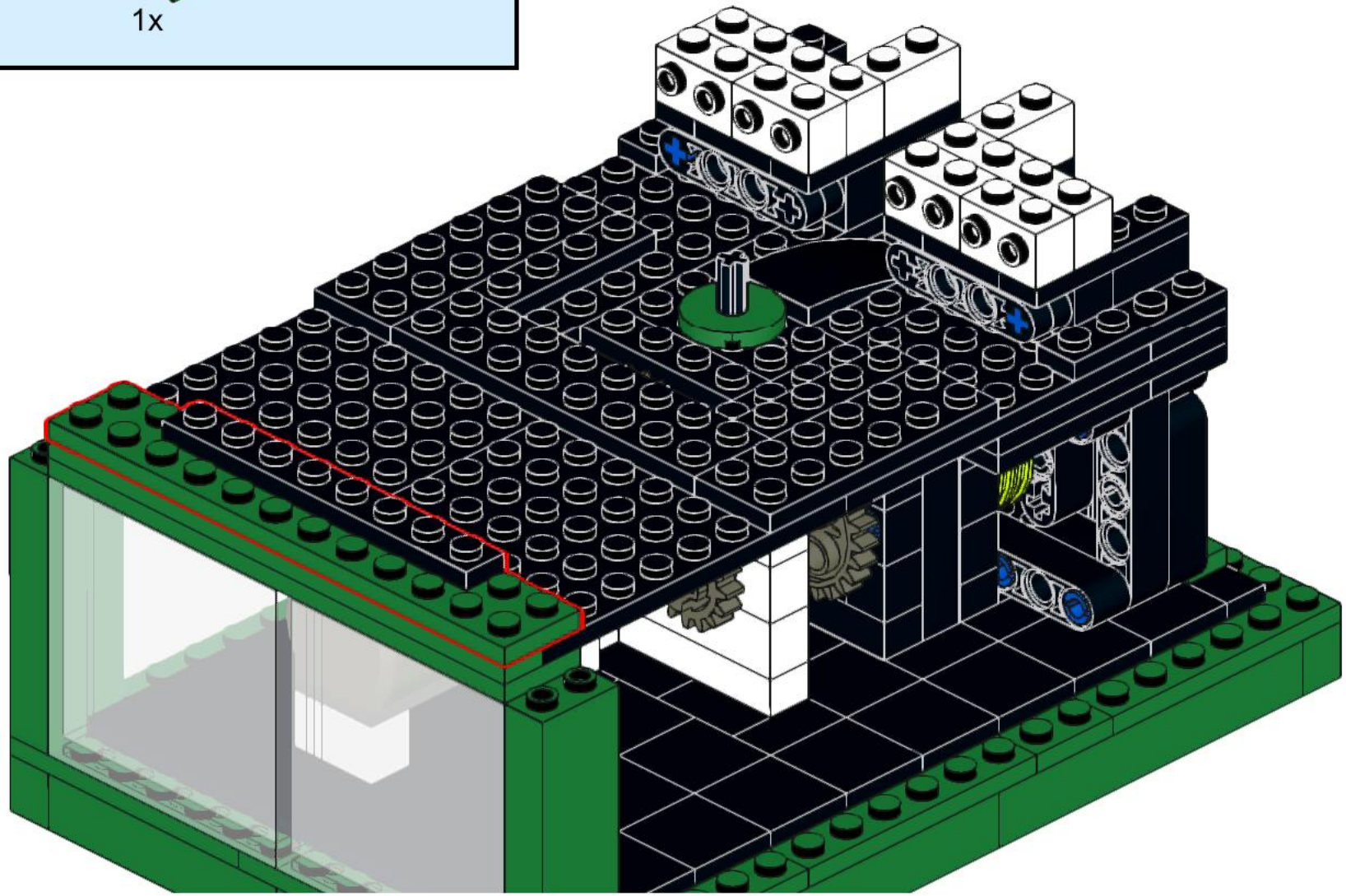

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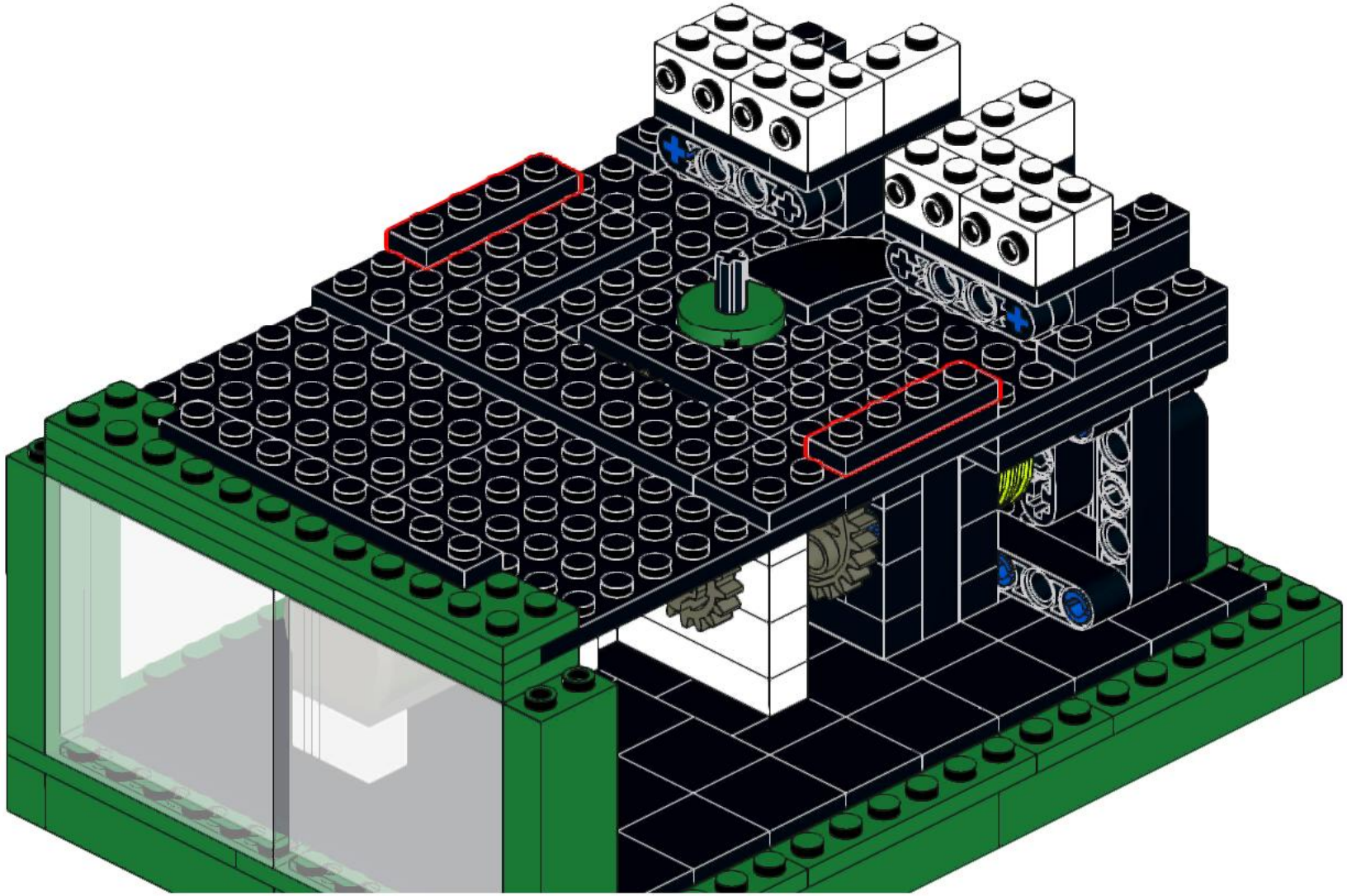

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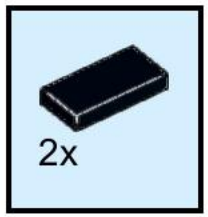

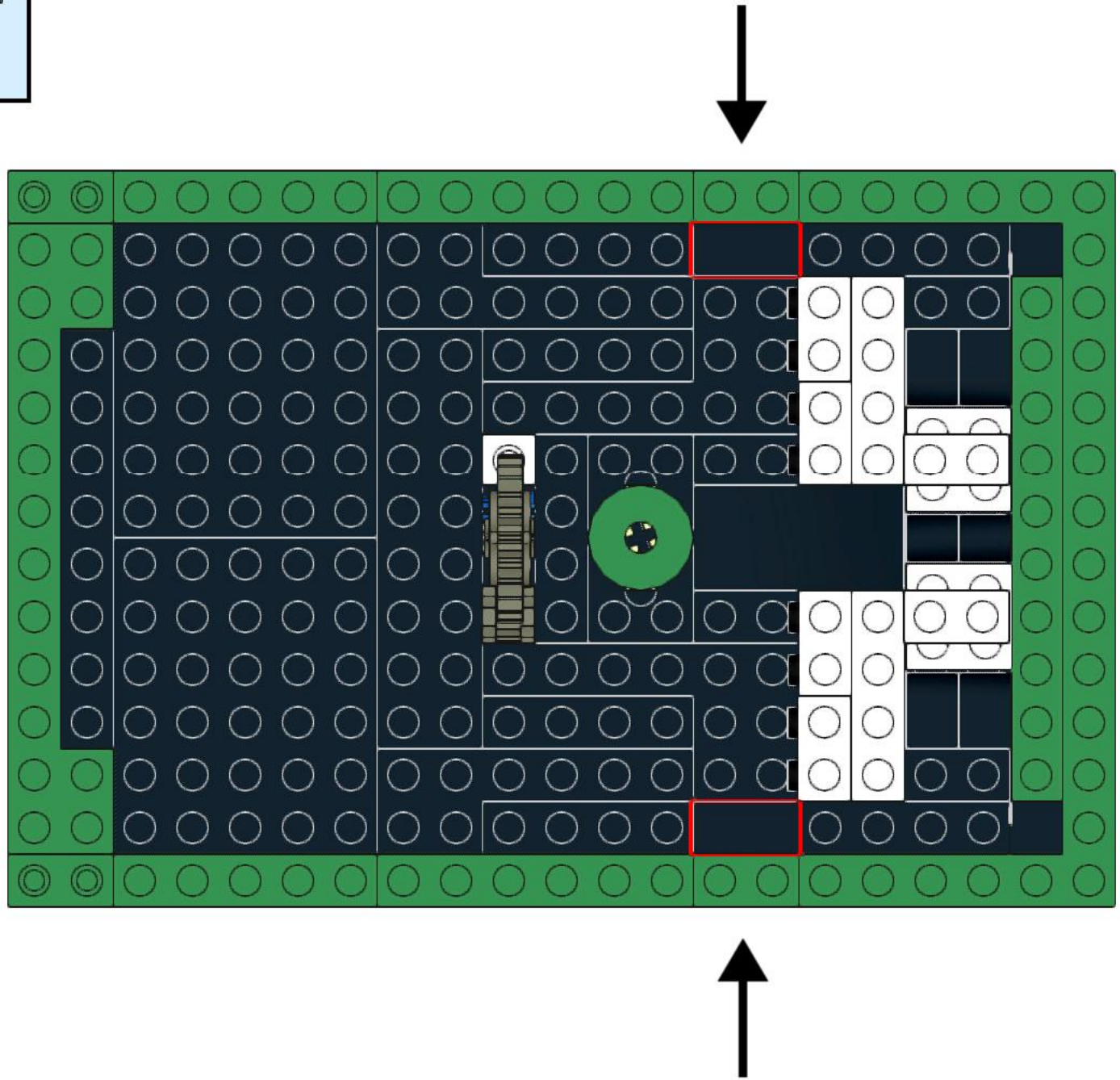

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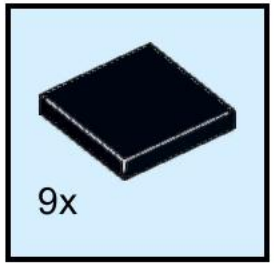

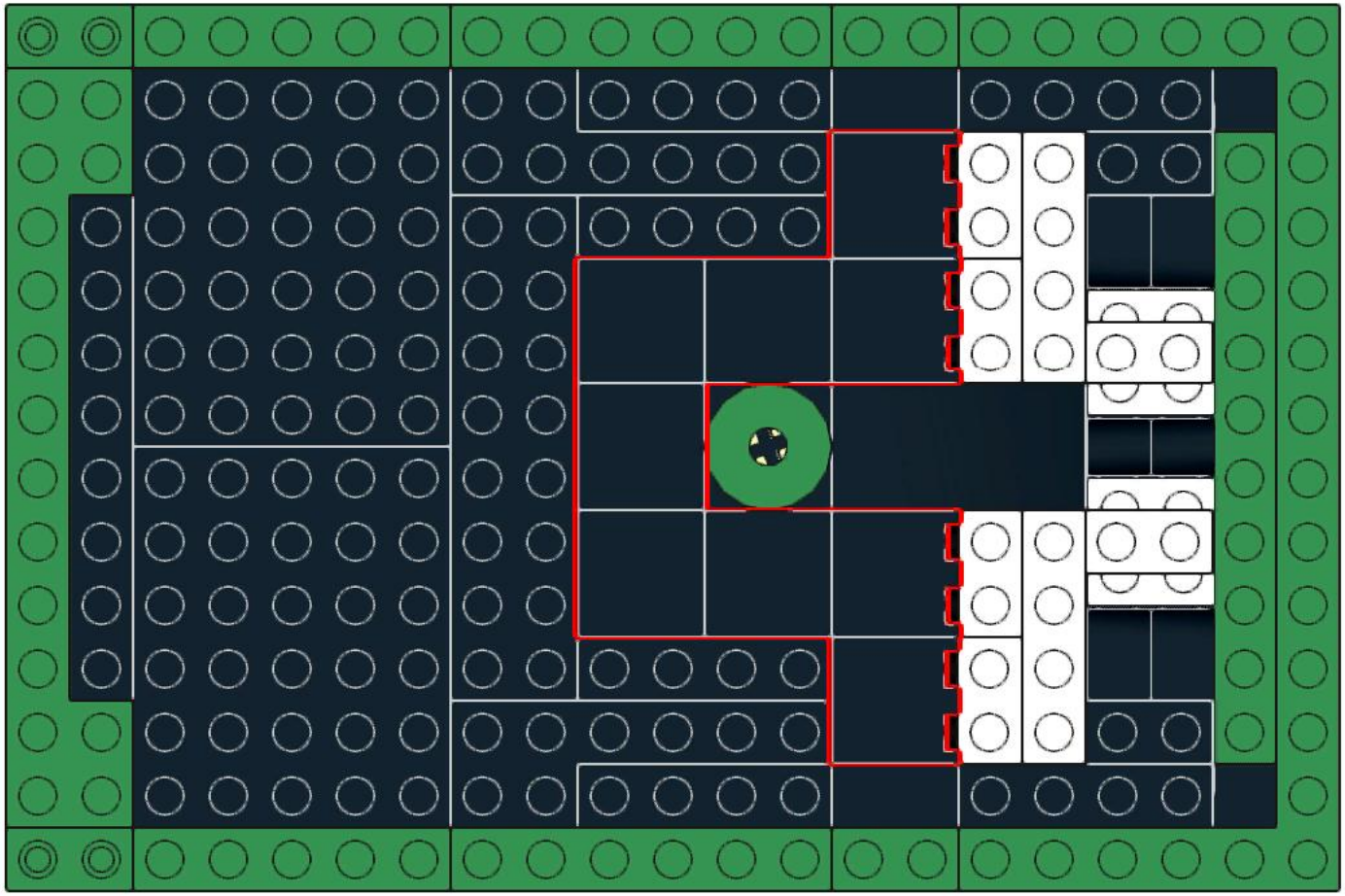

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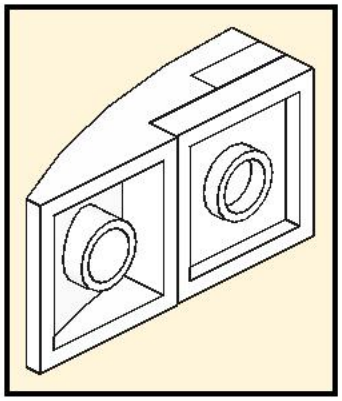

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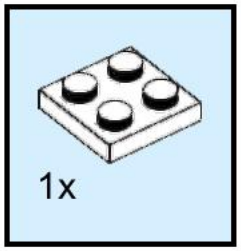

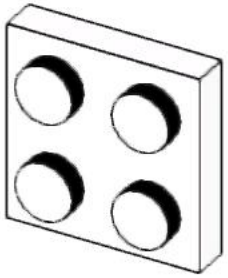

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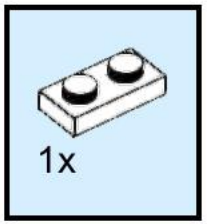

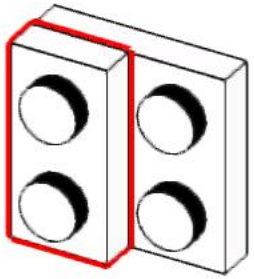

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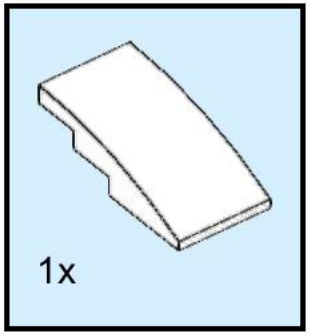

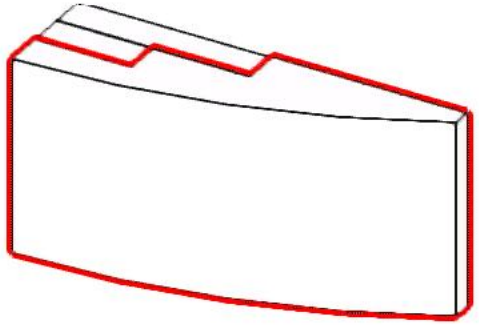

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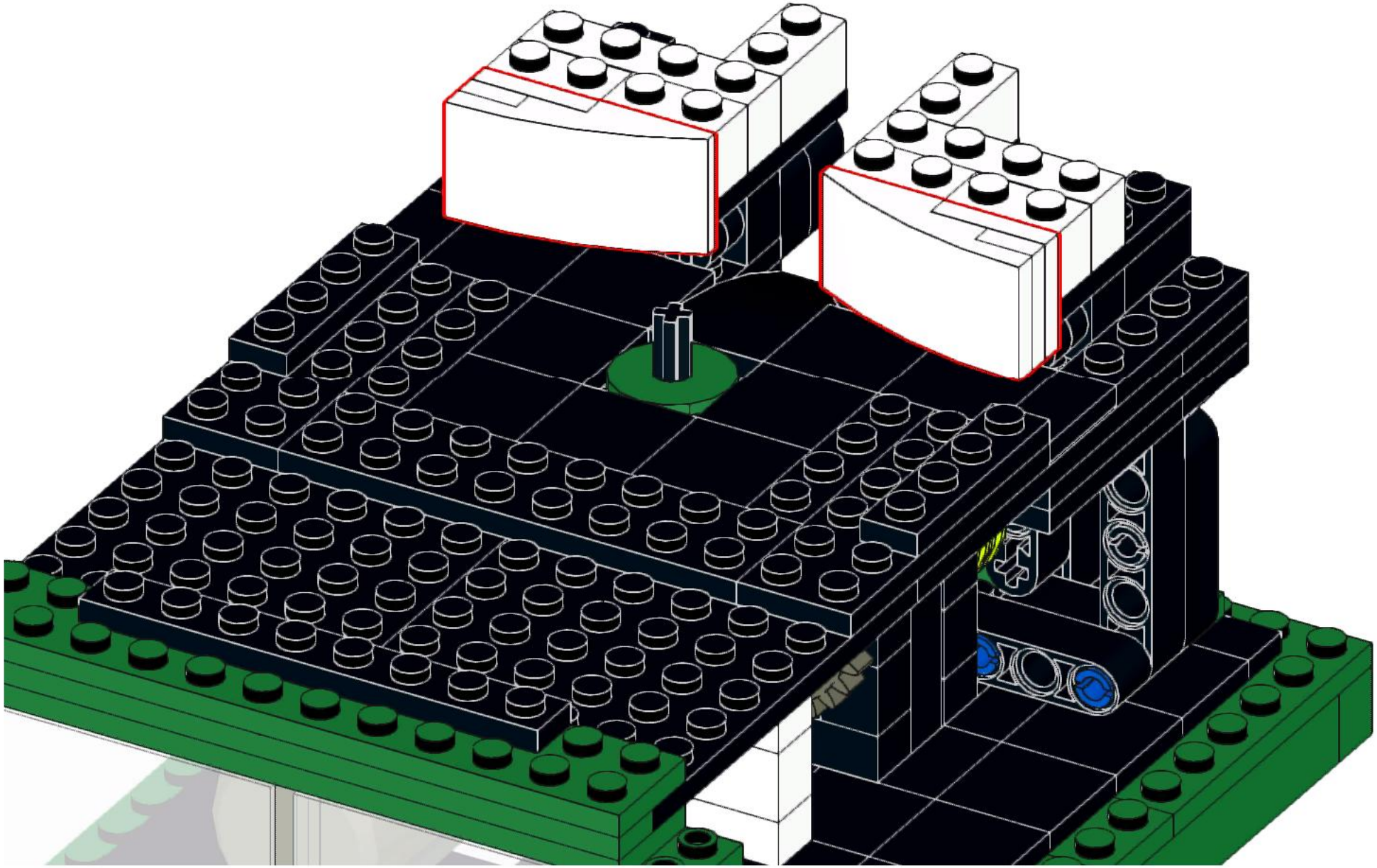

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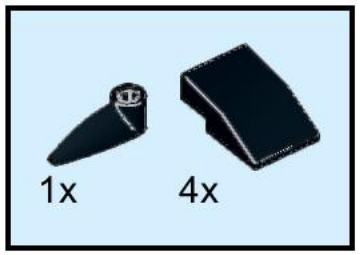

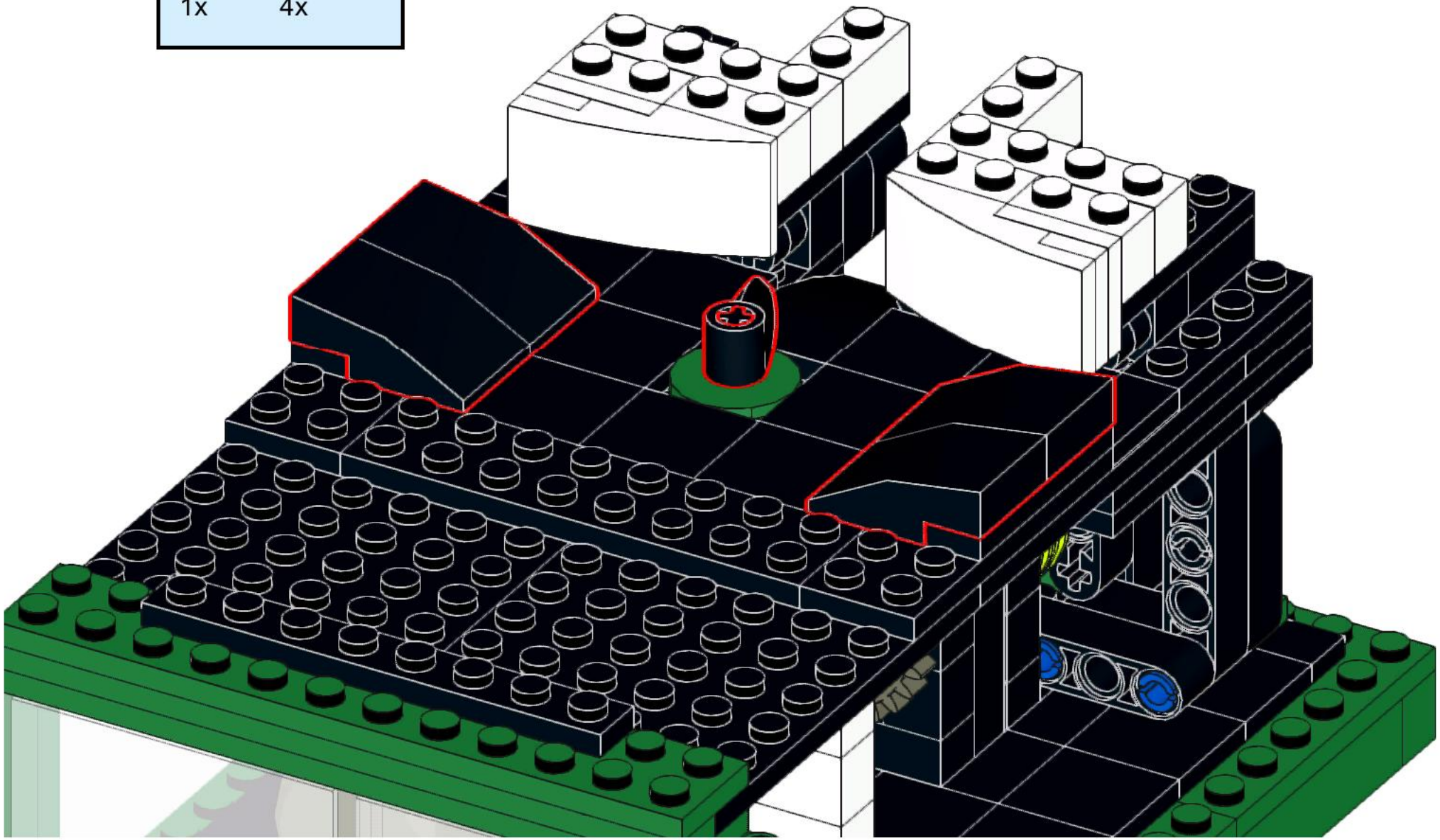

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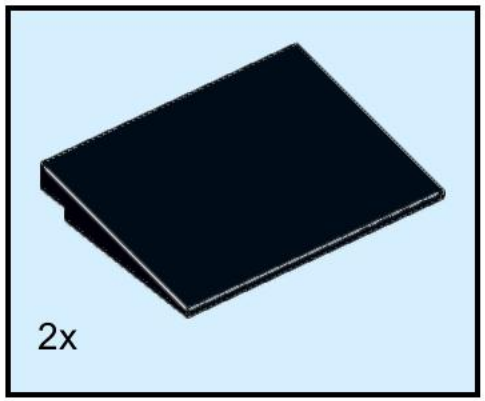

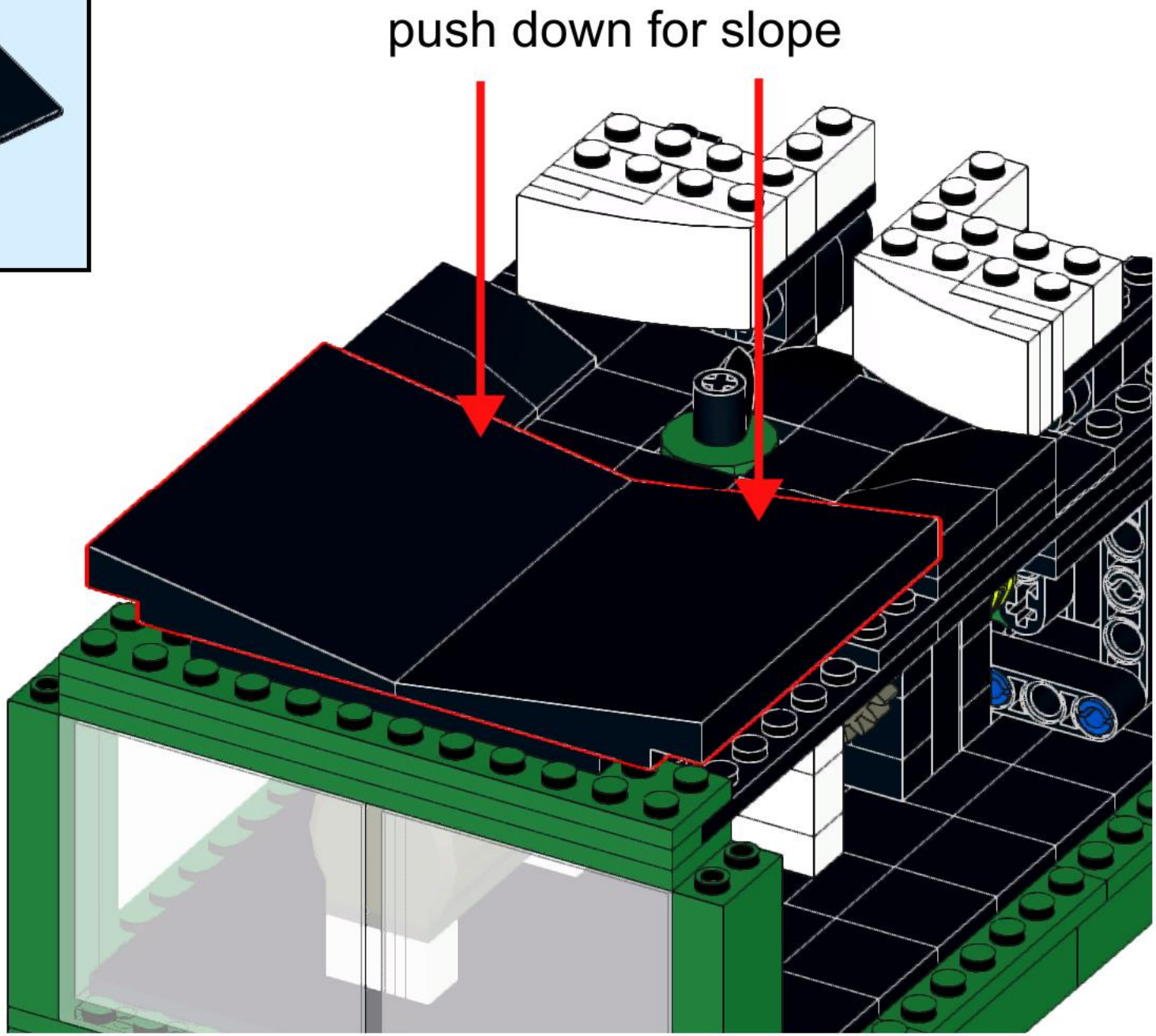

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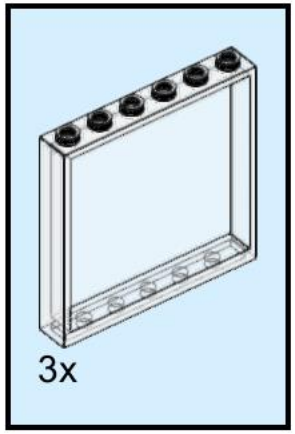

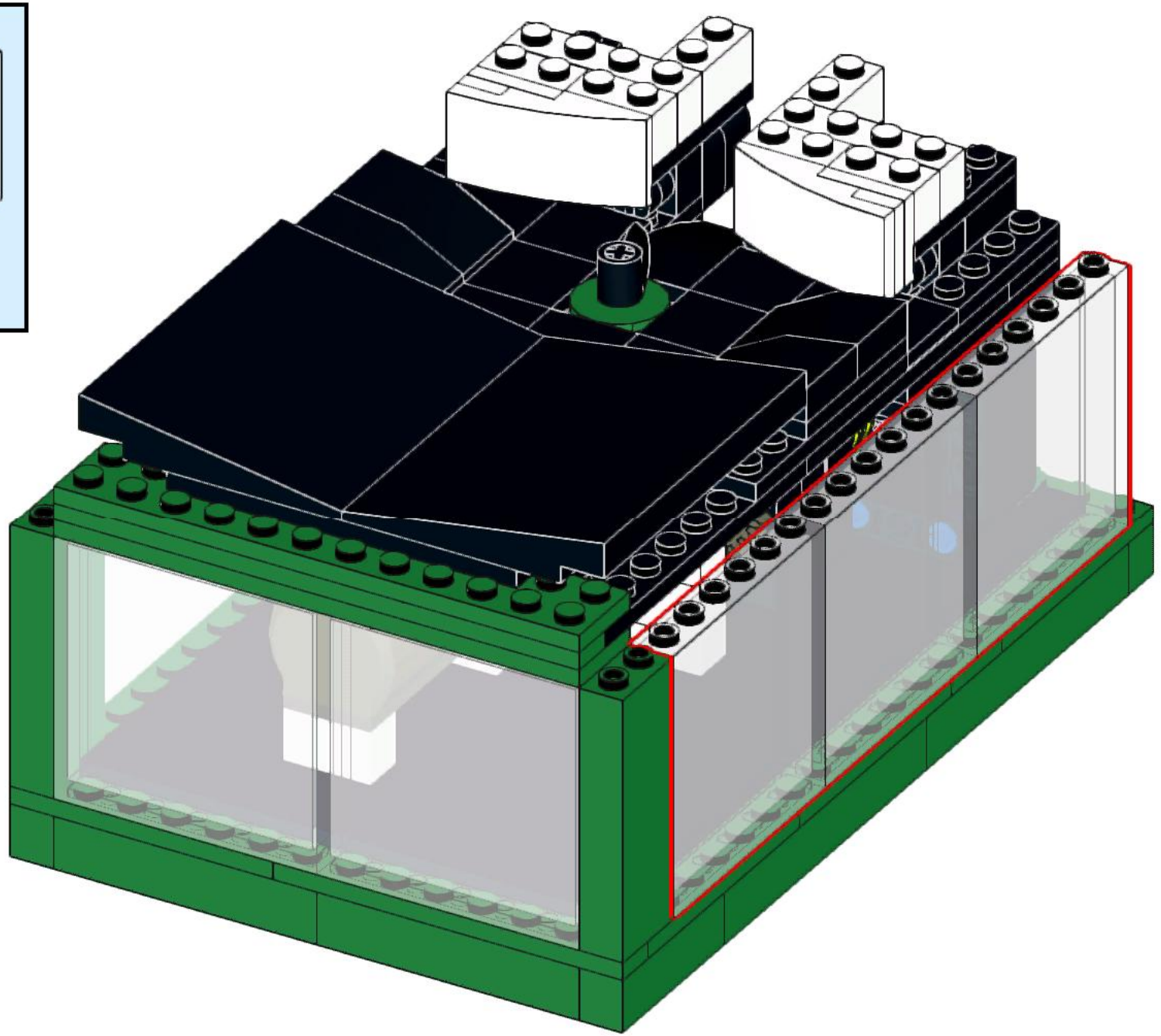

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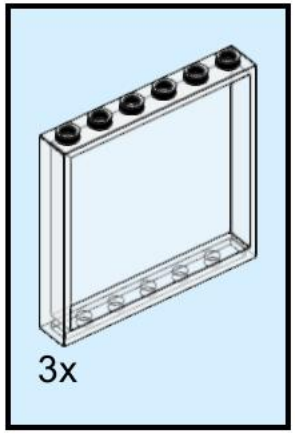

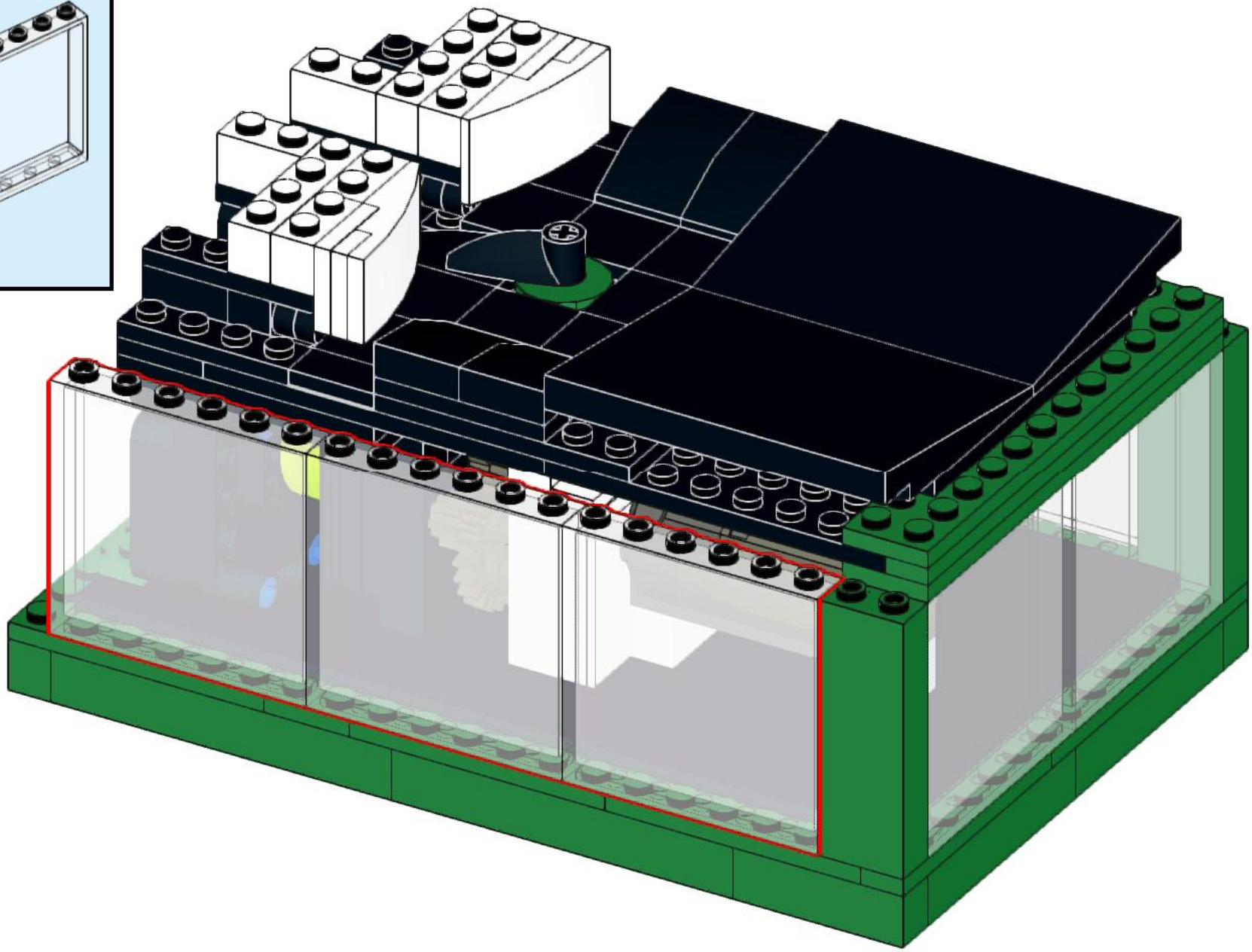

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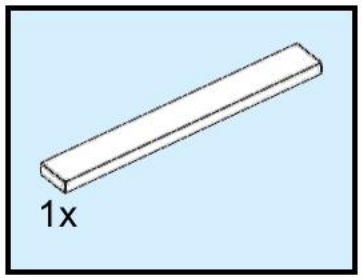

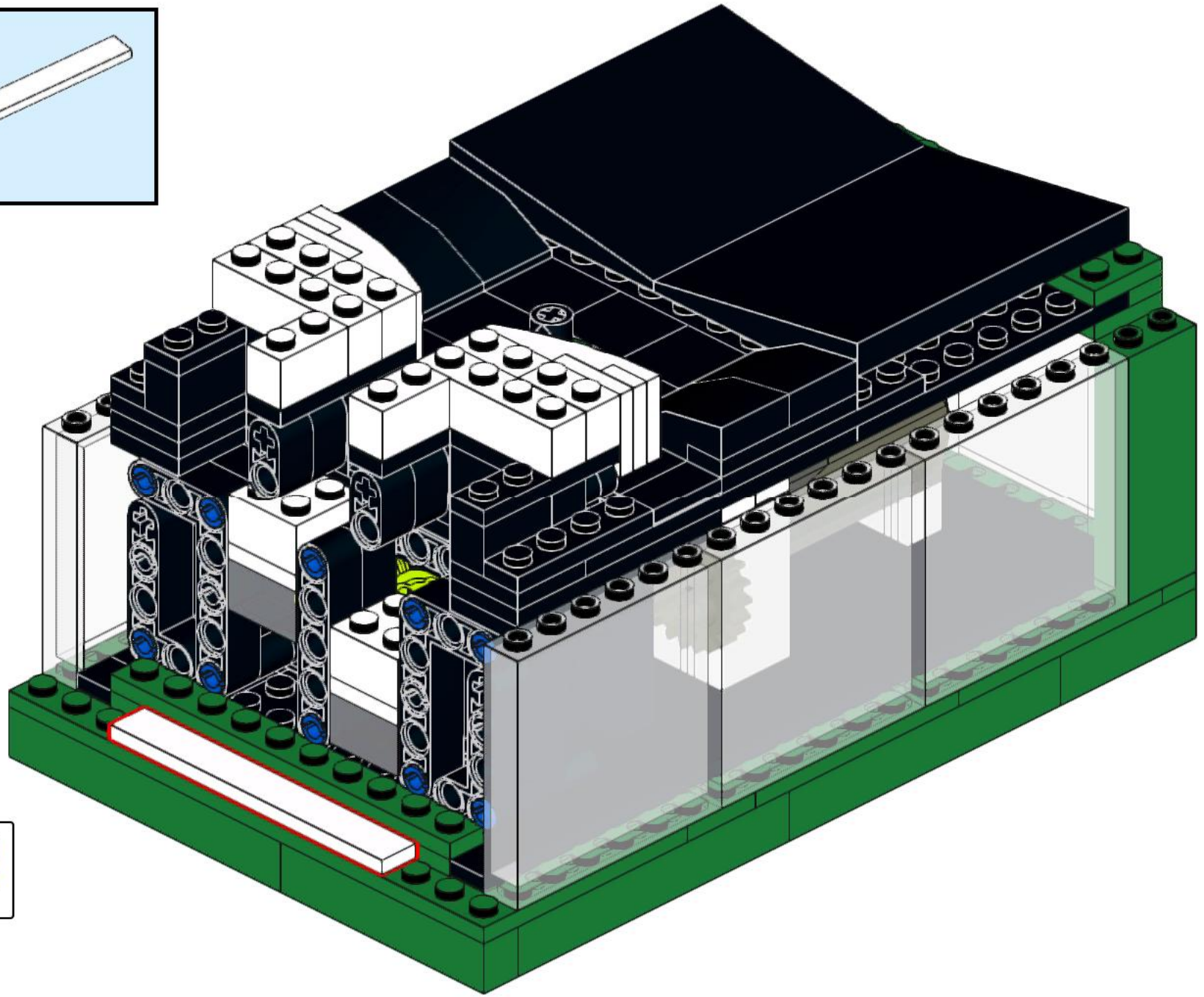

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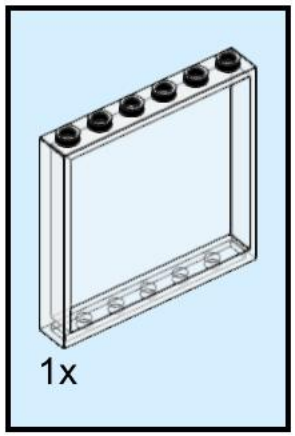

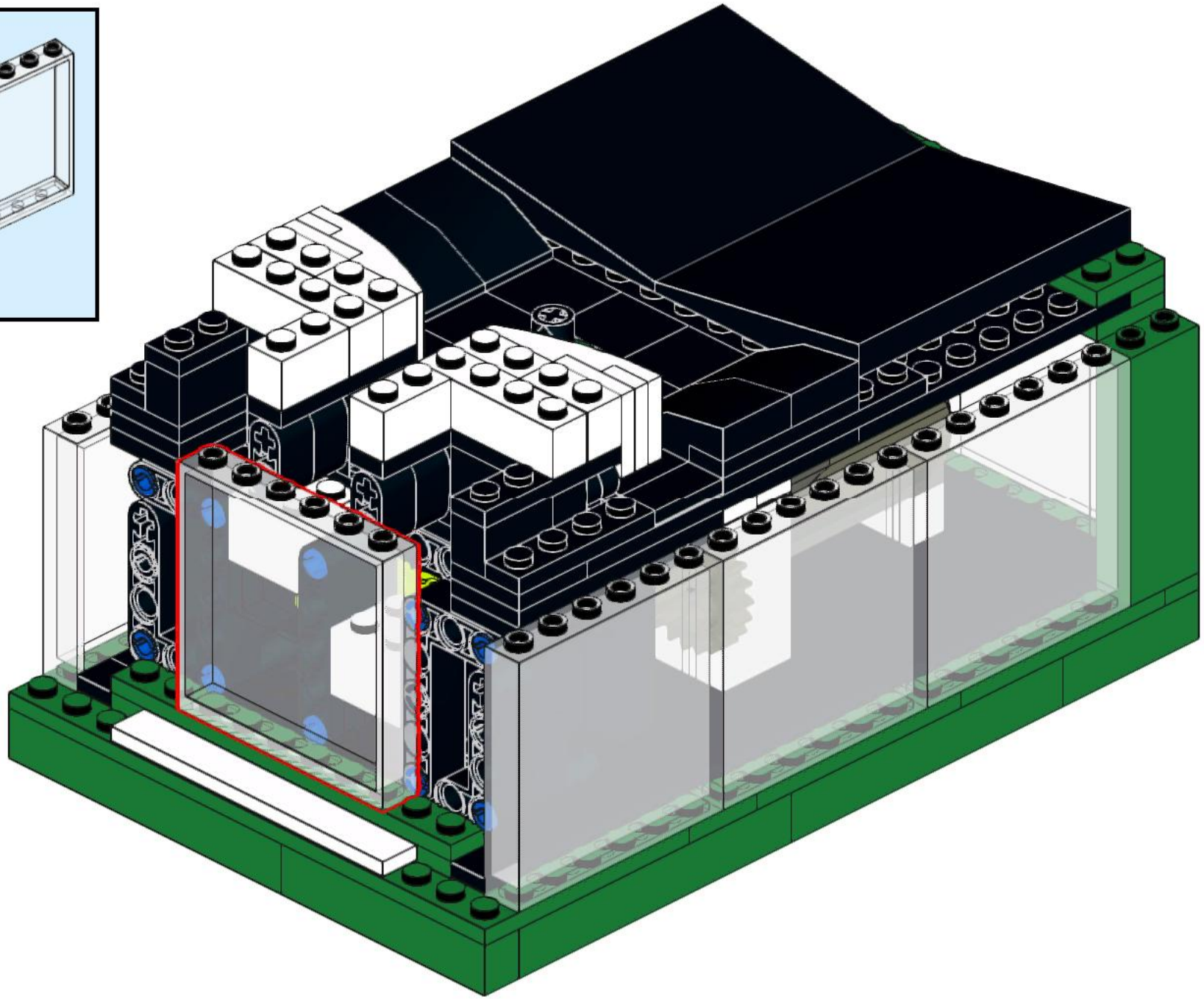

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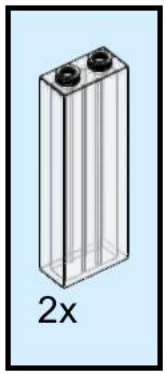

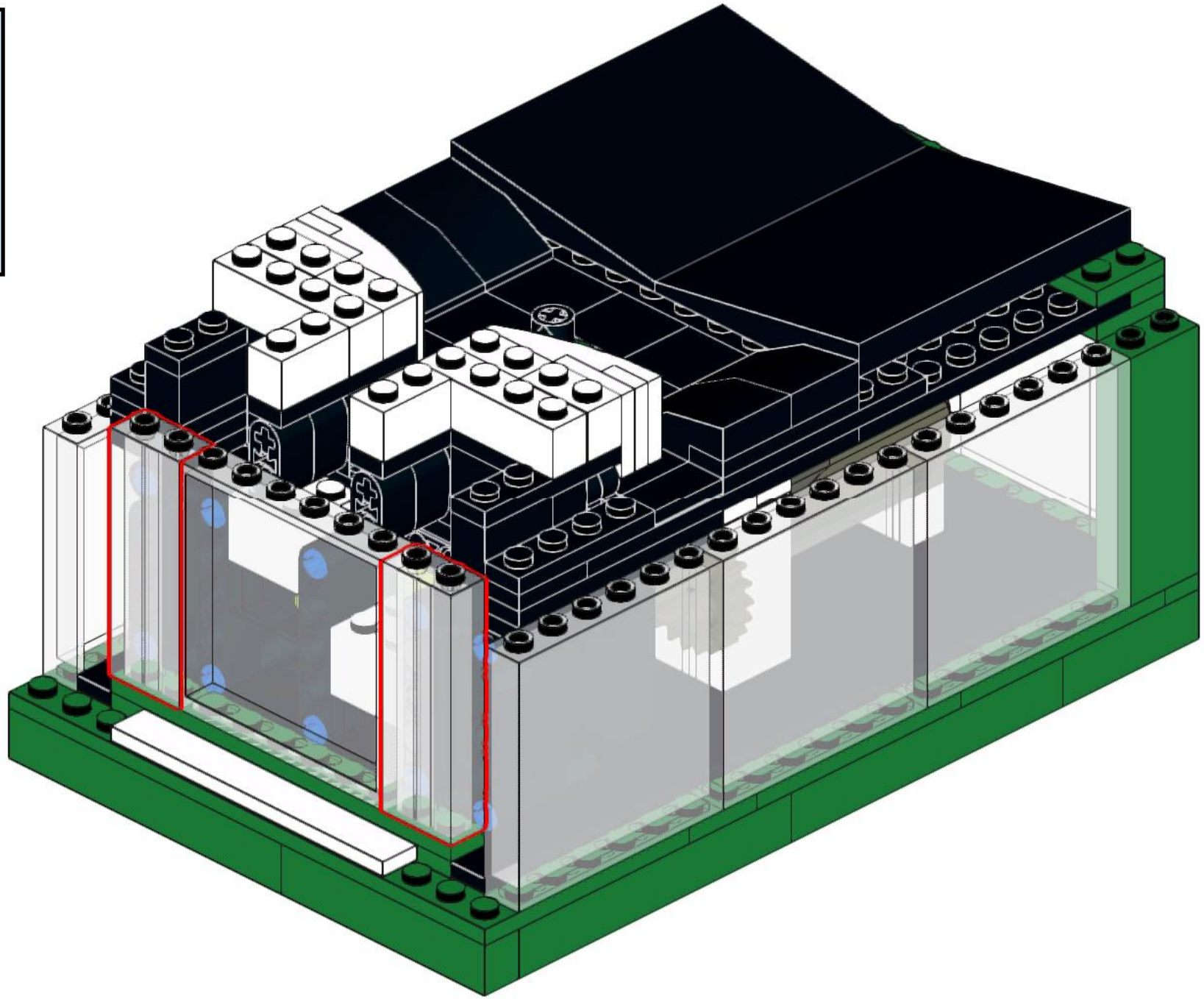

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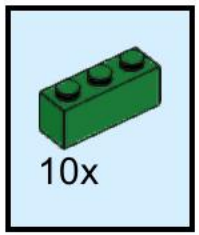

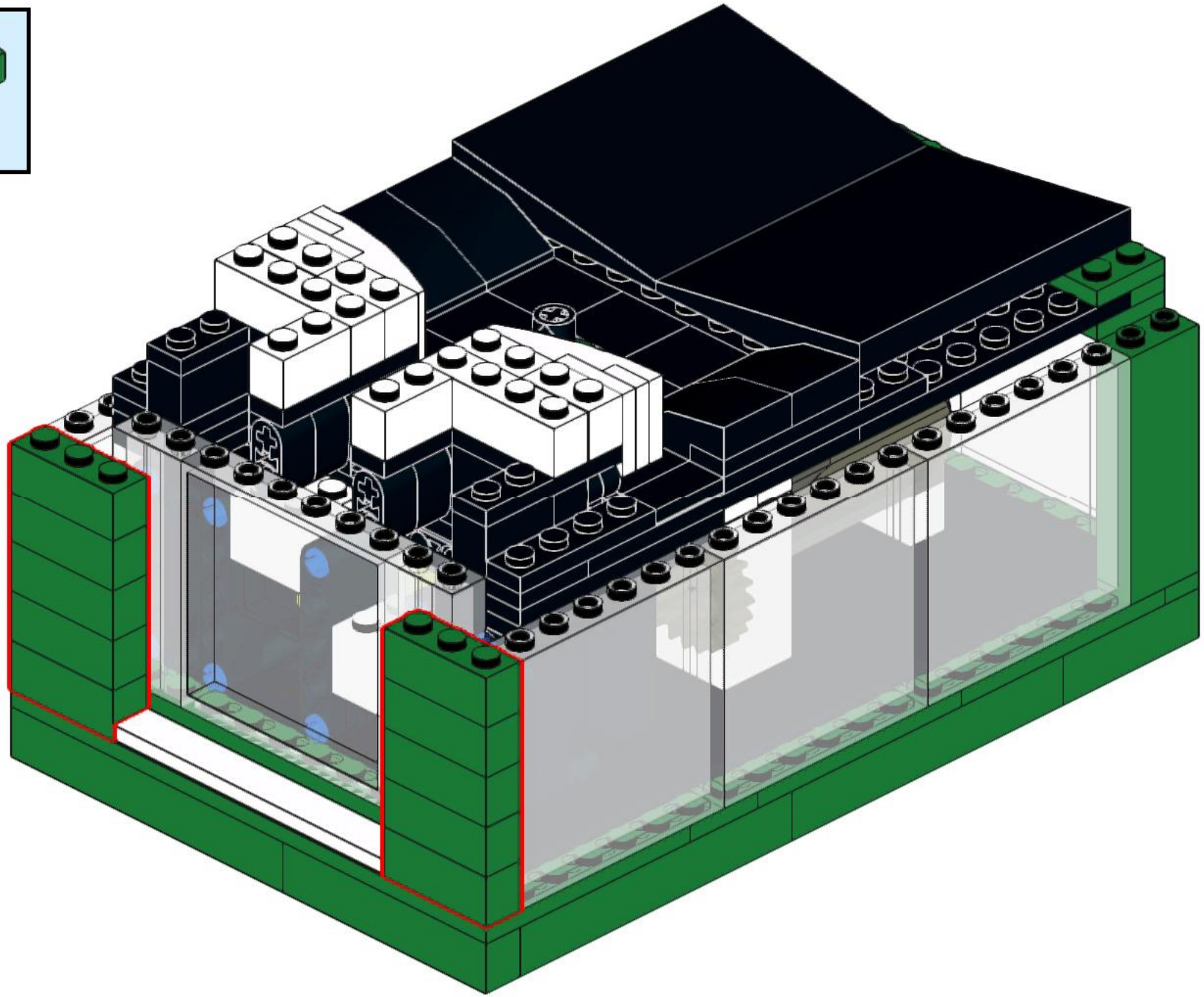

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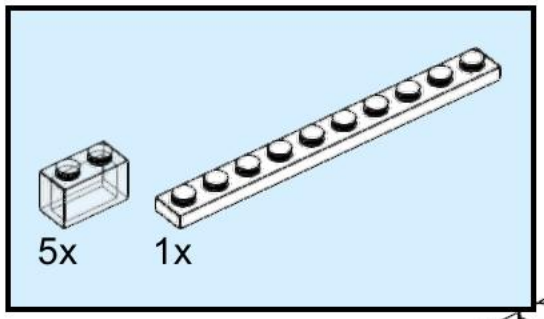

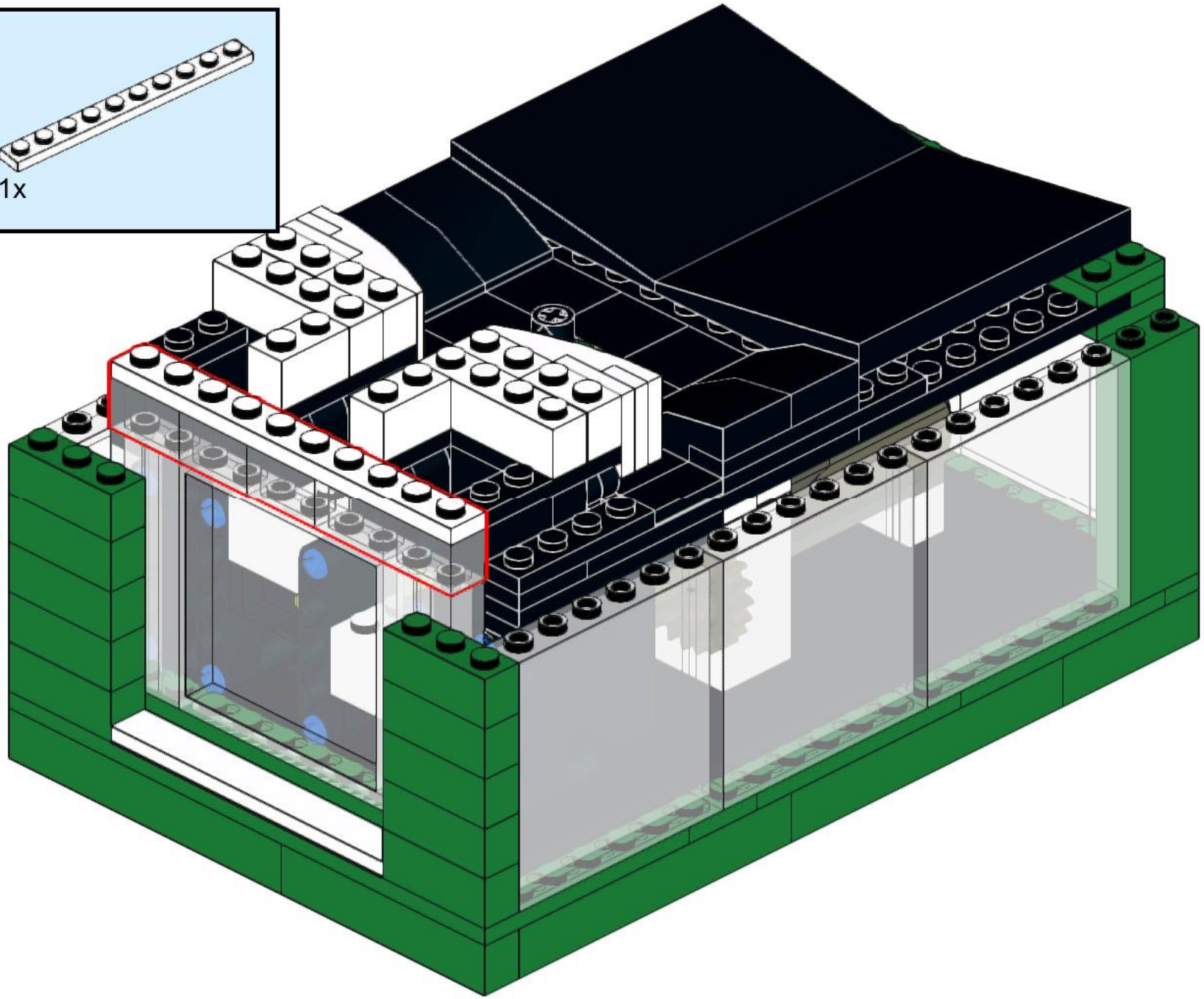

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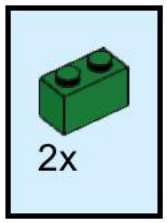

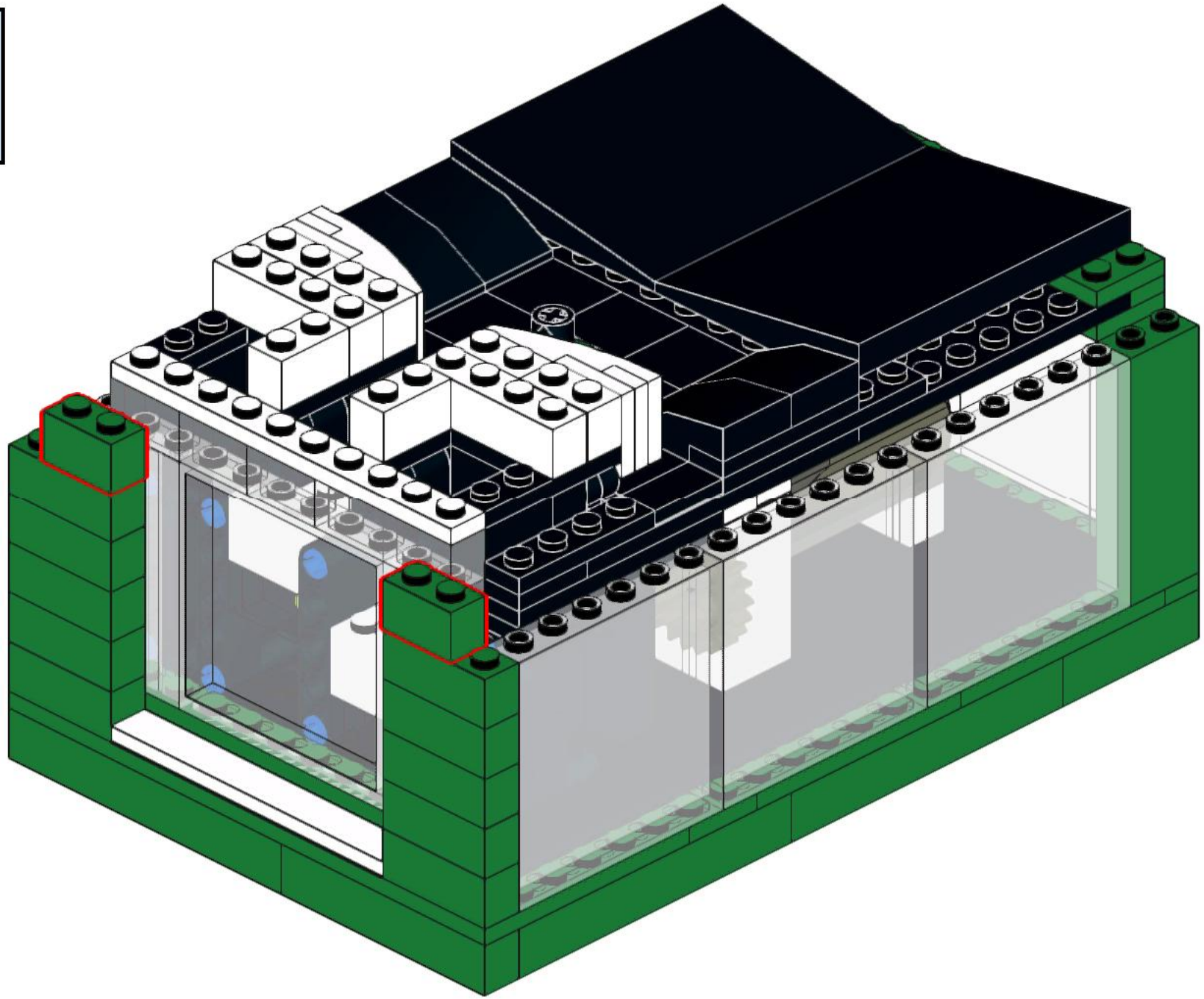

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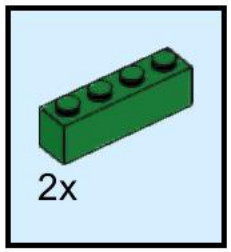

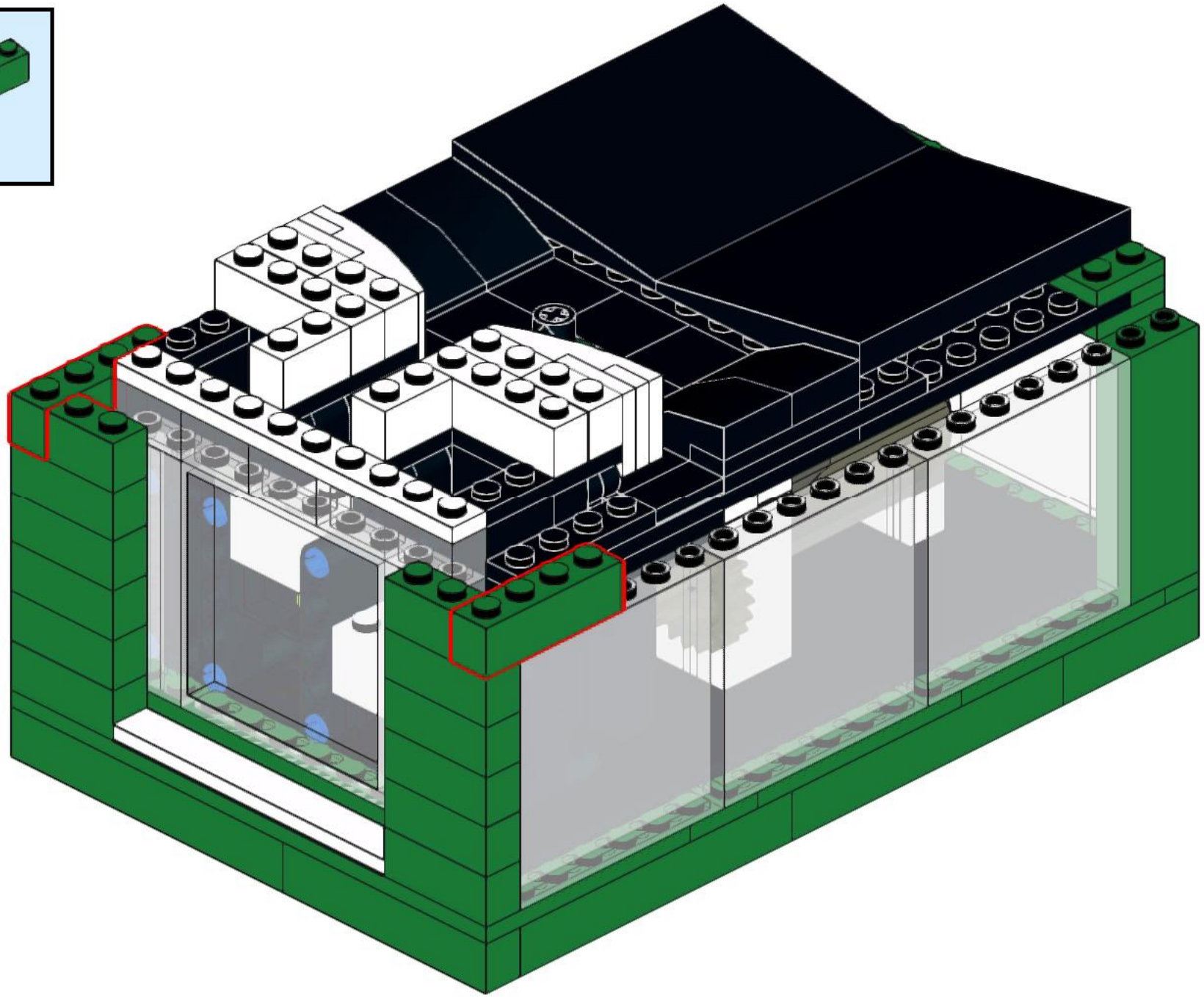

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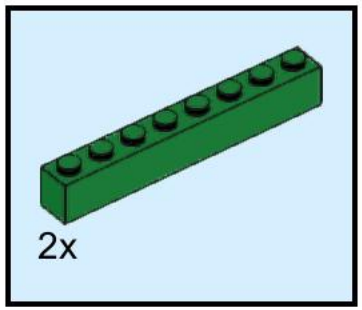
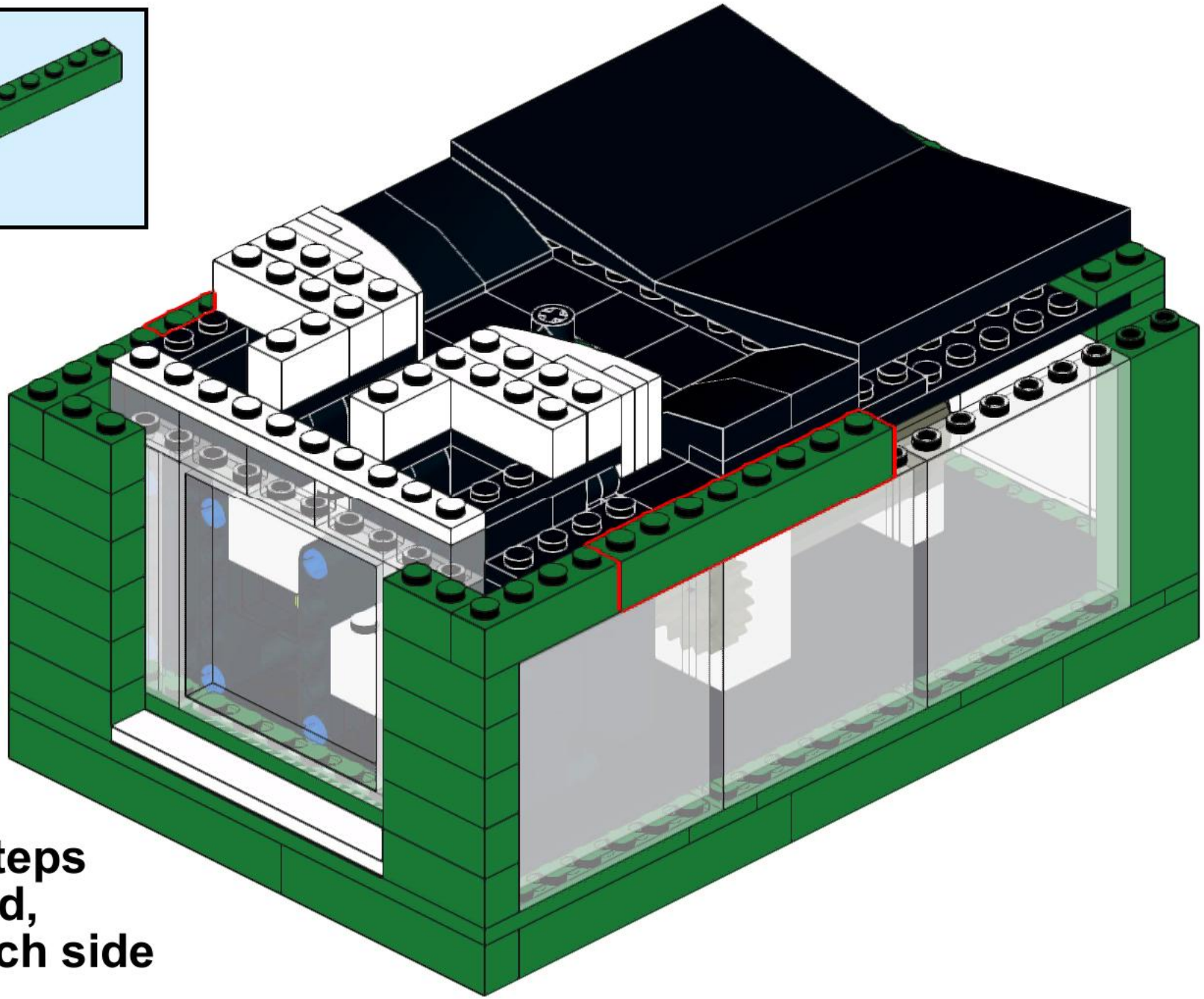
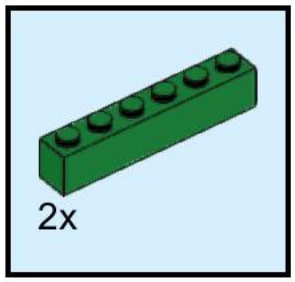
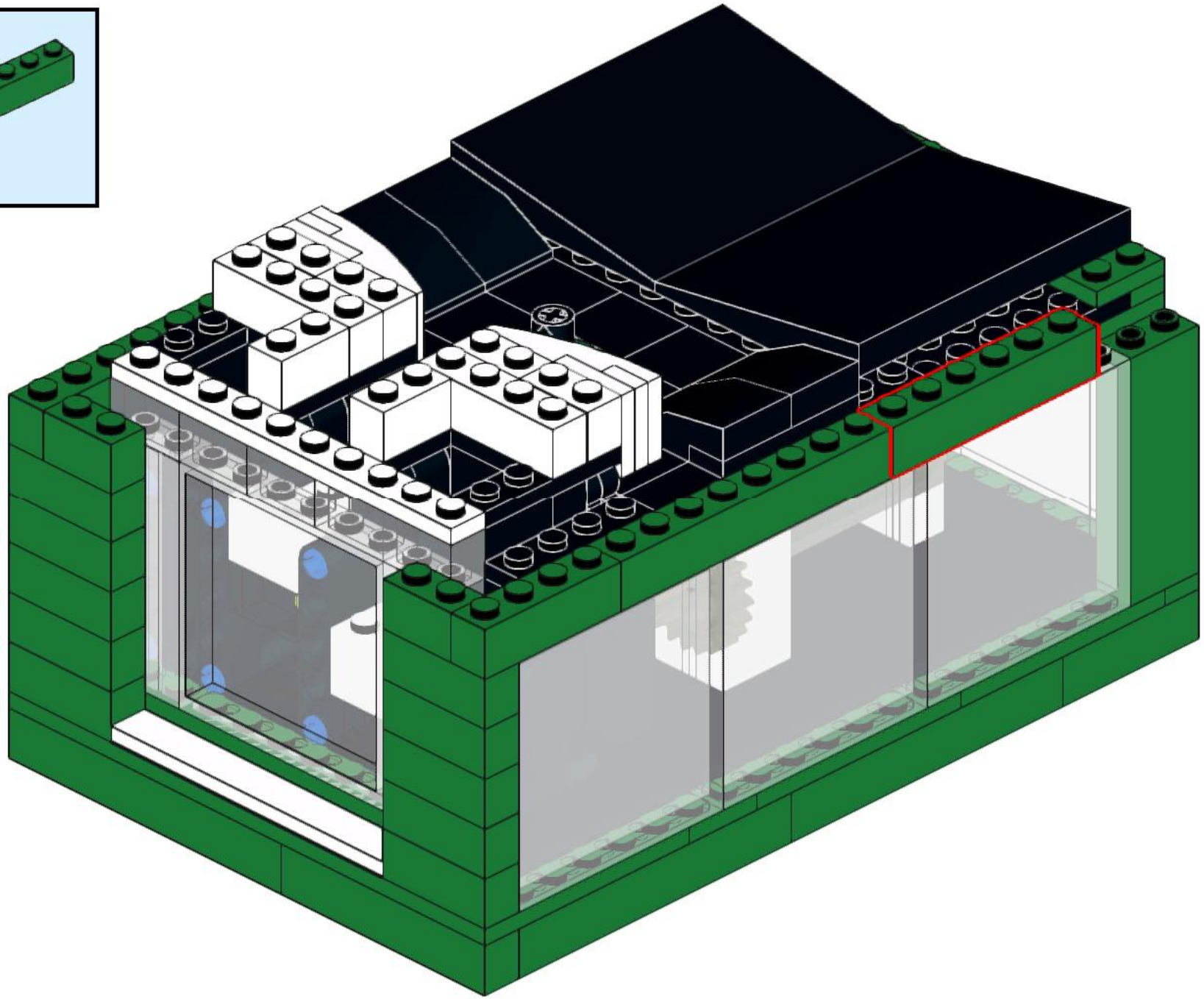




following steps are mirrored, build on each side

117





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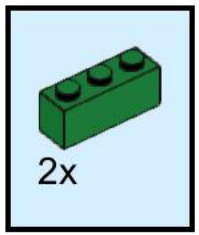

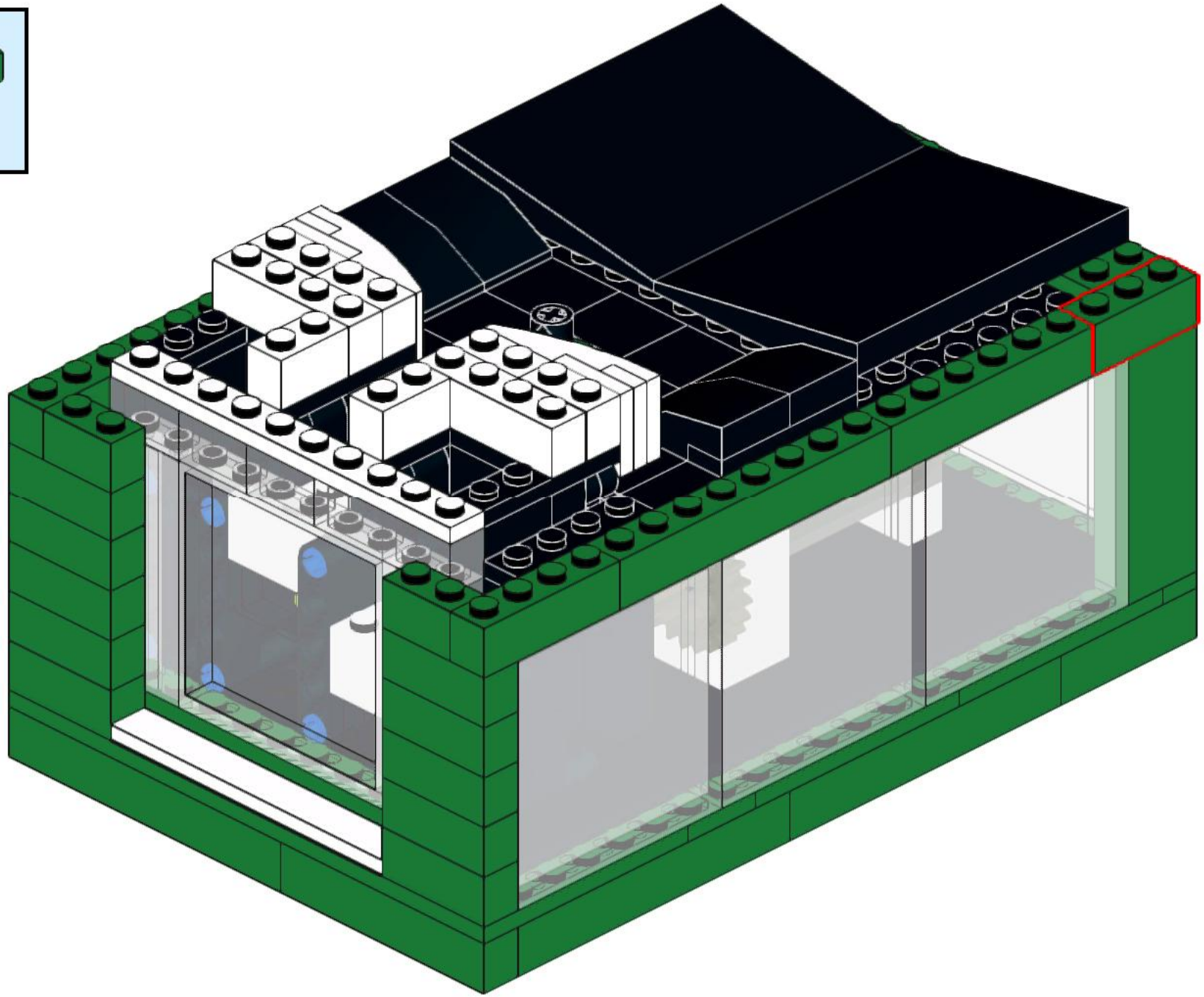

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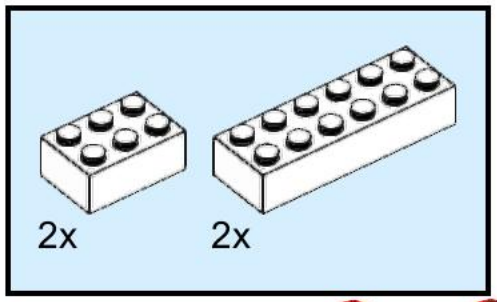

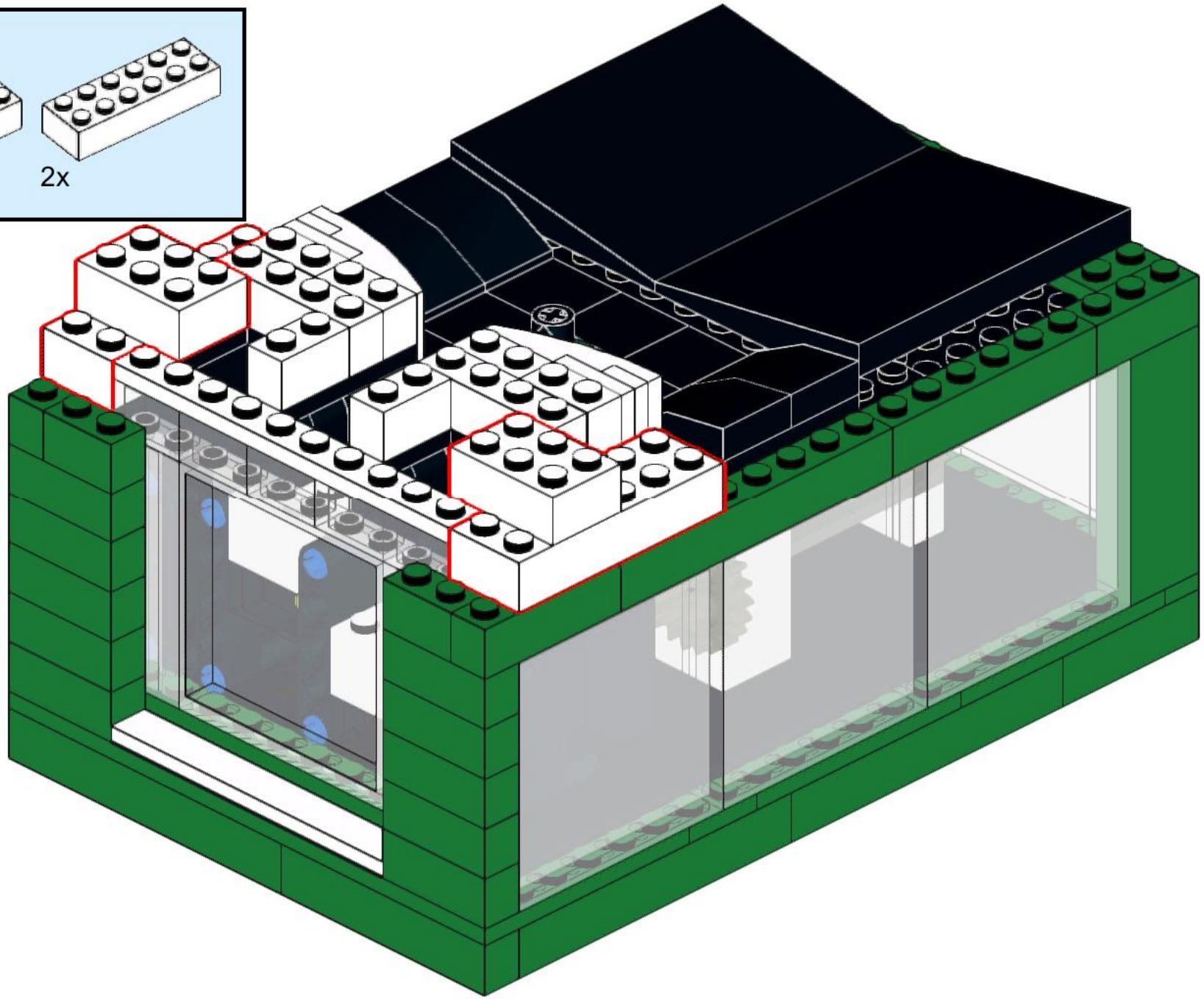

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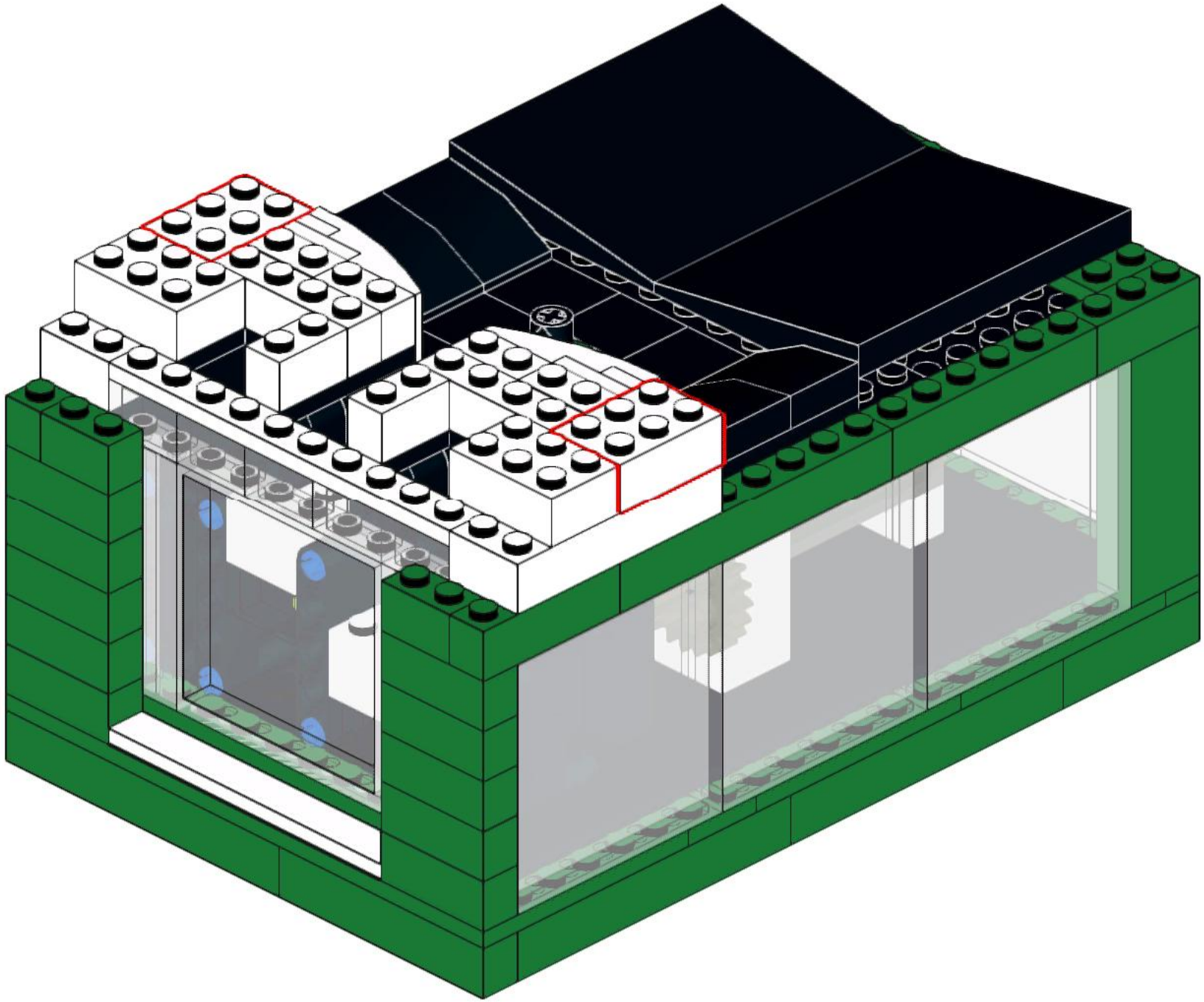

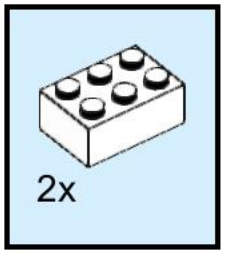

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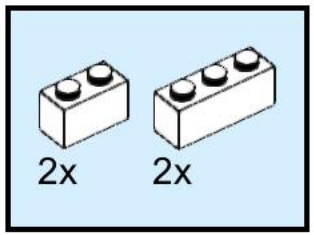

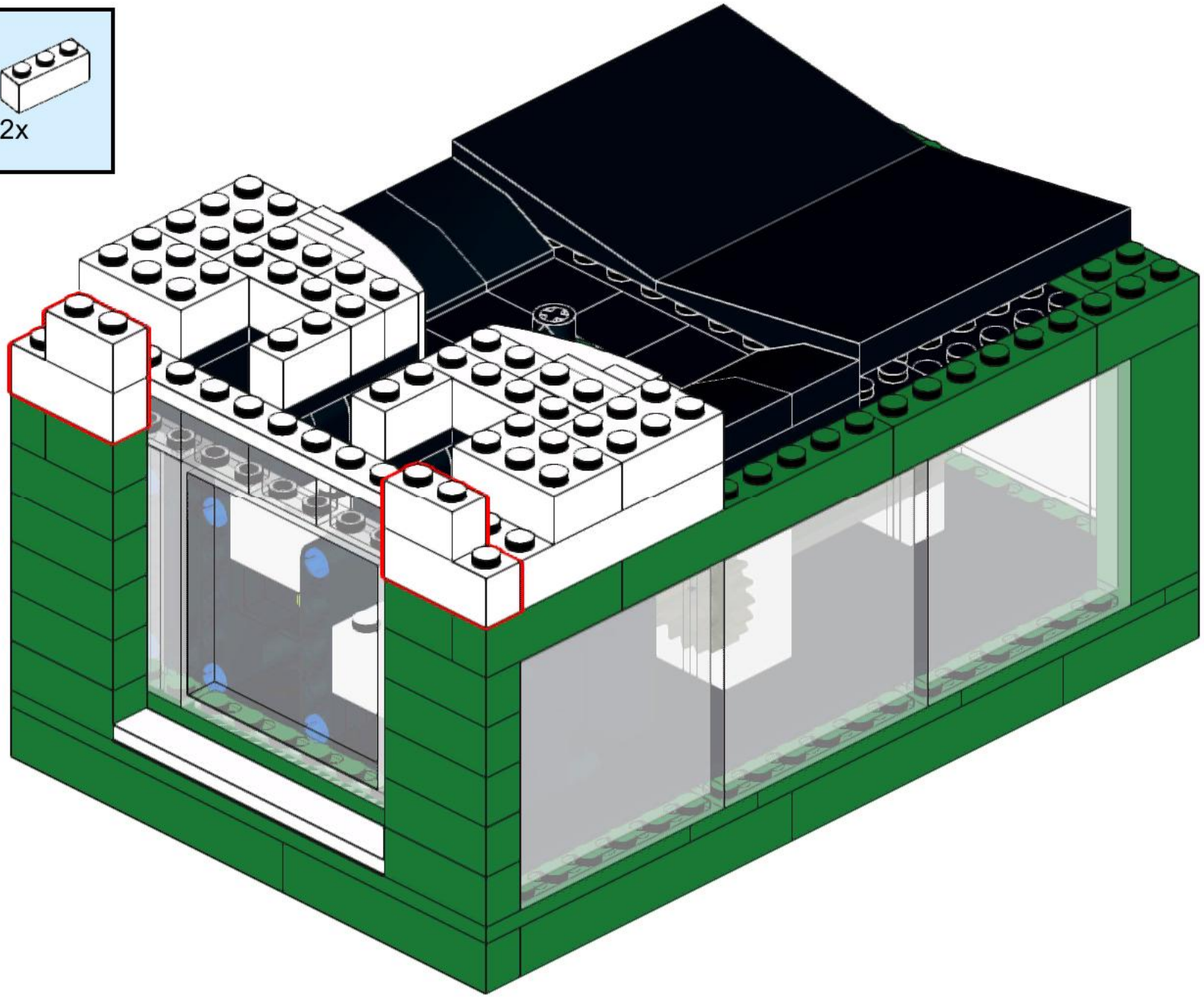

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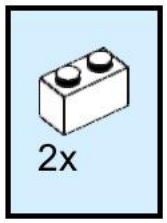

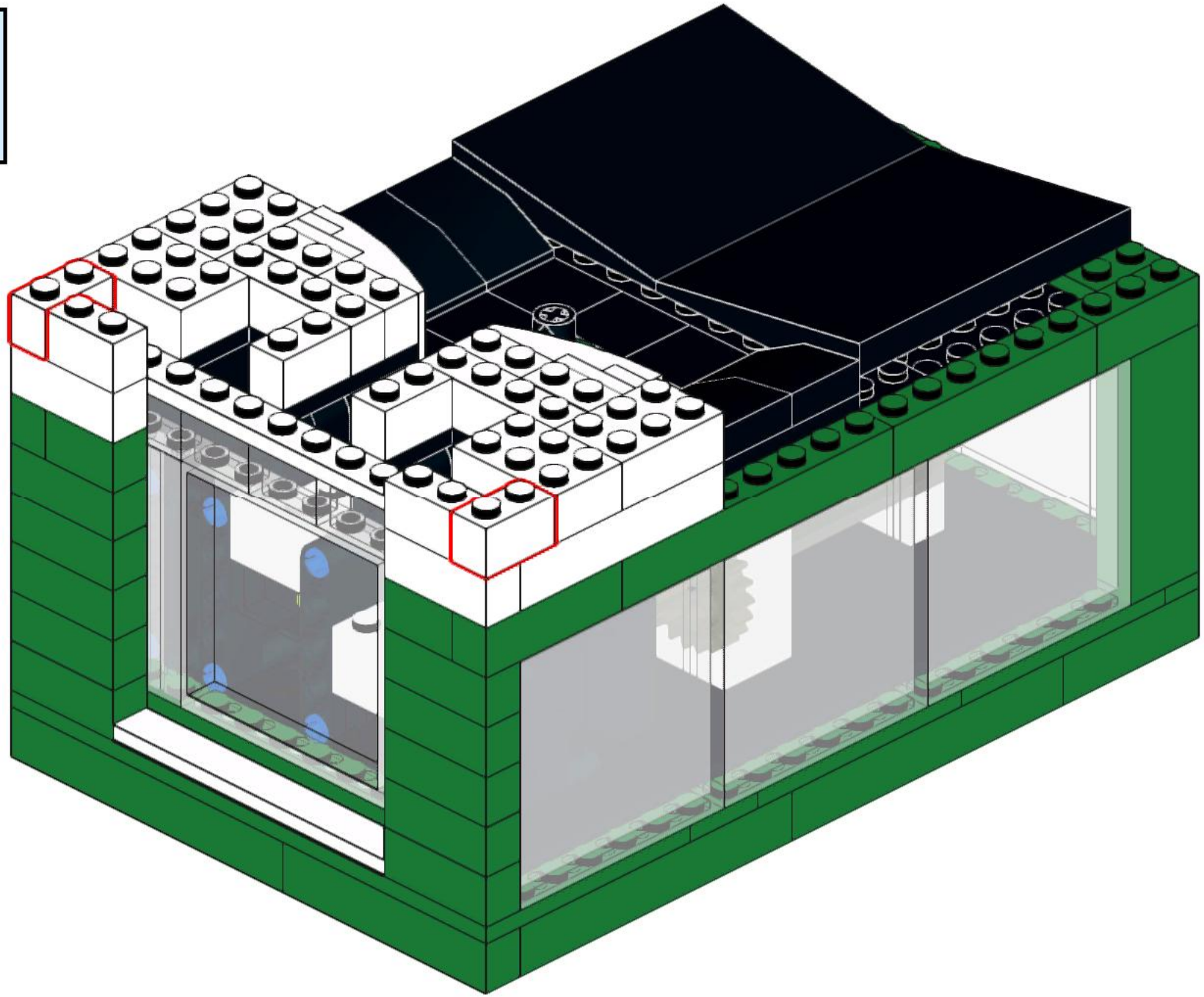

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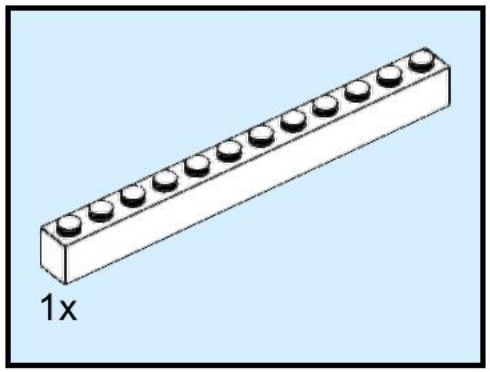

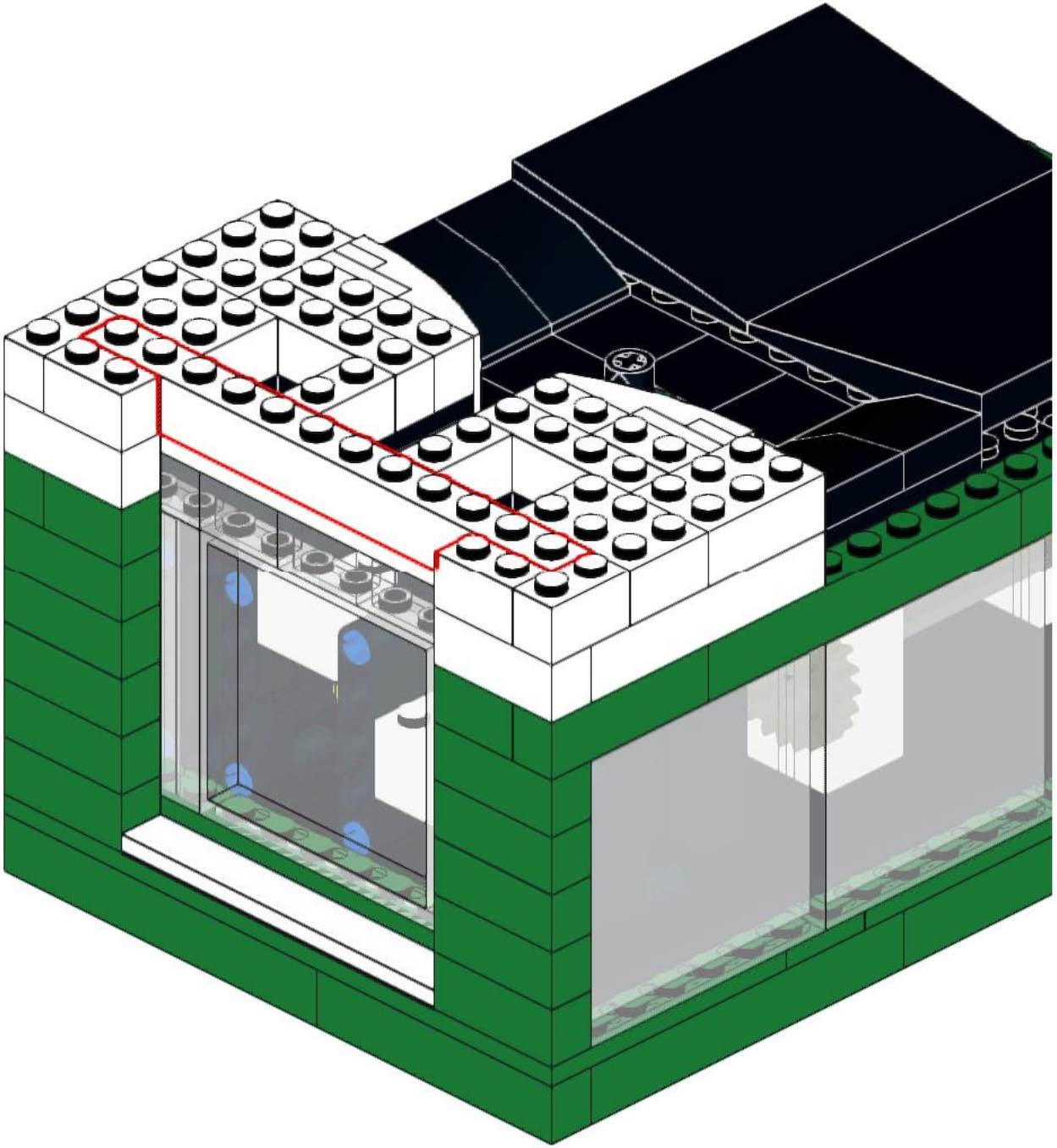

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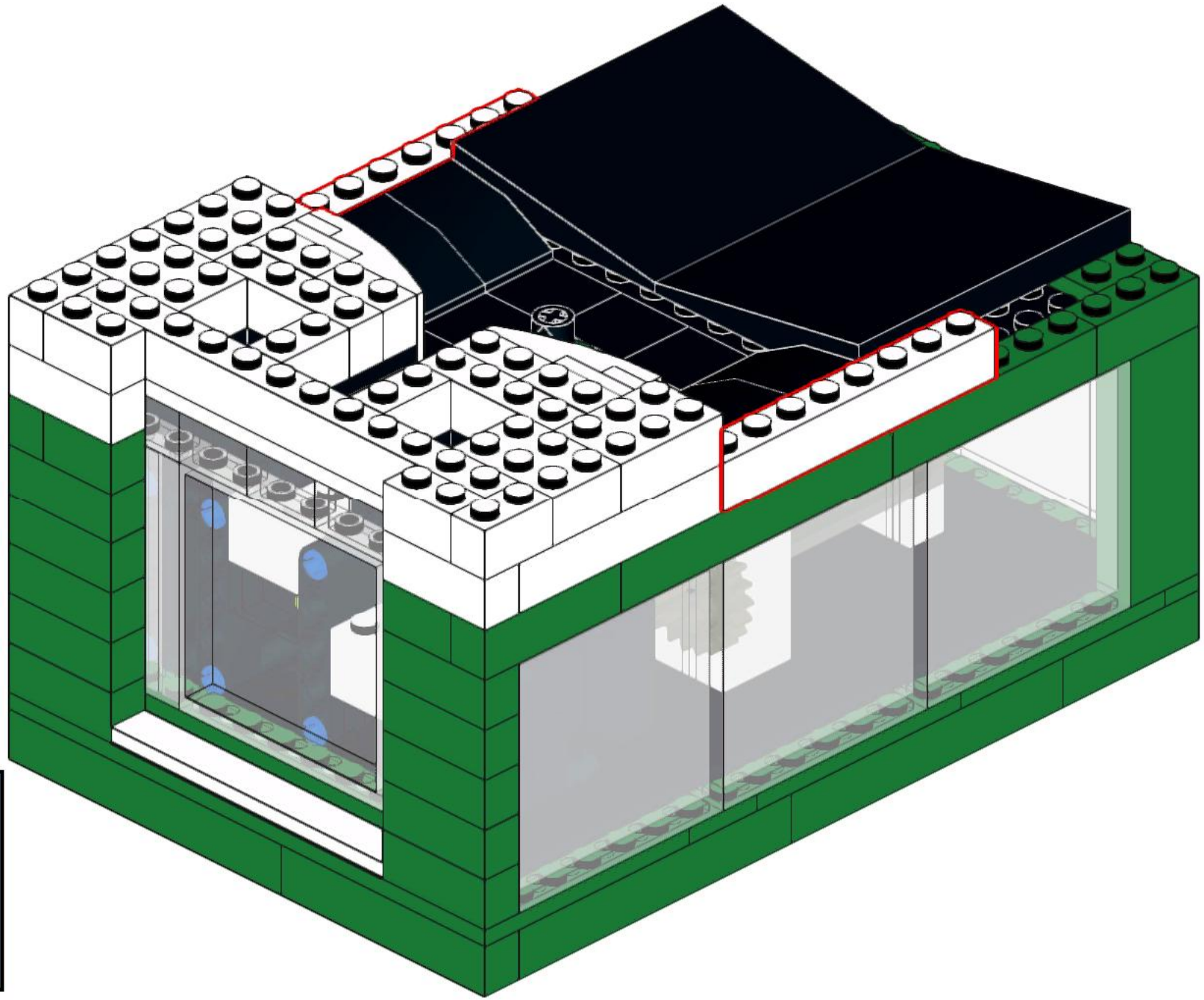

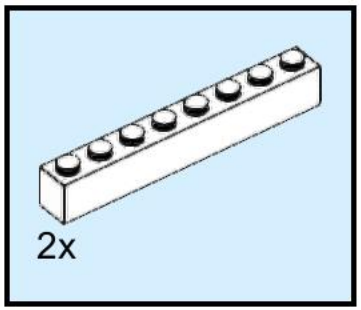

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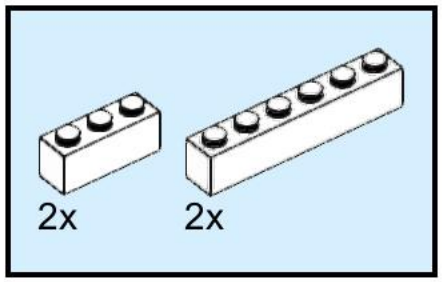

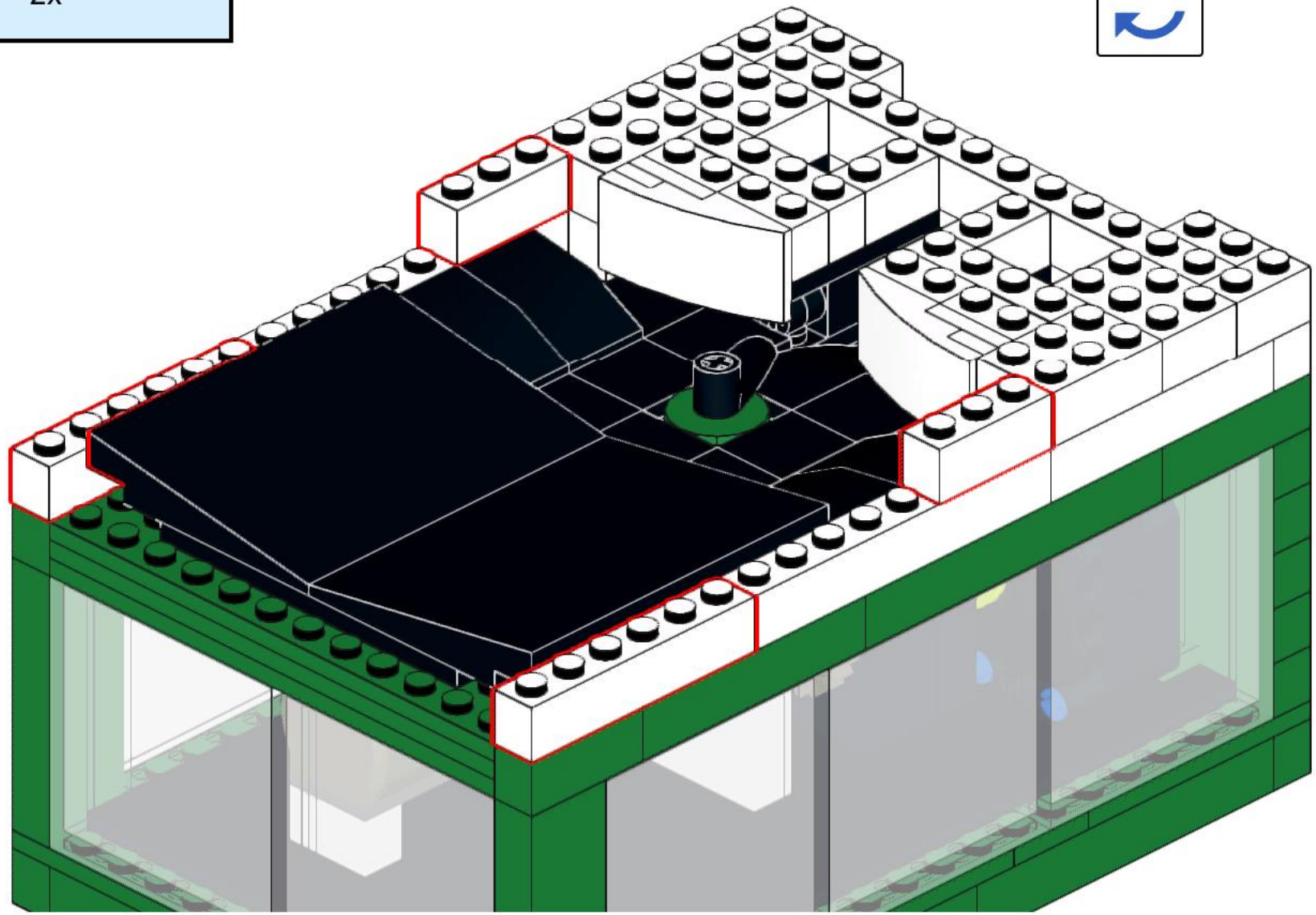

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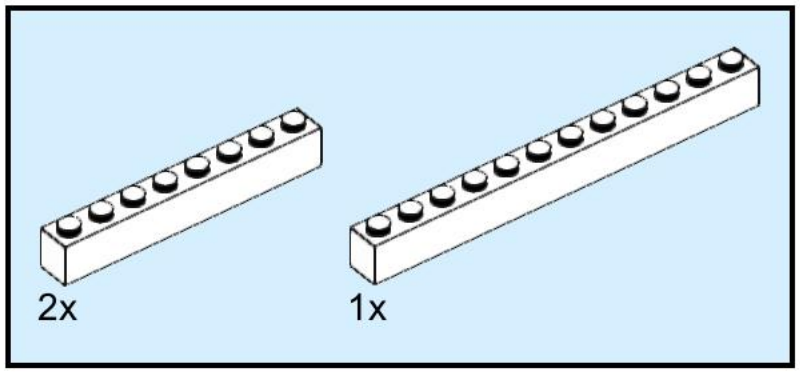

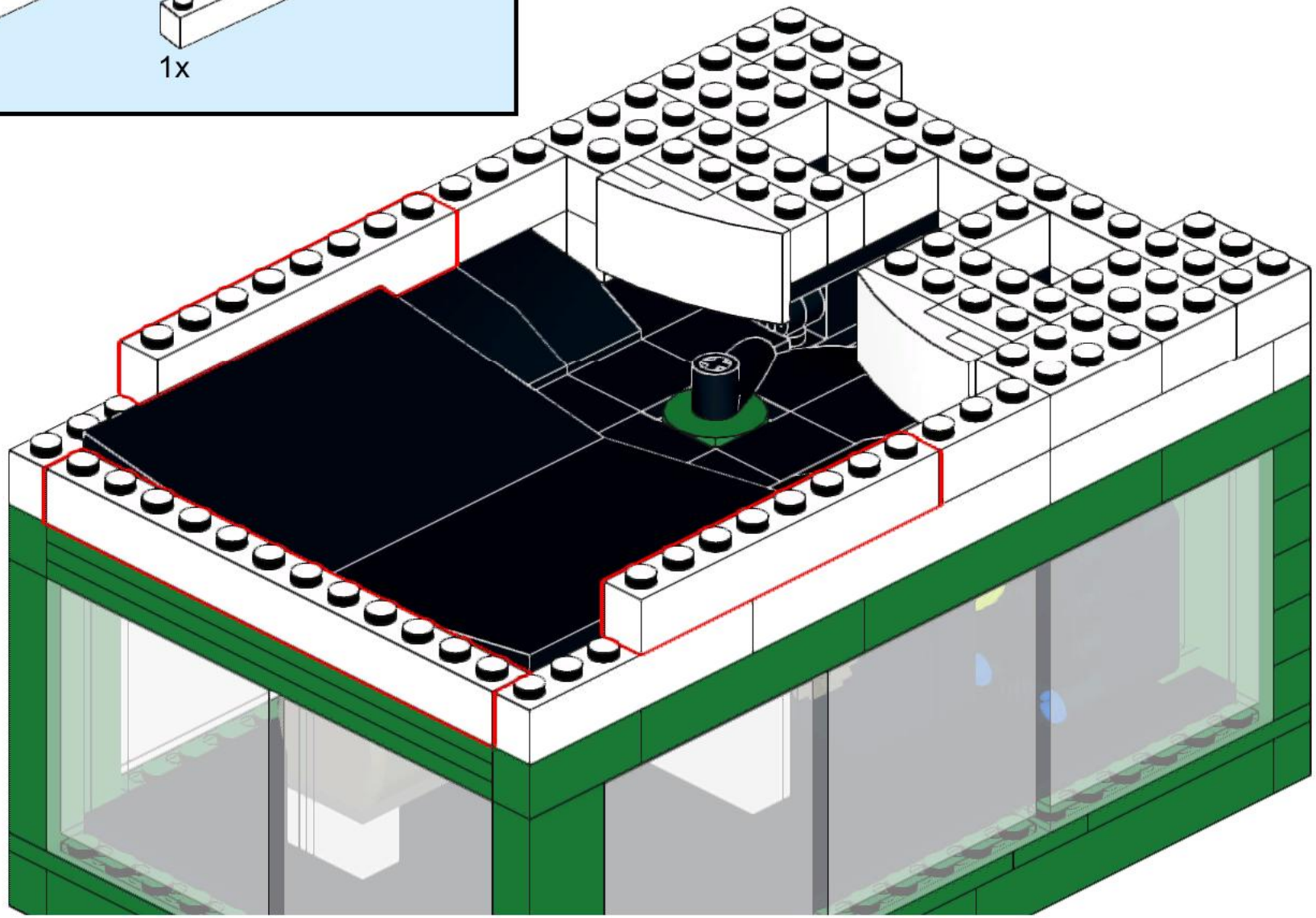

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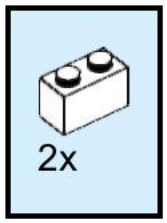

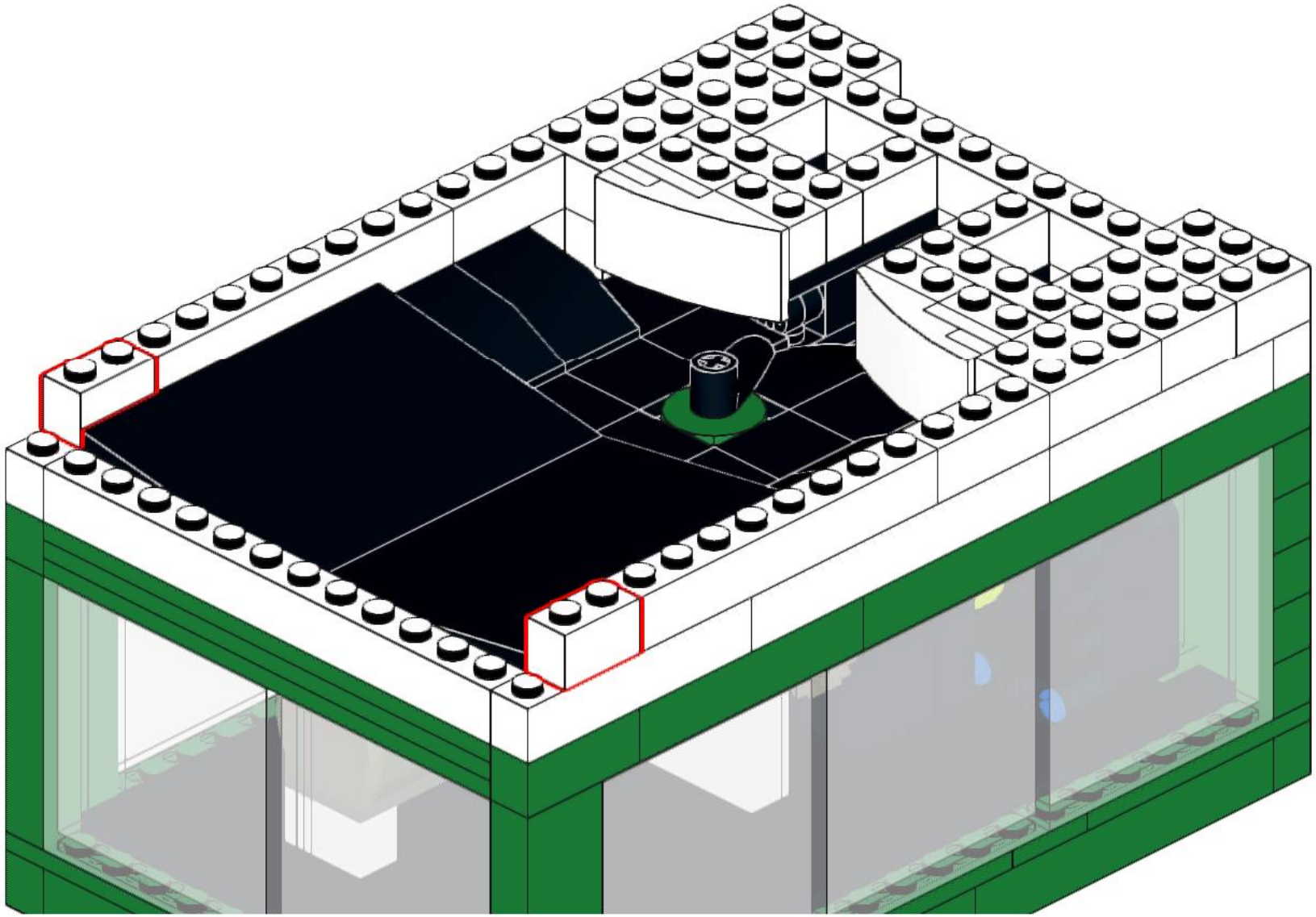

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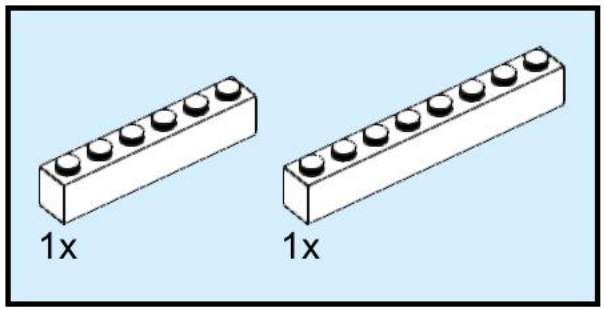

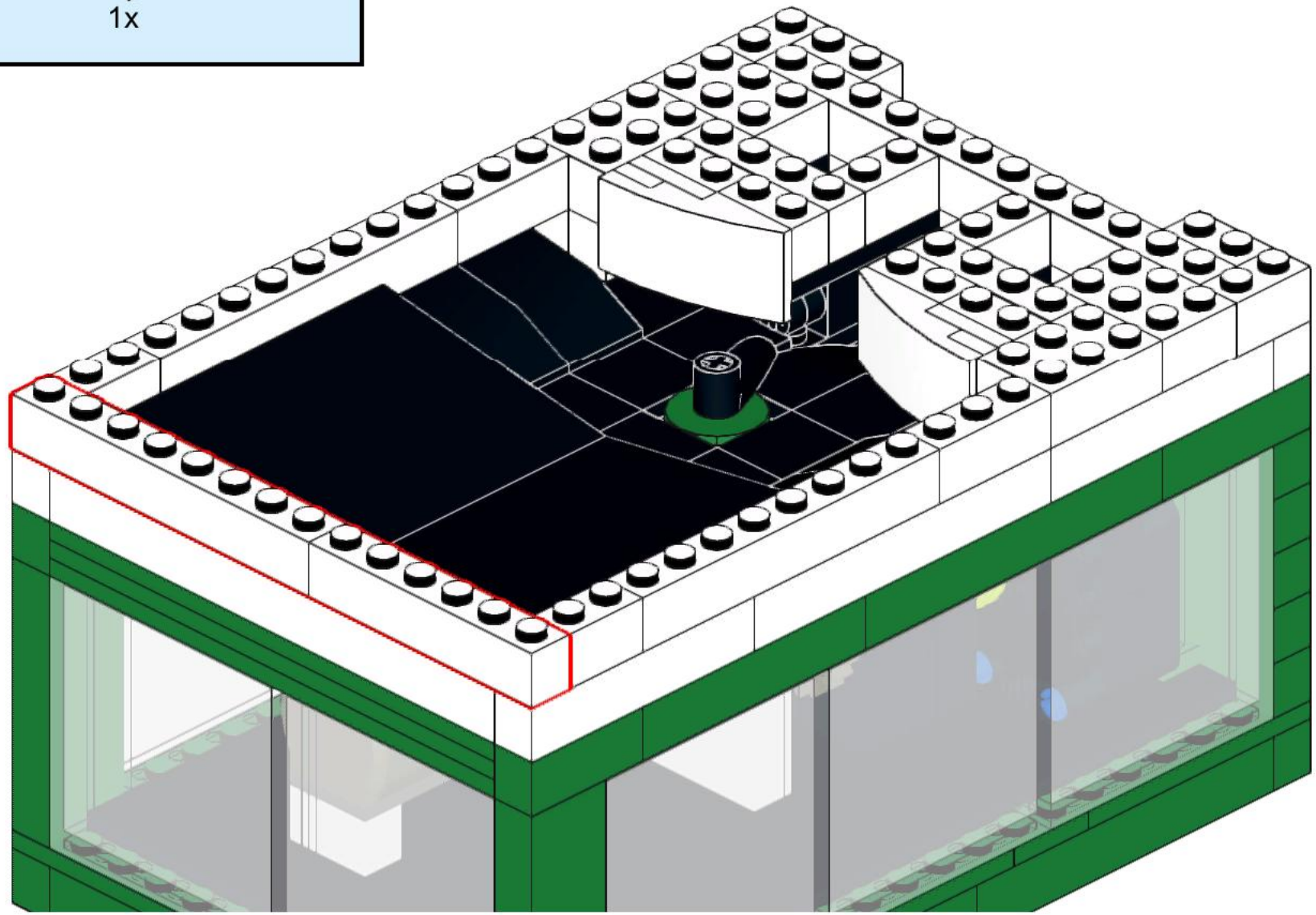

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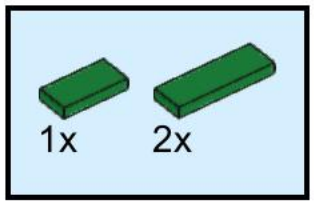

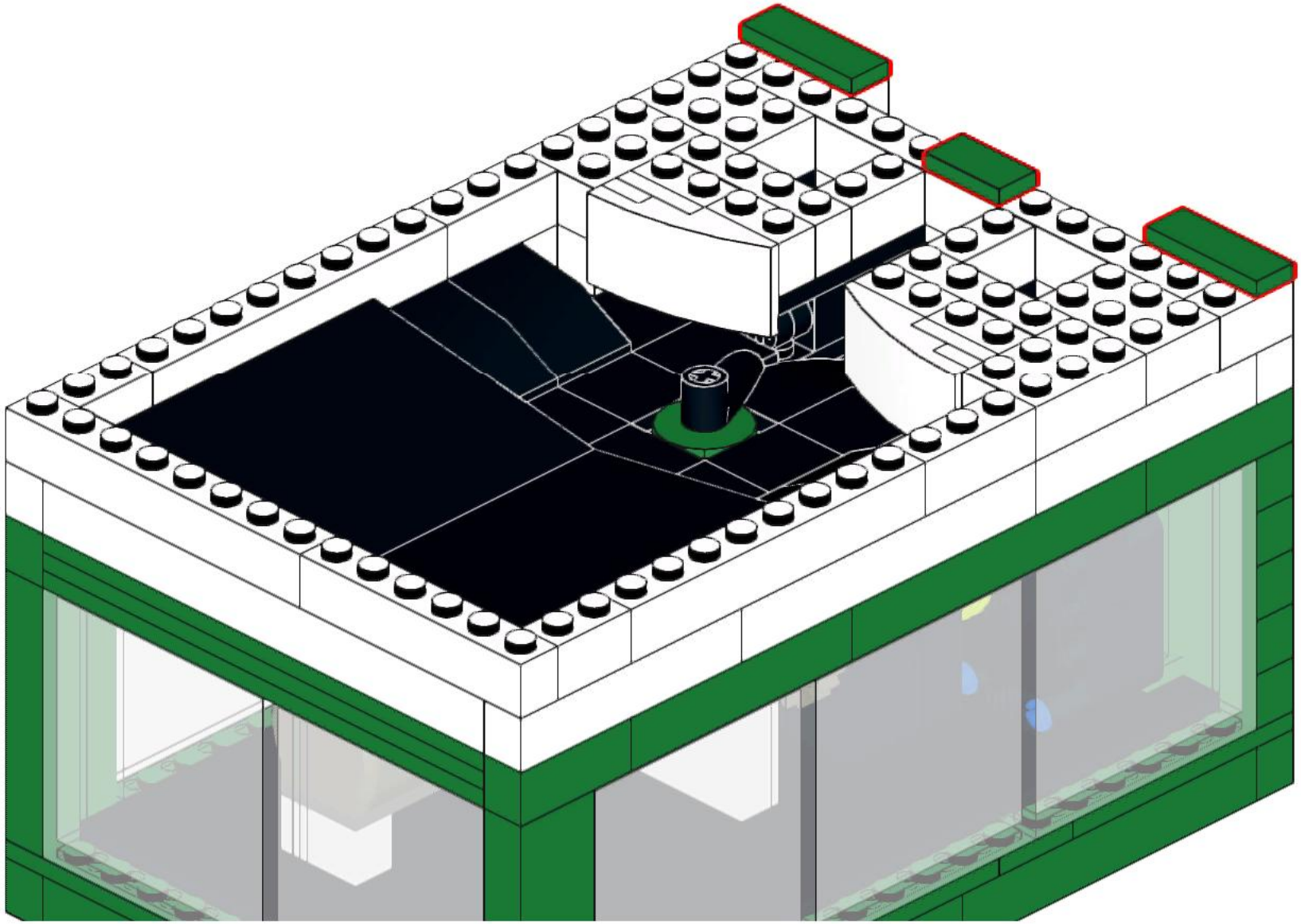

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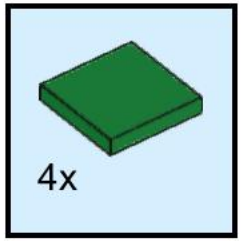

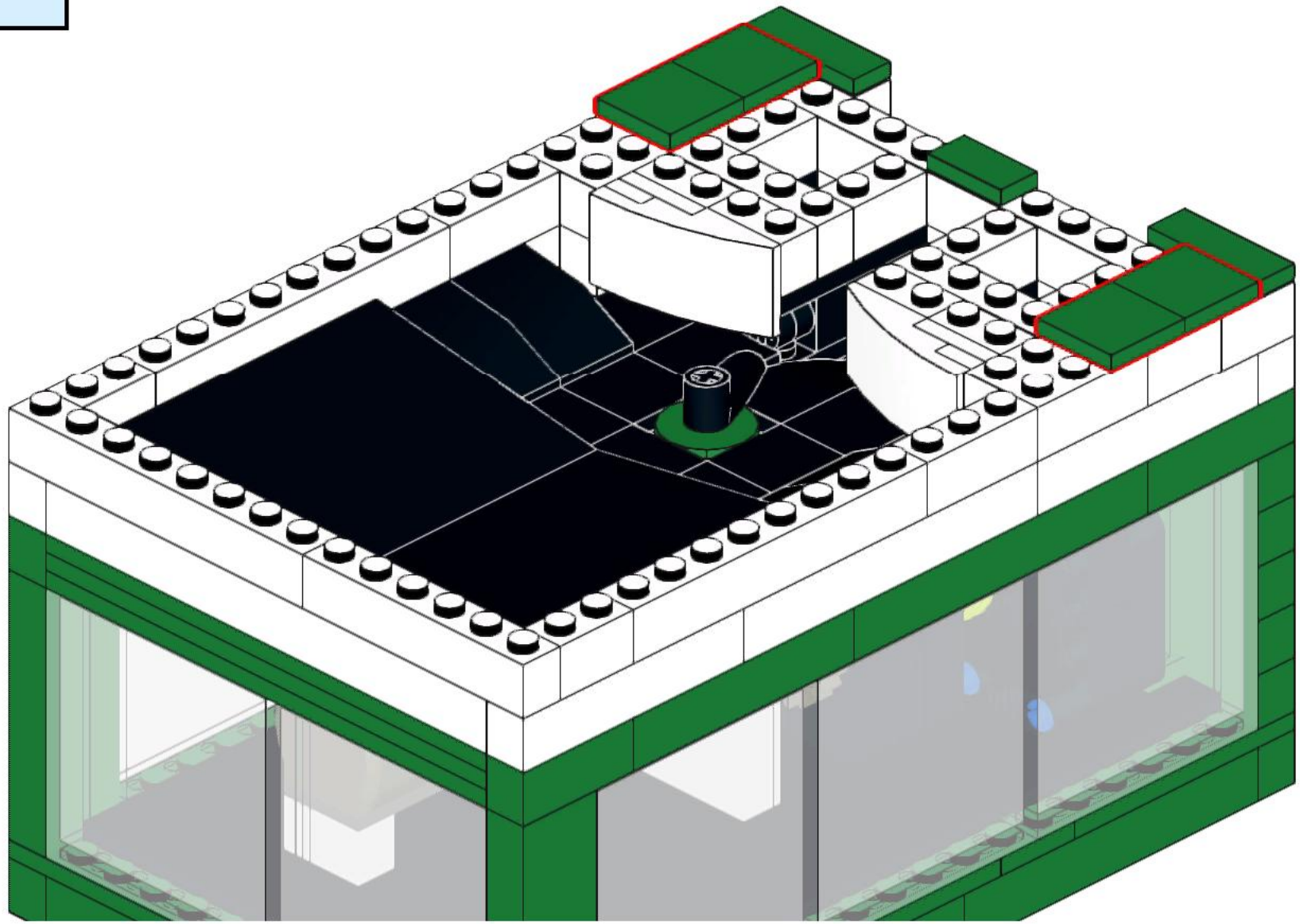

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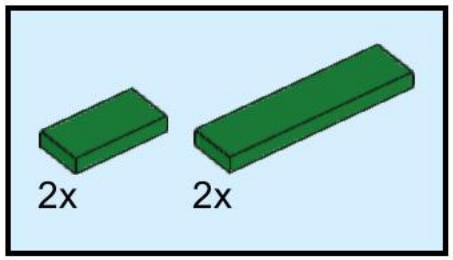

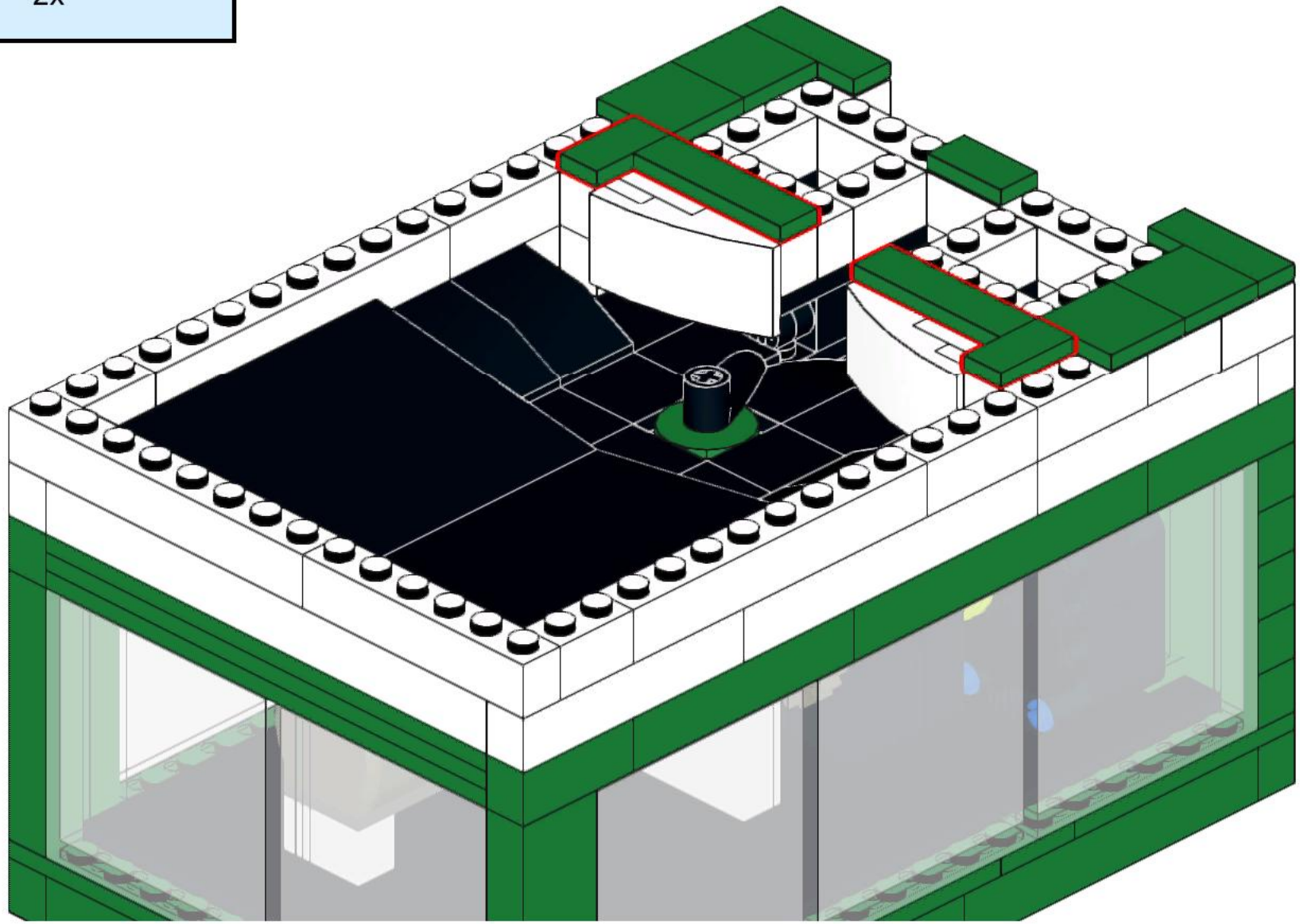

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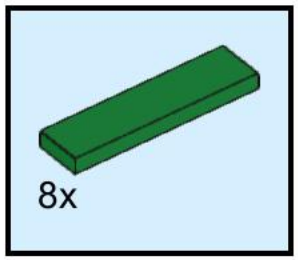

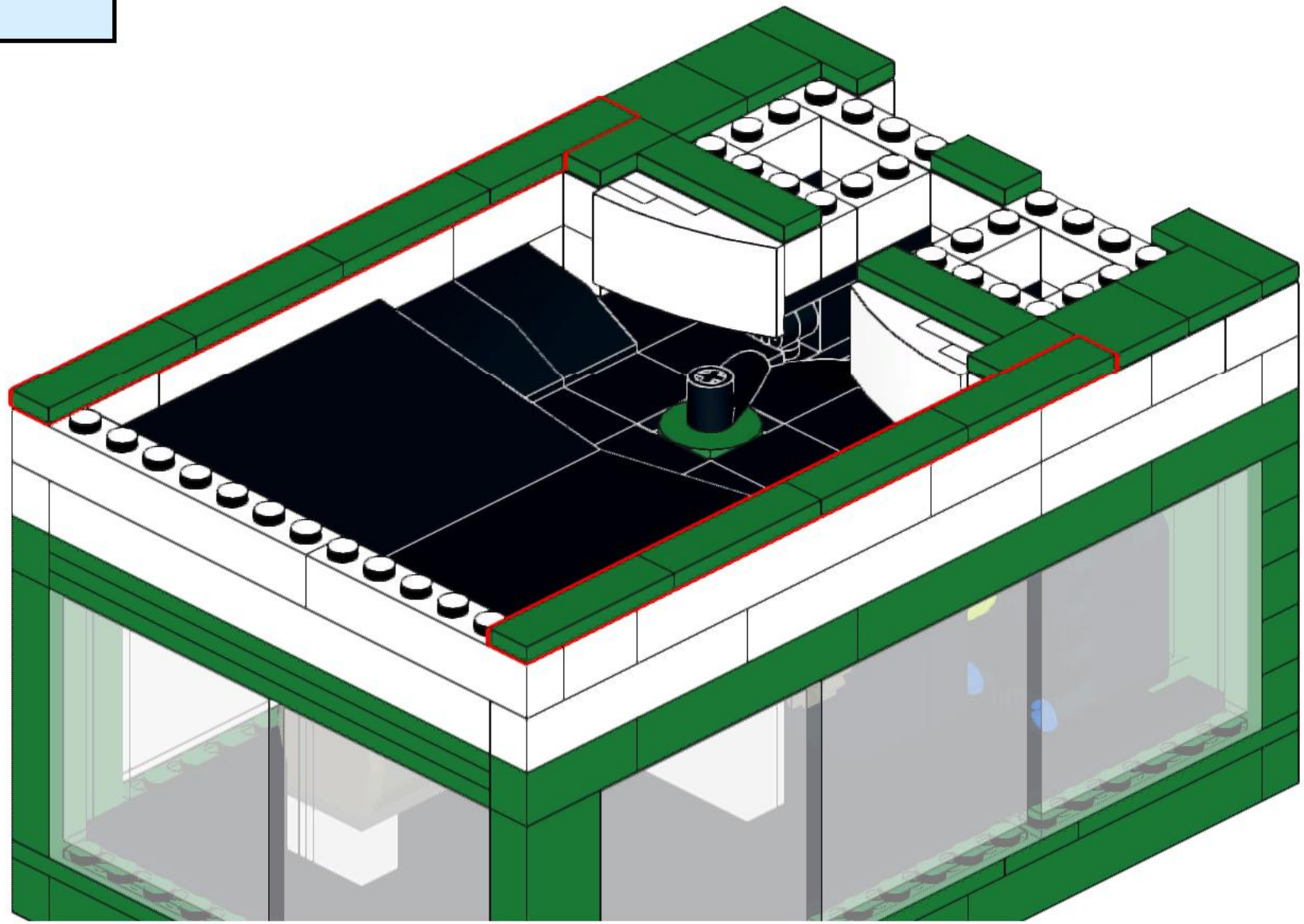

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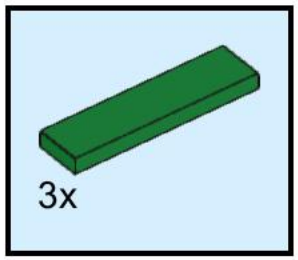

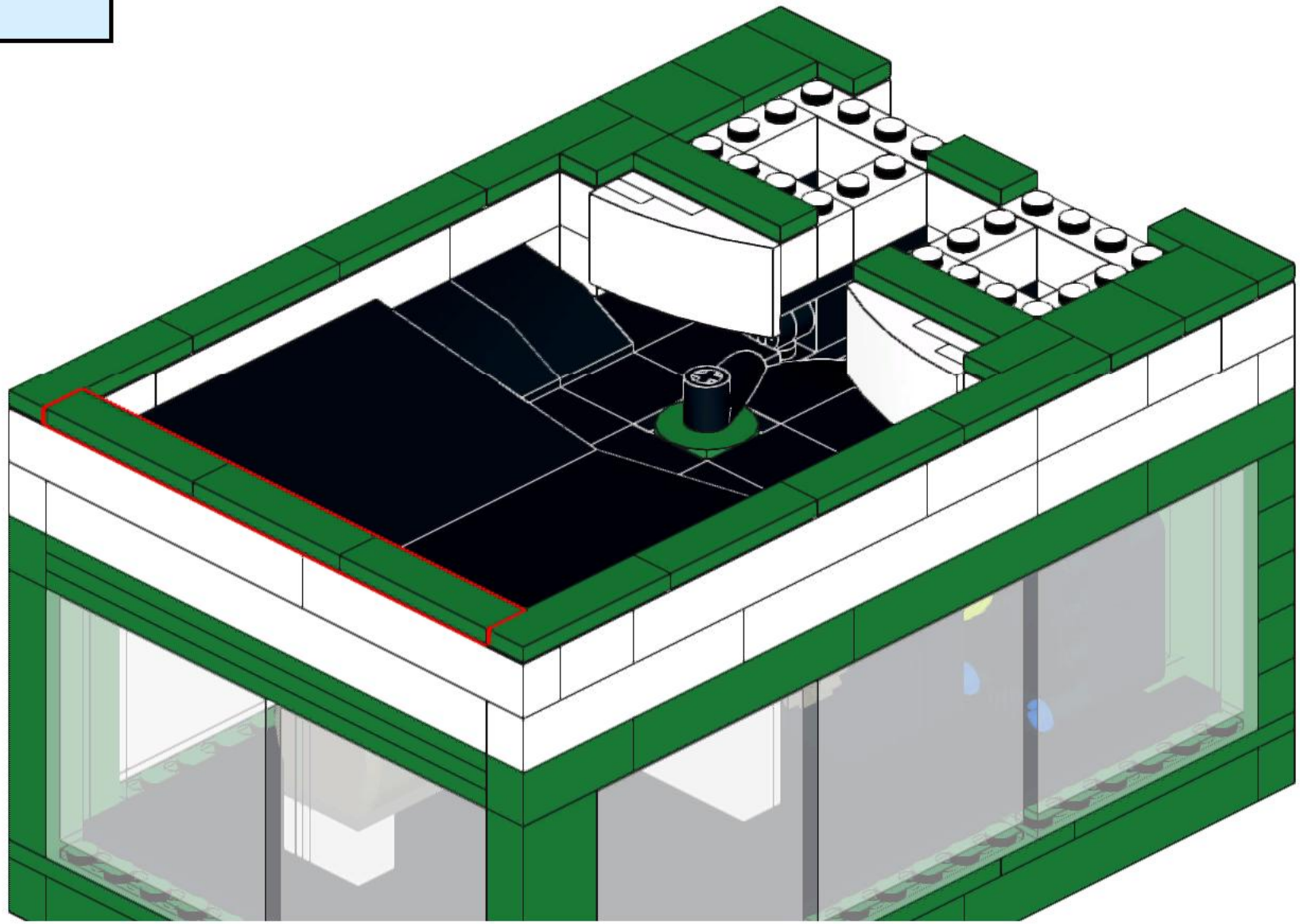

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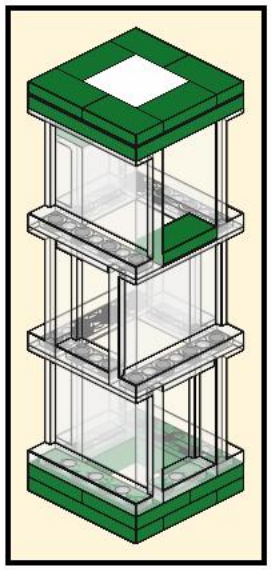

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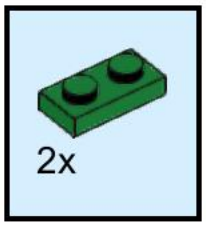

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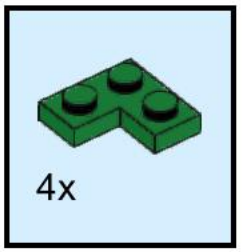

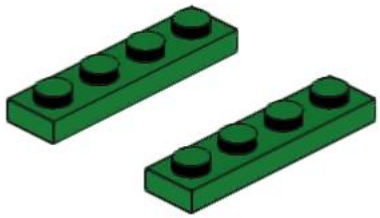

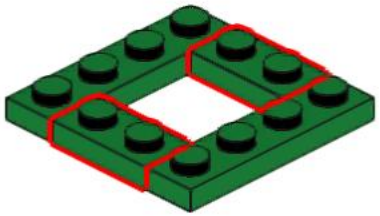

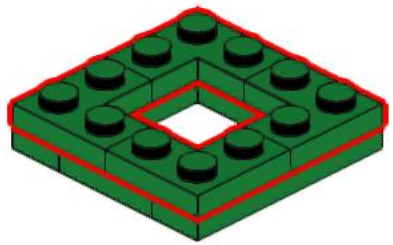

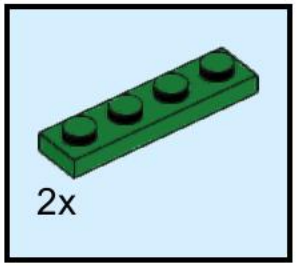

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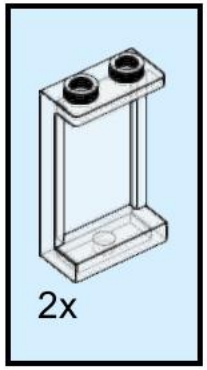

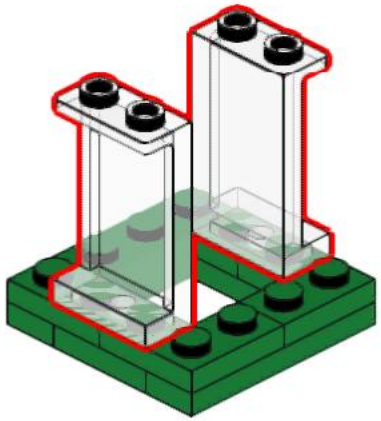

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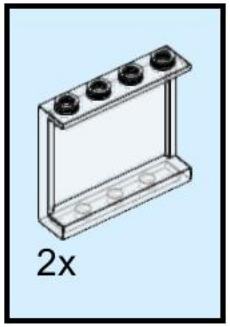

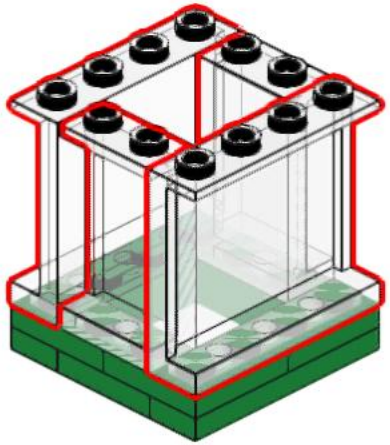

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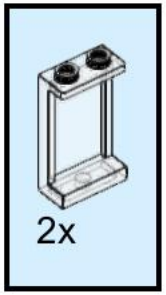

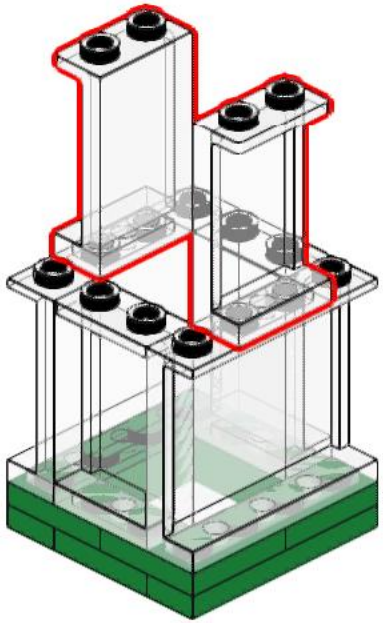

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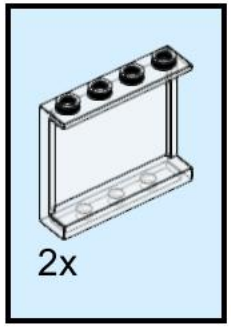

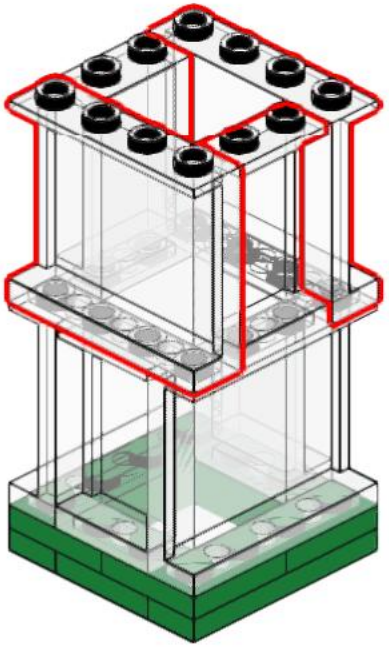

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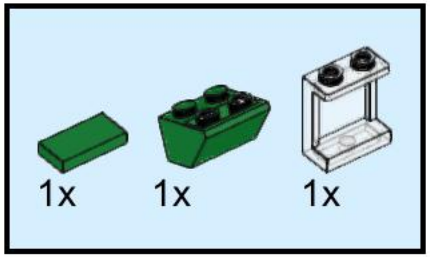

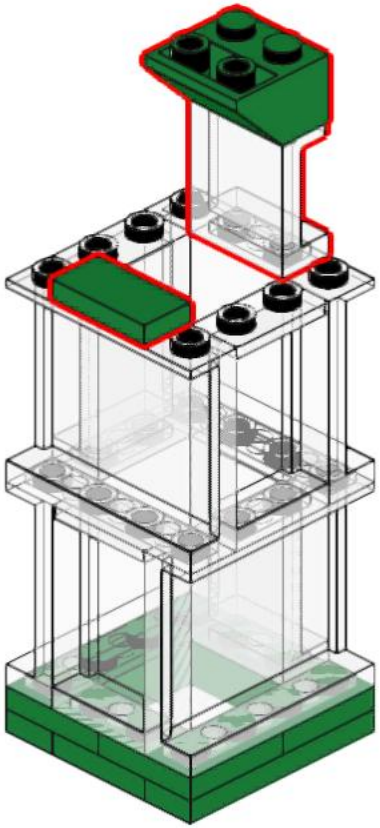

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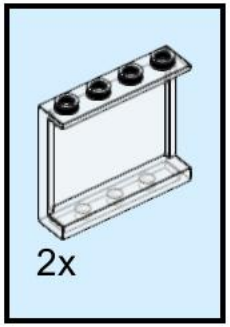

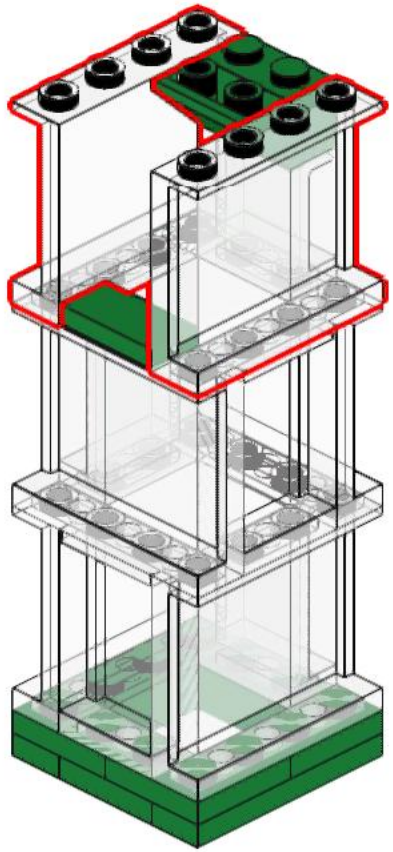

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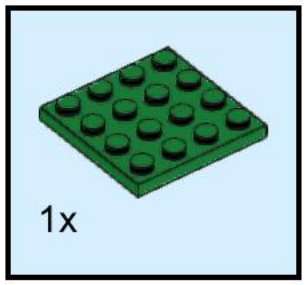

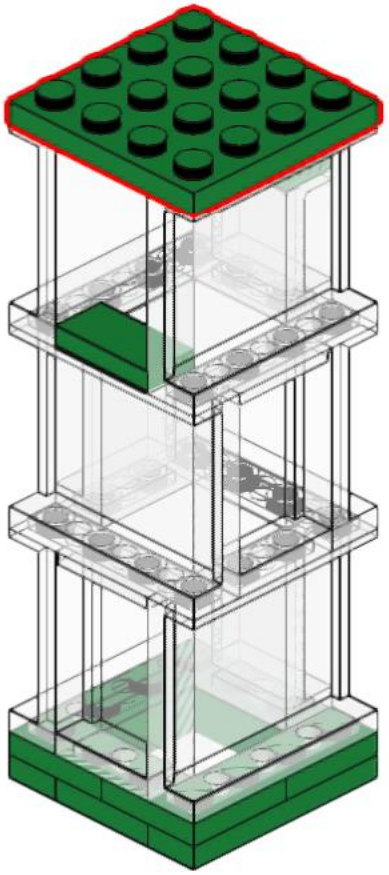

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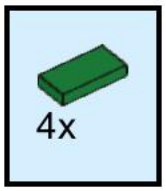

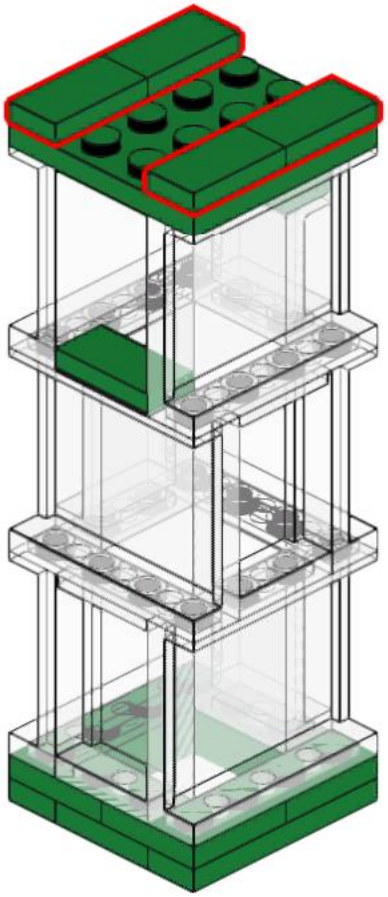

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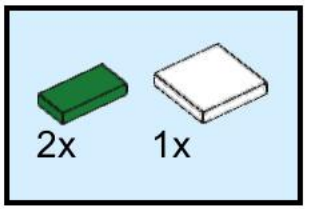

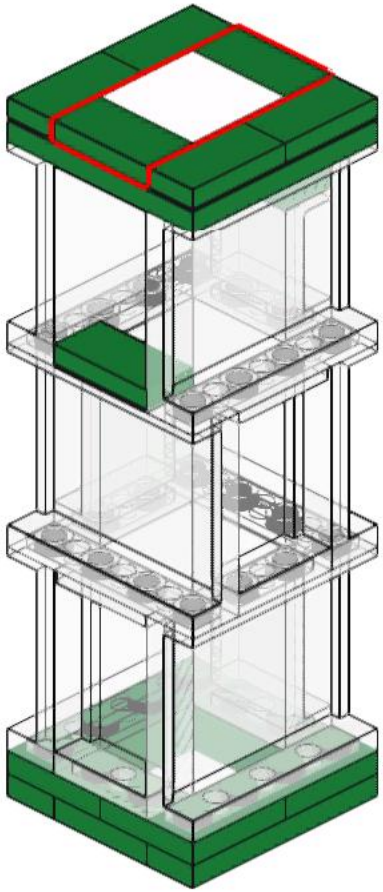

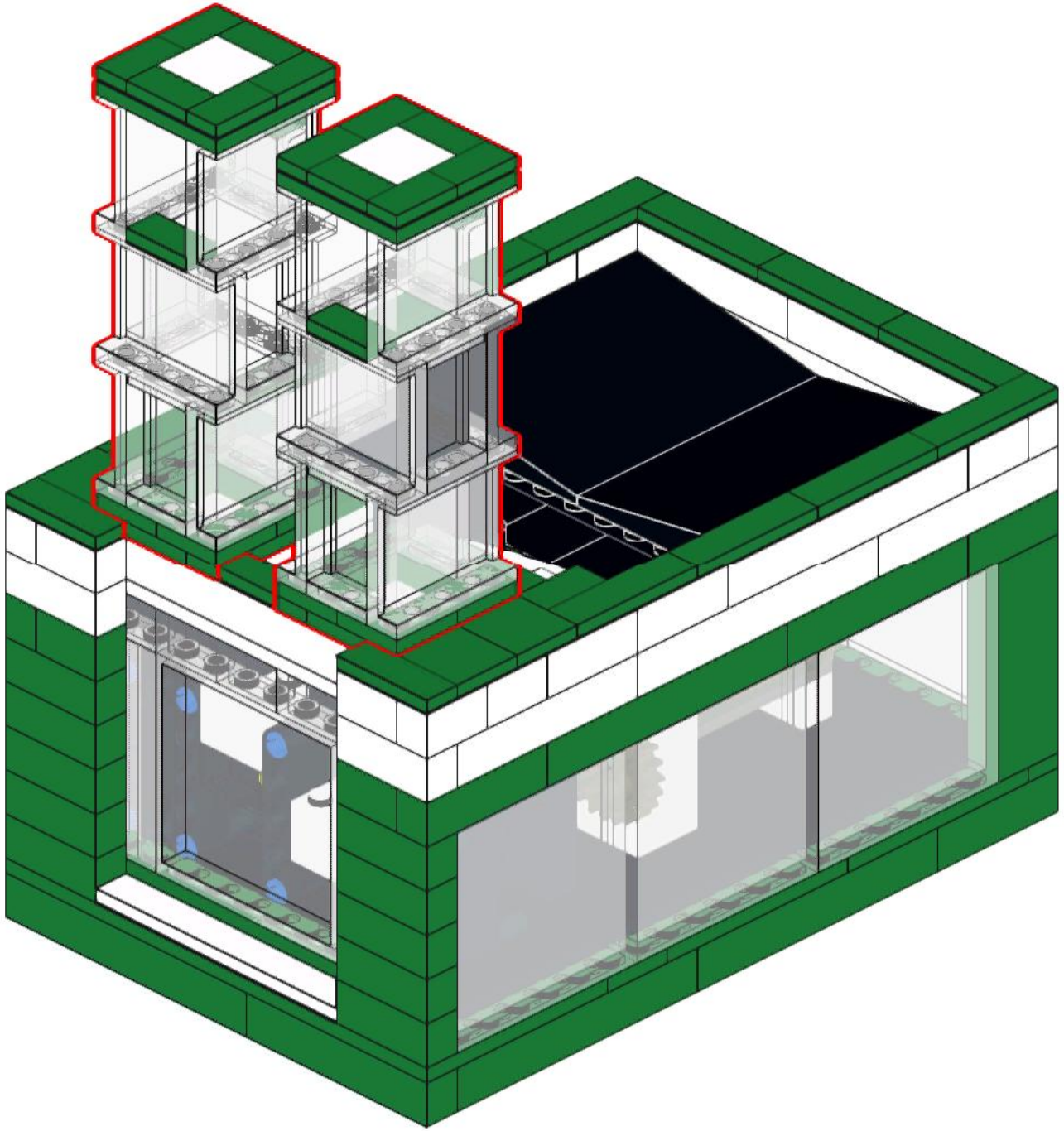

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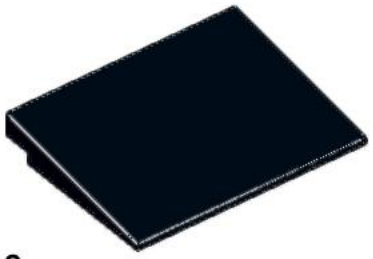

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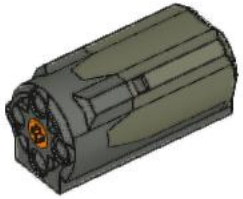

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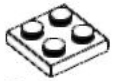

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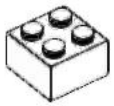

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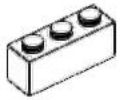

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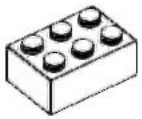

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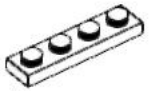

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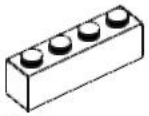

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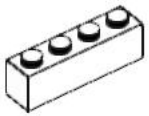

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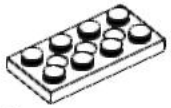

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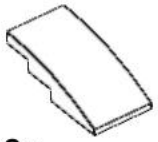

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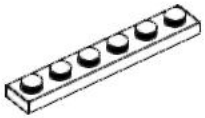

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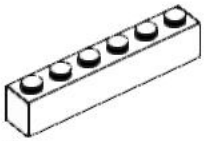

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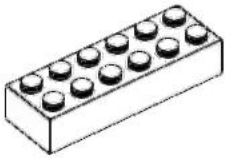

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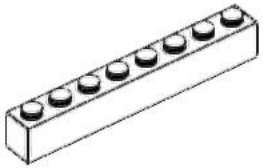

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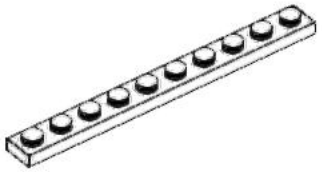

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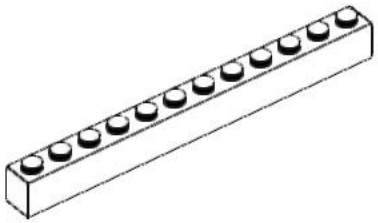

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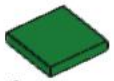

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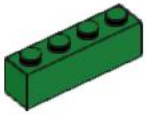

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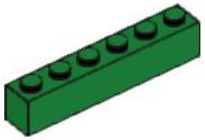

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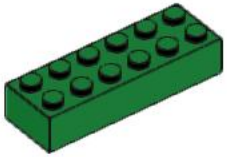

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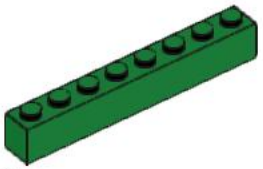

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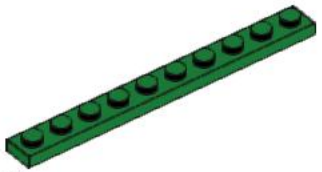

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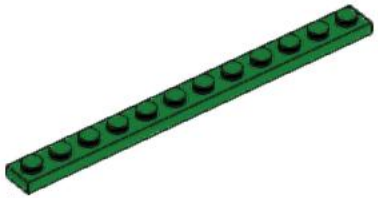

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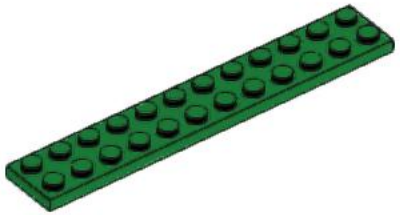

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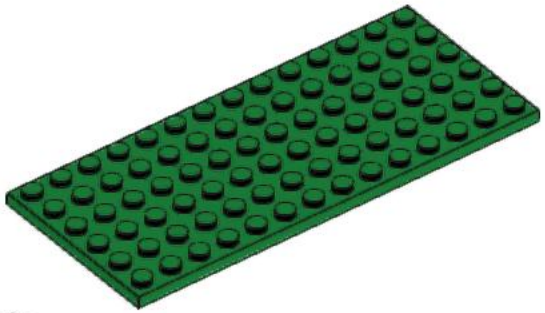

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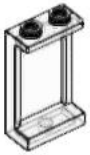

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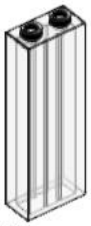
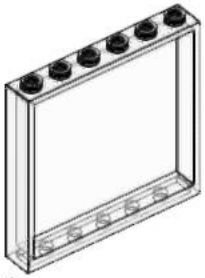


2x
2454, 12



9x
59349, 12