



# Architecture

## Farnsworth House™

Plano, Illinois, USA



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# Ludwig Mies van der Rohe



Ludwig Mies van der Rohe

Ludwig Mies van der Rohe, born Maria Ludwig Michael Mies (March 27, 1886 – August 17, 1969) was an architect and designer. Mies has long been considered one of the most important architects of the 20th century. In Europe, before World War II, Mies emerged as one of the most innovative leaders of the Modern Movement, producing visionary projects and executing a number of small but critically significant buildings. After emigrating to the United States in 1938, he transformed the architectonic expression of the steel frame in American architecture and left a nearly unmatched legacy of teaching and building.

Born in Aachen, Germany, Mies began his architectural career as an apprentice at the studio of Peter Behrens from 1908 to 1912. There he was exposed to progressive German culture, working alongside Walter Gropius and Le Corbusier. Determined to establish a new architectural style that could represent modern times just as Classical and Gothic had done for their own eras, Mies began to develop projects that, though most remained unbuilt, rocketed him to fame as a progressive architect.

His dramatic modernist debut was his stunning competition proposal for the all-glass Friedrichstrasse skyscraper in 1921. He continued with a whole series of pioneering projects, including the temporary German Pavilion for the Barcelona exposition (often called the Barcelona Pavilion) in 1929. In the 1930s he joined the avant-garde Bauhaus design school as director, but faced with growing Nazi political pressure decided to emigrate to America in 1938.

In the U.S., he became head of the department of architecture at the newly-established Illinois Institute of Technology in Chicago, introducing a new kind of education that would become known as the Second School of Chicago, with works such as Farnsworth House™, the Seagram

Building and the Museum of Fine Arts in Houston, Mies continued to refine his vision of a monumental “skin and bones” architecture. He sought to create free and open spaces, enclosed within a structural order with minimal presence.



*German Pavilion in Barcelona*

# Farnsworth House™



One of Mies' most famous aphorisms was "less is more". For many, the architecture of Farnsworth House represents the ultimate refinement of his minimalist beliefs.

It was designed and constructed between 1945 and 1951 as a one-room weekend retreat, located in a once-rural setting, 55 miles (89 km) southwest of Chicago on a 60-acre (240,000 m<sup>2</sup>) estate adjoining the Fox River, in the city of Plano, Illinois. The steel and glass house was commissioned by Dr. Edith Farnsworth, a prominent Chicago medical specialist, as a place where she could engage in her hobbies: playing the violin, translating poetry, and enjoying nature. Farnsworth was highly intelligent, articulate, and intent on building a very special work of modern architecture. Her instructions for Mies were to design the house as if it were for himself.

Mies created a 1,585-square-foot (140 m<sup>2</sup>) house that is now widely recognized as an iconic masterpiece of the International Style of architecture. The home was designated a National Historic Landmark in 2006 after being added to the National Register of Historic Places in 2004. It is currently owned and run as a house museum by the National Trust for Historic Preservation.

Like many Modernists, Mies worshiped the technology-driven modern era he lived in, but also believed that reconnecting the individual with nature was one of the greatest challenges faced by an urbanized society.

With this in mind, Mies conceived Farnsworth House™ as an indoor-

outdoor architectural shelter simultaneously independent of and intertwined with the nature around it. The simple elongated cubic form of the house runs parallel to the flow of the river and is anchored to the site in the cooling shadow of a large and majestic black maple tree. To underline the strong connection with nature, the house was deliberately built on the flood plain near the river's edge instead of on the flood-free upland portions of the site.





The essential characteristics of the house are immediately apparent. The extensive use of clear floor-to-ceiling glass opens the interior to its natural surroundings to an extreme degree. Two distinctly expressed horizontal slabs, which form the roof and the floor, sandwich an open space for living. The slab edges are defined by exposed steel structural members painted pure white. The house is elevated five feet three inches (1.60 m) above the flood plain by eight steel columns, which are attached to the sides of the floor and ceiling slabs. The end of the slabs extend

beyond the column supports, creating cantilevers. The house seems to float weightlessly above the ground it occupies. A third floating slab, an attached terrace, acts as a transition between the living area and the ground. The house is accessed by two sets of wide steps connecting the ground to the terrace and then to the porch. As was often the case with Mies' designs, the entrance is located on the sunny side, facing the river instead of the access road.



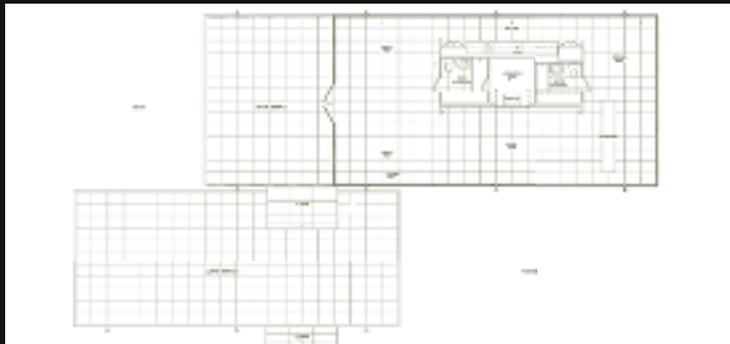
The interior appears to be one large room filled with freestanding elements. The space is sub-divided but not partitioned, and flows around two wood blocks that Mies called “cores,” one a wardrobe cabinet and the other a kitchen, toilet, and fireplace block. The larger fireplace-kitchen core appears almost as a separate house nestling within the larger glass house. The materials used are quietly luxurious – travertine floors, primavera paneling and silk curtains – and the detailing minimal and meticulous.

On its completion, Farnsworth House™ received accolades in the architectural press, which resulted in many uninvited visitors trespassing on the property to glimpse the latest Mies work of art. Unfortunately Mies and Edith Farnsworth had a falling out over the costs, which

had almost doubled the final costs, and the bitter dispute was only resolved after a long and very public court case.

Though she continued to use her weekend retreat for almost 20 years, Edith Farnsworth often felt intimidated by the openness of the building. Other complaints included the costs of heating the house and constantly rusting pillars.

For some critics, Farnsworth House™ represents the disconnect between Modernist architecture and the reality of its users' lives. Nevertheless, the timeless quality of this house is still regarded with reverent fascination by new generations of architects and designers around the world.



# A National Trust Historic Site

Whenever a historic building is demolished or allowed to deteriorate, a part of the nation's past is also in danger of disappearing forever. The National Trust for Historic Preservation (NTHP) is dedicated to protecting these irreplaceable places that tell America's story.

Founded in 1949 and headquartered in Washington, DC, the NTHP is a private, nonprofit organization with over 270,000 members. The National Trust provides leadership, education, advocacy and resources to people and organizations across the country working to preserve the nation's heritage.

The NTHP owns and manages Farnsworth House™ as one of its 29 National Trust Historic Sites, and has been instrumental in coordinating the careful restoration of the building after it was badly damaged by flooding in 2008.

Learn more about the NTHP's efforts to preserve historic buildings at [www.PreservationNation.org](http://www.PreservationNation.org).

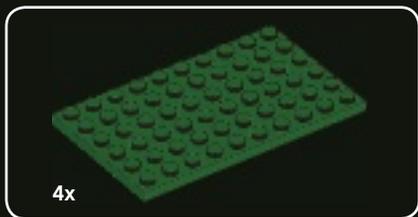
NATIONAL  
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# Facts about Farnsworth House™

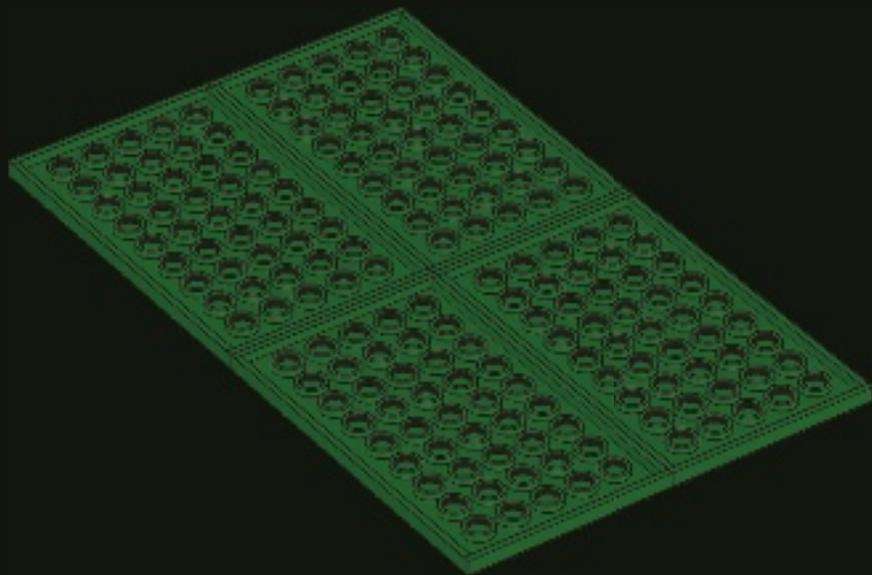
Location:..... Plano, Kendall County, Illinois, USA  
Architect:..... Ludwig Mies van der Rohe  
Building type:..... House. One-room weekend retreat  
Materials:..... Steel and glass

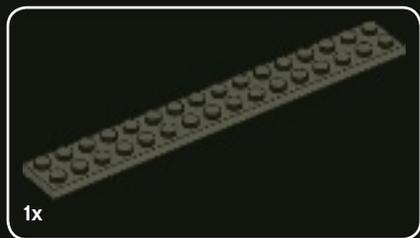
Style:..... Modern  
Date: ..... From 1945 to 1951  
Floor area:..... 1,585-square feet (140 m<sup>2</sup>)



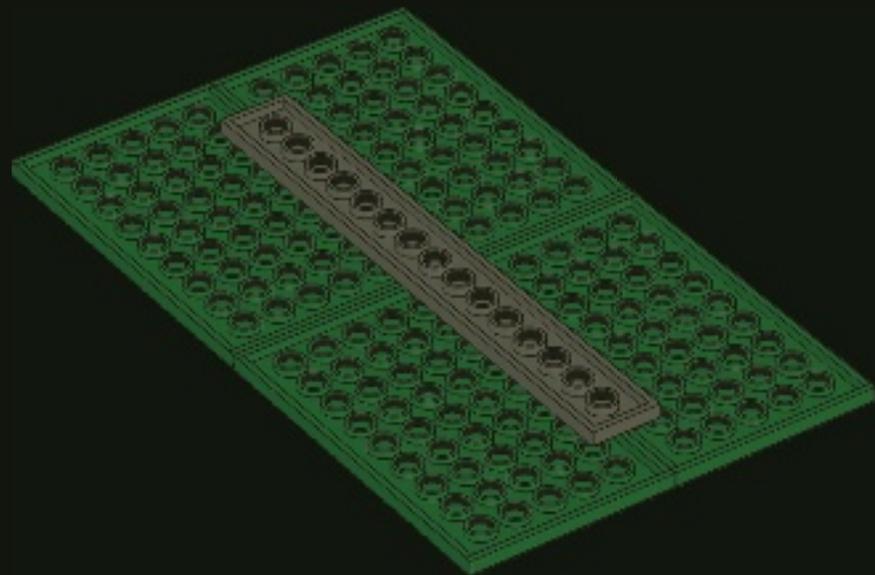


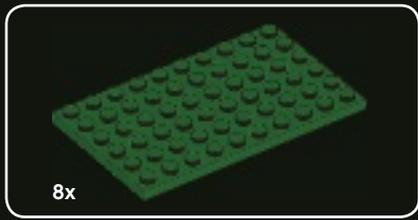
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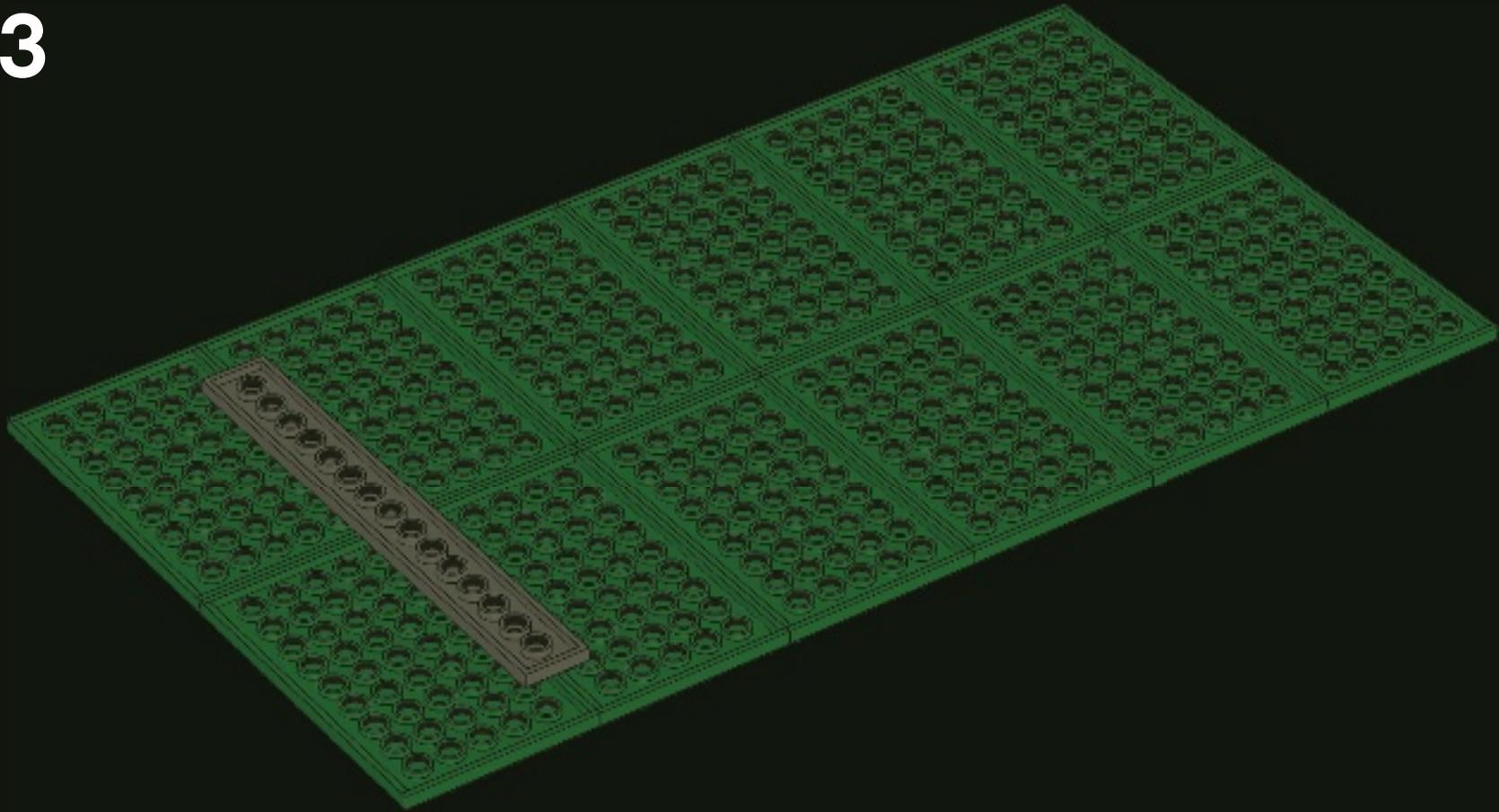


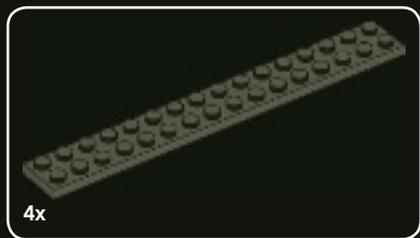
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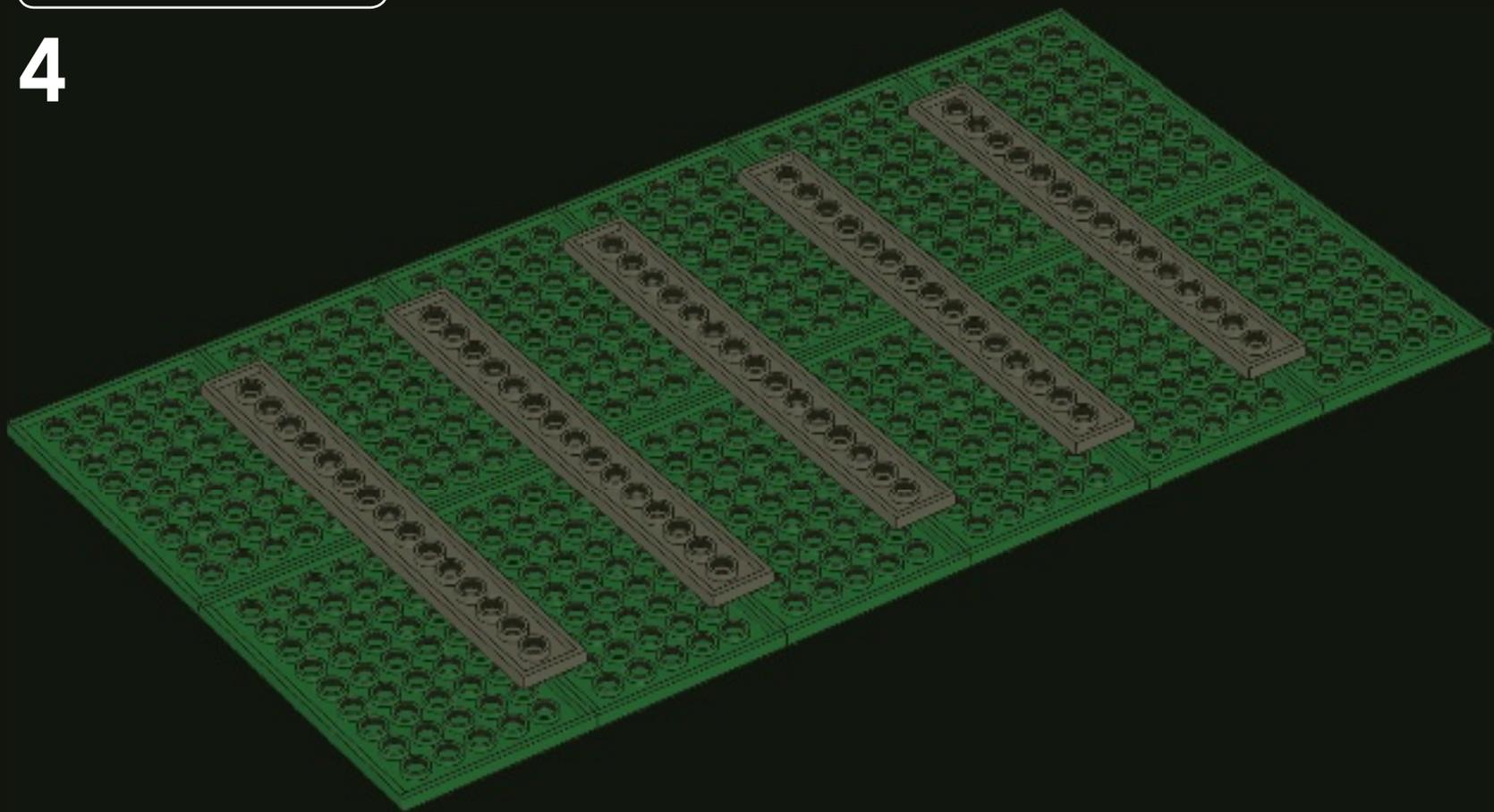


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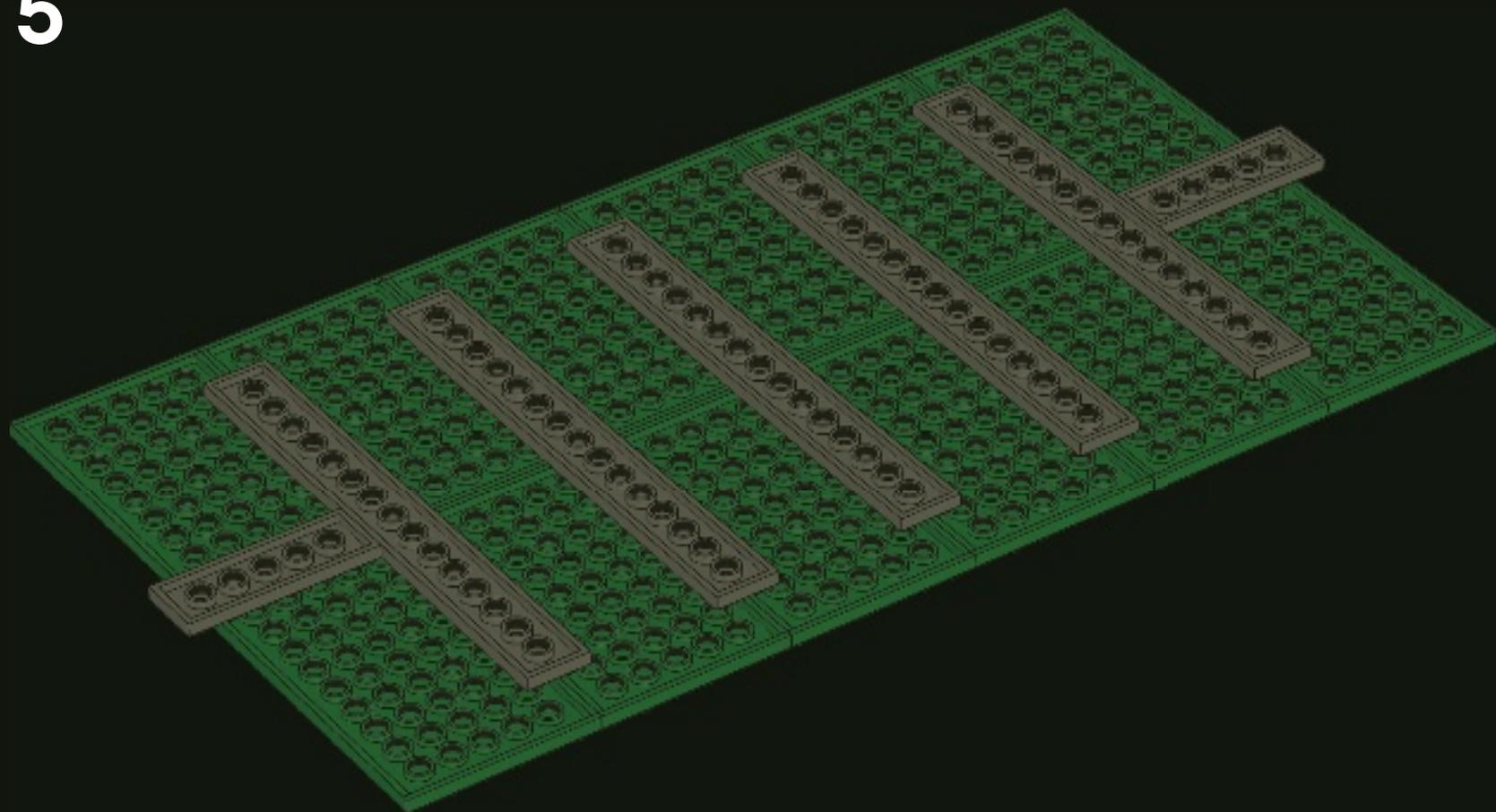
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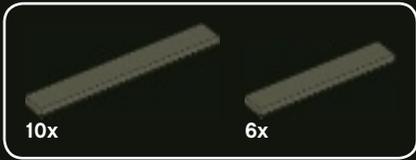


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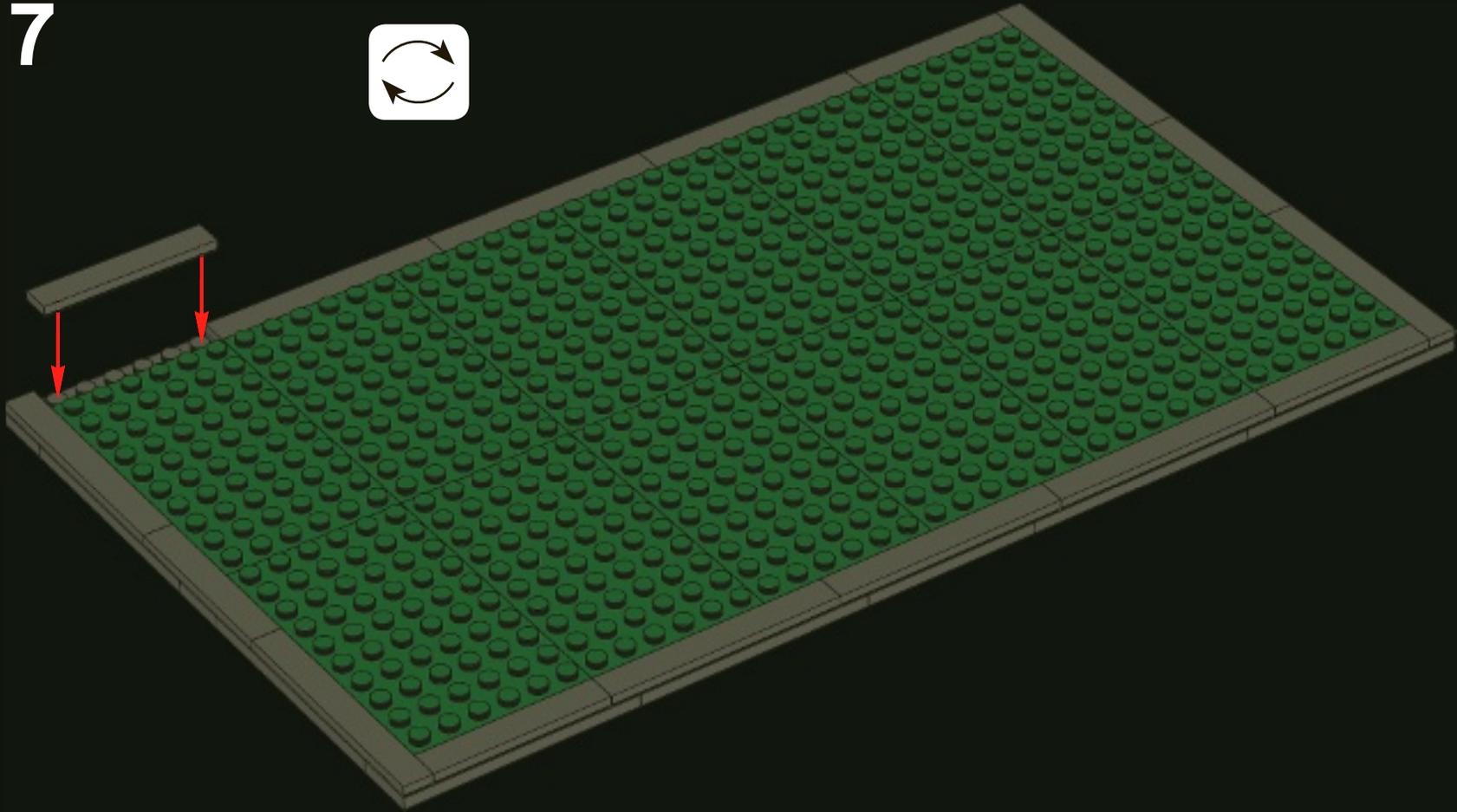
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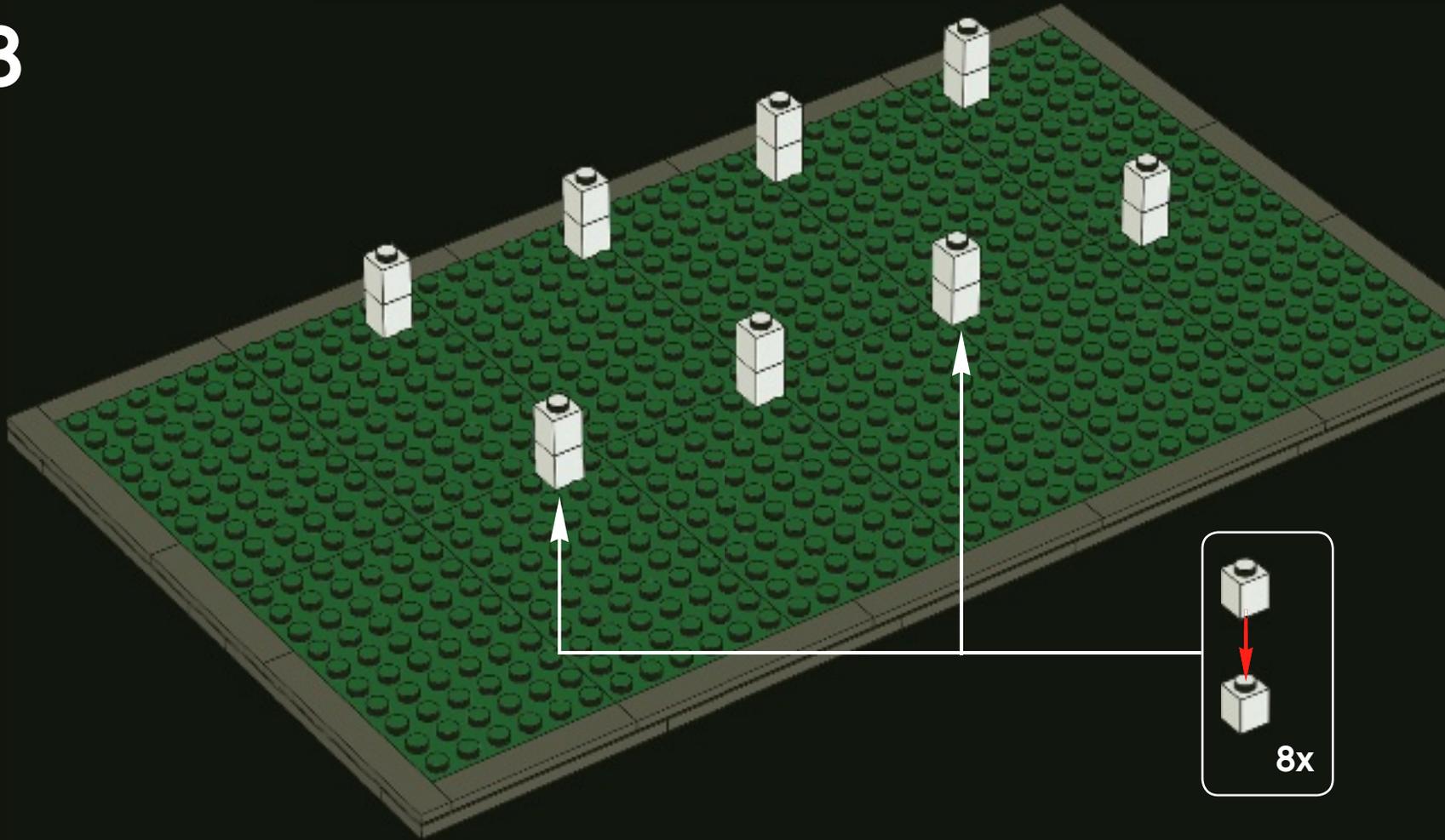
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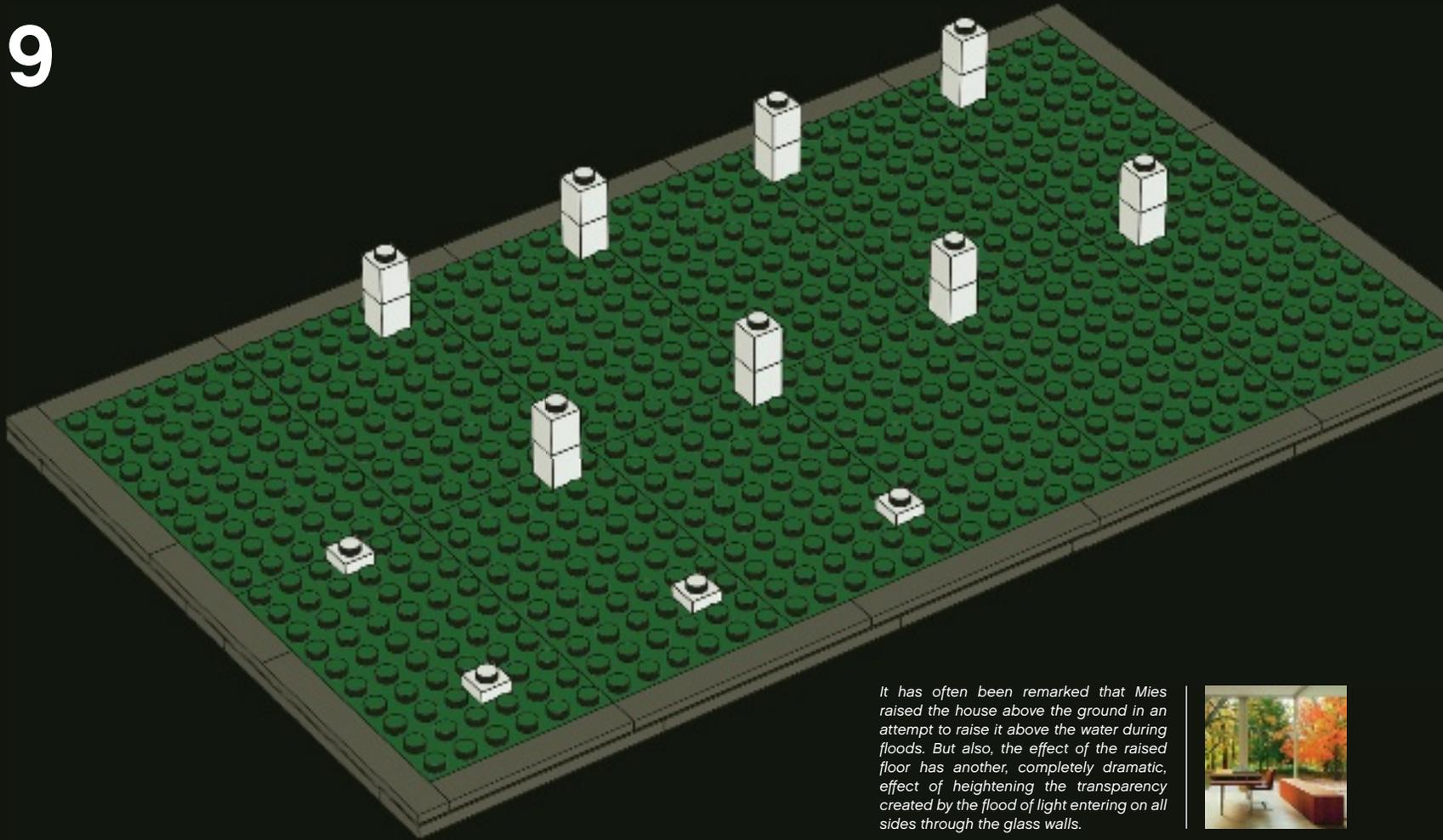


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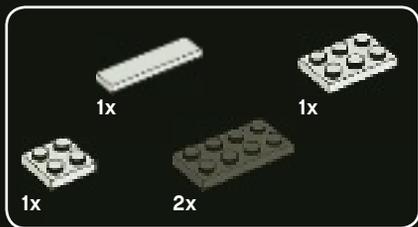
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*It has often been remarked that Mies raised the house above the ground in an attempt to raise it above the water during floods. But also, the effect of the raised floor has another, completely dramatic, effect of heightening the transparency created by the flood of light entering on all sides through the glass walls.*



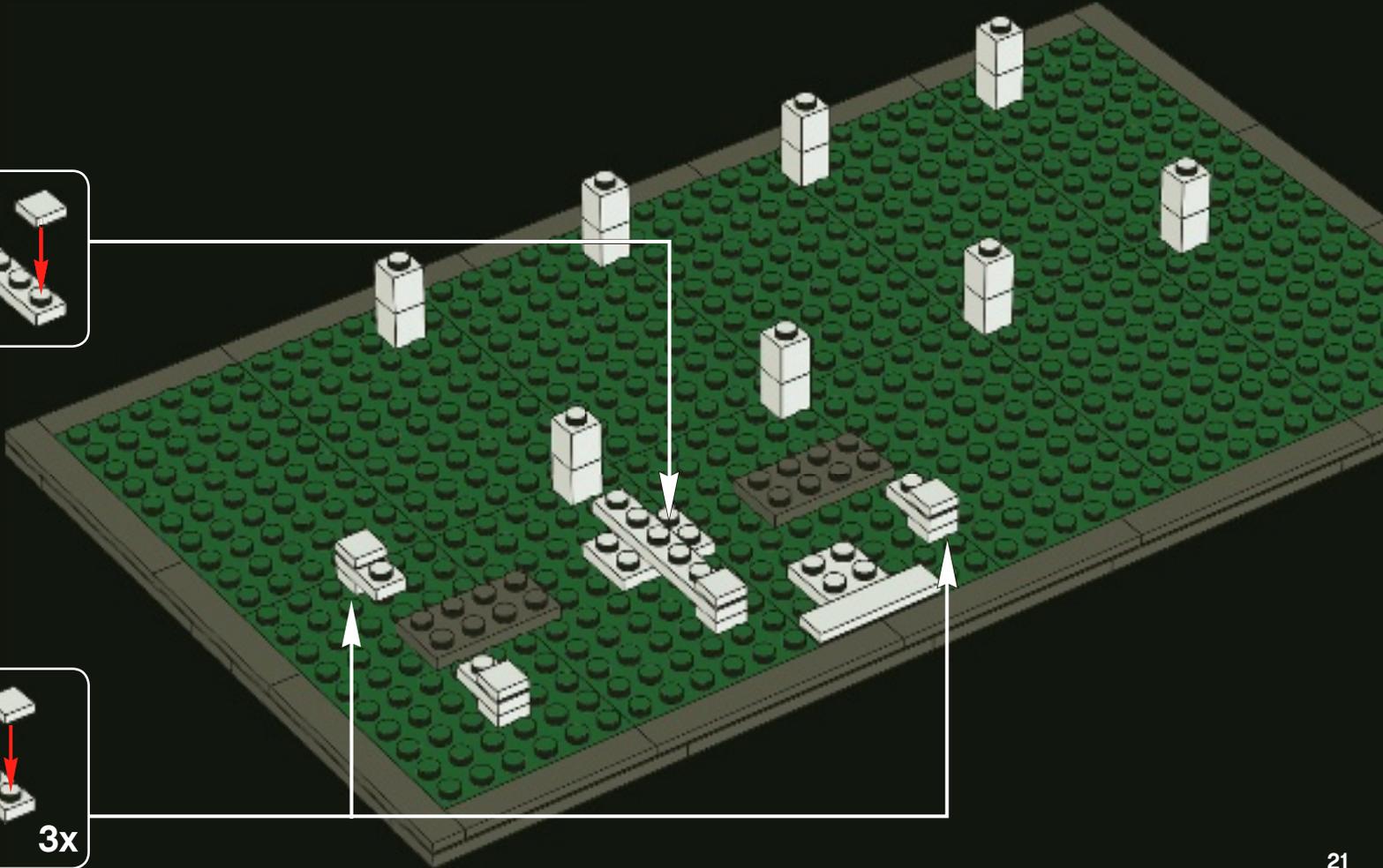
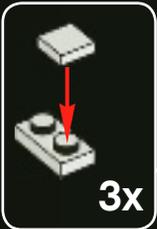
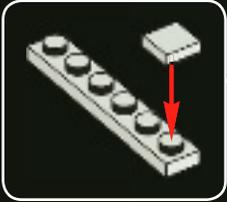


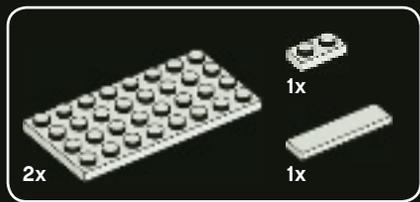
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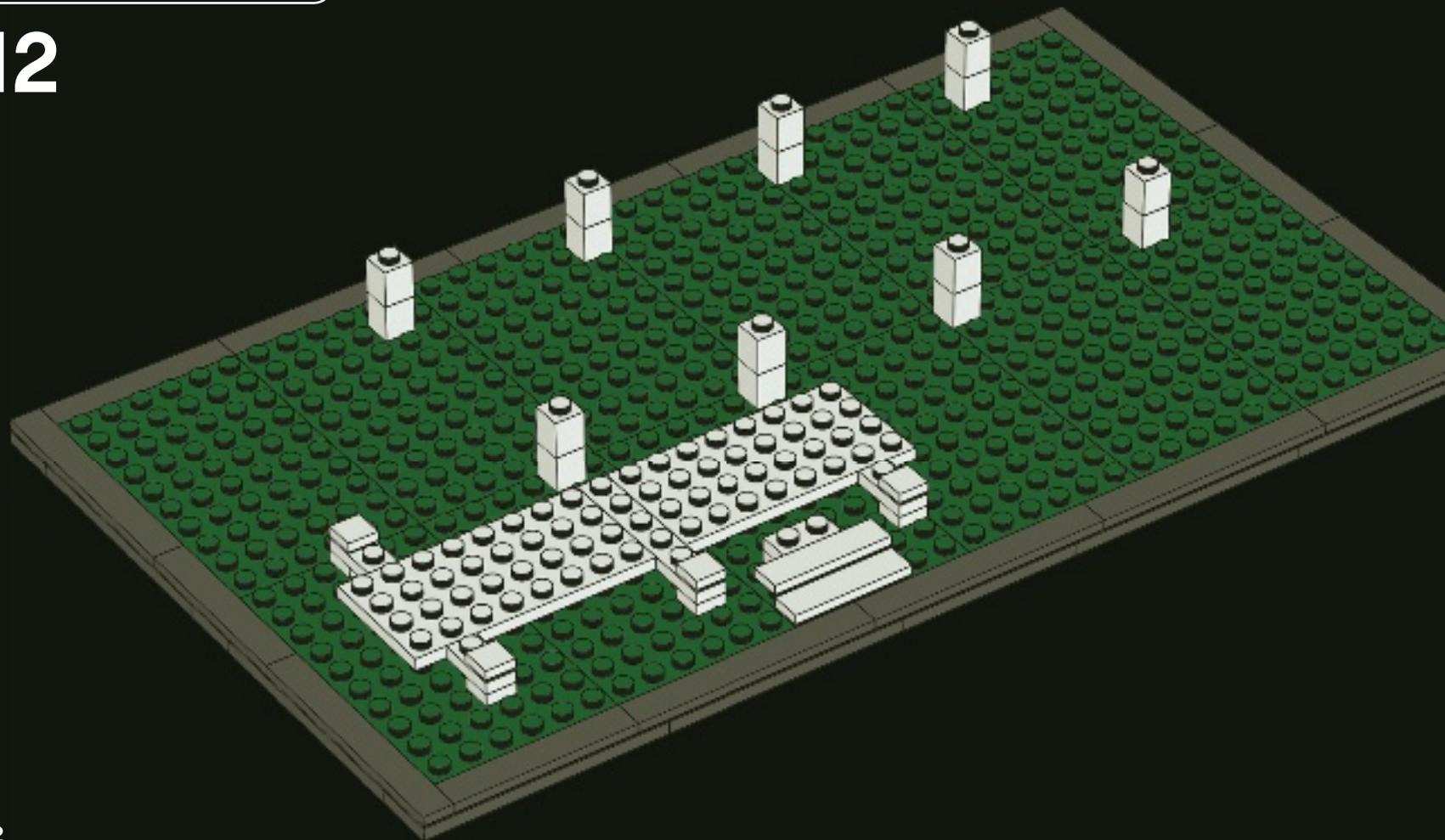


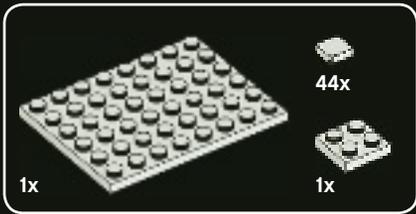
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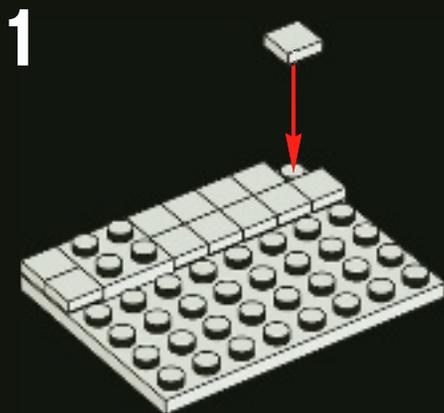


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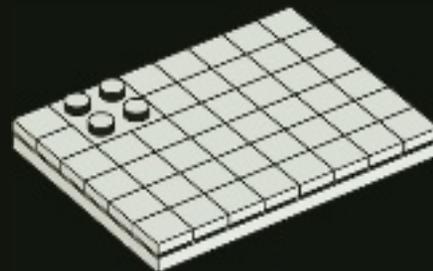


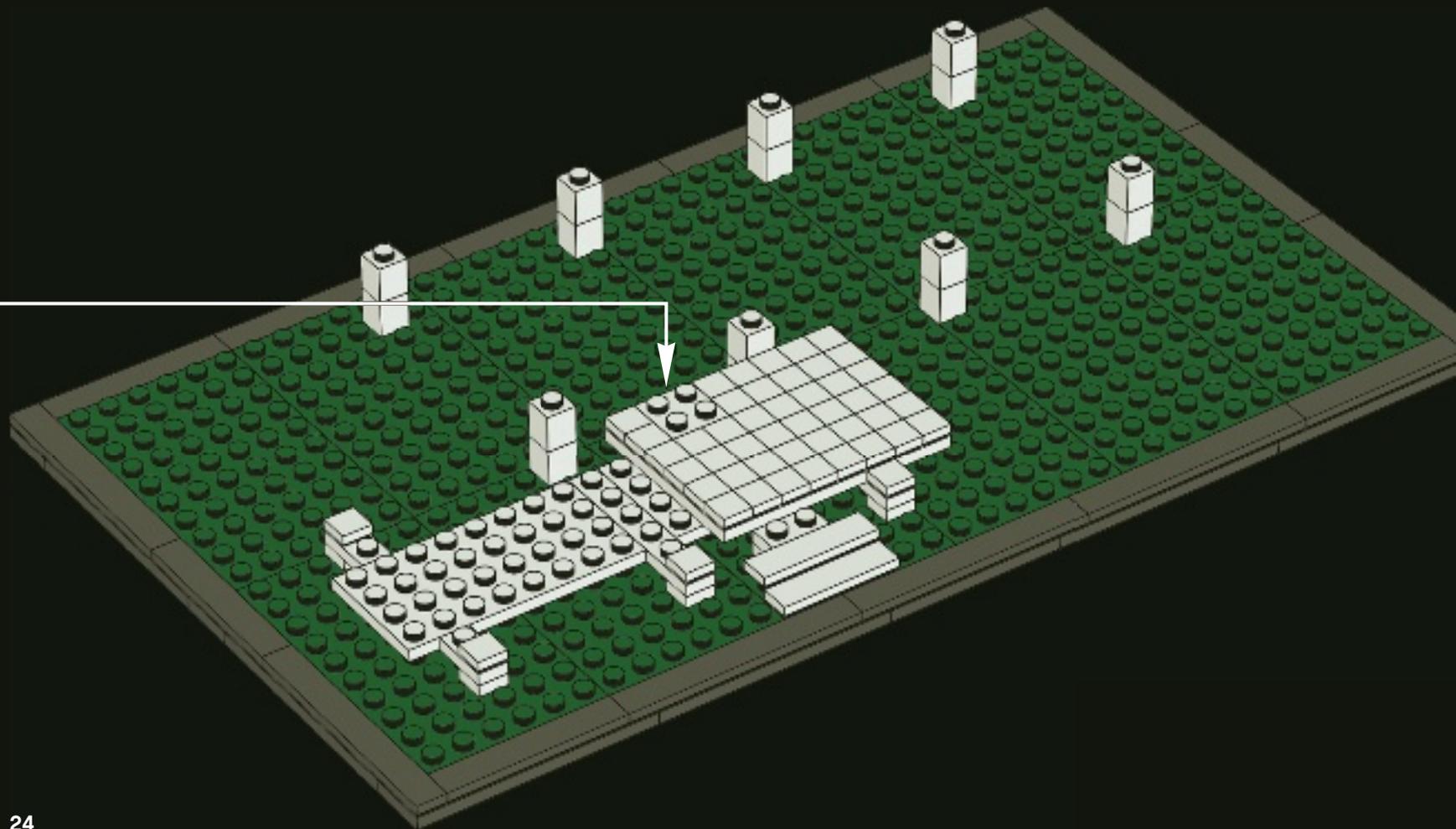


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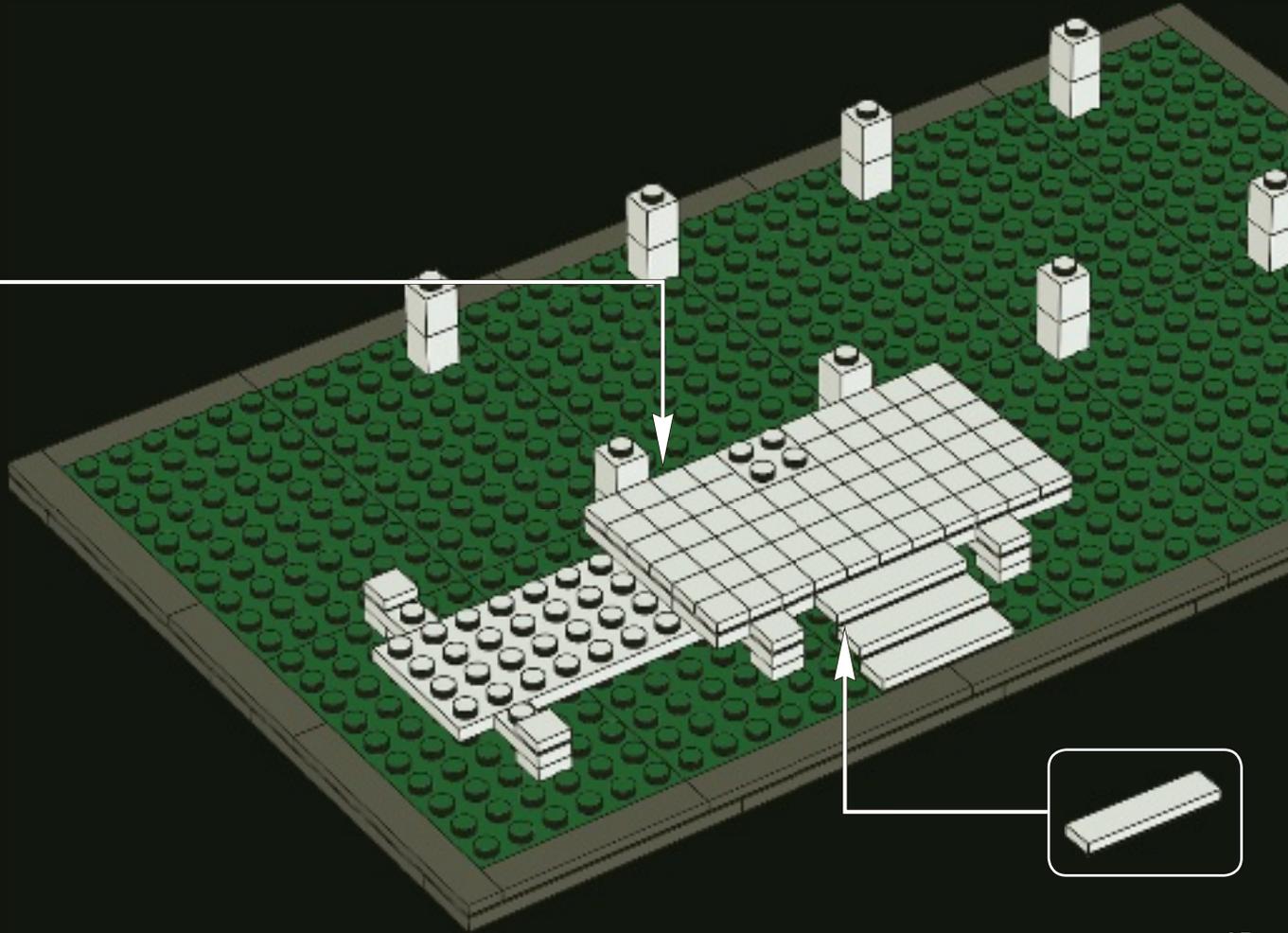
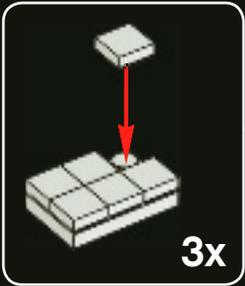
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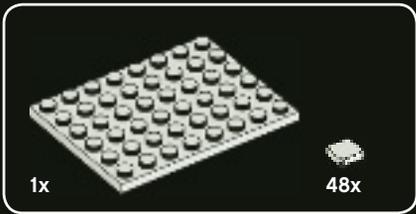




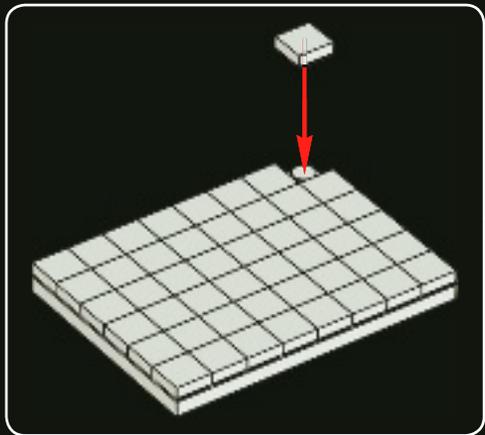
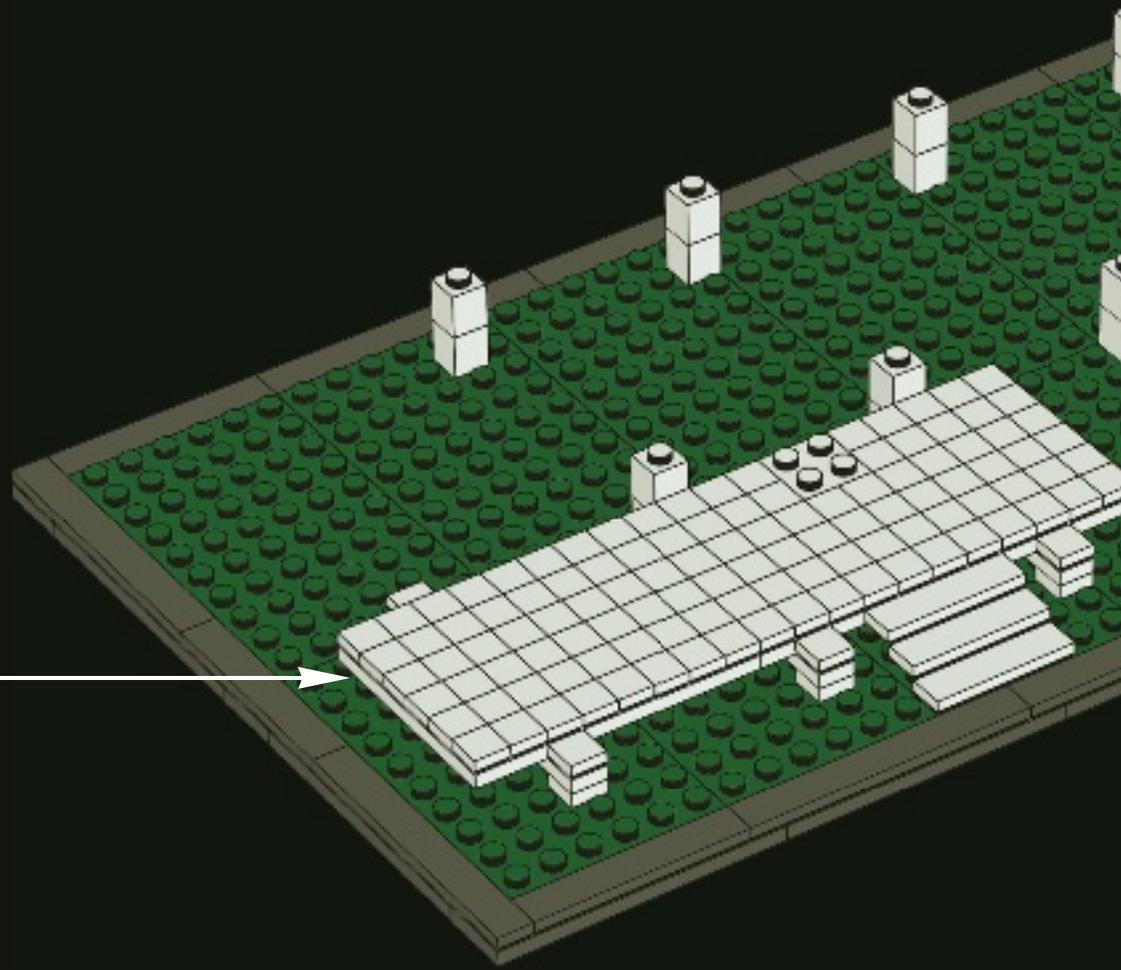


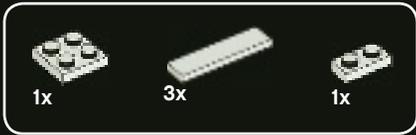
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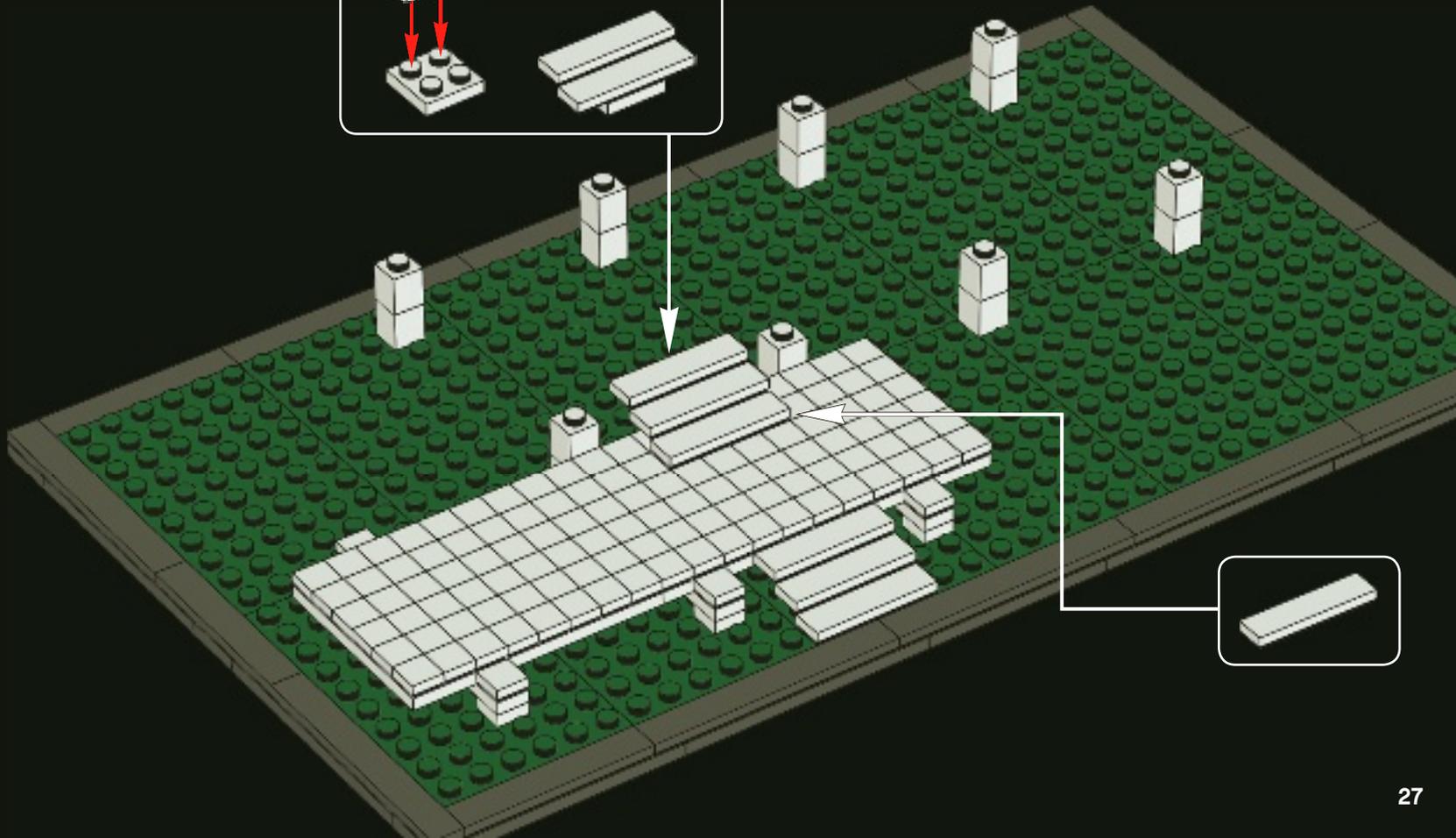
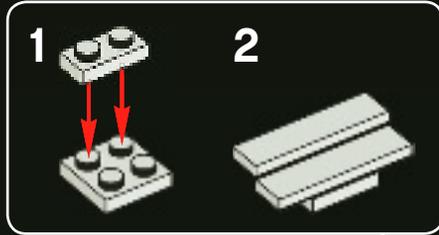


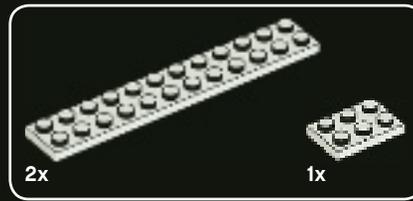
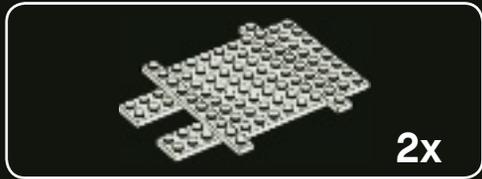
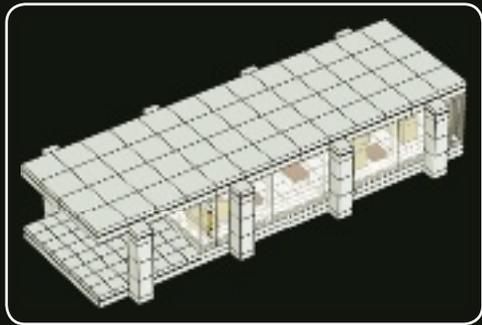
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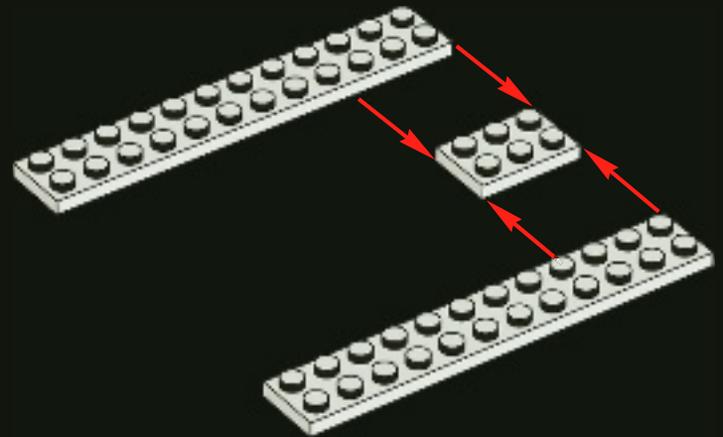


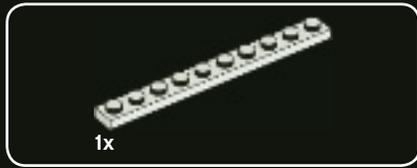
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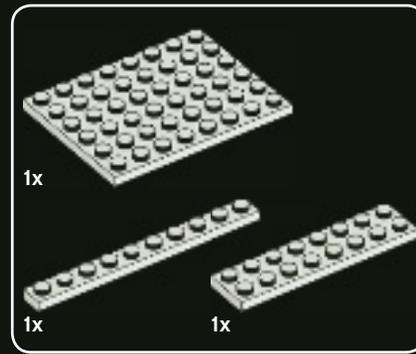
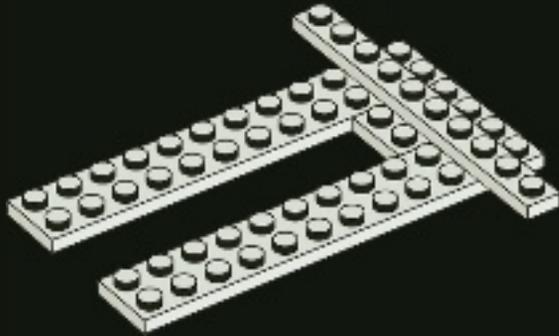


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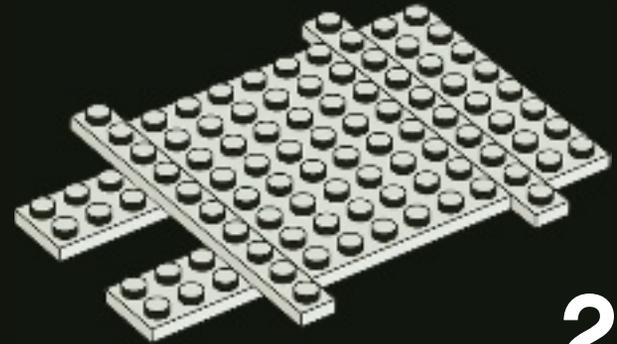




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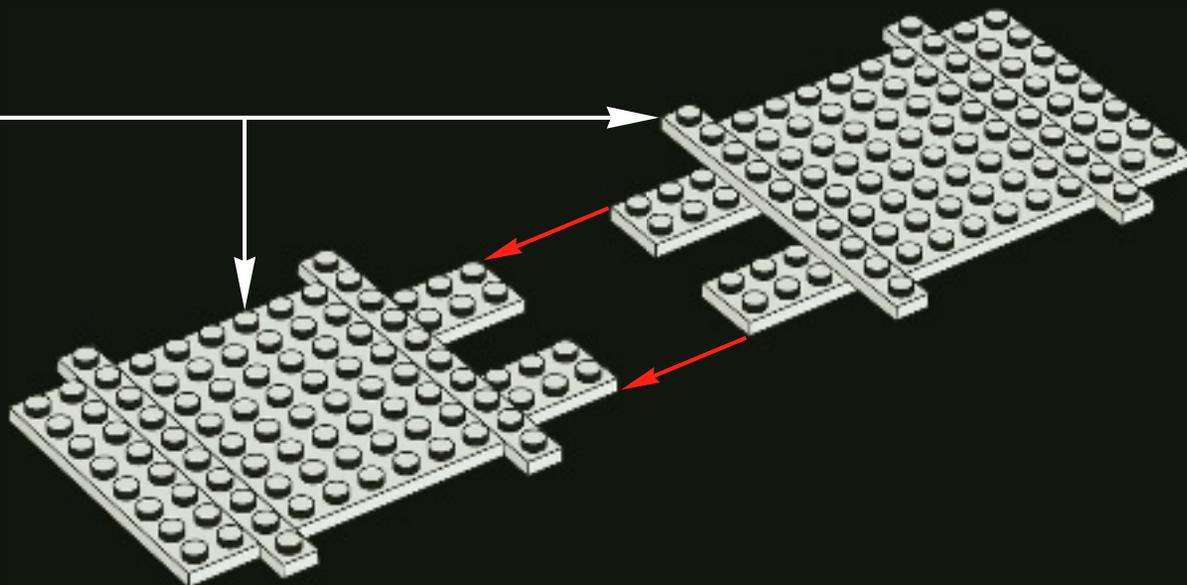


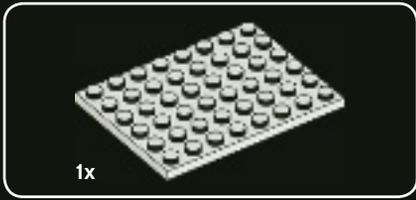
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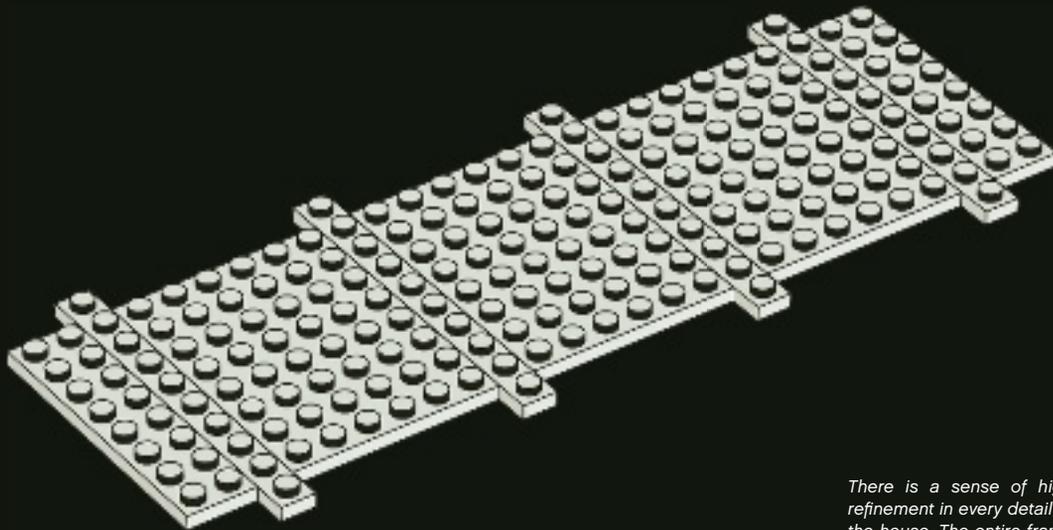
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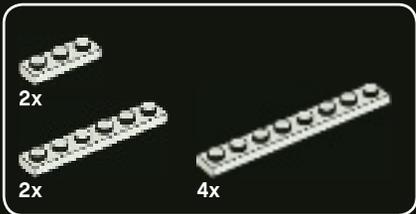


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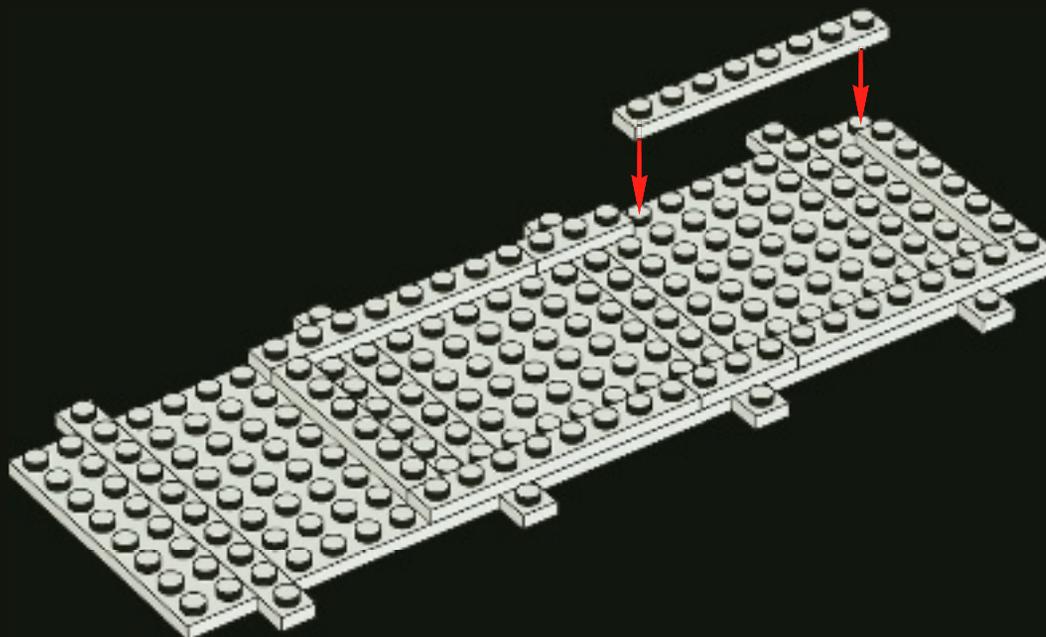


*There is a sense of high refinement in every detail of the house. The entire frame was sandblasted smooth and then painted with a perfect white veneer instead of being left rough.*



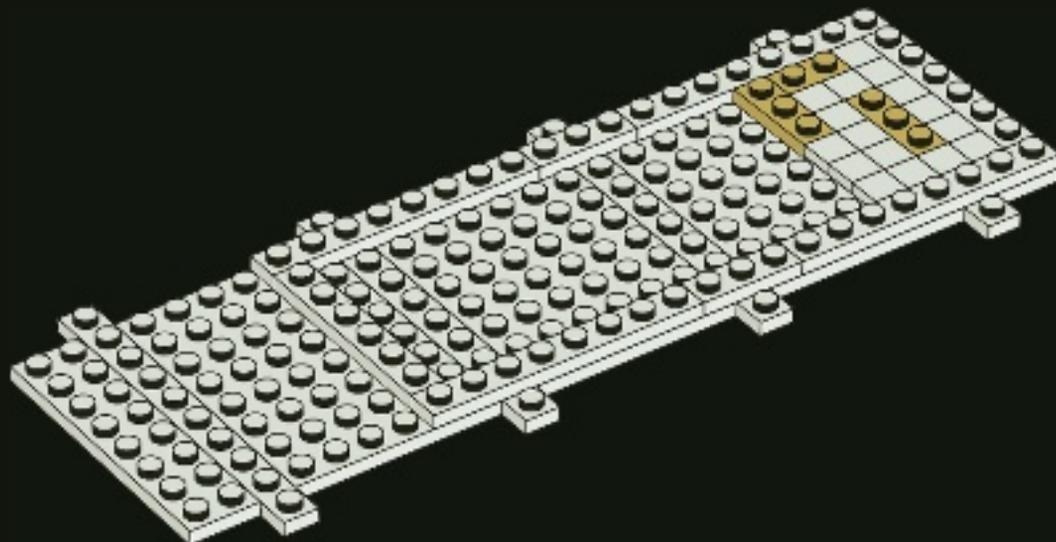


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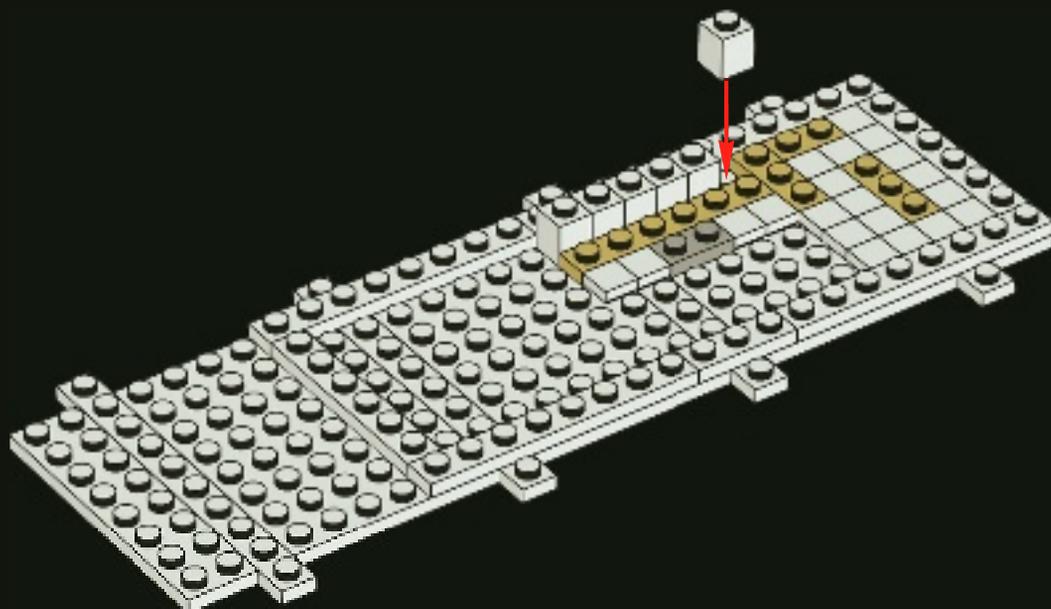


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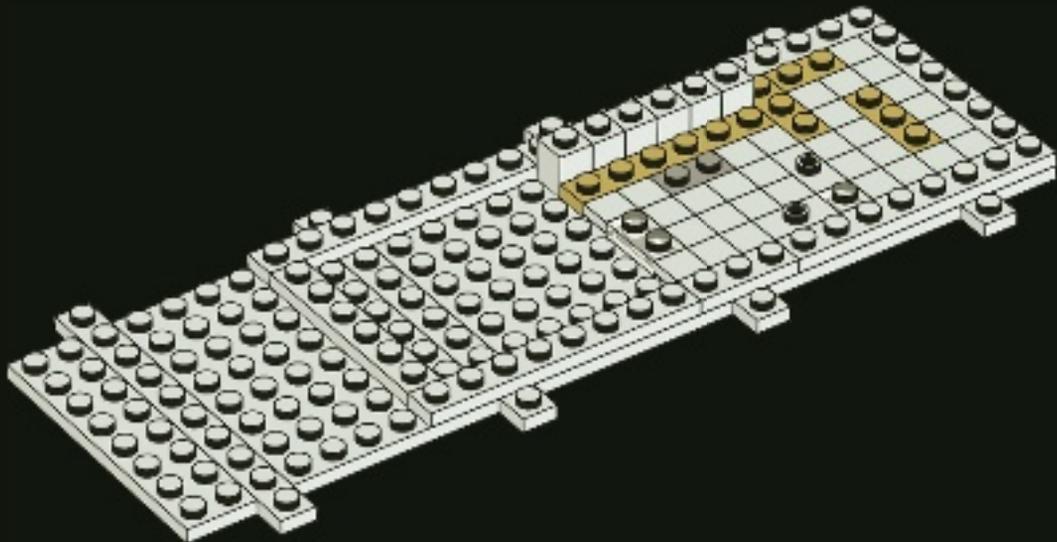


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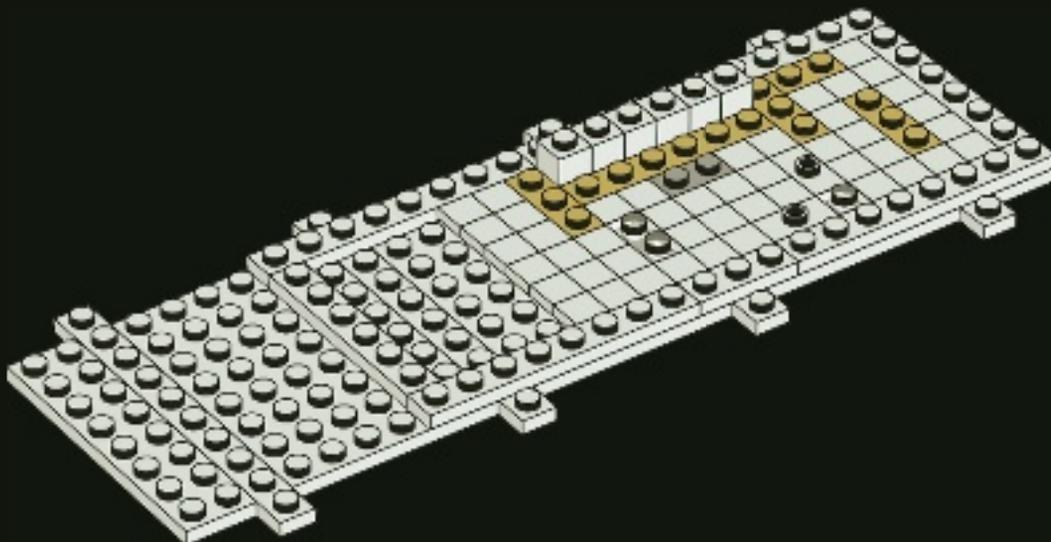


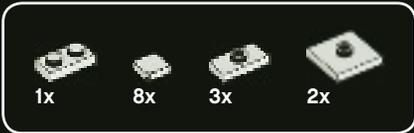
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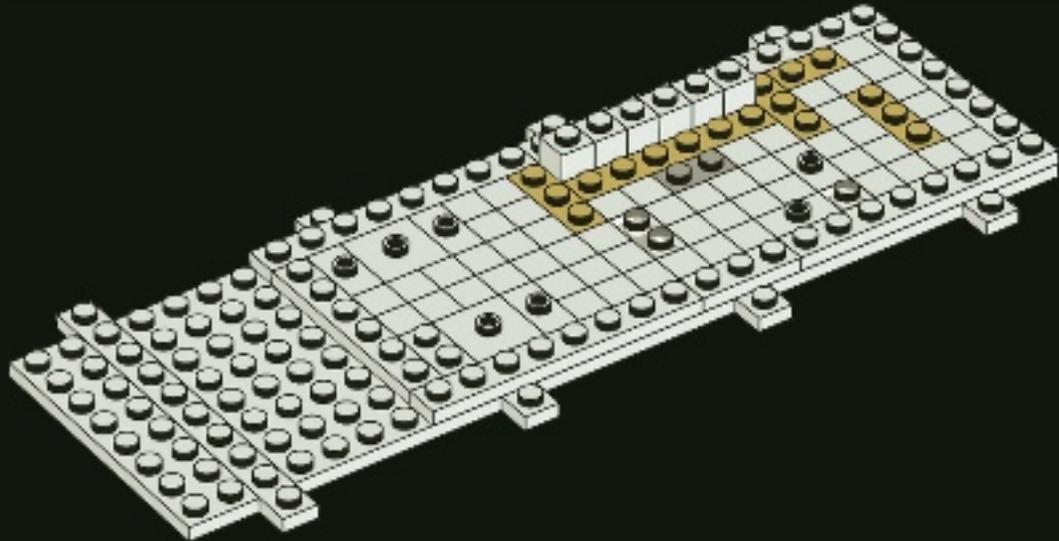
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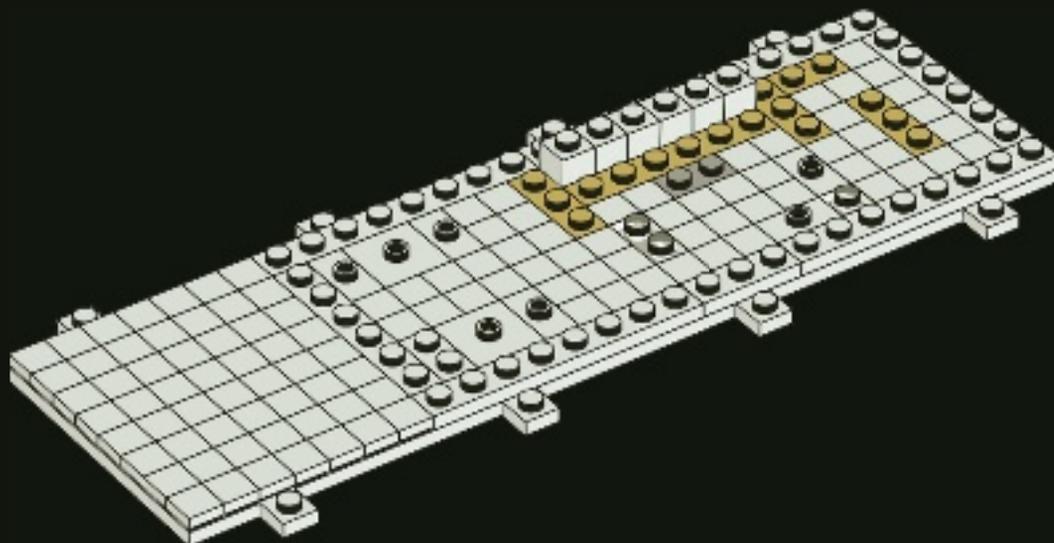
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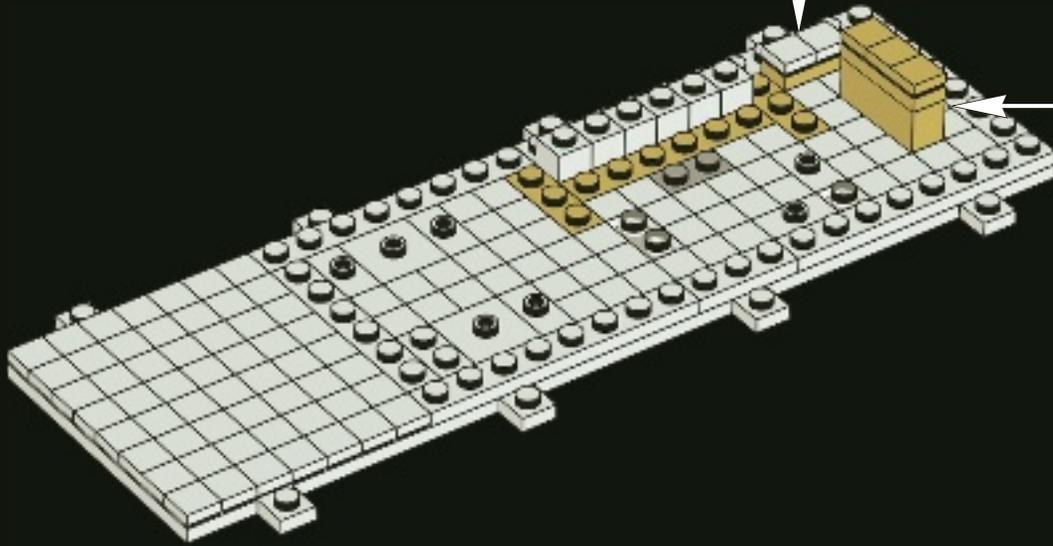
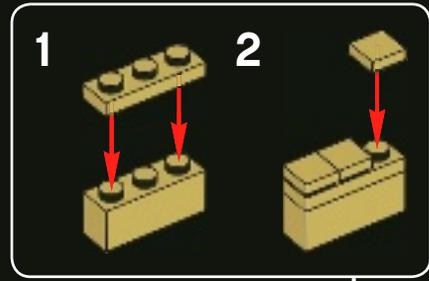
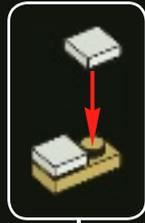
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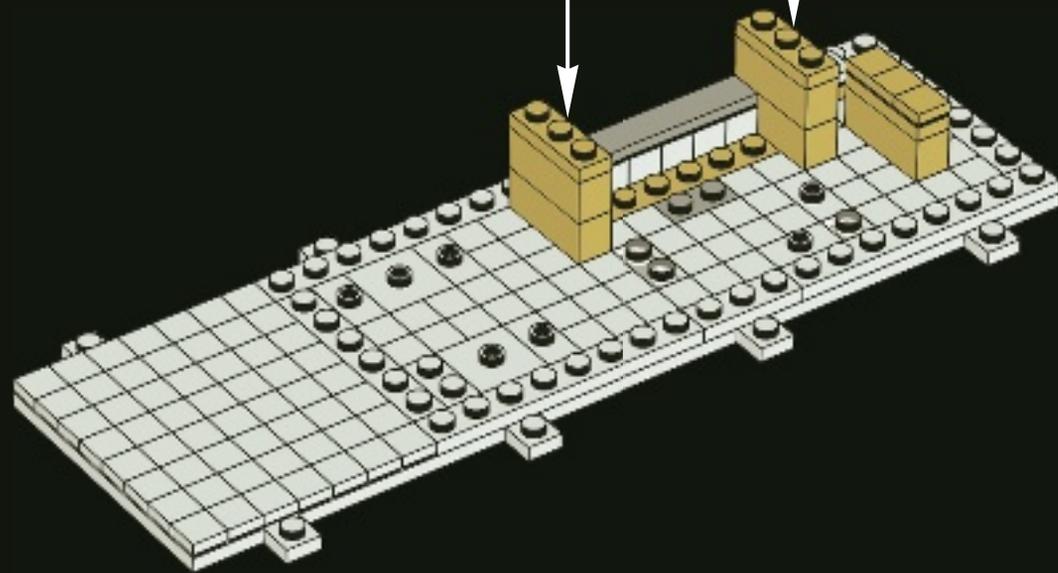
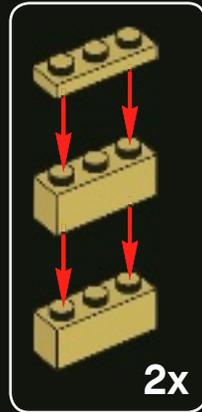


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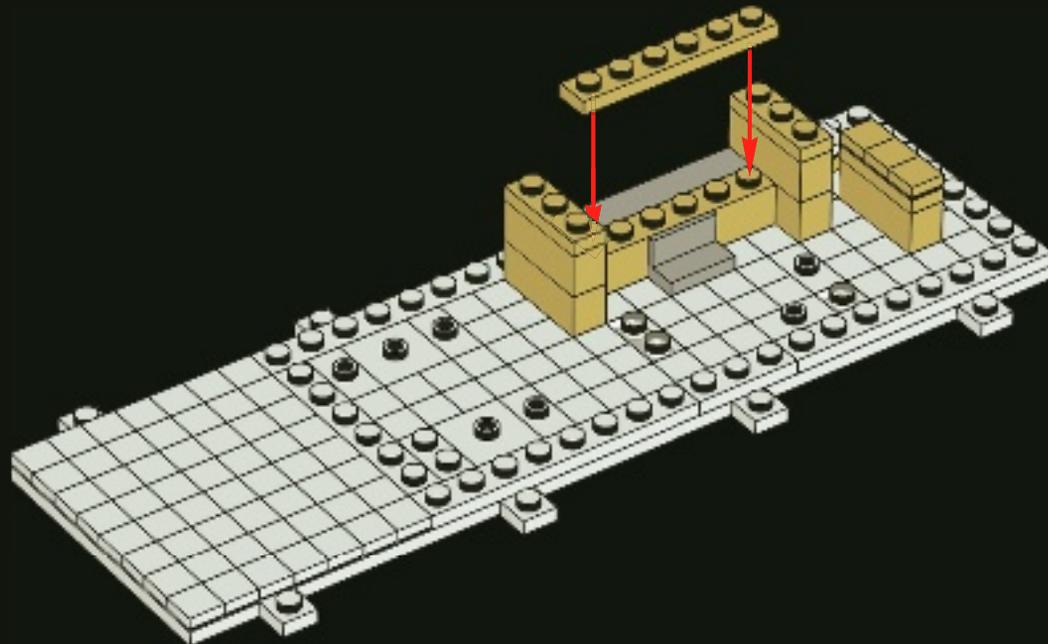


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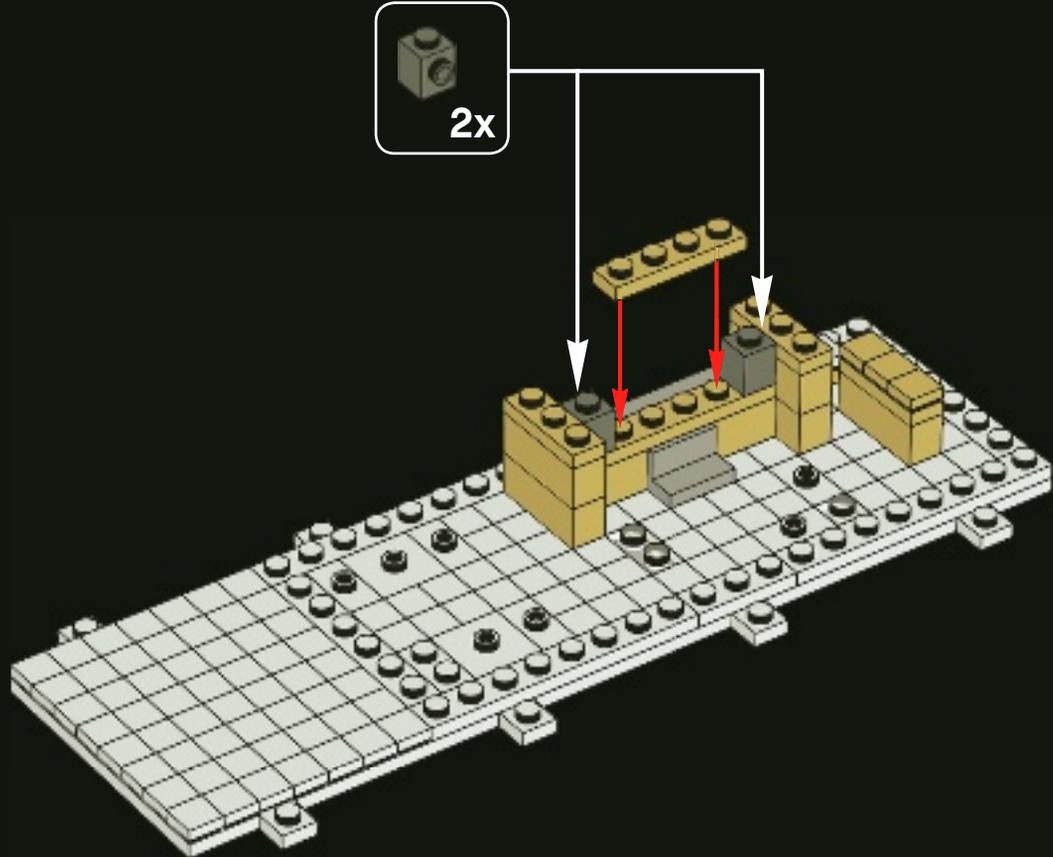


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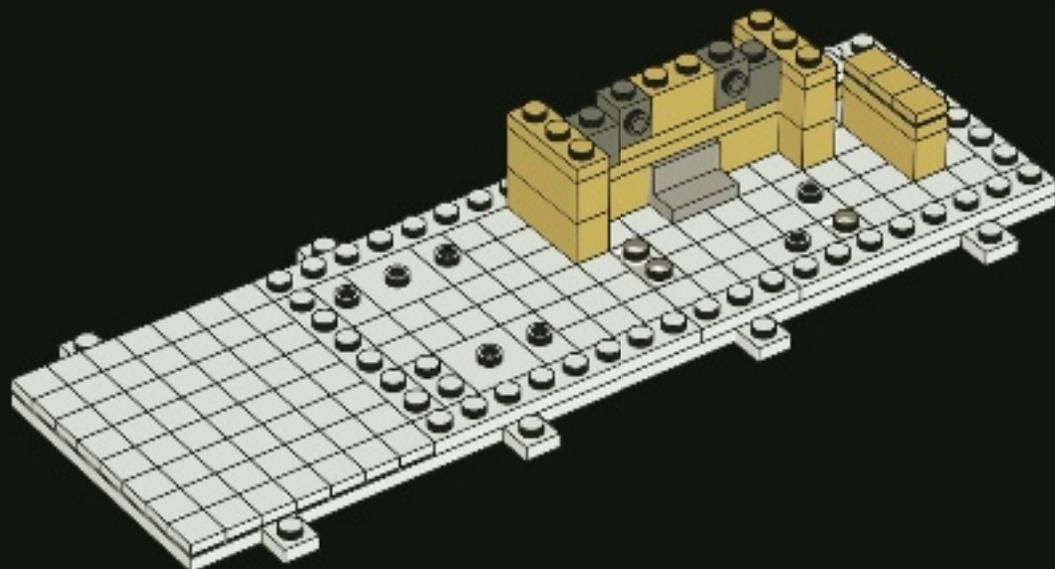


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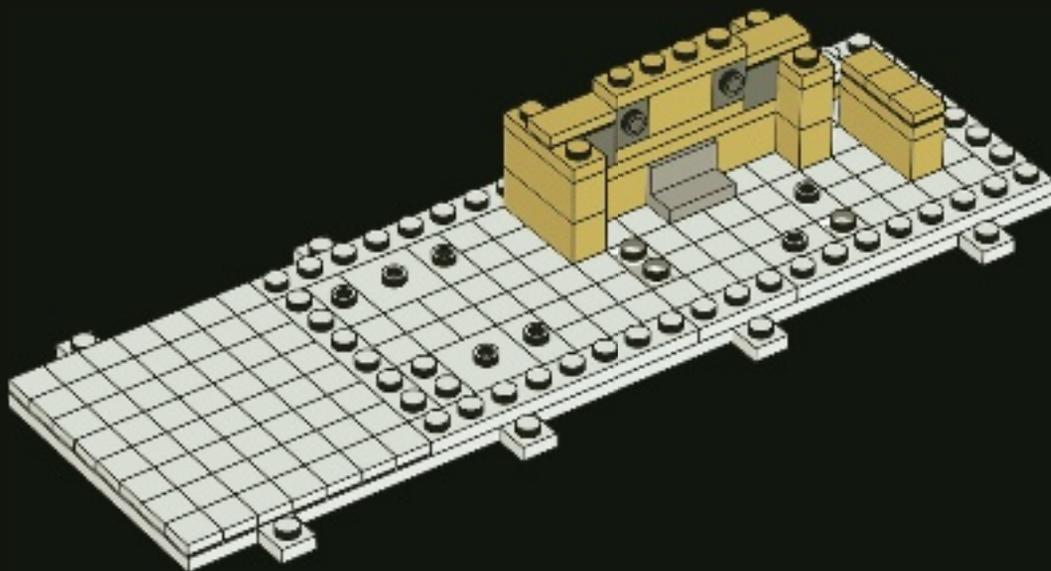


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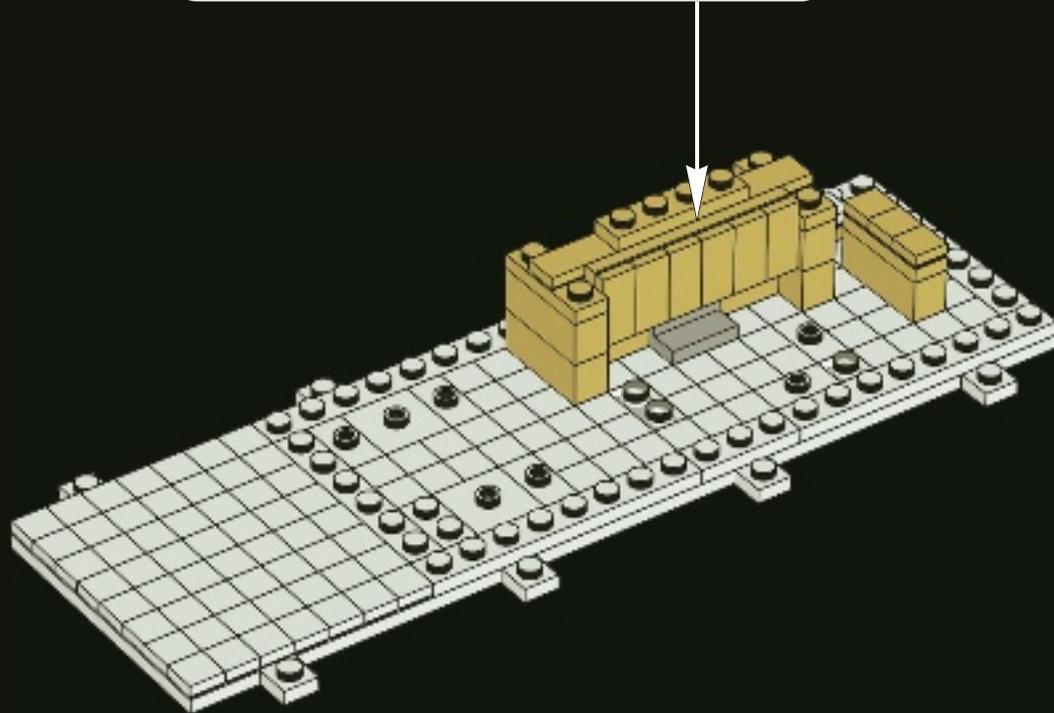
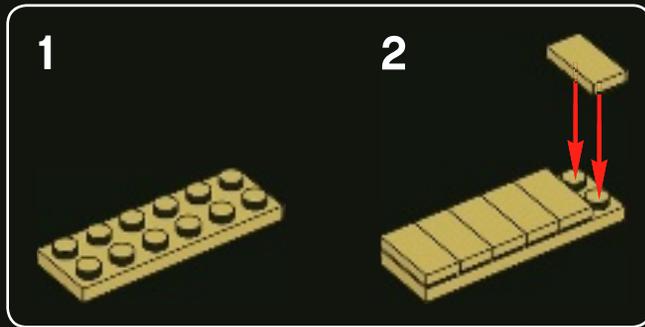
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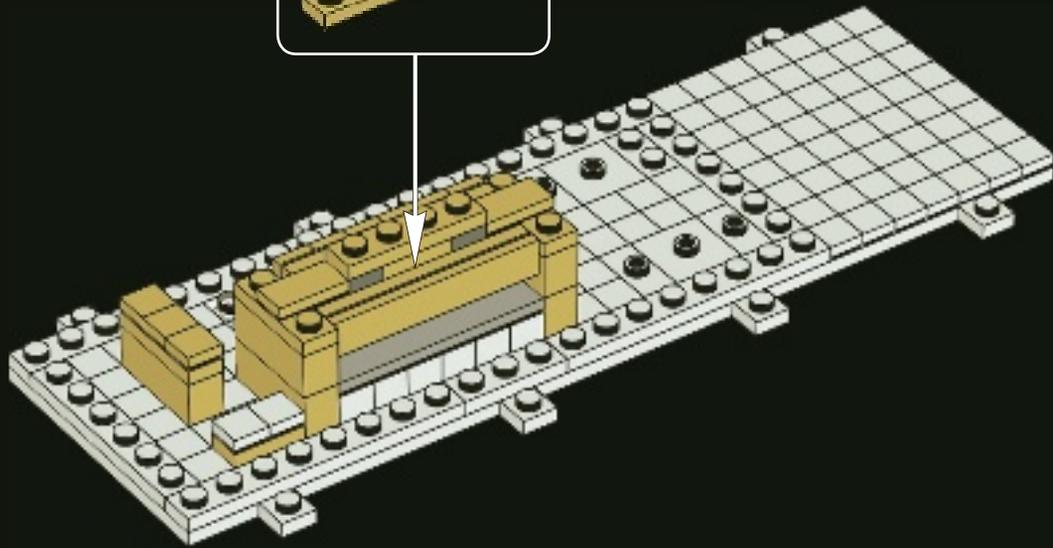
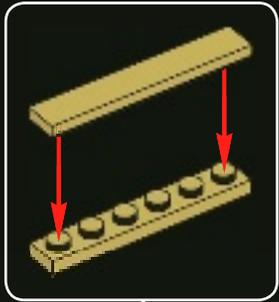


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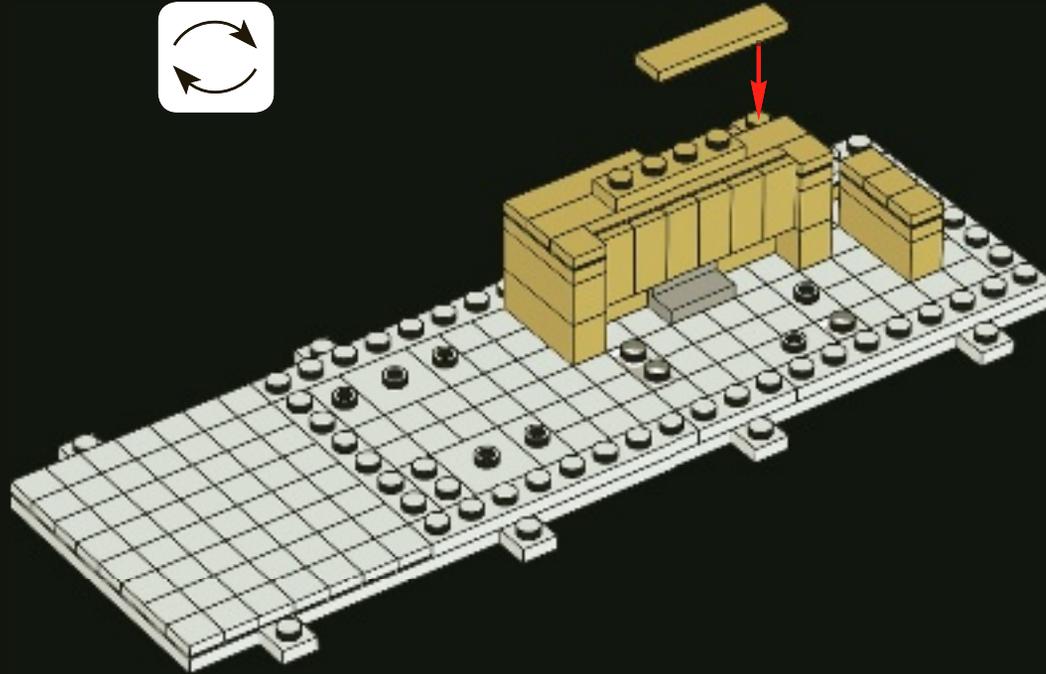


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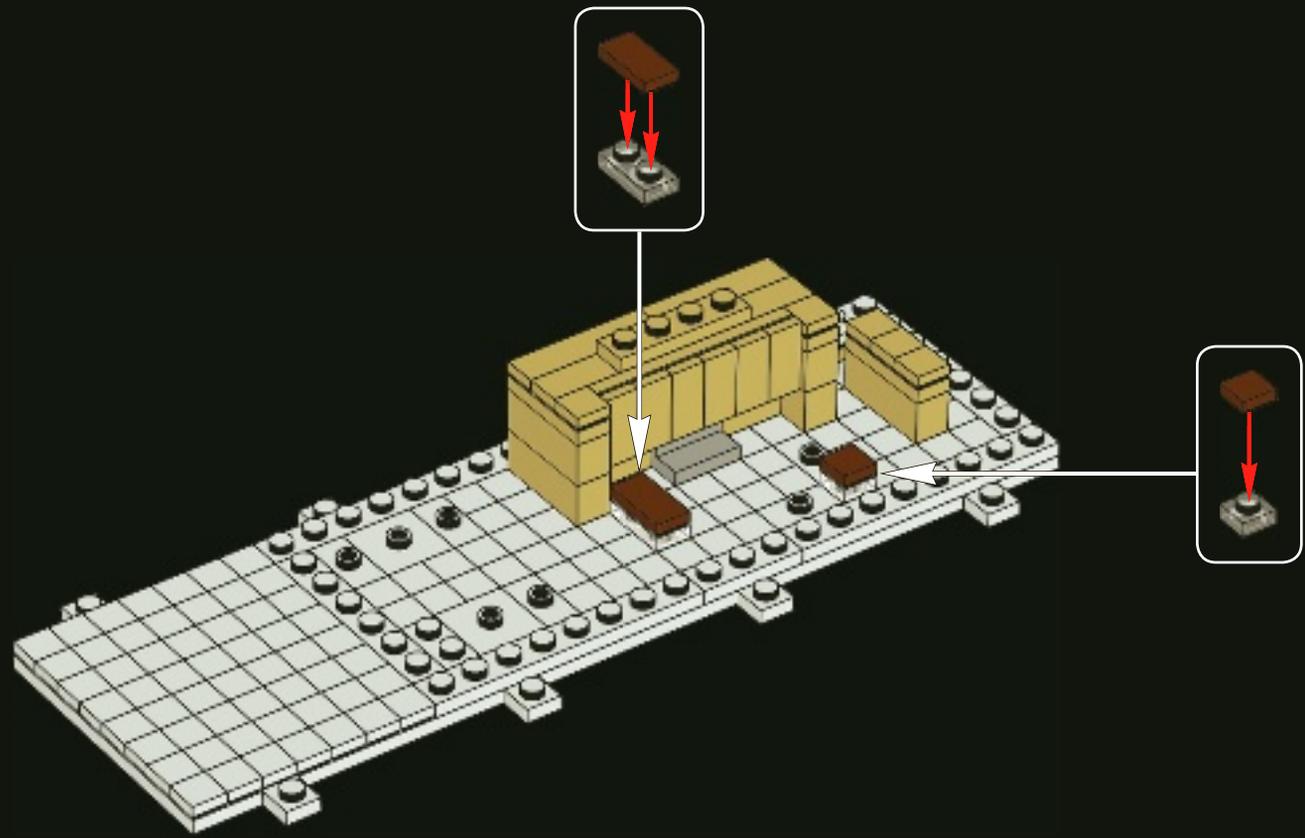


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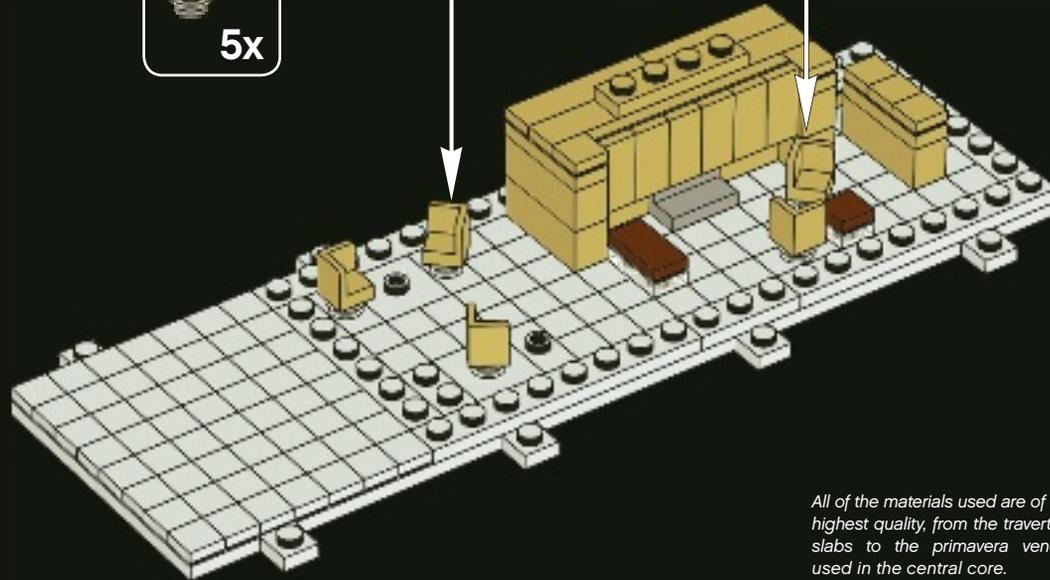


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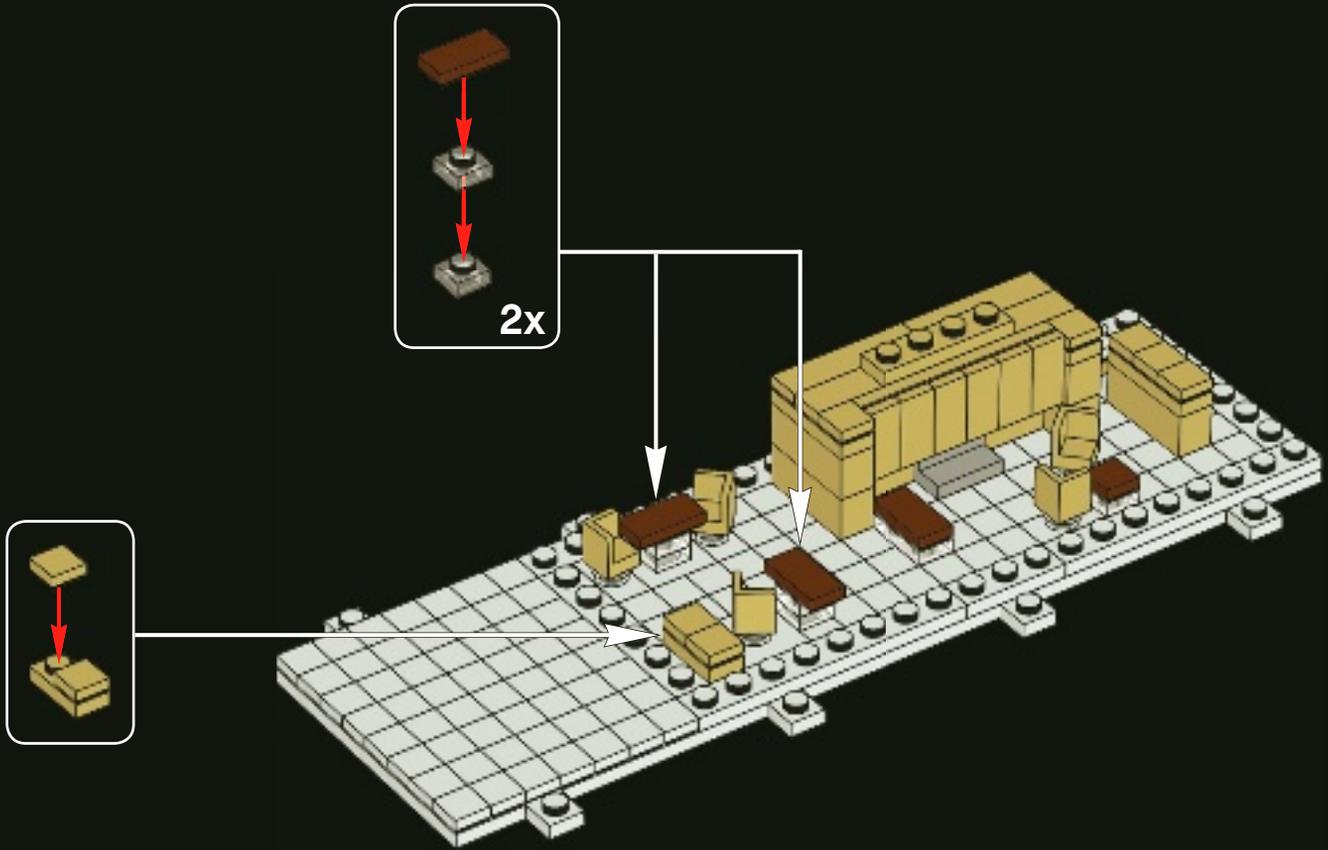


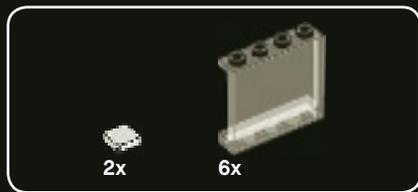
*All of the materials used are of the highest quality, from the travertine slabs to the primavera veneer used in the central core.*



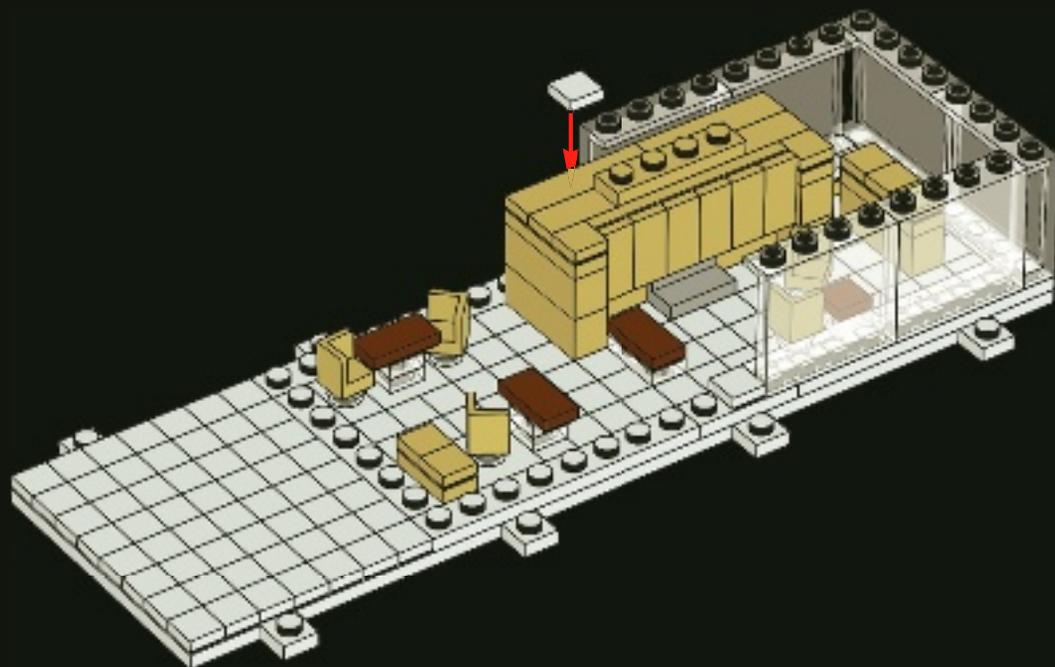


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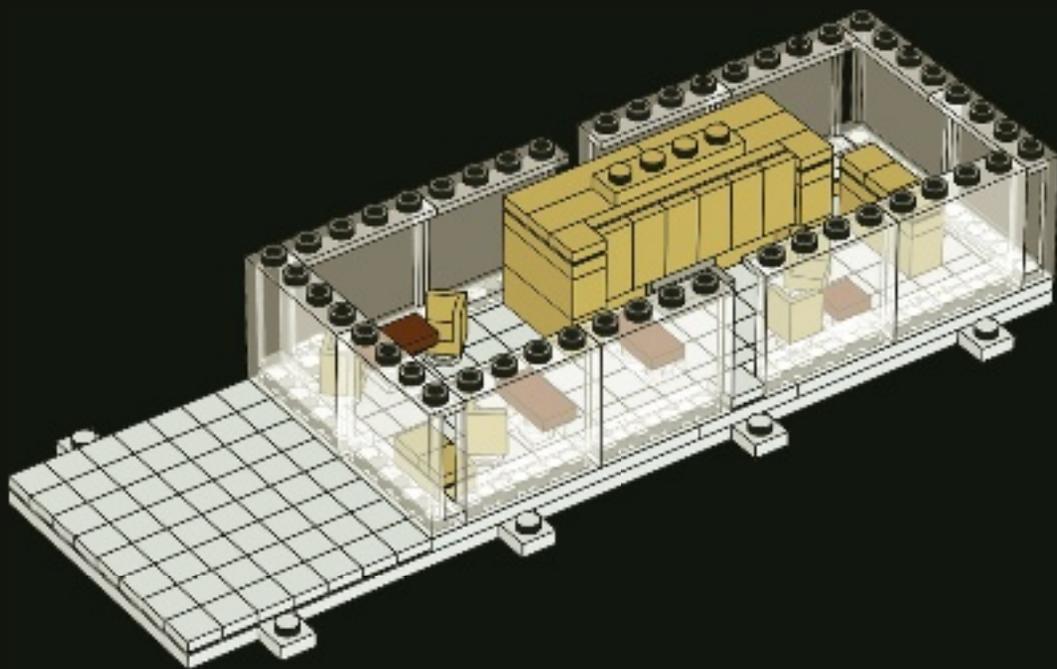
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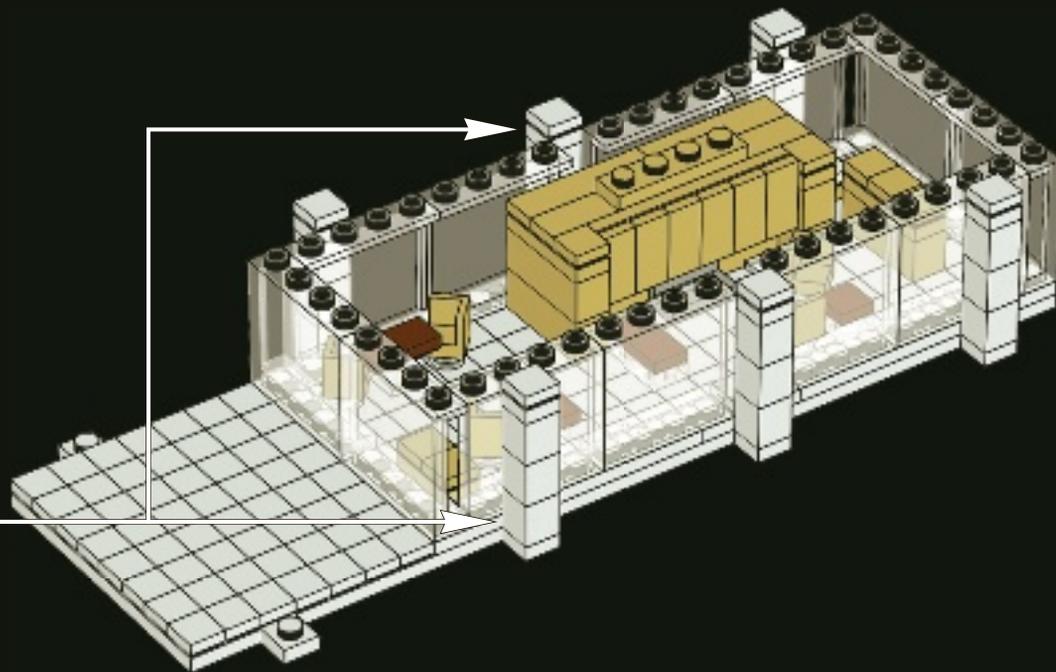
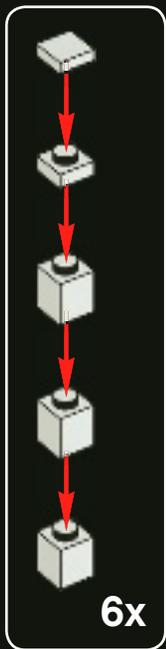


6x



6x

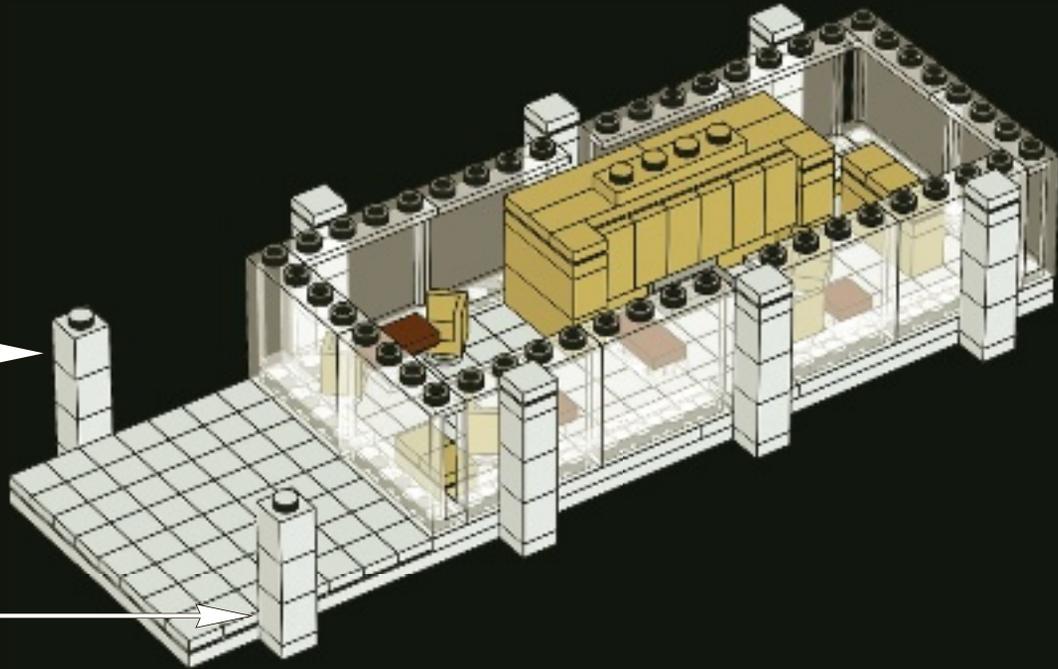
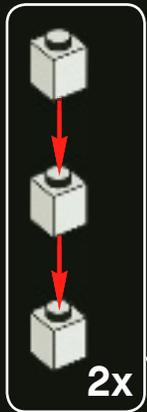
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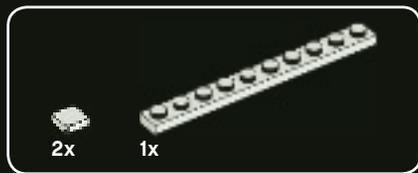




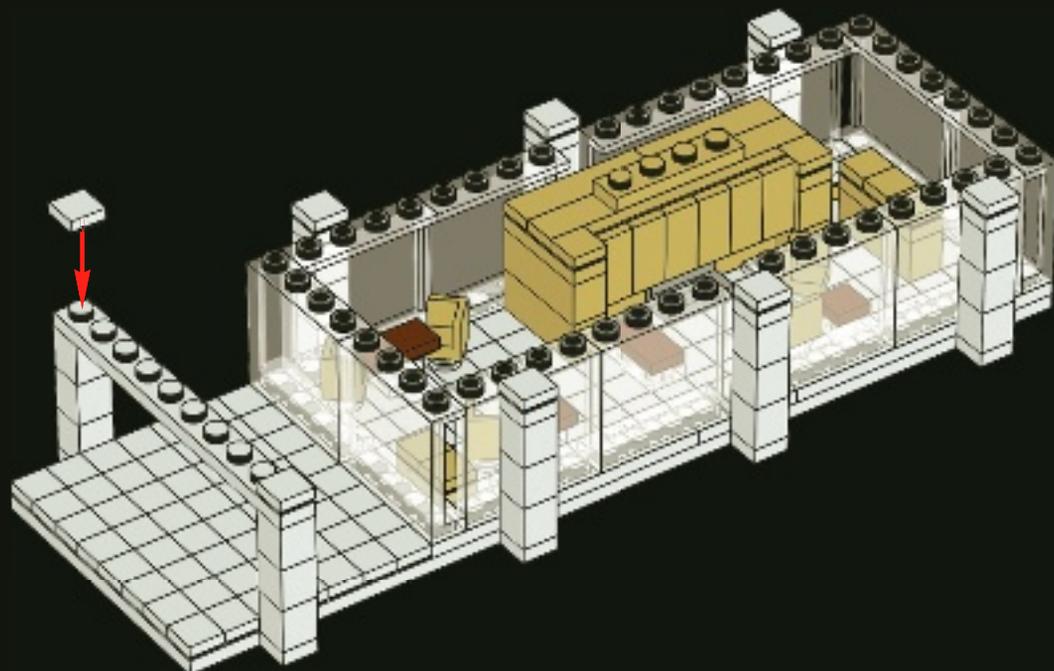
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# 28



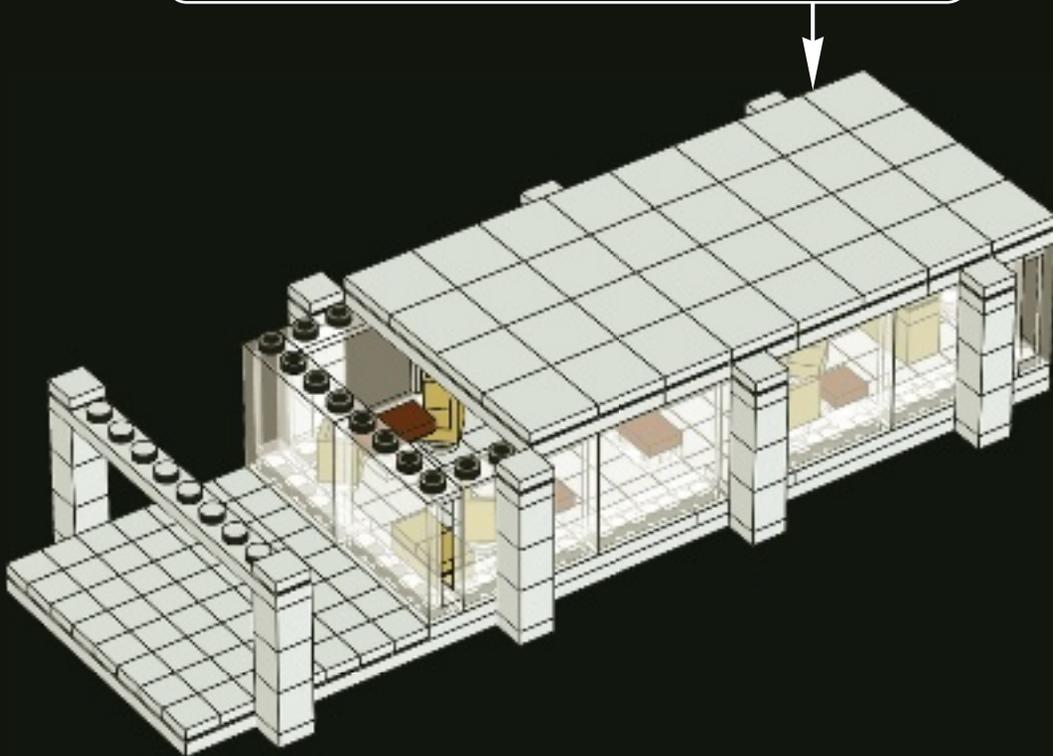
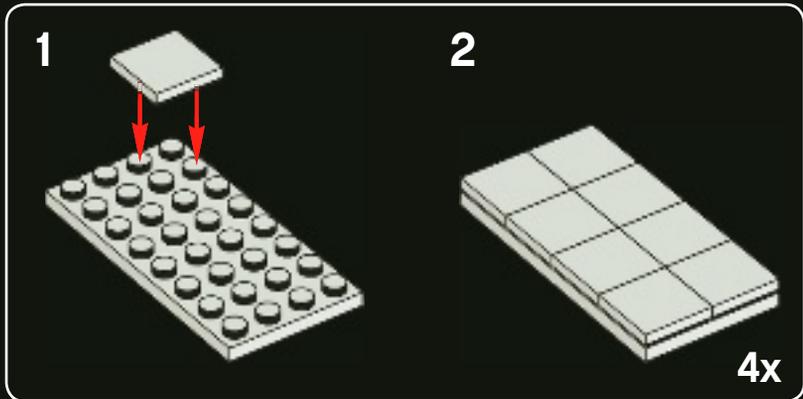


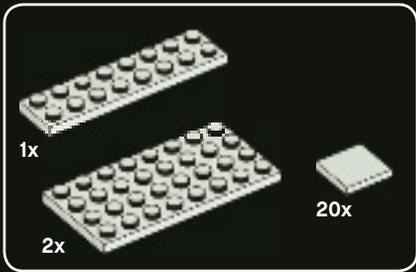
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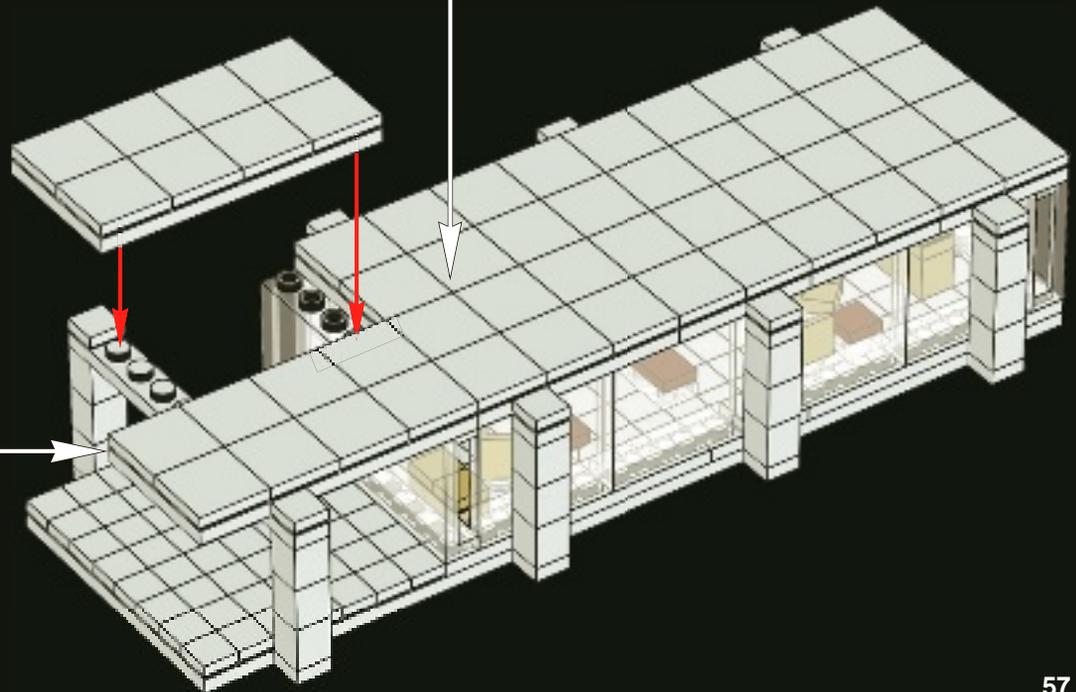
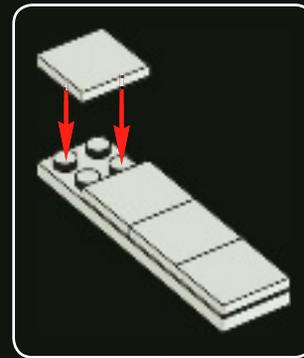
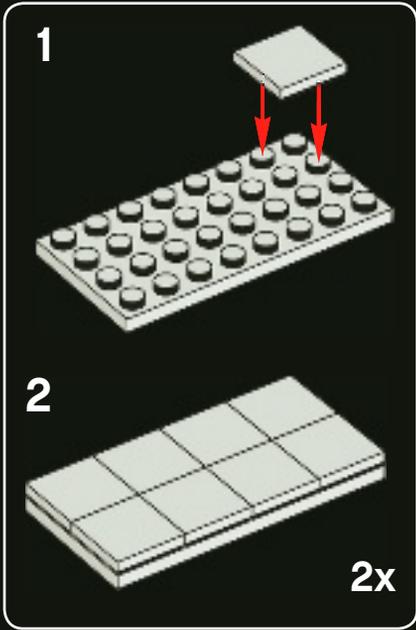


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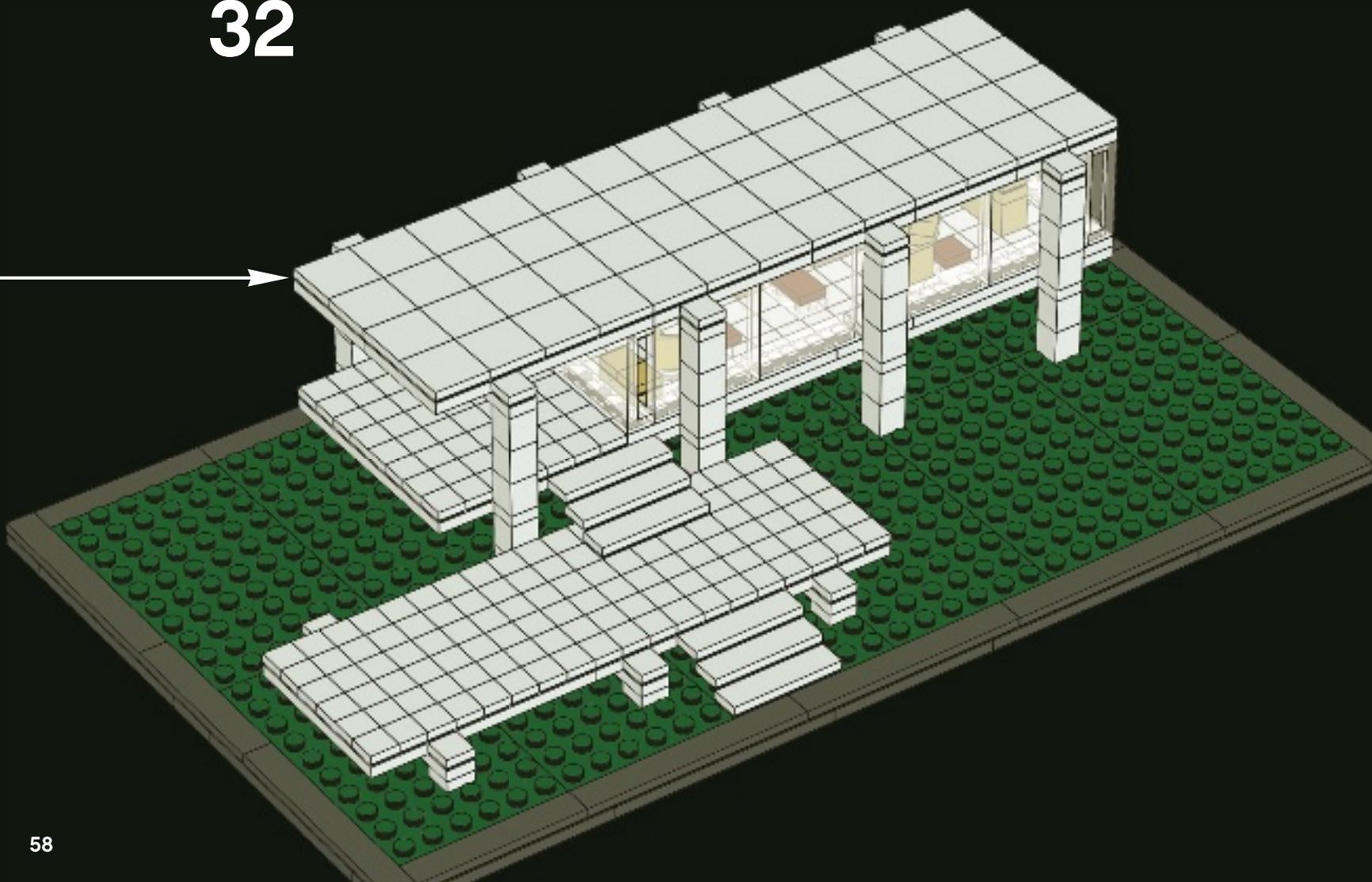




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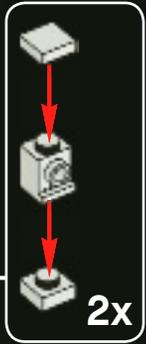
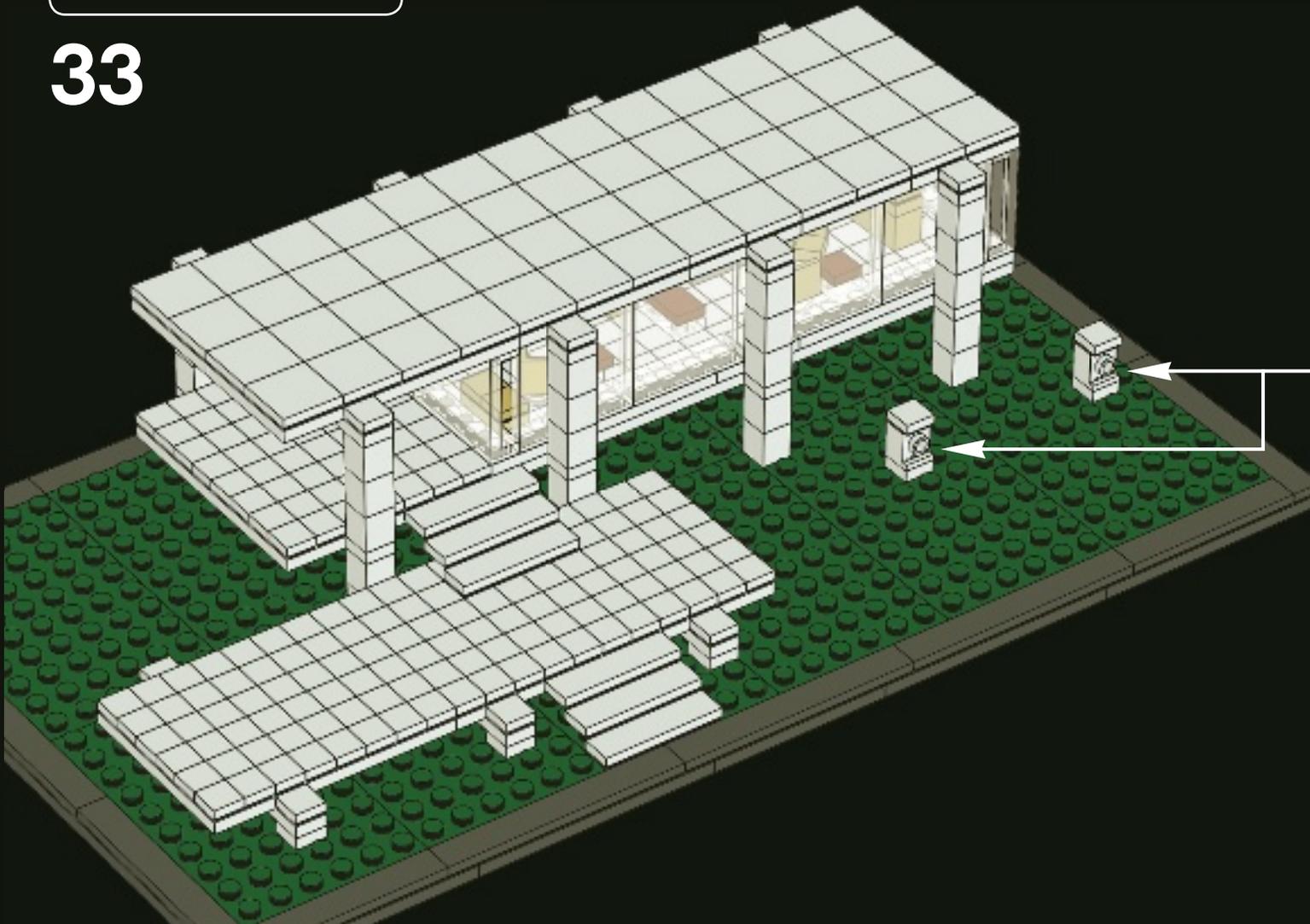


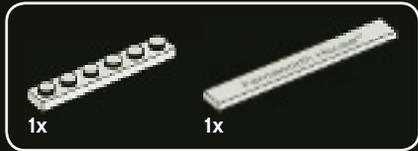
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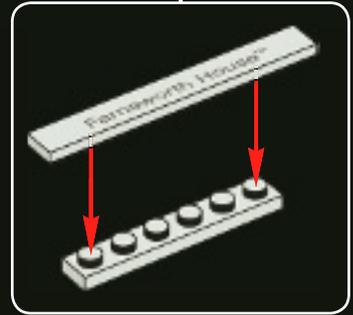
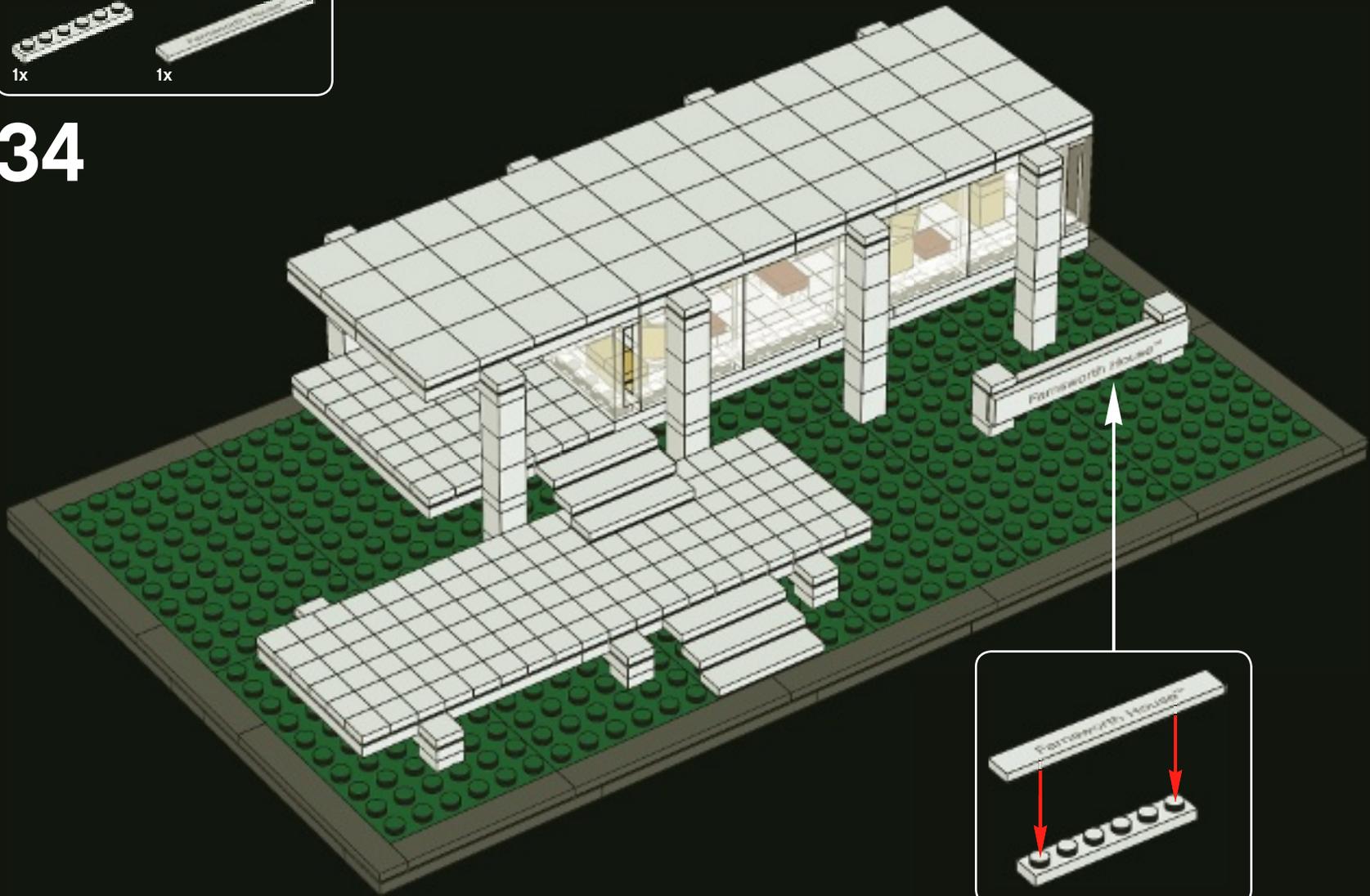


# 33





# 34



## A Word from the Artist

As an Architectural Artist my desire is to capture the essence of a particular architectural landmark into its pure sculptural form. I first and foremost do not view my models as literal replicas, but rather my own artistic interpretations through the use of LEGO® bricks as a medium. The LEGO brick is not initially thought of as a material typically used in creating art or used as an artist's medium. I quickly discovered the LEGO brick was lending itself as naturally to my applications as paint to a painter or metal to a blacksmith. As I explore how to capture these buildings with the basic shapes of the bricks and plates, I find the possibilities and challenges they offer almost magical.

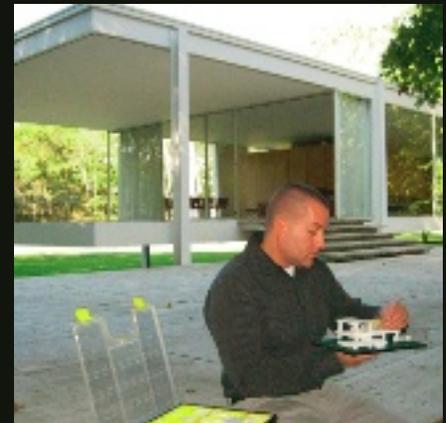
### Farnsworth House™

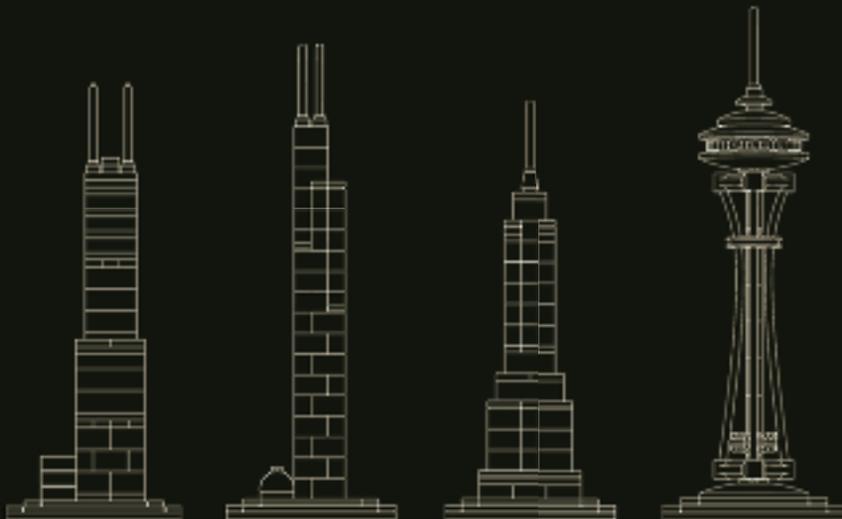
Celebrating our 10th model in the LEGO Architecture line we thought it would be a great opportunity to select our next Architect to further expand the Architect series. While there are many wonderful choices to consider, the decision was made to showcase a structure which seemed to have been designed using only ordinary LEGO bricks, lending itself perfectly for exploration as a potential model. Mies' Farnsworth House™ is a minimalist "Steel & Glass" modernist symbol of the 1950s. Like his earlier and equally well known Barcelona Pavilion, this structure delicately balances clean lines, volume of space, minimal structure, and expansive glazing, creating an inviting relationship between the natural and built environments. The challenge may not seem so obvious: straightforward design and basic LEGO elements, what else could you ask for? However, there are two not so obvious challenges even with a seemingly easy build, namely those of scale and proportion. The scale of the model needs to conform to an appropriate size which can capture all of the detail yet still be small enough to be manageable.

In this case, however, the scale would be determined solely by the proportions of the structure. In order to effectively replicate the balance between the refined white structural elements and expansive clear glazing, I would have to start with the smallest cross section I could make the vertical exterior columns. After several attempts combining different elements the most promising turned out to be using basic 1x1 bricks. Everything else essentially fell into place now that an implied 1x1 grid was defined: the inviting steps, the floating floor and roof decks, the understated furnishings and cleverly designed built-ins. It's fitting that recreating a minimalist symbol of modern architecture was done so with the simplest of LEGO bricks, the humble 1x1.



– Adam Reed Tucker





## References

Text credits:

National Trust for Historic  
Preservation®

Photo credits:

Farnsworth House™,  
a National Trust Historic Site

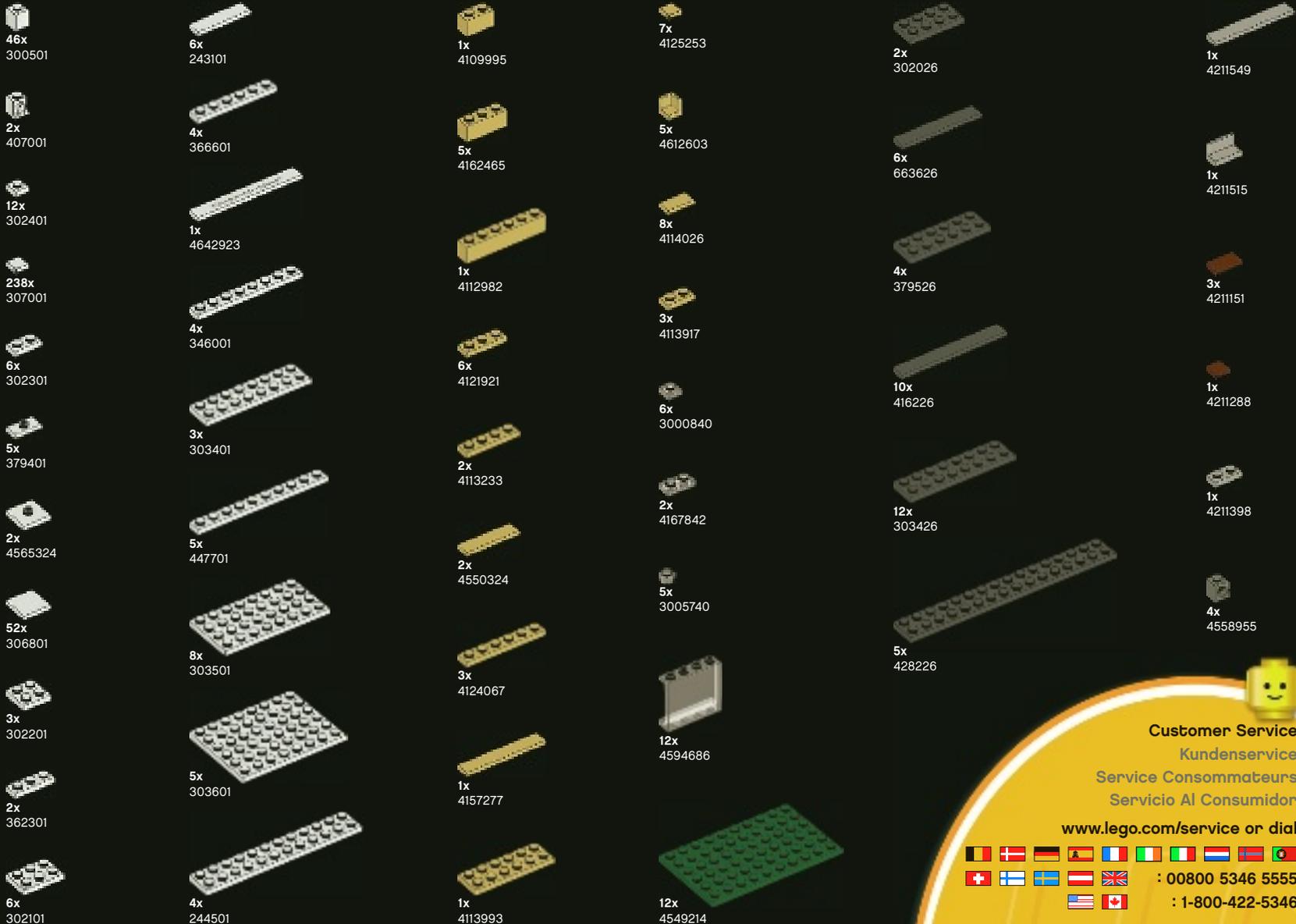
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