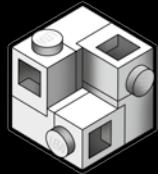


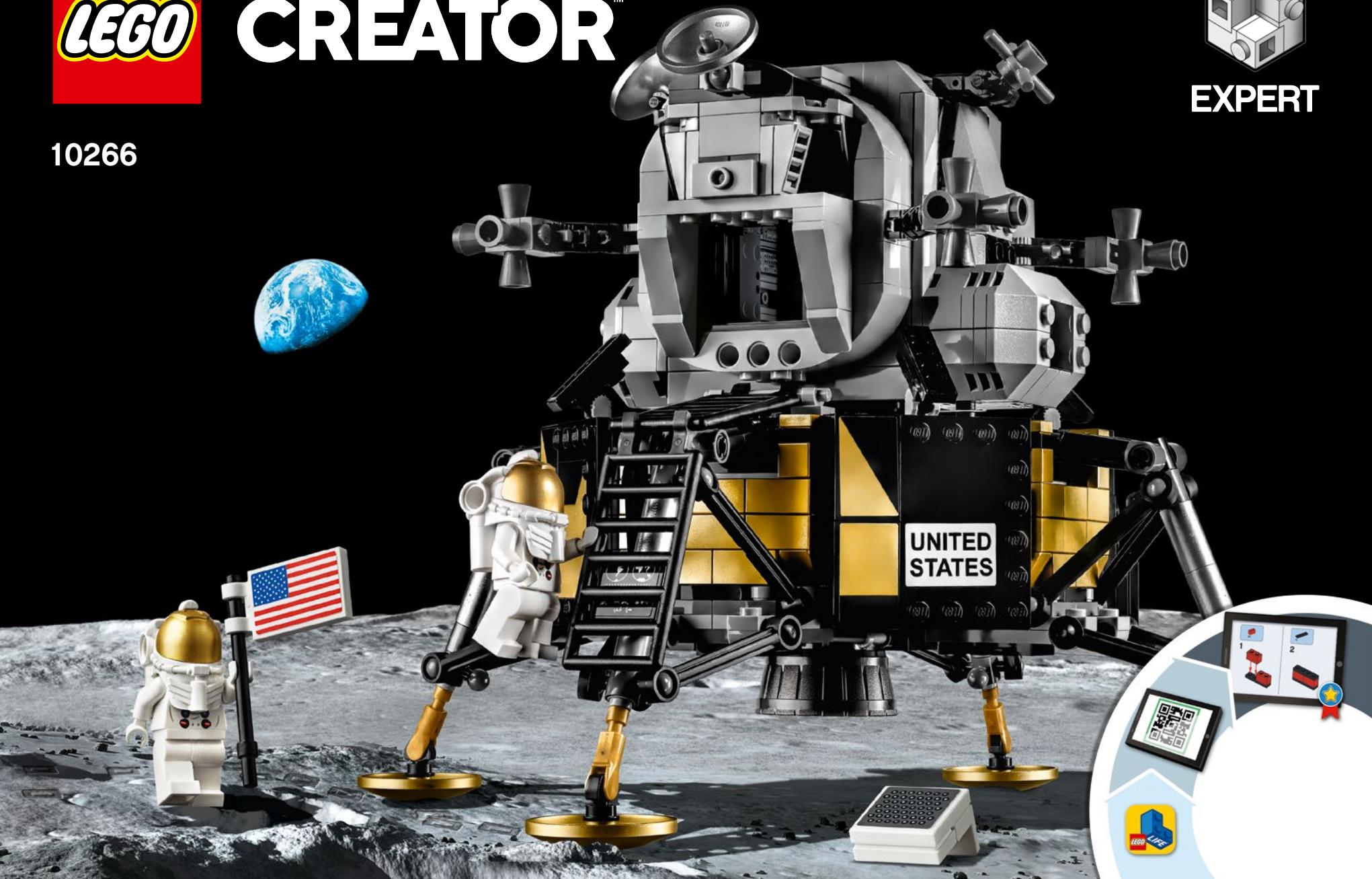


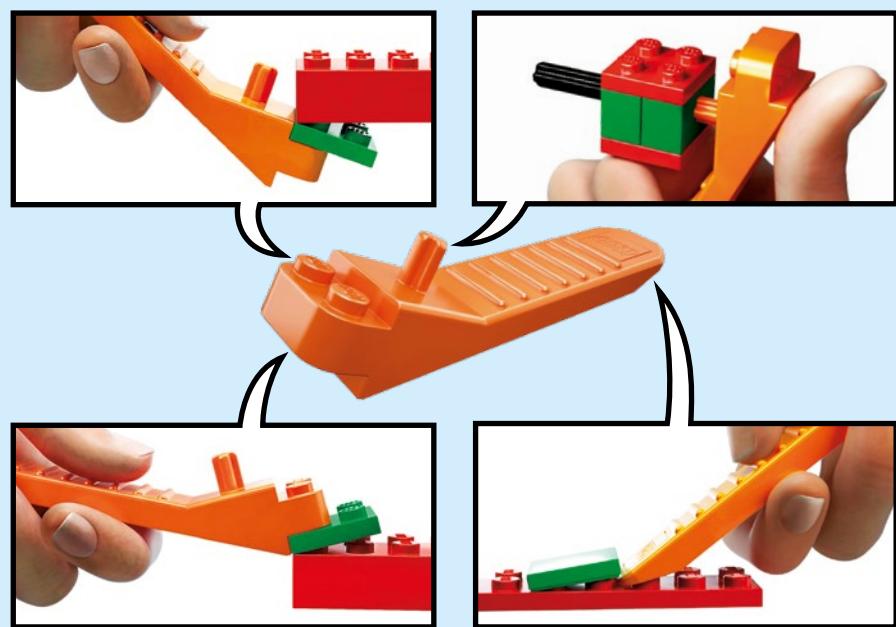
LEGO® CREATOR™



EXPERT

10266





LEGO.com/brickseparator



1 Download the LEGO® Life App
Lade dir die LEGO® Life App herunter
Télécharge l'application LEGO® Life
Télécharger l'application LEGO® Life
Scarica l'app LEGO® Life
Descarga la app LEGO® Life
Descarrega a App LEGO® Life
Töltsd le a LEGO® Life Appot!
Lejupielādē lietotni LEGO® Life
下载 LEGO® Life 应用程序



2 Scan the code on the front cover
Scanne den Code auf der Titelseite
Scanne le code sur la page de couverture
Scanner le code sur la page couverture
Scansiona il codice sulla copertina
Escanea el código de la portada
Faz scan do código na frente da capa
Olvasd be a borítón látható kódot!
Noskenē kodu uz priekšējā vāka
扫描封面上的二维码



3 Get the Building Instructions
Hol dir die Bauanleitung
Obtiens les instructions de montage
Obtenir les instructions de montage
Scarica le istruzioni per la costruzione
Consulta las instrucciones de construcción
Obtém as Instruções de Construção
Szerezd be az építési útmutatókat!
Sañem būvēšanas instrukcijas
获取拼搭说明

LEGO.com/apps

Check for compatibility
Kompatibilität prüfen
Vérifier la compatibilité
Controlla la compatibilità
Comprueba tu compatibilidad

Verificar a compatibilidade
Ellenőrizd a kompatibilitást
Pārbaudīt saderību
检查兼容性



**“We choose
to go to
the Moon”**

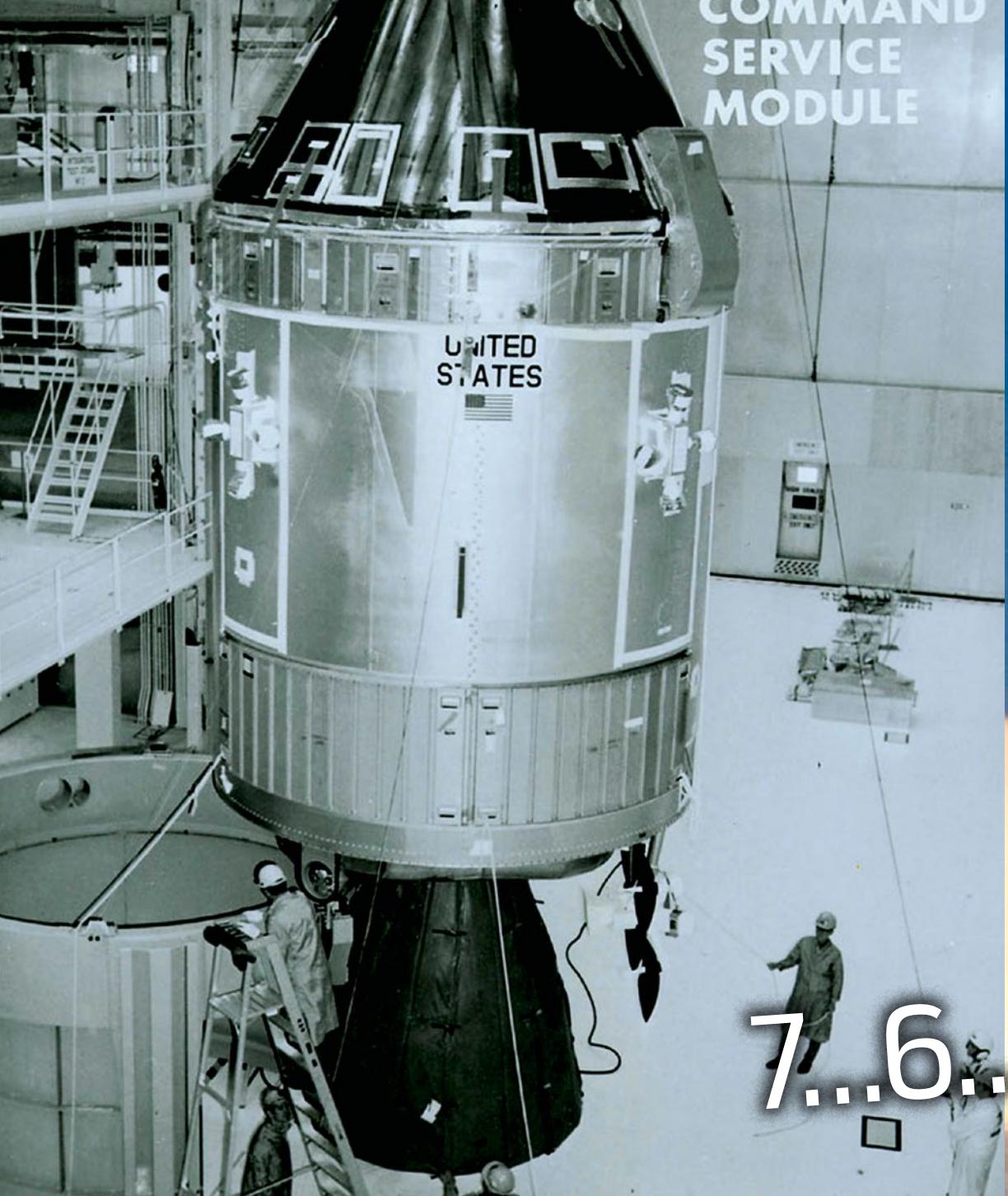


The Race to the Moon

Humanity's sense of wonder, fascination and awe of space is as old as humanity itself. But our desire to explore the universe beyond the realms of earth did not take flight until the 1960s. Following John F. Kennedy's declaration that America would put a man on the Moon (and return him safely to Earth) by the end of the 1960s, NASA led the way, placing the USA firmly at the front of the global race to explore space.

Others may have ventured into the vacuum of space, but it was on the 20th of July 1969, that a human footprint first made contact with the surface of the Moon. The landing of the Apollo Lunar Lander was broadcast live to a global audience. It was a moment that captivated the world and changed space travel forever.





7...6...IGNITION

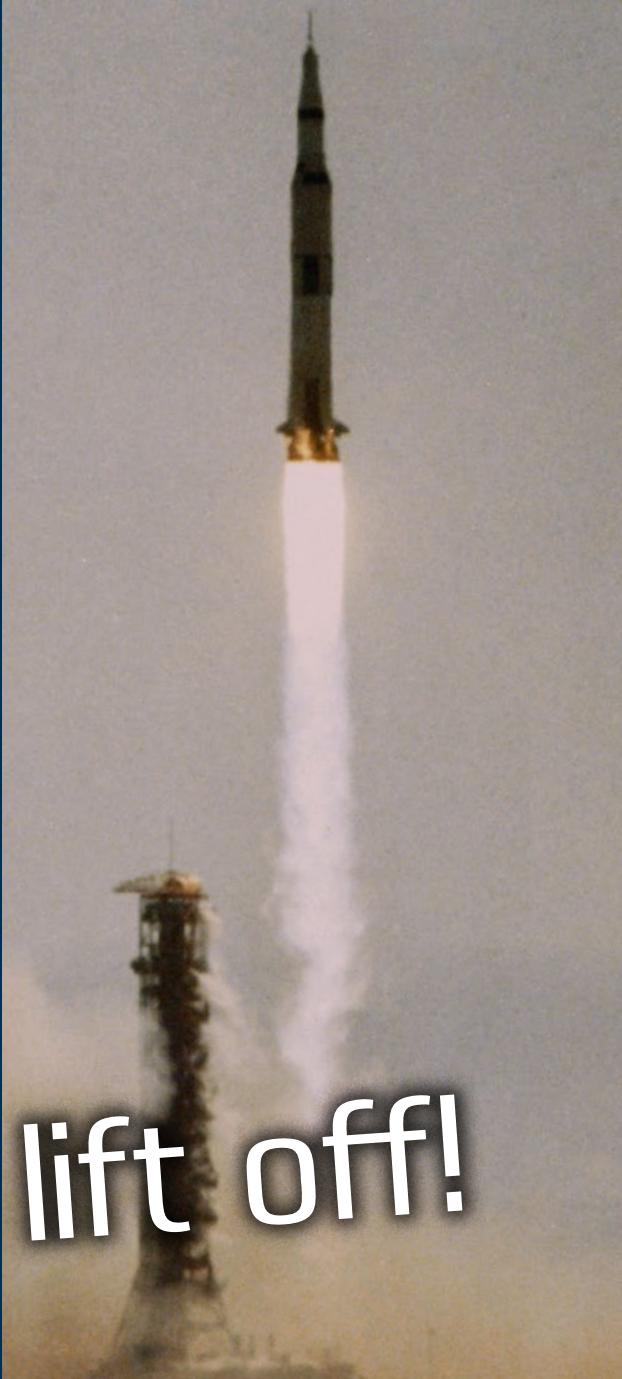


Did you know...

...it was a lingerie manufacturer who won the contract to develop the spacesuits worn by the crew of Apollo 11?

... the craft of 'weaving' by female factory workers inspired the core rope memory of the onboard guidance computer?

...And lift off!



A Pioneering Vehicle

The Apollo 11 Lunar Lander "Eagle" was an extraordinary vehicle, representing the first crewed vehicle to land anywhere beyond Earth, and the vehicle that brought the first man onto the Moon.

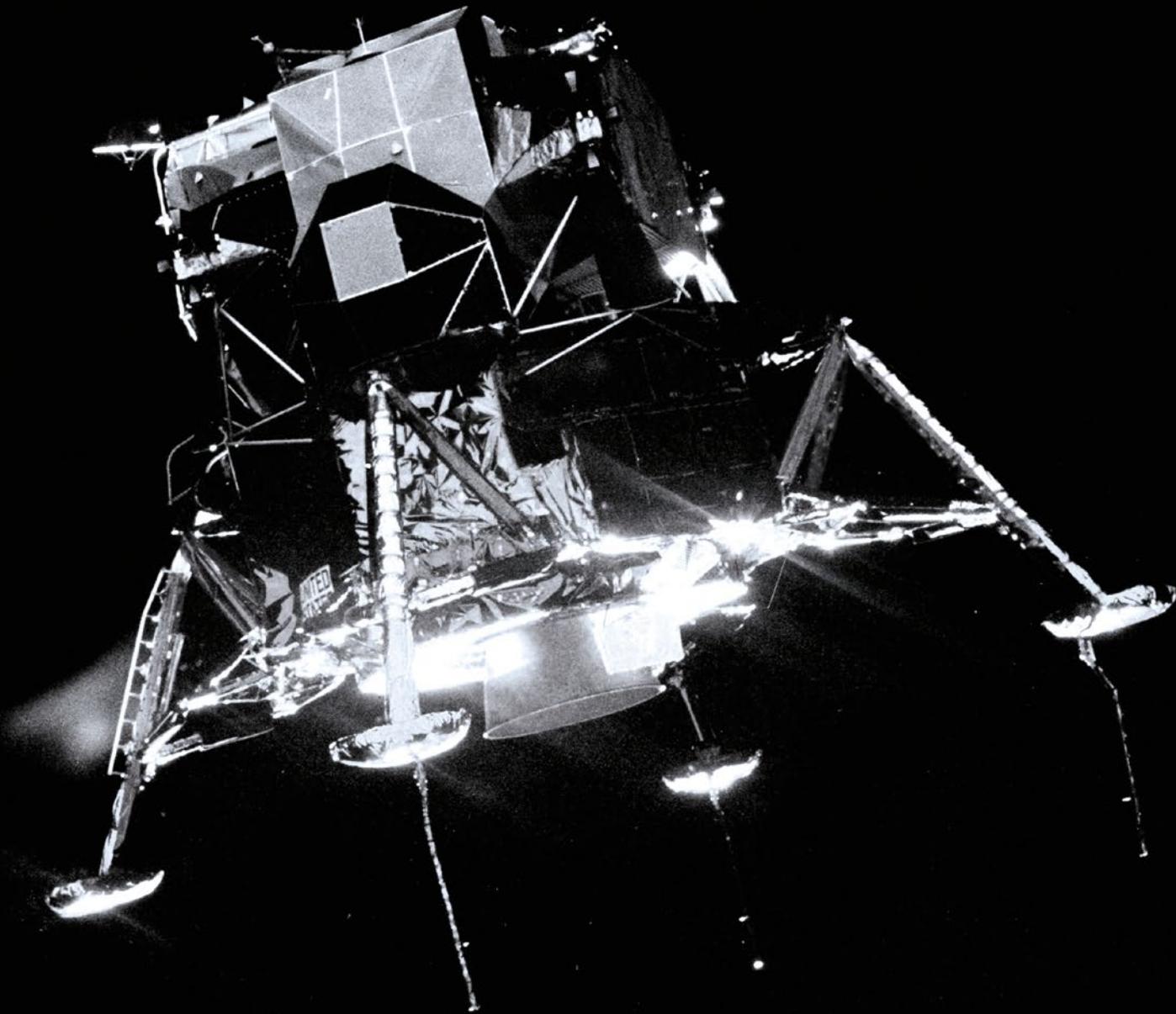
But more than that, the fragile-looking spacecraft represents humankind's curiosity, ingenuity, technological skill, determination and bravery. It illustrates how creative lateral thinking and perseverance can bring immense advances for the benefit of all mankind.



A Tribute to Creativity and Innovation

This LEGO® Creator Expert tribute to the Apollo 11 Lunar Lander represents something truly astonishing, an authentic human marvel. Even now, over 50 years later and with the many changes we have experienced in our lifetimes, this vehicle was part of the creative and technological drive to put a human past the comfort zone of our atmosphere. The Apollo 11 Lunar Lander allowed us to venture into the vast unknown of space and touchdown on the Moon, and that is truly astounding.

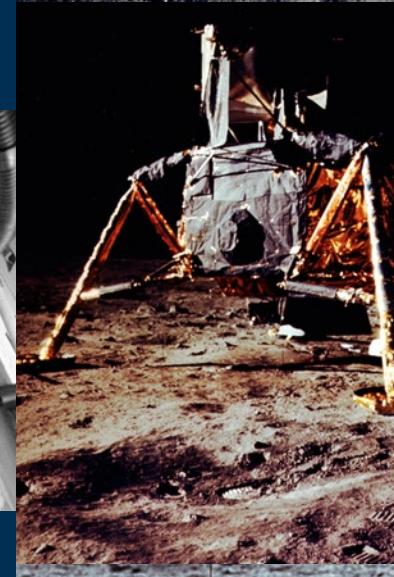
...Go for landing...



About NASA

In 1958, the National Aeronautics and Space Act was passed, expressing that "It is the policy of the United States that activities in space should be devoted to peaceful purposes for the benefit of all mankind." As a result, the National Aeronautics and Space Administration (NASA) was founded over 60 years ago for the purpose of leading the peaceful exploration of space, making discoveries about the Earth, its solar system, and the universe.

Since then, NASA research has not only led to the exploration of space, it has made great advances in aviation, helped to develop a commercial space industry, enriched the US economy, created jobs, and strengthened national security.

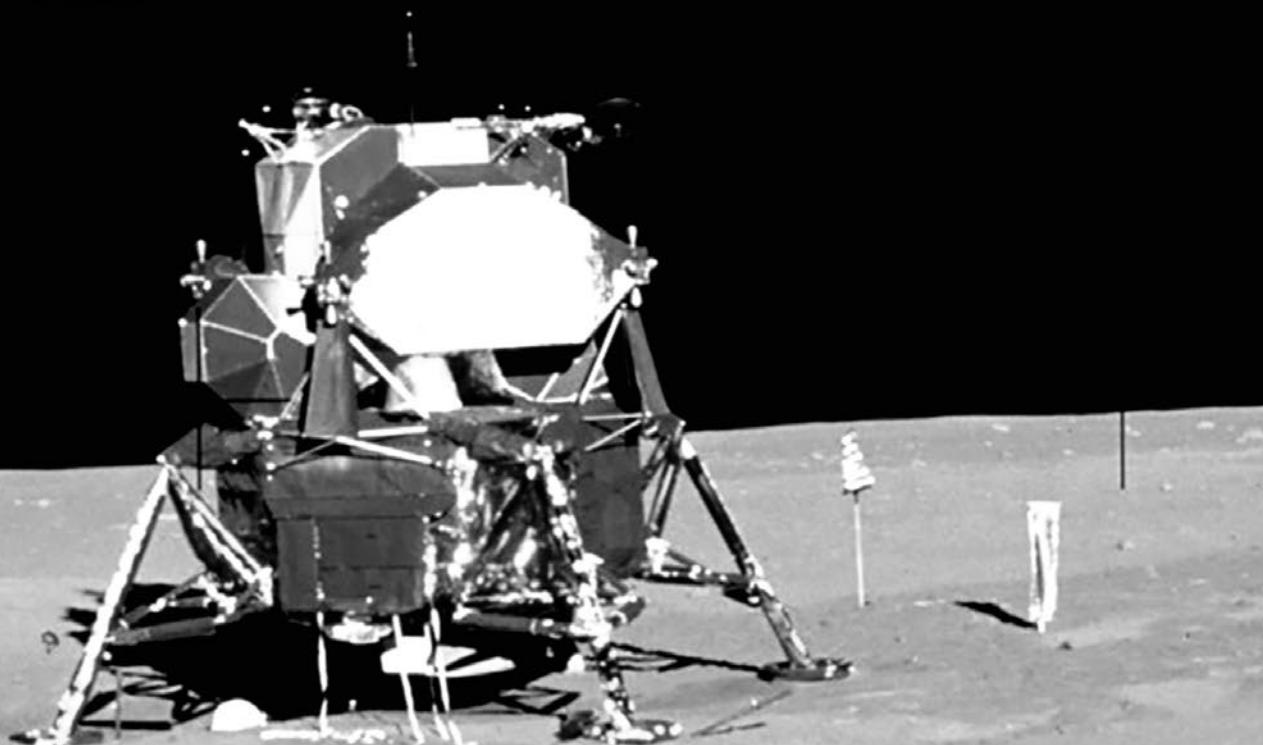


The Apollo Program

It was after a series of earlier Mercury, Gemini and Apollo missions, as well as the work of thousands of expert scientists, engineers and astronauts, that Neil Armstrong and Buzz Aldrin landed the Lunar Module on July 20th, 1969 and walked on the Moon. The entire program ran from 1961 to 1972 and set several human spaceflight milestones. Apollo 8 was the first manned spacecraft to orbit another celestial body, while the final Apollo 17 mission was the sixth Moon landing. The program was not only groundbreaking in terms of space exploration, it catalyzed technological development in avionics, telecommunications and computers.



“The Eagle has landed”



The Apollo 11 Mission Key Moments



July 16, 1969 - Apollo 11, the first manned space flight to land on the Moon, launched into space.



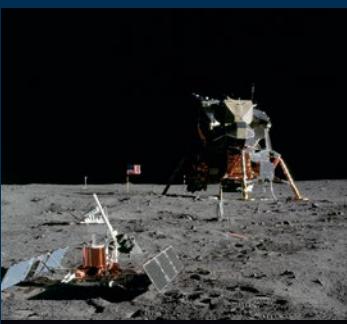
July 17, 1969 - Astronauts Neil Armstrong, Michael Collins and Edwin 'Buzz' Aldrin made their first TV transmission to Earth from space.



July 20, 1969 - Armstrong and Aldrin boarded the Lunar Lander "Eagle" and disengaged from the Apollo Command Module "Columbia."



The Lunar Lander touched down on the Moon in the "Sea of Tranquility."



The two astronauts spoke to President Richard M. Nixon from the Moon's surface. They spent 2.5 hours collecting samples, setting up equipment, taking pictures and leaving special items.



July 21, 1969 – After a rest period for the astronauts, the module ascended and returned to Command Module Columbia and docked, reuniting Armstrong and Aldrin with Collins. The Lunar Lander was then jettisoned into lunar orbit.



July 22, 1969 – On the way back to Earth, a midcourse correction and two more television transmissions were made.

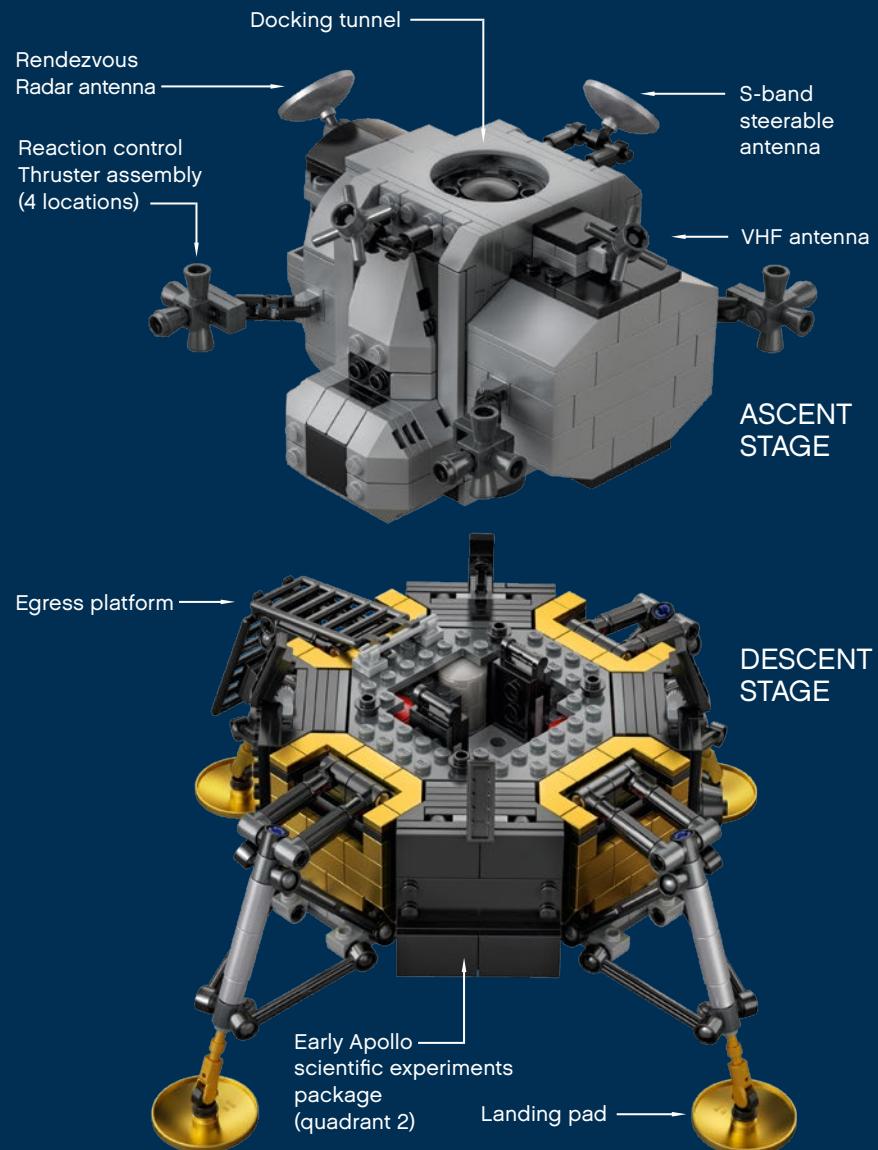
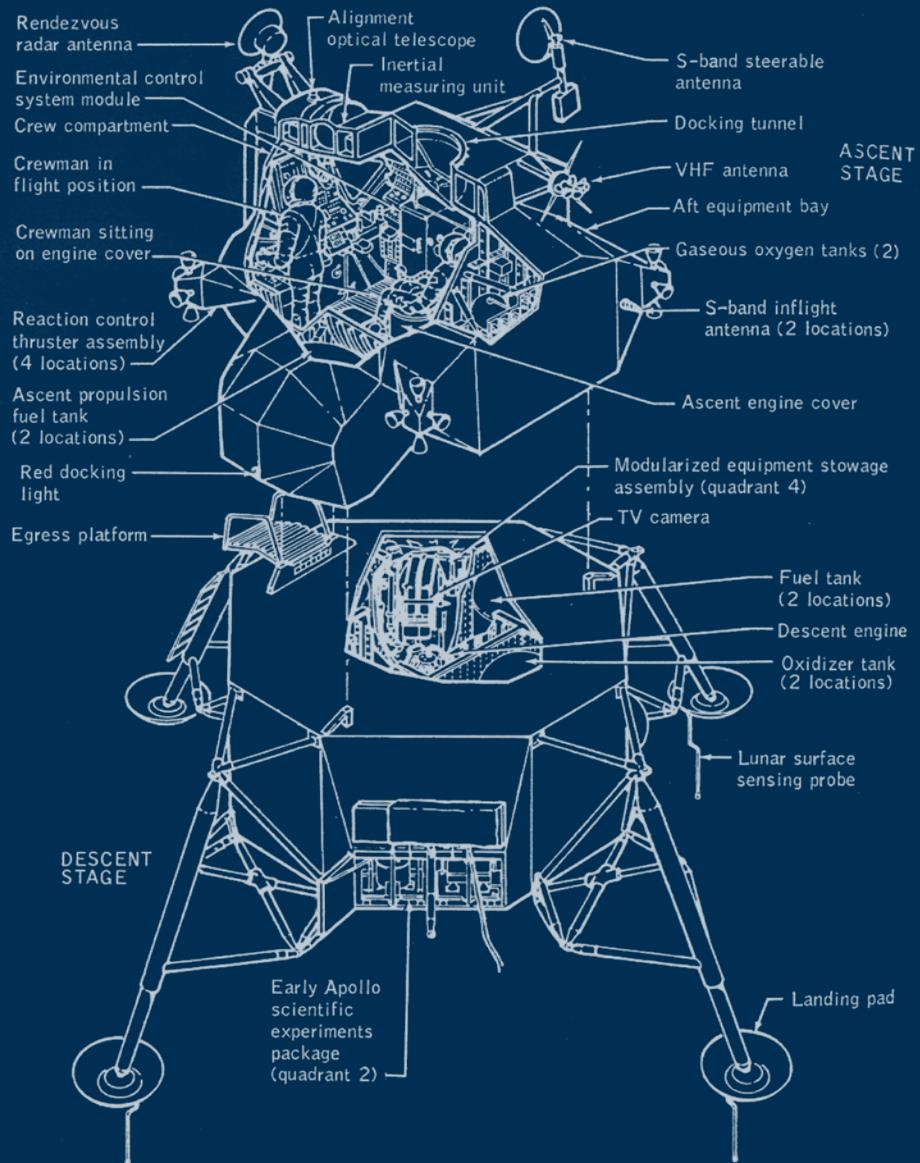


July 24, 1969 – The Apollo 11 capsule and astronauts on board landed back on Earth, splashing down into the Pacific Ocean.

“That's one small step for (a) man,
one giant leap for mankind”



Get to Know Your Lunar Lander



LUNAR MODULE CONFIGURATION FOR INITIAL LUNAR LANDING

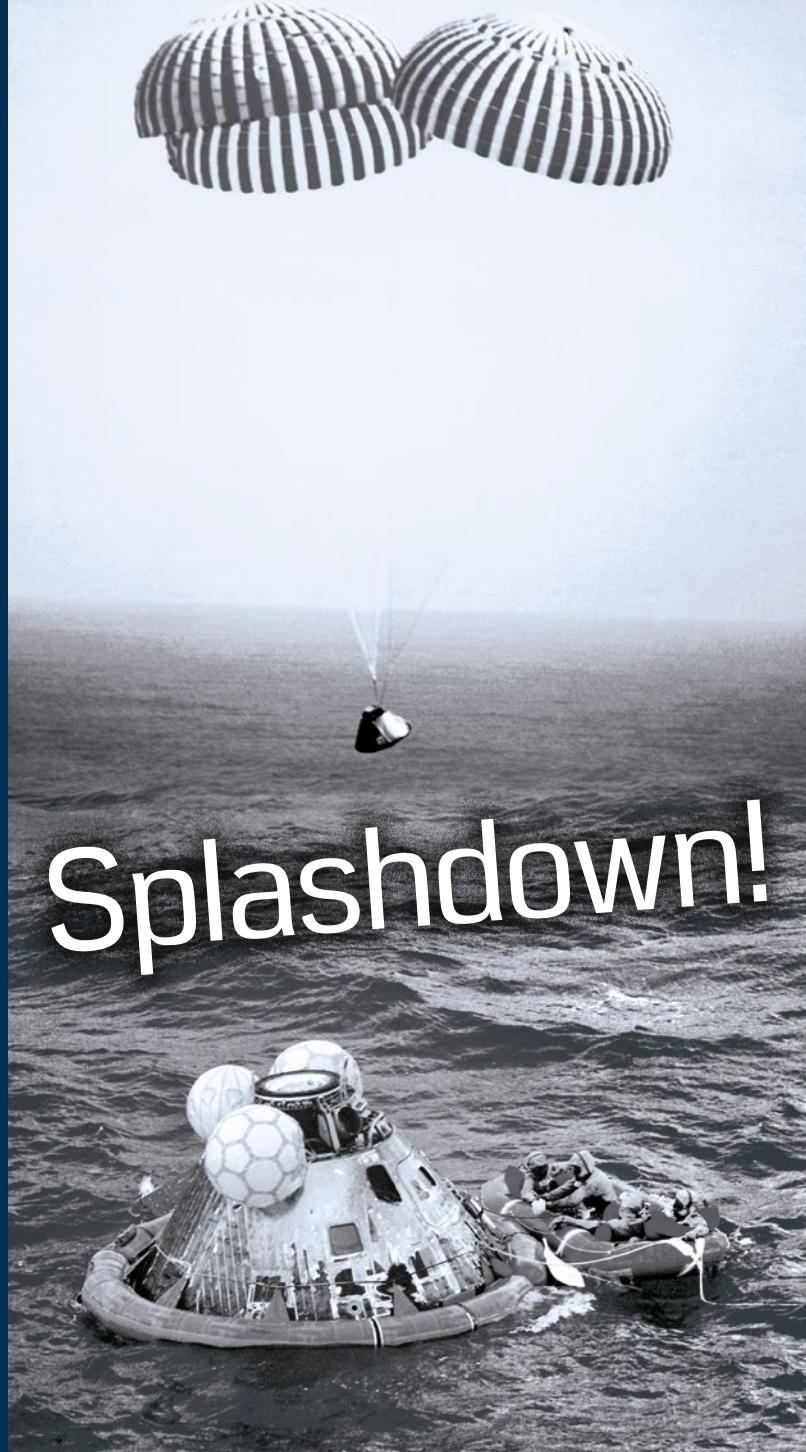


Lars Joe Hylding
Design Manager Specialist

Facts from the LEGO® Designer

For both the actual Lunar Lander and our LEGO® tribute, blueprints like these are the beginning of every design process. This is how the design of the original module was translated into LEGO bricks.

The golden bricks represent the foil that the Lunar Lander was wrapped in, for thermal and micrometeoroid protection. The two main elements of the Lunar Lander are the ascent stage and the descent stage. On the ascent stage, among other things, I focused mostly on the “face” with the two windows and the door. The ascent stage has a lot of angles that I had to build in a more simplified way due to the scale. On the descent stage, among other things, I focused on capturing the octagon shape, the legs, and the shiny foil.



Did you know...

...designed by MIT, the computer on board the Lunar Lander, the Apollo Guidance Computer (AGC), provided the guidance, navigation and control of the spacecraft. The computer's performance was comparable to first-generation home computers available in the late 1970s, but is similar to a simple calculator today.

We Came in Peace ...

Humankind's initial step on the surface of a celestial object was born out of a race to be the first; the Moon landing, made possible by the Lunar Lander, was a huge achievement for American technological pride and prowess, as well as a tremendous moment for all humanity.

John F. Kennedy's bold and ambitious call to action did not end with the successful Apollo 11 mission; it set off a new era for NASA and for humanity's exploration of the unknown. NASA's work today still focuses on technological innovation and discovery, pushing boundaries toward human exploration of the Moon and Mars, and reaching beyond to find the answer to the question, "Are we alone?"

What was Left Behind

Many things were left on the Moon after that initial landing by the Eagle. Part of the descending rocket for returning the astronauts back to Earth, as well as the laser reflector and the footprints of the two astronauts still remain on the moon.

They also left an Apollo 1 mission patch, a memorial bag with a gold replica of an olive branch as a traditional symbol of peace, and a silicon message disk with the goodwill statements of U.S. presidents Eisenhower, Kennedy, Johnson and Nixon, and messages from leaders of 73 countries around the world.

Commemorative medallions were also left on the surface of the Moon, that honor the memories of the Apollo 1 astronauts who lost their lives in a launchpad fire, and two cosmonauts who also died in accidents.



**“To discover and
expand knowledge for the
benefit of humanity.”**





« Nous choisissons d'aller sur la Lune »

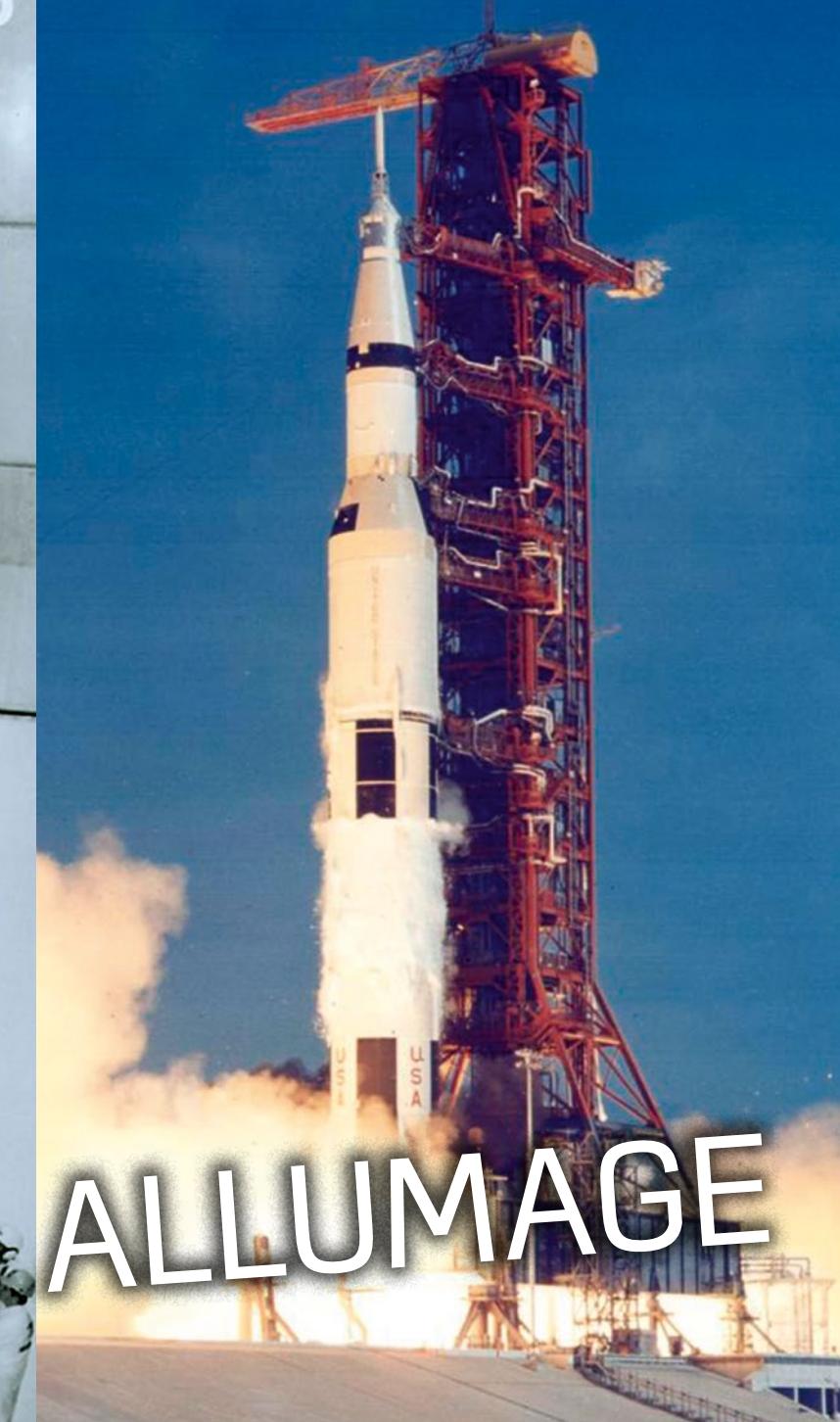
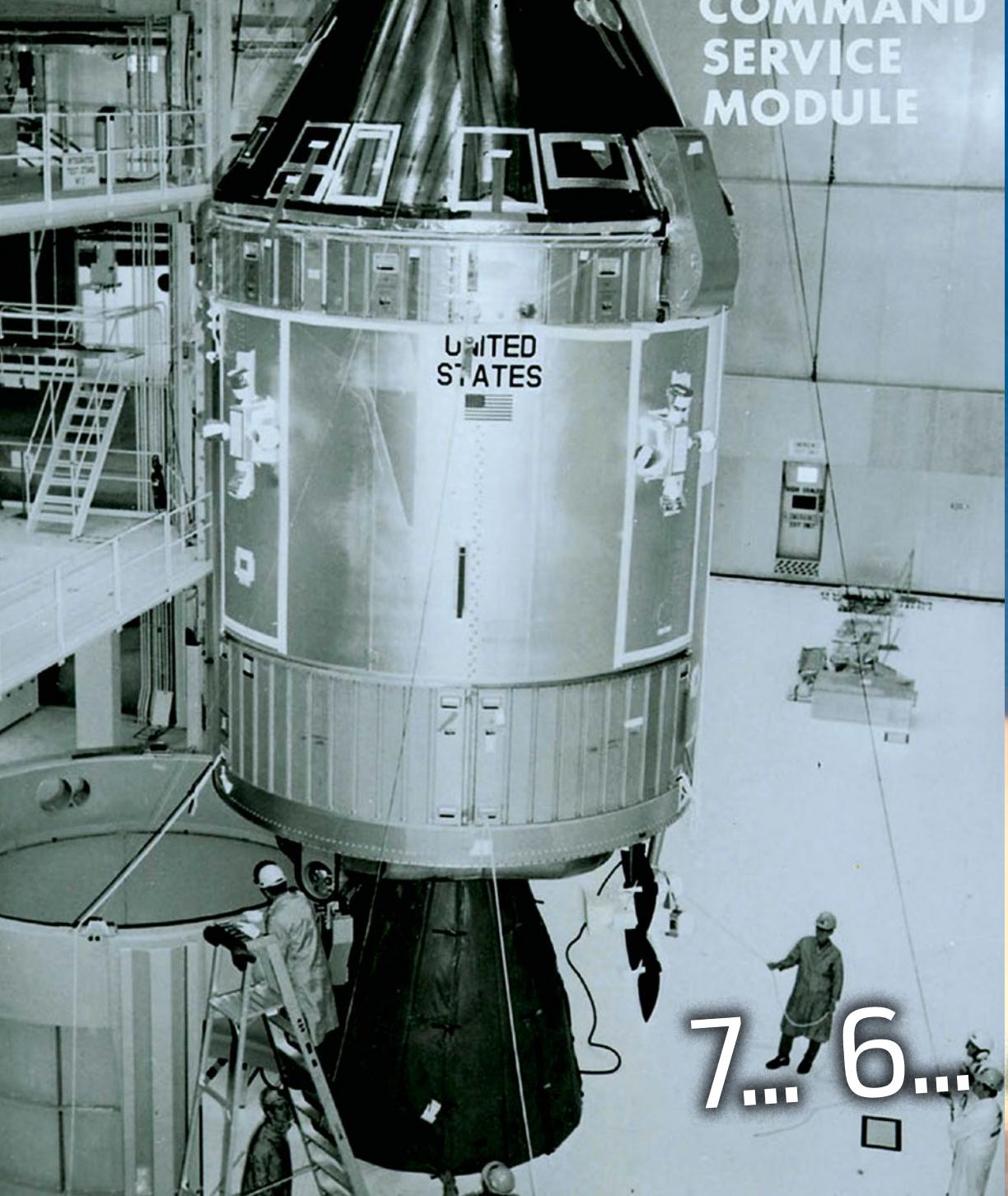


La course à la Lune

Le sentiment d'émerveillement, de fascination et de crainte de l'humanité devant l'espace est aussi vieux que l'humanité elle-même. Or, il a fallu attendre les années 1960 pour assouvir notre désir d'explorer l'univers au-delà des frontières terrestres. À la suite de la déclaration de John F. Kennedy selon laquelle l'Amérique enverrait un homme sur la Lune (et le ramènerait sain et sauf sur Terre) d'ici la fin des années 1960, la NASA a ouvert la voie, plaçant indéniablement les États-Unis à l'avant-garde de la course mondiale à l'exploration spatiale.

D'autres se sont peut-être aventurés dans le vide spatial, mais c'est le 20 juillet 1969 qu'un pied humain est entré pour la première fois en contact avec la surface de la Lune. L'atterrissement du module lunaire Apollo a été retransmis en direct à un public mondial. Ce moment a captivé le monde et a changé le voyage spatial pour toujours.



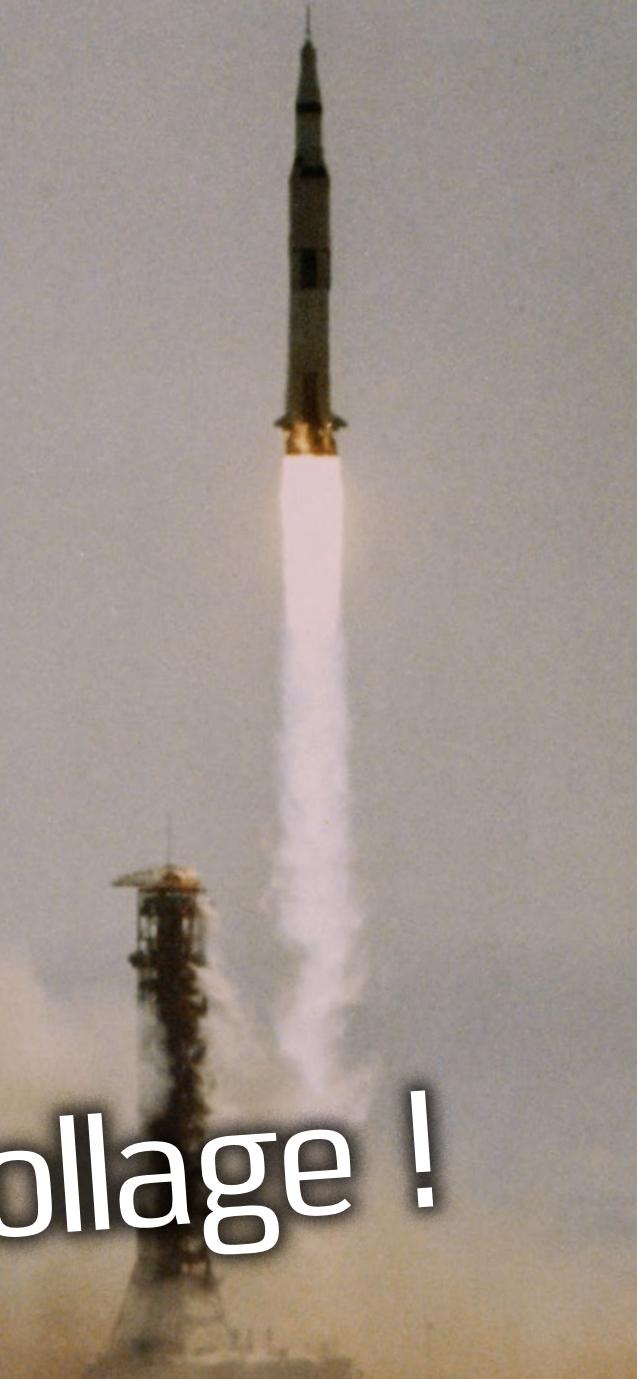


Le saviez-vous ?

C'est un fabricant de lingerie qui a remporté le contrat pour concevoir les combinaisons spatiales portées par l'équipage d'Apollo 11.

C'est le métier de « tissage » d'ouvrières d'usine qui a inspiré la mémoire centrale de l'ordinateur de guidage embarqué.

... Décollage !



Un véhicule novateur

« Aigle », le module lunaire d'Apollo 11, était un véhicule extraordinaire : le tout premier véhicule habité à atterrir ailleurs que sur la Terre et celui qui a envoyé le premier homme sur la Lune.

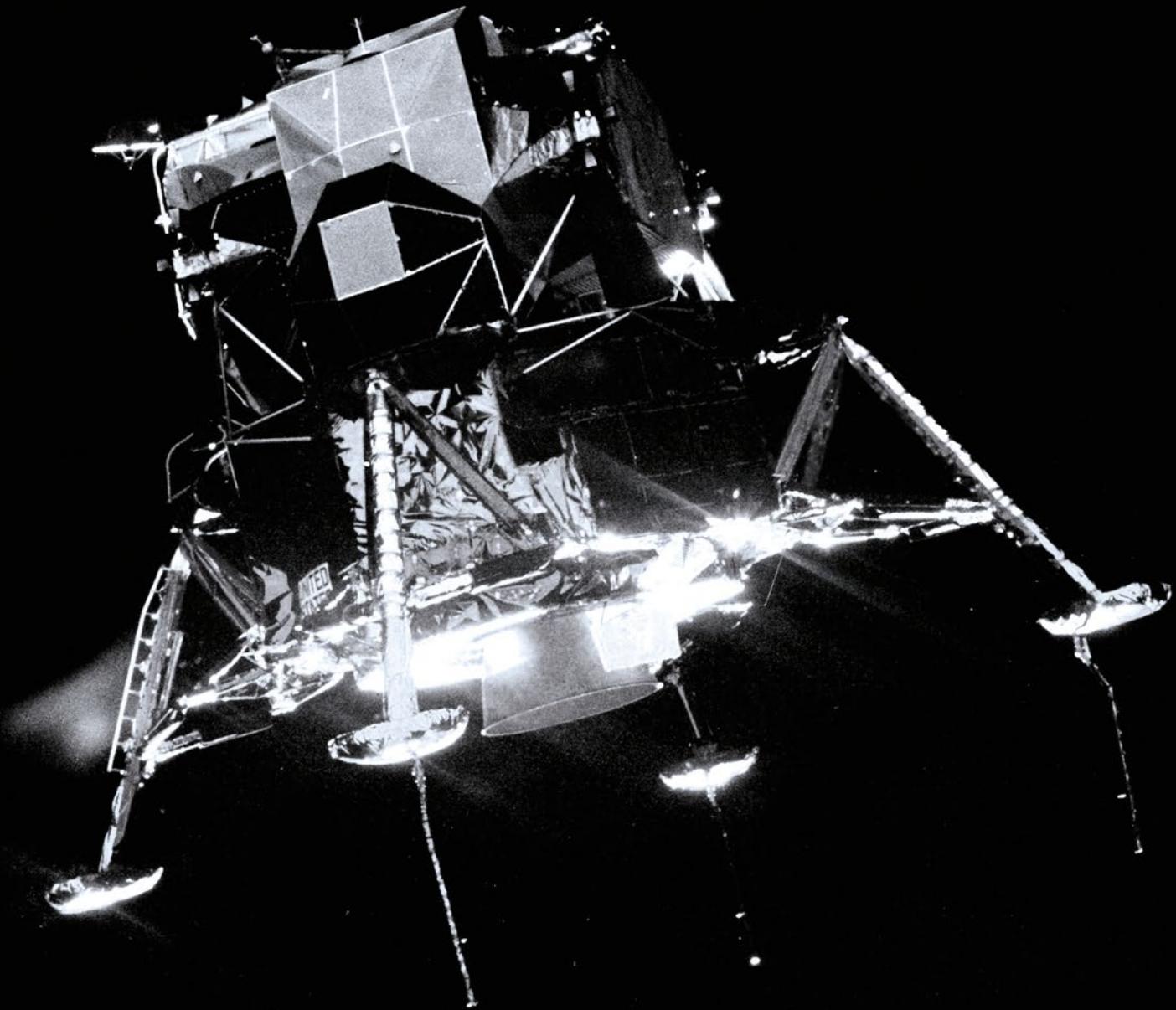
Plus encore, cet engin spatial d'apparence fragile témoigne de la curiosité, de l'ingéniosité, des compétences techniques, de la détermination et de la bravoure de l'humanité. Il démontre comment la pensée créative latérale et la persévérance permettent de réaliser d'immenses progrès pour le bien de l'humanité tout entière.



Un hommage à la créativité et à l'innovation

Cet ensemble LEGO® Creator Expert rend hommage au module lunaire d'Apollo 11, une véritable merveille créée par l'homme. Même aujourd'hui, quelque 50 ans et d'innombrables innovations plus tard, ce véhicule s'inscrit dans l'élan créatif et technologique qui nous a poussés à envoyer un humain hors de notre zone de confort : l'atmosphère. Le module lunaire d'Apollo 11 nous a permis de nous aventurer dans l'inconnu de l'espace et d'atterrir sur la Lune : un exploit des plus incroyables.

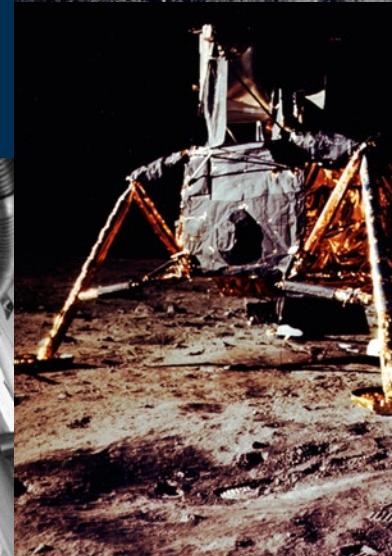
... Atterrissage



À propos de la NASA

En 1958, la National Aeronautics and Space Act (loi nationale sur l'aéronautique et l'espace) a été adoptée, stipulant que « les États-Unis ont pour politique de consacrer leurs activités spatiales à des fins pacifiques dans l'intérêt de l'humanité tout entière ». En conséquence, la National Aeronautics and Space Administration (NASA) a été fondée il y a plus de 60 ans dans le but de diriger l'exploration pacifique de l'espace et de faire des découvertes sur la Terre, son système solaire et l'univers.

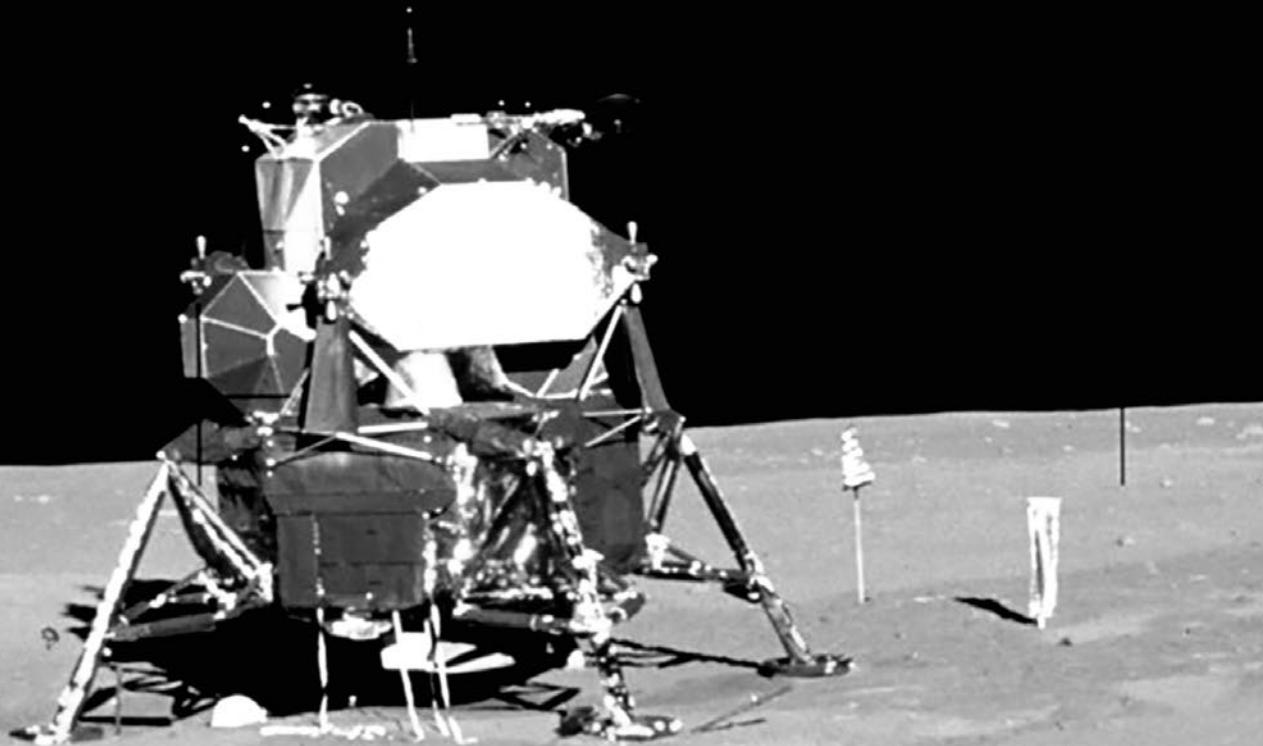
Depuis, les recherches de la NASA n'ont pas seulement mené à l'exploration de l'espace, elles ont aussi permis de réaliser d'immenses progrès dans le domaine de l'aviation, de développer une industrie spatiale commerciale, d'enrichir l'économie américaine, de créer des emplois et de renforcer la sécurité nationale.



Le programme Apollo

C'est après une série de missions Mercury, Gemini et Apollo, et grâce au travail de milliers d'experts scientifiques, d'ingénieurs et d'astronautes, que Neil Armstrong et Buzz Aldrin ont atterri et marché sur la Lune le 20 juillet 1969. Le programme s'est déroulé de 1961 à 1972 et a posé plusieurs jalons importants dans l'histoire des vols spatiaux habités. Apollo 8 a été le premier engin spatial habité à orbiter autour d'un autre corps céleste, tandis que la dernière mission Apollo 17 a été le sixième alunissage. En plus d'être à l'avant-garde de l'exploration spatiale, ce programme a catalysé le développement technologique dans les domaines de l'avionique, des télécommunications et de l'informatique.

« L'Aigle a atterri »



Moments clés de la mission Apollo 11



16 juillet 1969 : Apollo 11, le premier engin spatial habité à atterrir sur la Lune, est lancé dans l'espace.



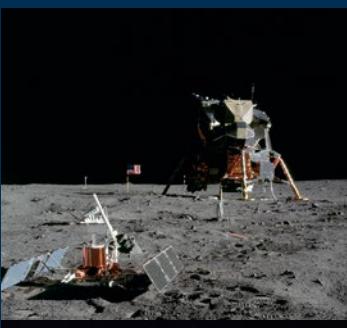
17 juillet 1969 : les astronautes Neil Armstrong, Michael Collins et Edwin « Buzz » Aldrin font leur première transmission télévisée de l'espace vers la Terre.



20 juillet 1969 : Armstrong et Aldrin montent à bord du module lunaire « Aigle » et se détachent du module de commande Apollo « Columbia ».



Le module lunaire se pose sur la Lune dans la « mer de la Tranquillité ».



Les deux astronautes parlent au président Richard M. Nixon depuis la surface de la Lune. Ils passent deux heures et demie à prélever des échantillons, à installer de l'équipement, à prendre des photos et à laisser des objets spéciaux.



21 juillet 1969 : après une période de repos pour les astronautes, le module est remonté et rattaché au module de commande Columbia, réunissant ainsi Armstrong et Aldrin avec Collins. Le module est ensuite mis en orbite lunaire.

22 juillet 1969 : sur le chemin du retour vers la Terre, une correction à mi-course et deux autres transmissions télévisées sont effectuées.

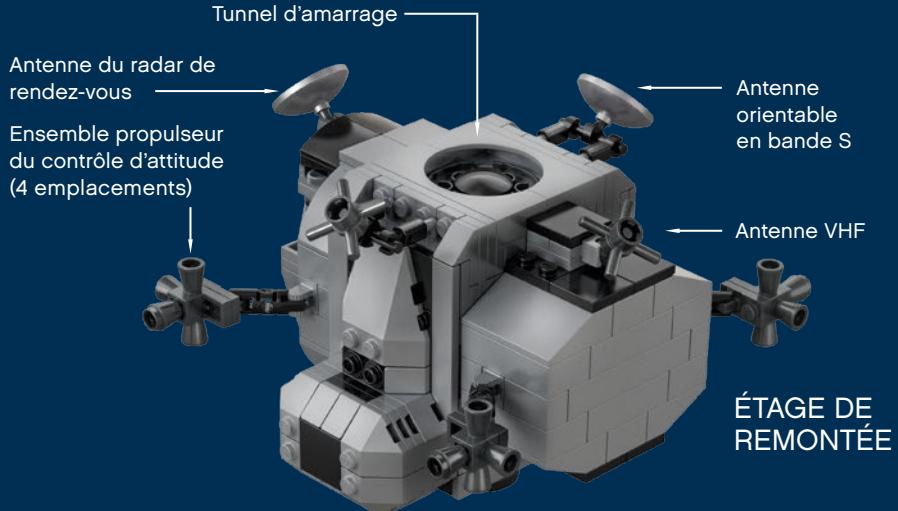
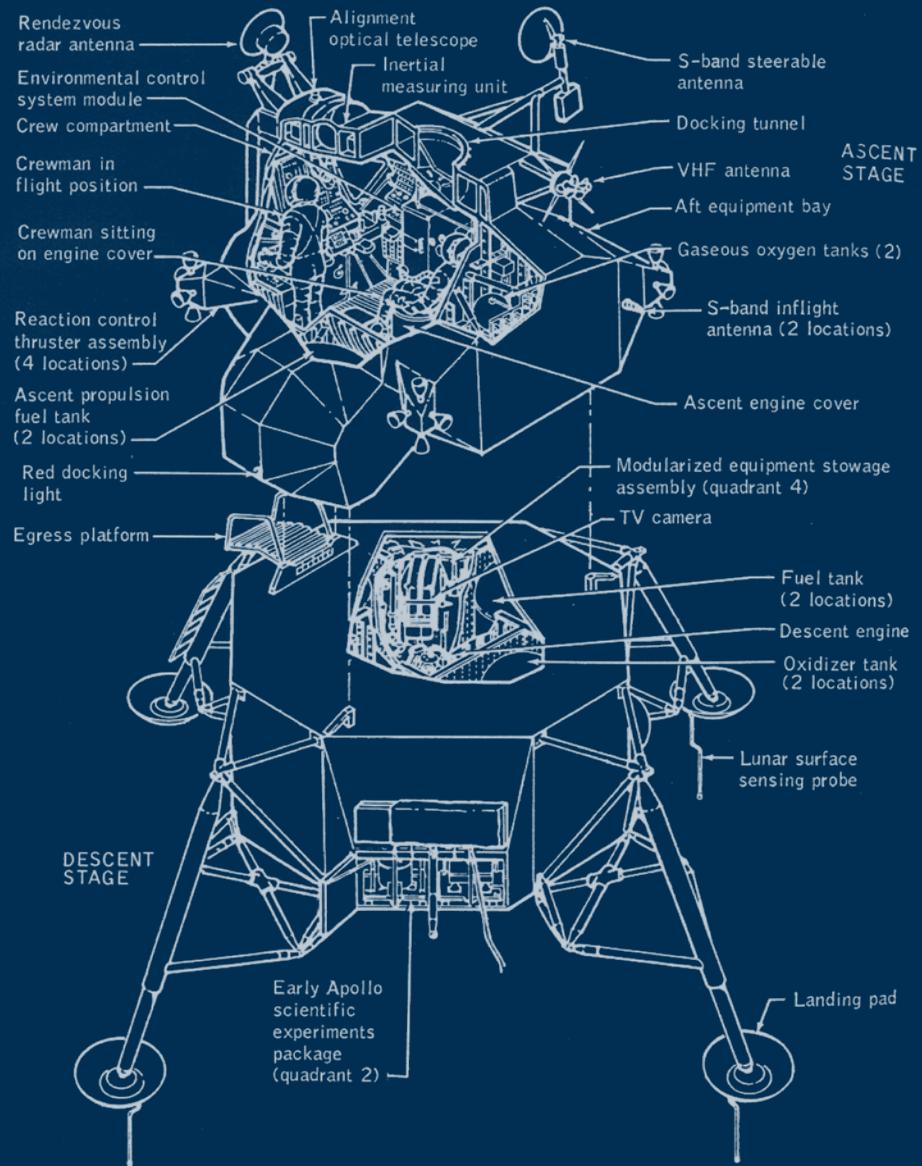


24 juillet 1969 : la capsule Apollo 11 et les astronautes à bord se posent sur la Terre, amerrissant dans l'océan Pacifique.

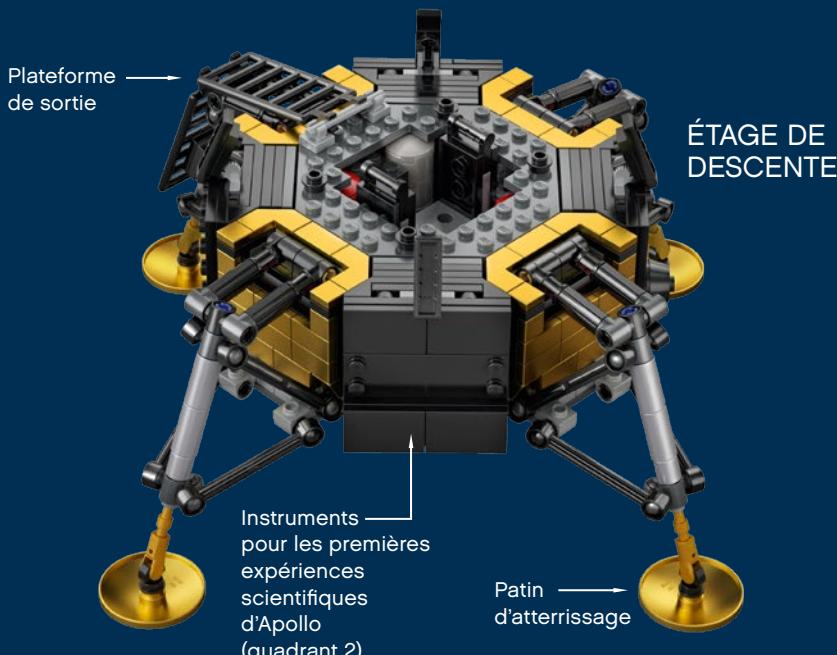
« C'est un petit pas pour l'homme,
mais un grand pas pour l'humanité »



Familiarisez-vous avec votre module lunaire



ÉTAGE DE REMONTÉE



ÉTAGE DE DESCENTE



Lars Joe Hylding

Spécialiste responsable
de la conception

Informations du concepteur LEGO®

Que ce soit pour le module lunaire réel ou celui que nous avons créé pour lui rendre hommage, des plans comme ceux-ci sont à la base de chaque processus de conception. C'est de cette façon que la conception du module original a été convertie en briques LEGO®.

Les briques dorées représentent la pellicule dans laquelle le module lunaire était enveloppé, afin d'en assurer la protection thermique et micrométéorite. Les deux principaux composants du module lunaire sont l'étage de remontée et l'étage de descente. Pour l'étage de remontée, entre autres, je me suis concentré principalement sur la « façade » dotée de deux fenêtres et de la porte. L'étage de remontée comporte beaucoup d'angles que j'ai dû construire d'une manière simplifiée en raison de l'échelle. Pour l'étage de descente, je me suis efforcé de capturer la forme octogonale, les jambes et la pellicule brillante.



Le saviez- vous ?

Conçu par le MIT, l'ordinateur de bord du module lunaire, l'Apollo Guidance Computer (AGC), a permis d'assurer le guidage, la navigation et le contrôle de l'engin spatial. La performance de l'ordinateur était comparable à celle des ordinateurs domestiques de première génération disponibles à la fin des années 1970, mais similaire à celle d'une simple calculatrice aujourd'hui.

Nous sommes venus en paix...

Le premier pas de l'humanité sur la surface d'un objet céleste est né d'une course pour être le premier. L'alunissage, rendu possible par le module lunaire, s'est révélé une véritable prouesse technologique ayant fait la fierté des Américains, ainsi qu'un moment formidable pour toute l'humanité.

L'appel à l'action audacieux et ambitieux de John F. Kennedy ne s'est pas terminé avec le succès de la mission Apollo 11; il a plutôt ouvert la voie à une nouvelle ère pour la NASA et pour l'exploration de l'inconnu par l'humanité. Aujourd'hui encore, les travaux de la NASA sont axés sur l'innovation et la découverte technologiques, repoussant les frontières de l'exploration humaine de la Lune et de Mars et s'efforçant de trouver la réponse à cette éternelle question : « Sommes-nous seuls dans l'univers? »

Ce qu'on a laissé derrière

Beaucoup de choses ont été laissées sur la Lune après ce premier atterrissage de l'Aigle, notamment une partie de la fusée descendante pour le retour des astronautes sur Terre, le déflecteur laser, ainsi que les empreintes de pas des deux astronautes.

Ces derniers ont également laissé un écusson de la mission Apollo 1, un sac commémoratif orné d'une réplique en or d'une branche d'olivier comme symbole traditionnel de la paix, et un disque en silicium sur lequel sont enregistrés les messages de bonne volonté des présidents américains Eisenhower, Kennedy, Johnson et Nixon, ainsi que ceux des dirigeants de 73 pays du monde.

Des médailles commémoratives ont également été laissées sur la Lune, en l'honneur des astronautes d'Apollo 1 qui ont perdu la vie dans un incendie sur l'aire de lancement et de deux cosmonautes qui ont également péri dans des accidents.



**« Découvrir et élargir
les connaissances au
profit de l'humanité. »**





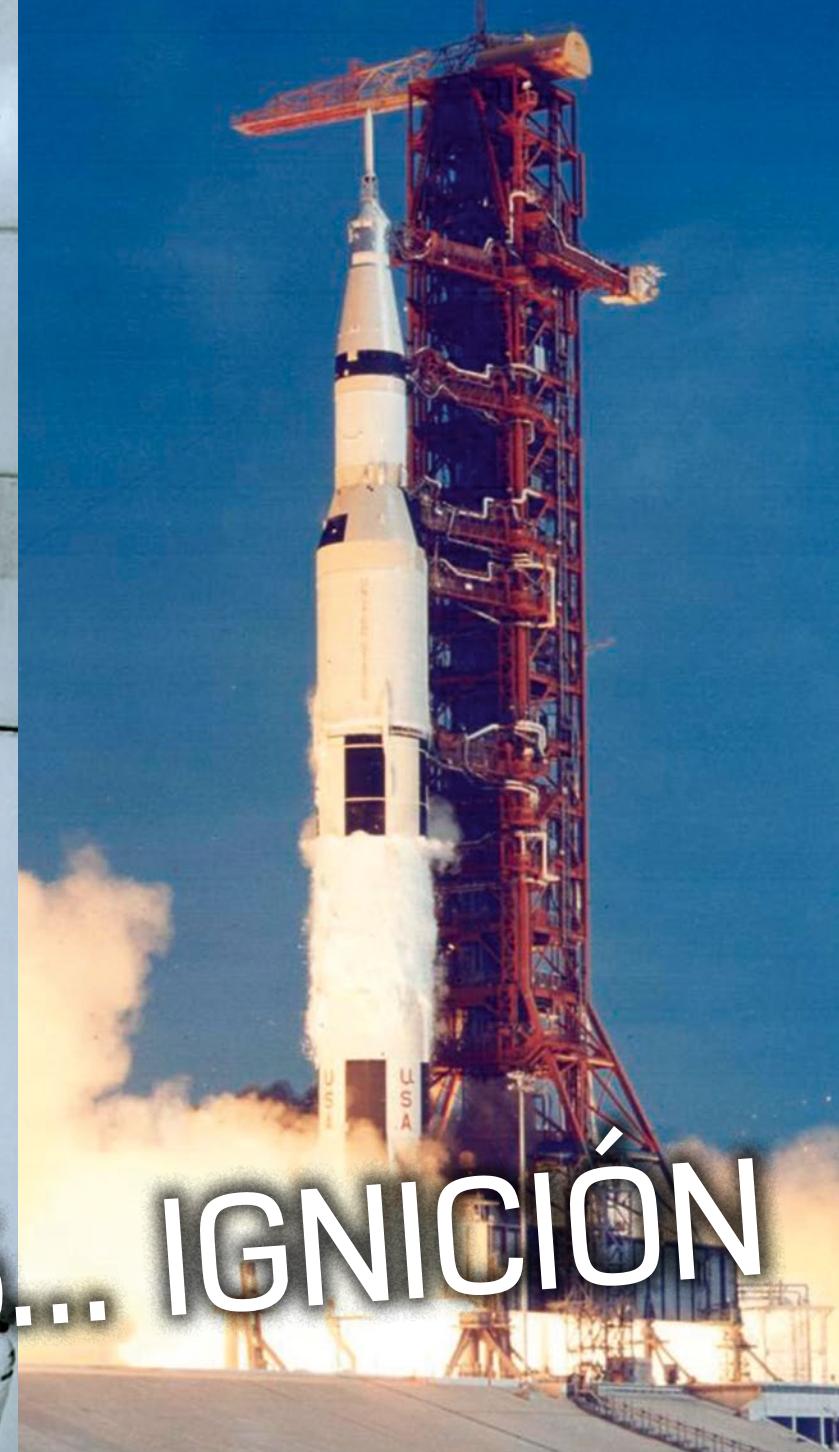
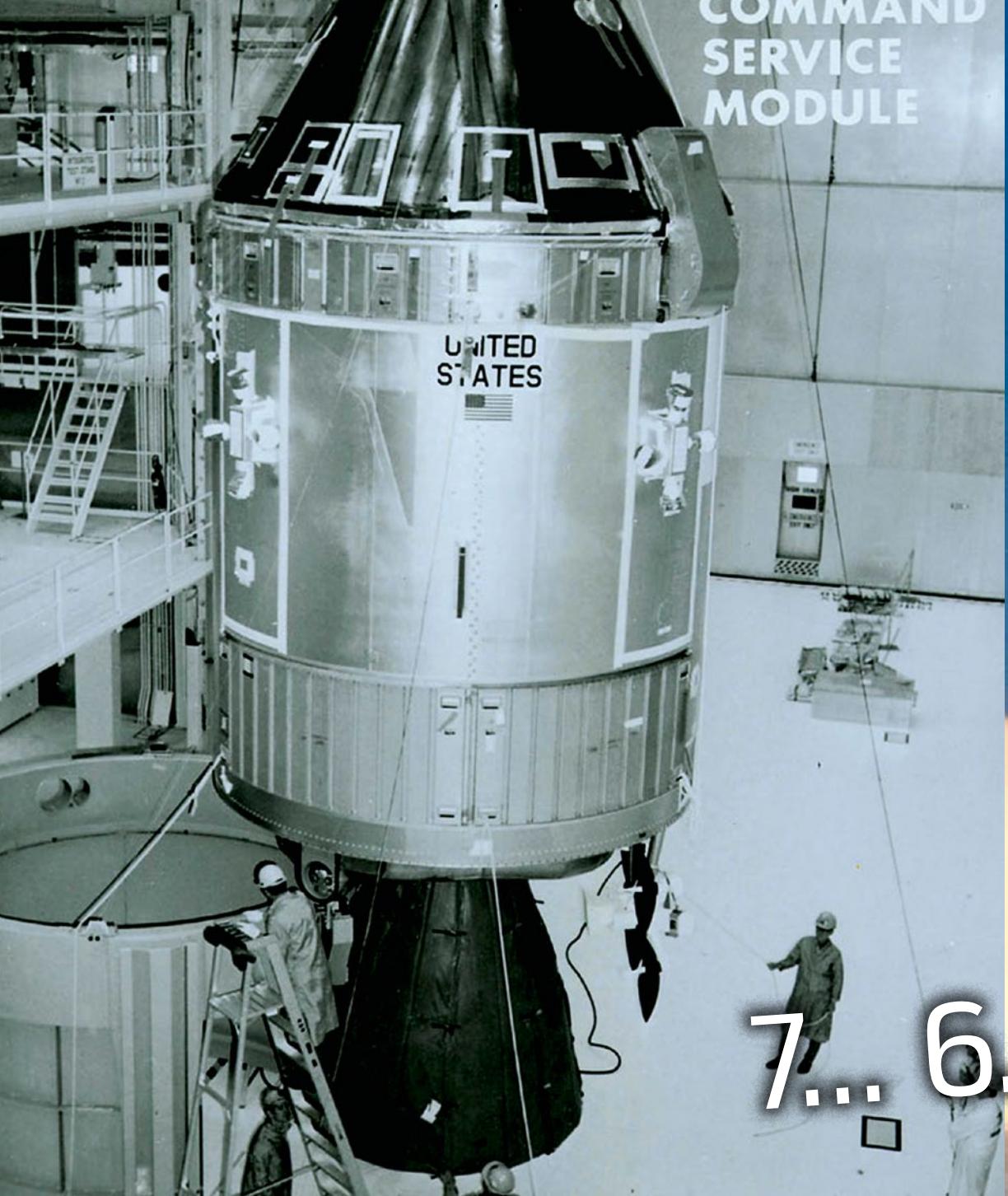
"Elegimos ir a la Luna"

La carrera hasta la Luna

La curiosidad, la fascinación y el respeto que la humanidad siente por el espacio son tan antiguos como la humanidad misma. Sin embargo, nuestro deseo de explorar el universo más allá de los límites de la Tierra no se materializó sino hasta los años 60. Luego de la declaración de John F. Kennedy en la que afirmaba que los Estados Unidos pondrían a un hombre en la Luna (y lo traerían de regreso sano y salvo a la Tierra) antes de que finalizara la década de 1960, la NASA tomó la iniciativa y colocó incuestionablemente al país a la cabeza de la carrera internacional de la exploración espacial.

Otros ya se habían aventurado a sumergirse en el vacío del espacio, pero fue el 20 de julio de 1969 cuando un pie humano tomó contacto por primera vez con la superficie de la Luna. El alunizaje del módulo lunar Apolo fue retransmitido en vivo a todo el mundo. Fue un momento que cautivó a todo el planeta y cambió para siempre los viajes espaciales.



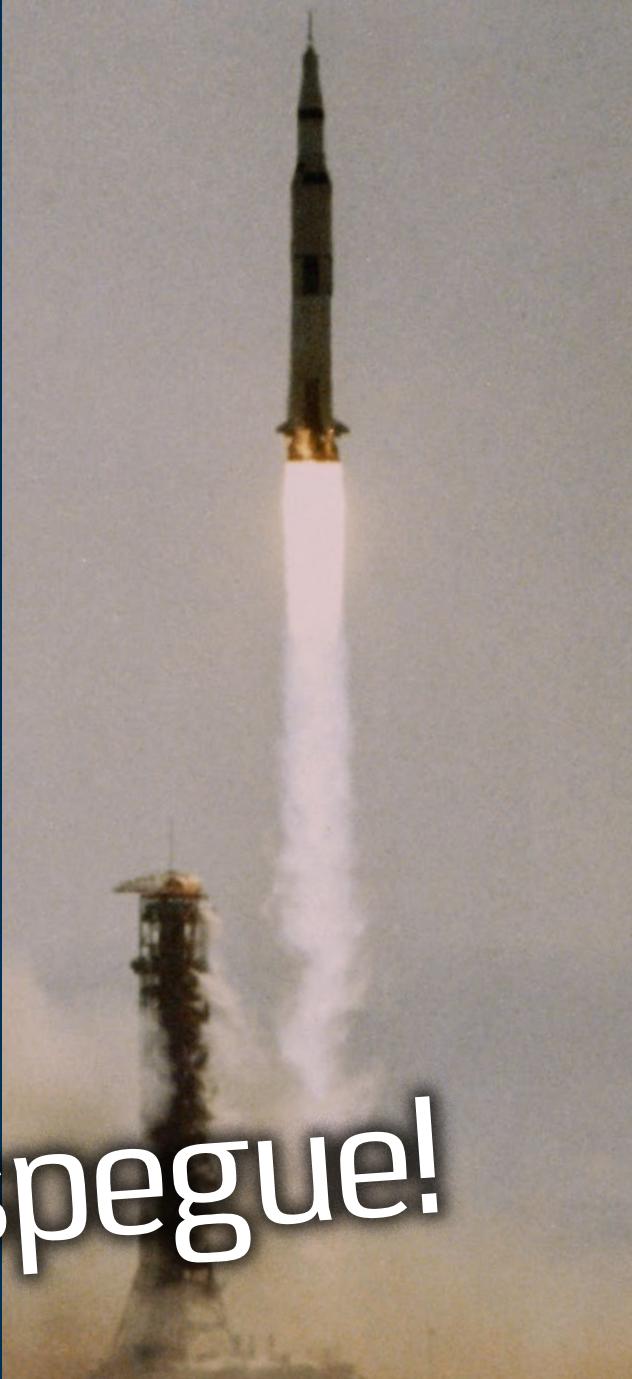


¿Lo sabías?

Fue un fabricante de lencería a quien se le adjudicó el contrato para el desarrollo de los trajes espaciales que usó la tripulación de la misión Apolo 11.

La técnica de tejido aplicada por las trabajadoras de una fábrica inspiró la memoria de núcleos cableados de la computadora de navegación del módulo.

... ¡despegue!



Un vehículo pionero

El módulo lunar Eagle de la misión Apolo 11 fue un vehículo extraordinario: el primero tripulado capaz de aterrizar en un lugar que no fuera la Tierra y el que llevó al primer hombre hasta la Luna.

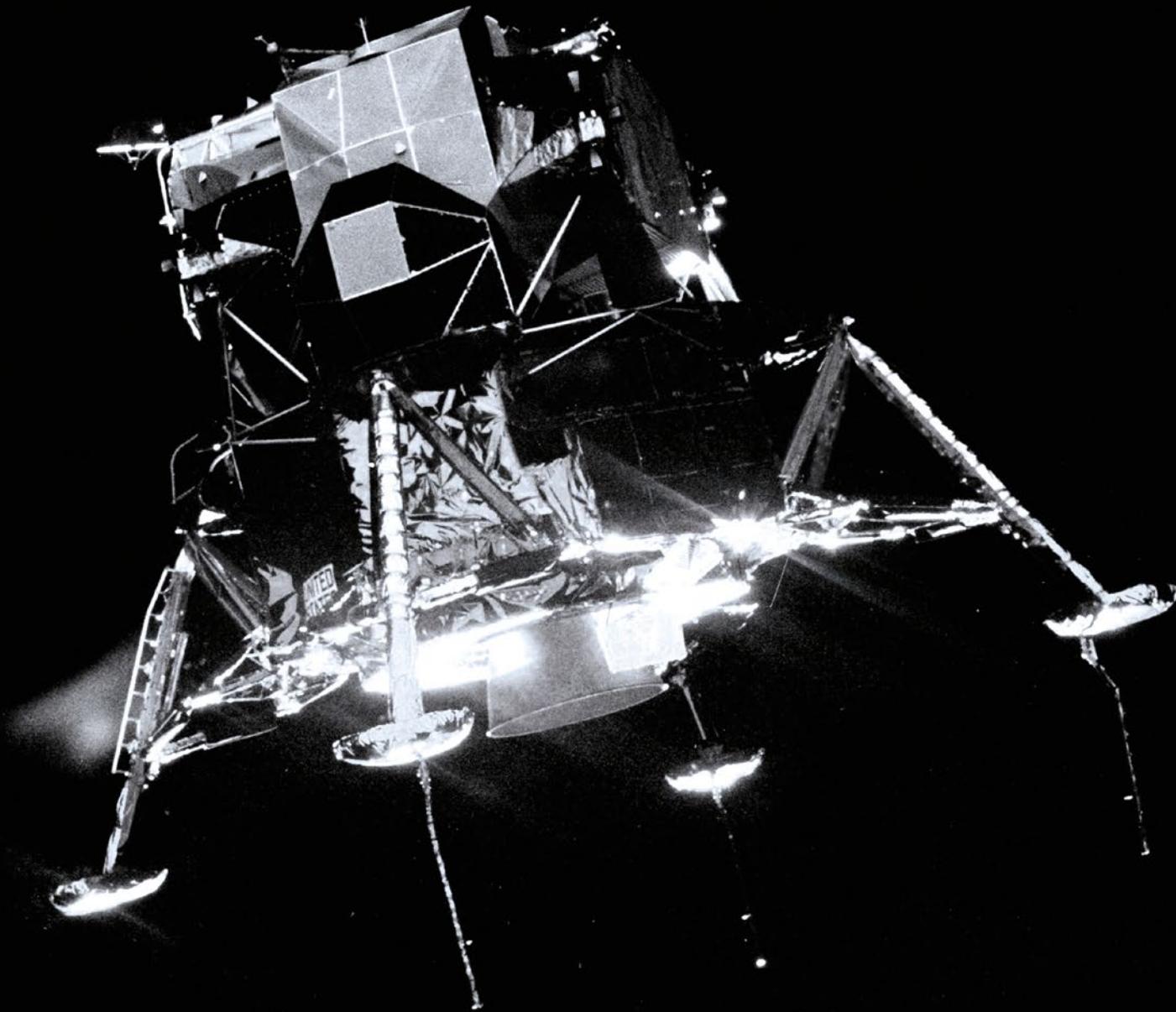
Pero, más que eso, el frágil aspecto de la nave espacial representa la curiosidad, el ingenio, la habilidad tecnológica, la determinación y la valentía de la raza humana. Ilustra cómo el pensamiento lateral creativo y la perseverancia pueden aportar inmensos avances en beneficio de toda la humanidad.



Un homenaje a la creatividad y la innovación

Este homenaje LEGO® Creator Expert al módulo lunar de la misión Apolo 11 representa algo verdaderamente asombroso, una auténtica maravilla humana. Incluso hoy, más de 50 años después y con los muchos cambios que hemos vivido, este vehículo sigue formando parte del impulso creativo y tecnológico que nos permitió llevar a un ser humano más allá de la zona de confort de nuestra atmósfera. Gracias al módulo lunar de la misión Apolo 11, pudimos aventurarnos en la vasta incógnita del espacio y aterrizar en la Luna, lo cual es, francamente, impresionante.

¡Listos para alunizar!



Acerca de la NASA

En 1958 se aprobó la Ley Nacional de la Aeronáutica y del Espacio, en la que se declara que "la política de los Estados Unidos es que las actividades en el espacio se dediquen a fines pacíficos en beneficio de toda la humanidad". El resultado fue la creación de la Administración Nacional de la Aeronáutica y del Espacio (NASA, por sus siglas en inglés) hace más de 60 años con el propósito de dirigir la exploración pacífica del espacio y hacer descubrimientos acerca de la Tierra, su sistema solar y el universo.

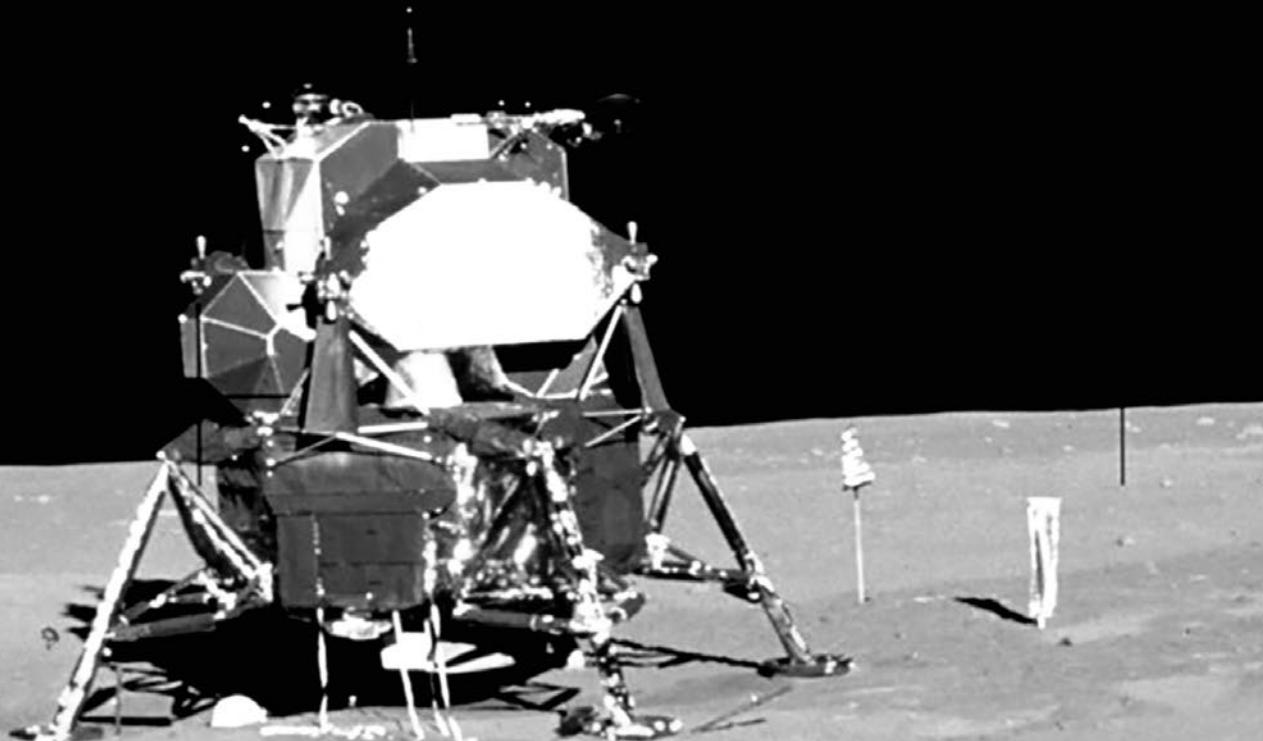
Desde entonces, las investigaciones de la NASA no sólo han desembocado en la exploración del espacio, sino que han dado lugar a grandes avances en el campo de la aviación, han contribuido al desarrollo de una industria espacial rentable, han enriquecido la economía de los Estados Unidos, han creado puestos de trabajo y han fortalecido la seguridad nacional.



El programa Apolo

Fue luego de una serie de misiones pertenecientes a los programas Mercury, Gemini y Apolo, y gracias al trabajo de miles de científicos, ingenieros y astronautas expertos, que Neil Armstrong y Buzz Aldrin aterrizaron en el módulo lunar el 20 de julio de 1969 y caminaron sobre la Luna. El programa completo se desarrolló entre 1961 y 1972, y logró superar varios hitos en el área de los vuelos espaciales con seres humanos. La Apolo 8 fue la primera nave espacial tripulada en orbitar alrededor de otro cuerpo celeste, mientras que la misión Apolo 17, la última del programa, llevó a cabo el sexto alunizaje. No sólo fue un programa revolucionario en términos de exploración espacial, sino que catalizó el desarrollo tecnológico en materia de aviación, telecomunicaciones y computadoras.

“El Eagle ha alunizado”



Momentos clave de la misión Apolo 11



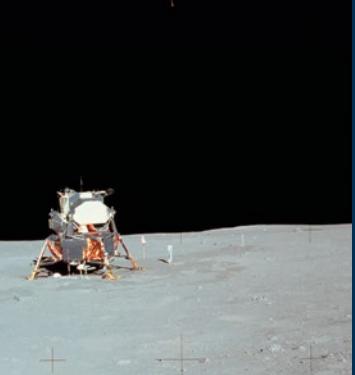
16 de julio de 1969: la misión Apolo 11, el primer vuelo espacial tripulado destinado a aterrizar en la Luna, despega rumbo al espacio.



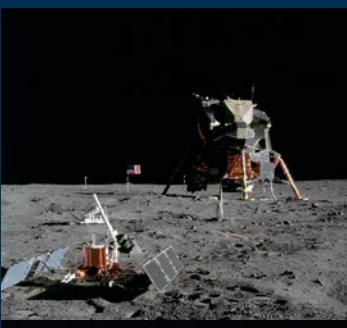
17 de julio de 1969: los astronautas Neil Armstrong, Michael Collins y Edwin "Buzz" Aldrin realizan su primera transmisión de televisión a la Tierra desde el espacio.



20 de julio de 1969: Armstrong y Aldrin abordan el módulo lunar Eagle y se desacoplan del módulo de control Columbia de la misión Apolo 11.



El módulo lunar aluniza en el mar de la Tranquilidad.



Los dos astronautas hablan con el presidente Richard M. Nixon desde la superficie de la Luna. Pasan 2,5 horas recogiendo muestras, preparando equipos, tomando fotografías y colocando artículos especiales.

21 de julio de 1969: luego de un período de descanso para los astronautas, el módulo asciende, regresa al módulo de control Columbia y se acopla a él, reuniendo a Armstrong y Aldrin con Collins. El módulo lunar se arroja entonces a la órbita lunar.

22 de julio de 1969: durante el viaje de regreso a la Tierra, se lleva a cabo una corrección de ruta y se realizan dos transmisiones de televisión más.

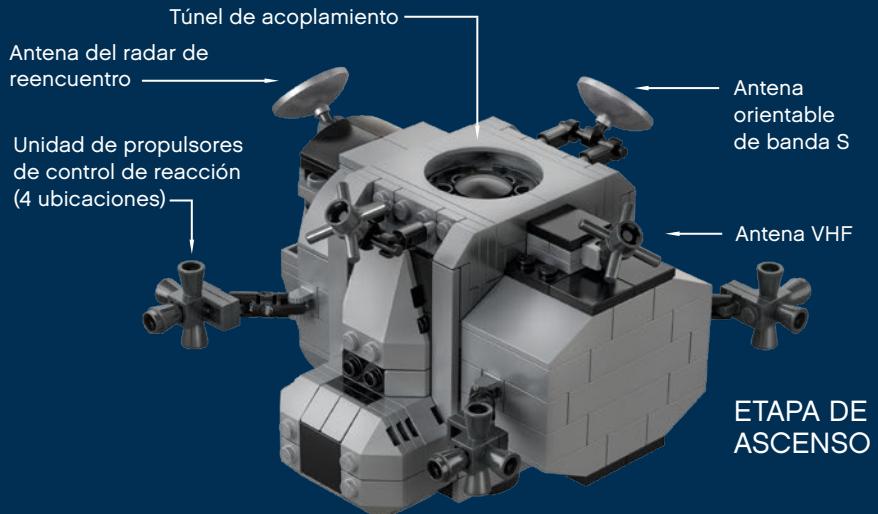
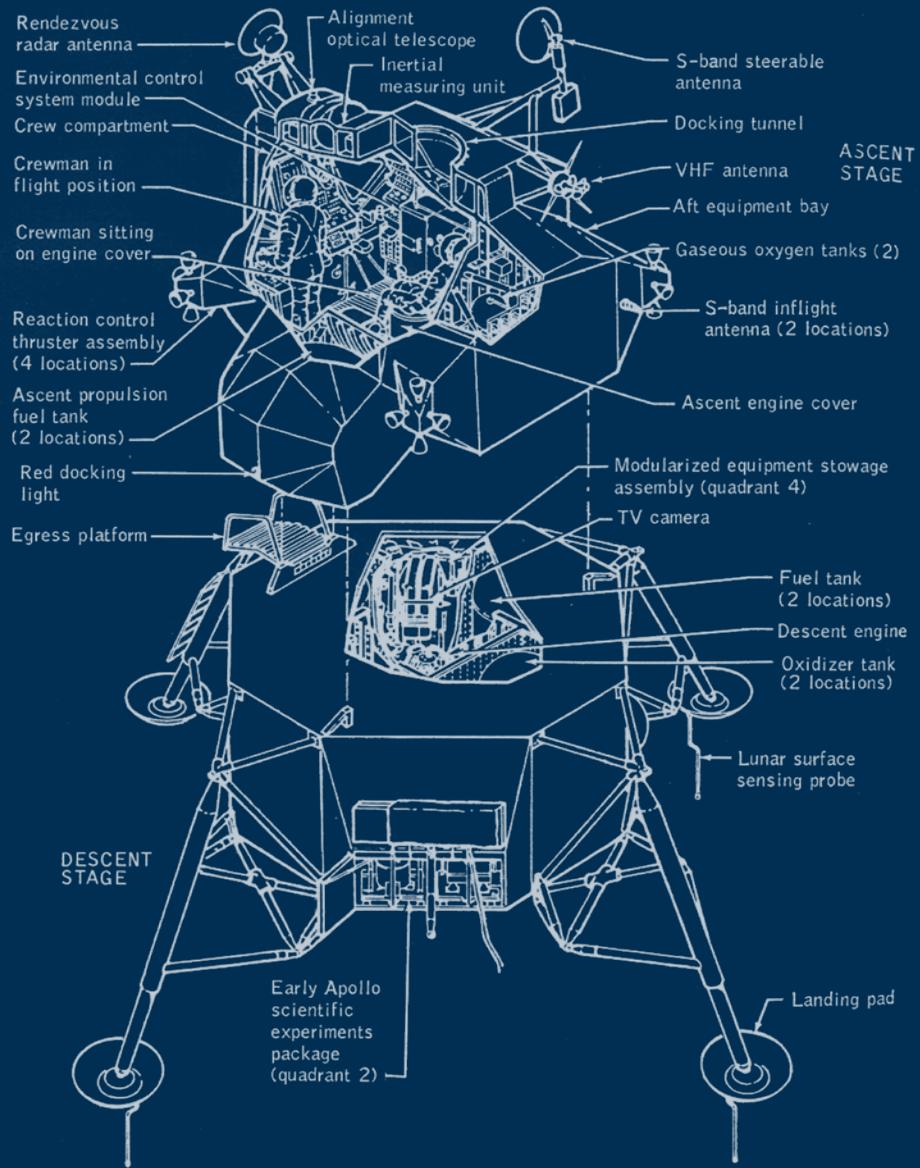


24 de julio de 1969: la cápsula de la misión Apolo 11 y los astronautas que viajan en ella descienden hasta la superficie de la Tierra, cayendo en el océano Pacífico.

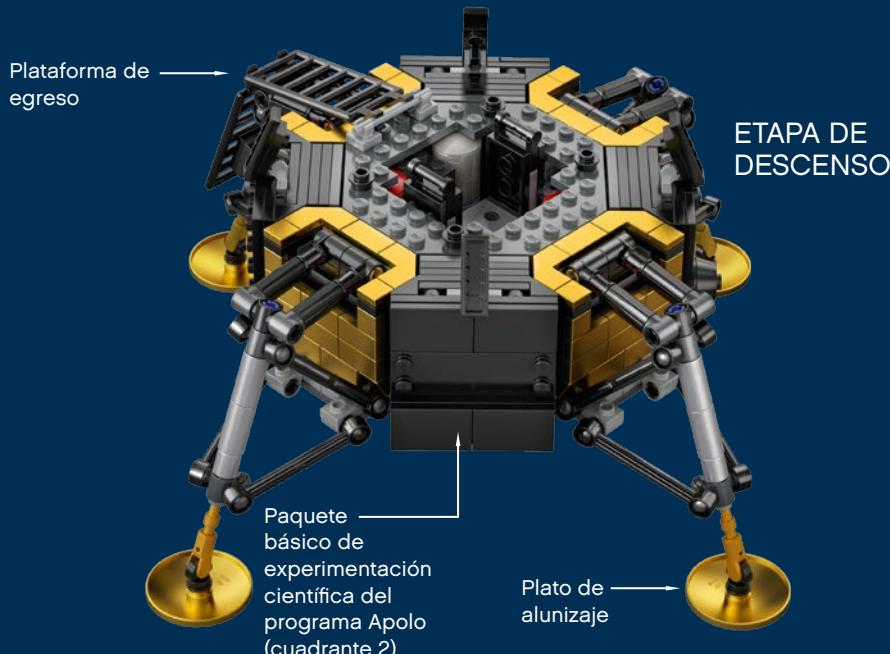
“Es un pequeño paso para el hombre,
pero un gran salto para la humanidad”



Conoce tu módulo lunar



ETAPA DE ASCENSO



ETAPA DE DESCENSO



Lars Joe Hylding
Jefe de diseño especialista

Testimonio del diseñador de LEGO®

Los planos como este representan el primer paso de cualquier proceso de diseño; así sucedió tanto en el caso del módulo lunar real como en el de nuestro homenaje al estilo LEGO®. Es así, además, como tradujimos el diseño del módulo original al lenguaje de los bricks LEGO.

Los bricks dorados representan la lámina que envolvía al módulo lunar para fines de protección térmica y contra los micrometeoroides. Los dos elementos principales del módulo lunar son la etapa de ascenso y la etapa de descenso. Para la etapa de ascenso, entre otras cosas, me concentré principalmente en la “cara” con las dos ventanas y la puerta. La etapa de ascenso tiene un montón de ángulos que tuve que reproducir de manera simplificada debido a la escala. Para la etapa de descenso, entre otras cosas, me concentré en capturar la forma octogonal, las patas y la lámina brillante.



¿Lo sabías?

Diseñada por el MIT, la computadora de navegación del módulo lunar Apolo (AGC, por sus siglas en inglés) facilitaba la navegación, la orientación y el control de la nave espacial. El desempeño de la computadora era comparable al de las computadoras domésticas de primera generación disponibles a finales de la década de 1970, pero no supera el de una calculadora sencilla de hoy en día.



Vinimos en paz...

El primer paso de la humanidad sobre la superficie de un objeto celeste surgió de una carrera por la victoria espacial; el alunizaje, posible gracias al módulo lunar, fue un inmenso triunfo que convirtió la tecnología estadounidense en un símbolo de orgullo y superación, y un momento inolvidable para todos los seres humanos.

El audaz y ambicioso llamado a la acción de John F. Kennedy no terminó con el éxito de la misión Apolo 11, sino que marcó el inicio de una nueva era para la NASA y animó a toda la raza humana a explorar lo desconocido. Hoy, el trabajo de la NASA sigue centrándose en la innovación tecnológica y el descubrimiento, ampliando las fronteras de la exploración humana de la Luna y Marte, e intentando llegar más allá en busca de una respuesta a la pregunta “¿estamos solos?”.

Lo que quedó atrás

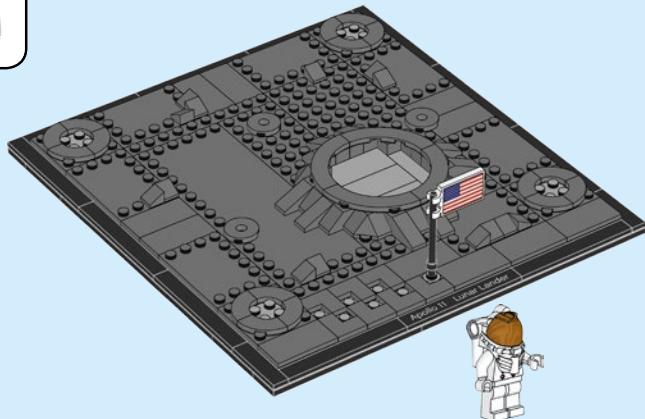
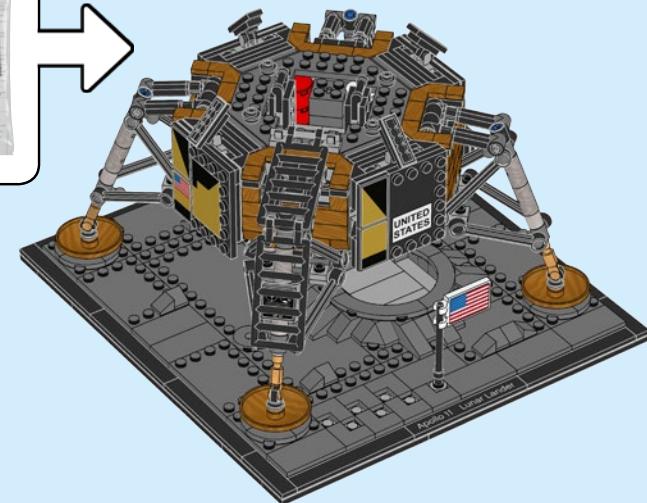
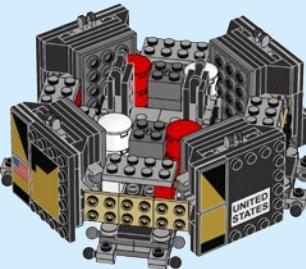
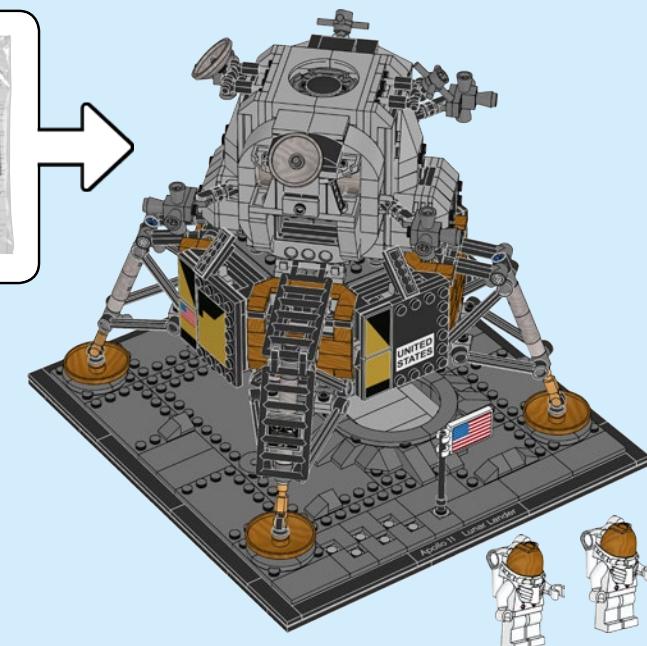
Muchas cosas se quedaron en la Luna después del aterrizaje inicial del Eagle. Parte del cohete de ascenso que permitió a los astronautas regresar a la Tierra, así como el reflector láser y las huellas de los dos astronautas, aún permanecen en la Luna.

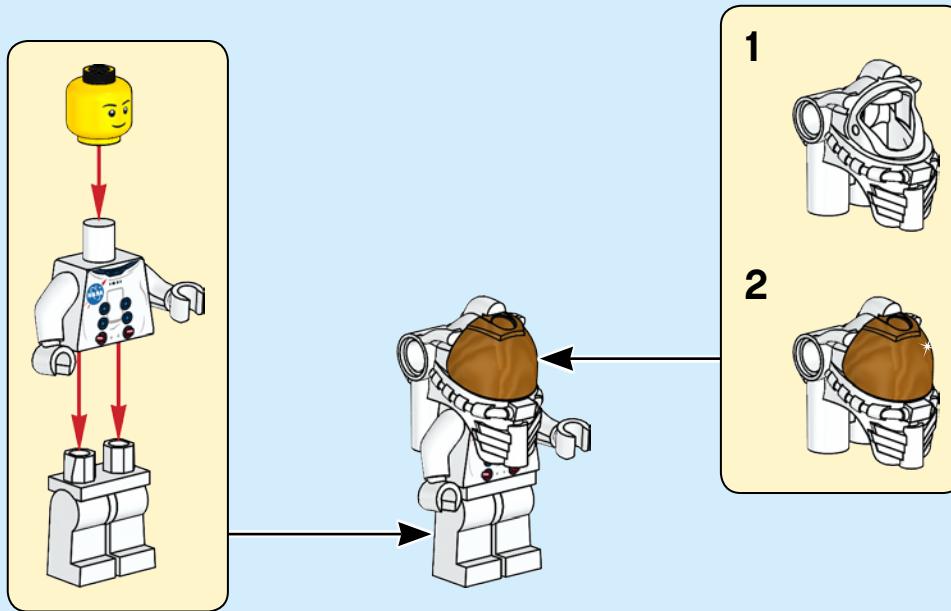
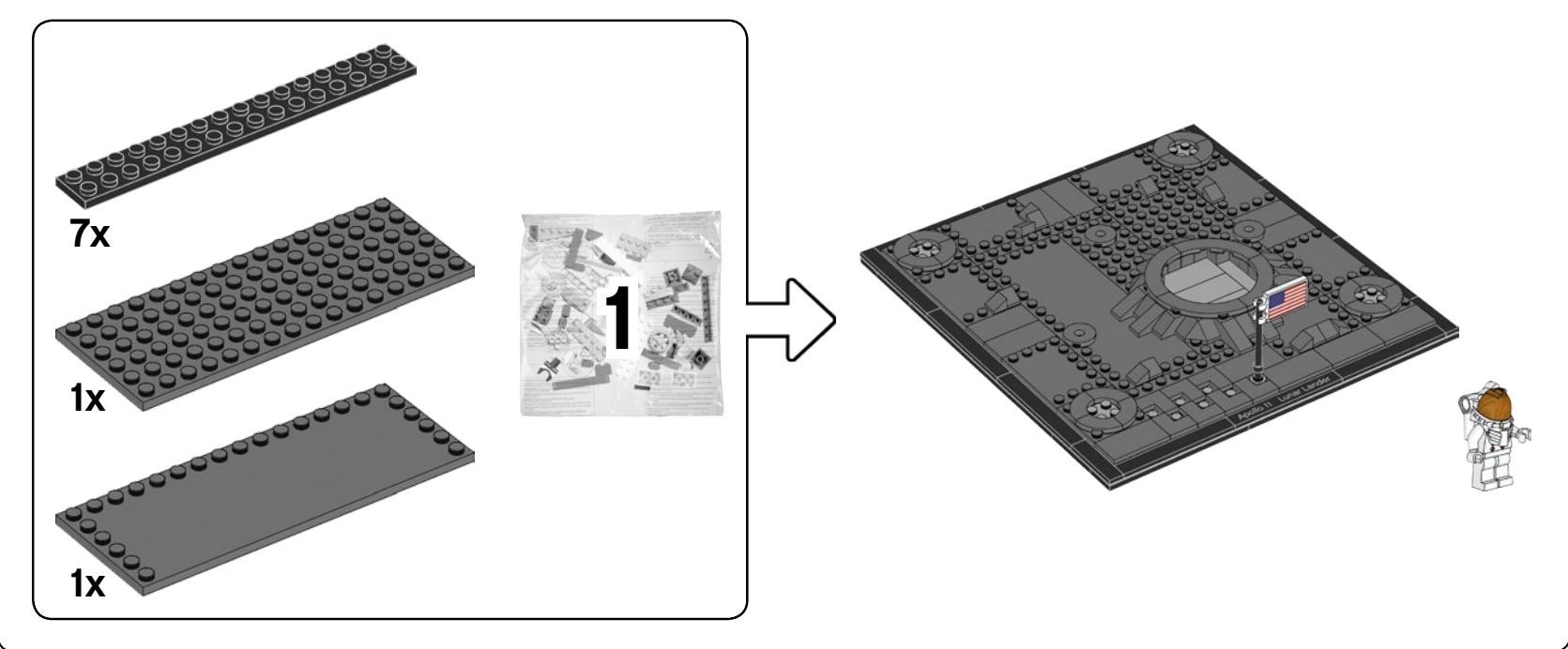
También dejaron un parche de la misión Apolo 1, una bolsa conmemorativa con una réplica en oro de una rama de olivo como símbolo tradicional de la paz y un disco de silicio con las declaraciones de buena voluntad de los presidentes de los Estados Unidos Eisenhower, Kennedy, Johnson y Nixon, así como mensajes de los líderes de 73 países de todo el mundo.

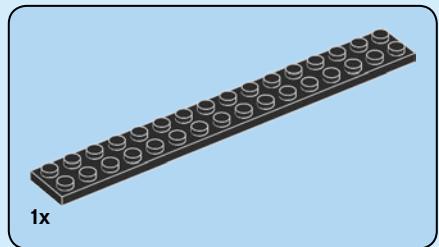
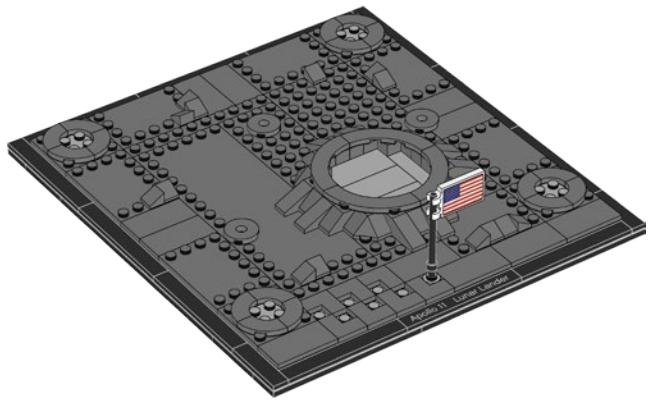
En la superficie de la Luna quedaron además varios medallones conmemorativos en honor a los astronautas de la misión Apolo 1, que perdieron la vida en el incendio de una plataforma de lanzamiento, y a dos cosmonautas que también murieron en accidentes.

**“Para descubrir y ampliar
el conocimiento en
beneficio de la humanidad”**

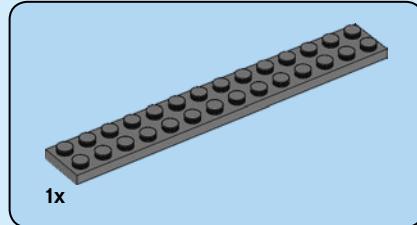
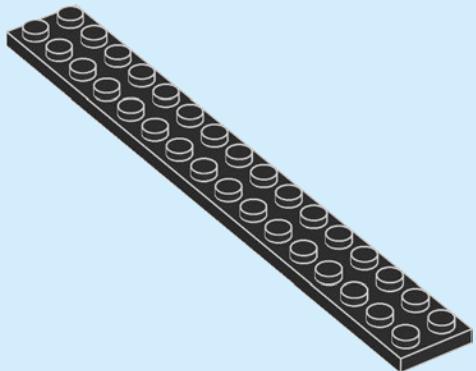


**1****3****2****4**

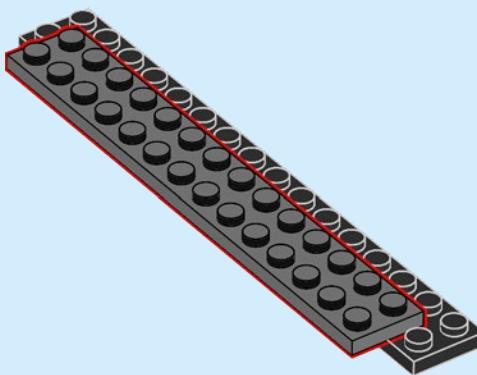


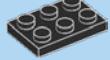


1



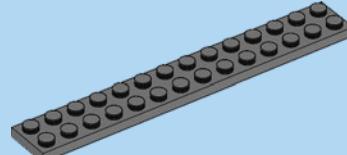
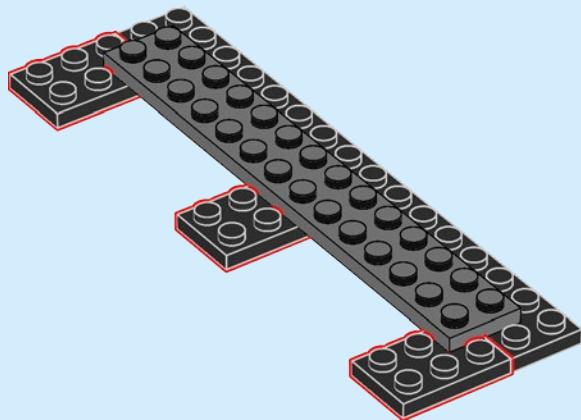
2





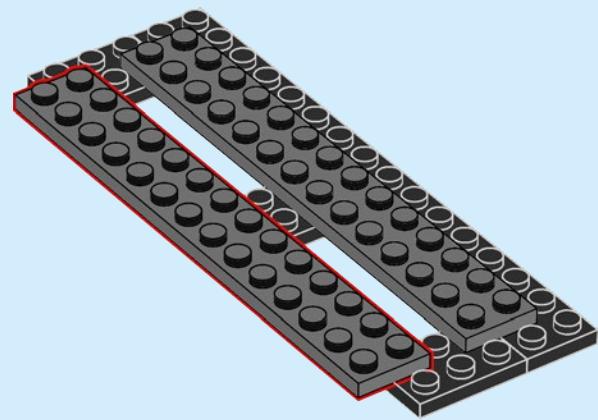
3x

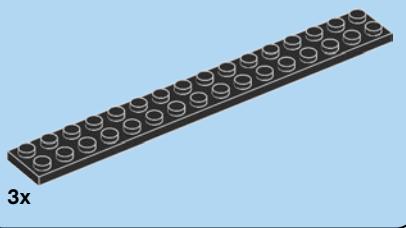
3



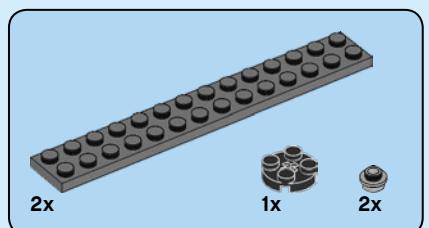
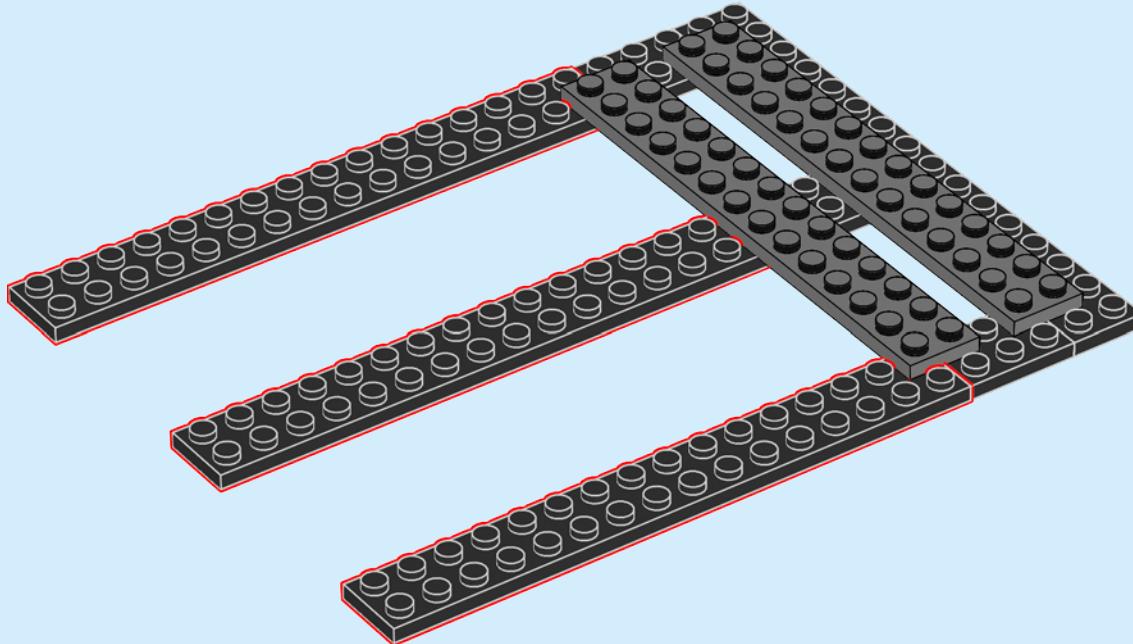
1x

4

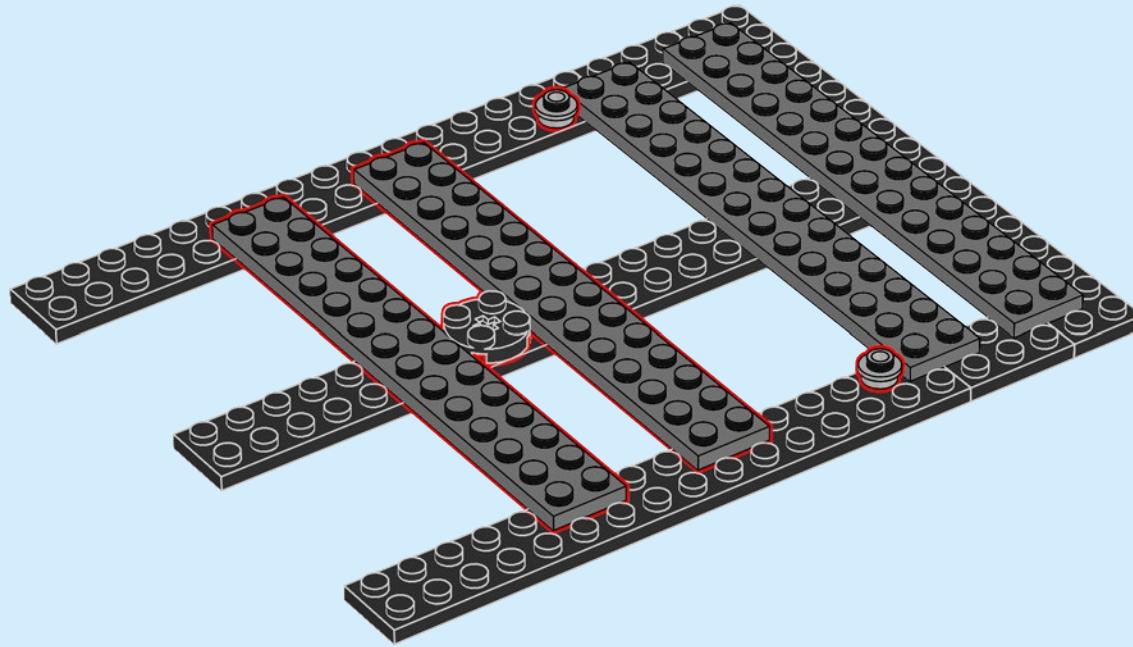


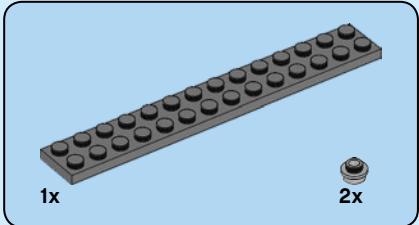


5

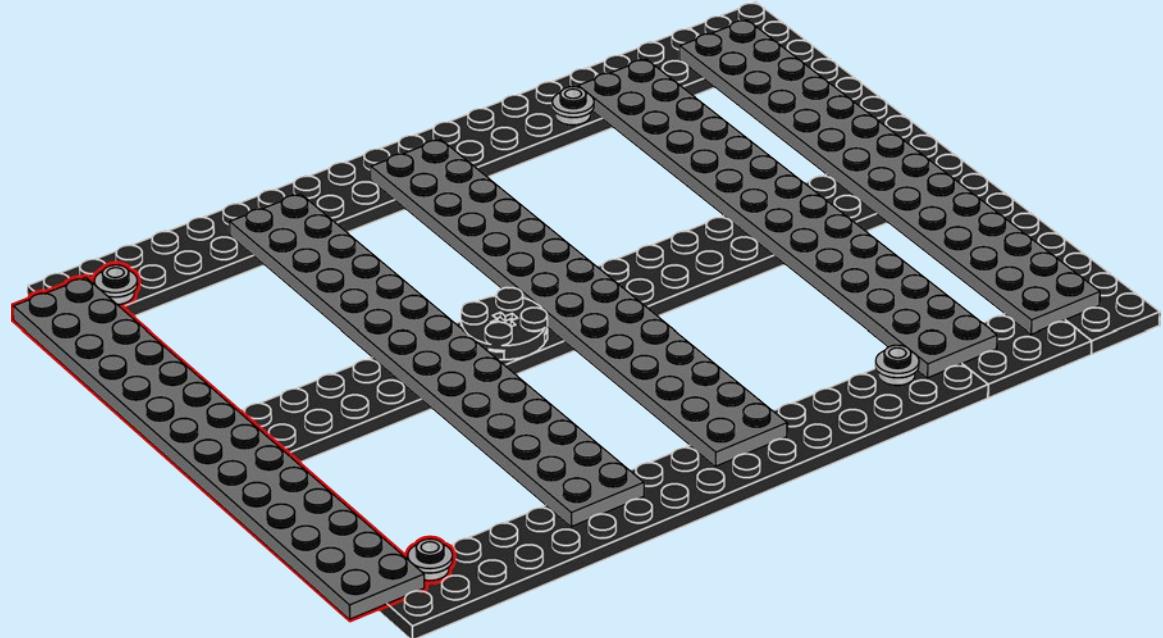


6

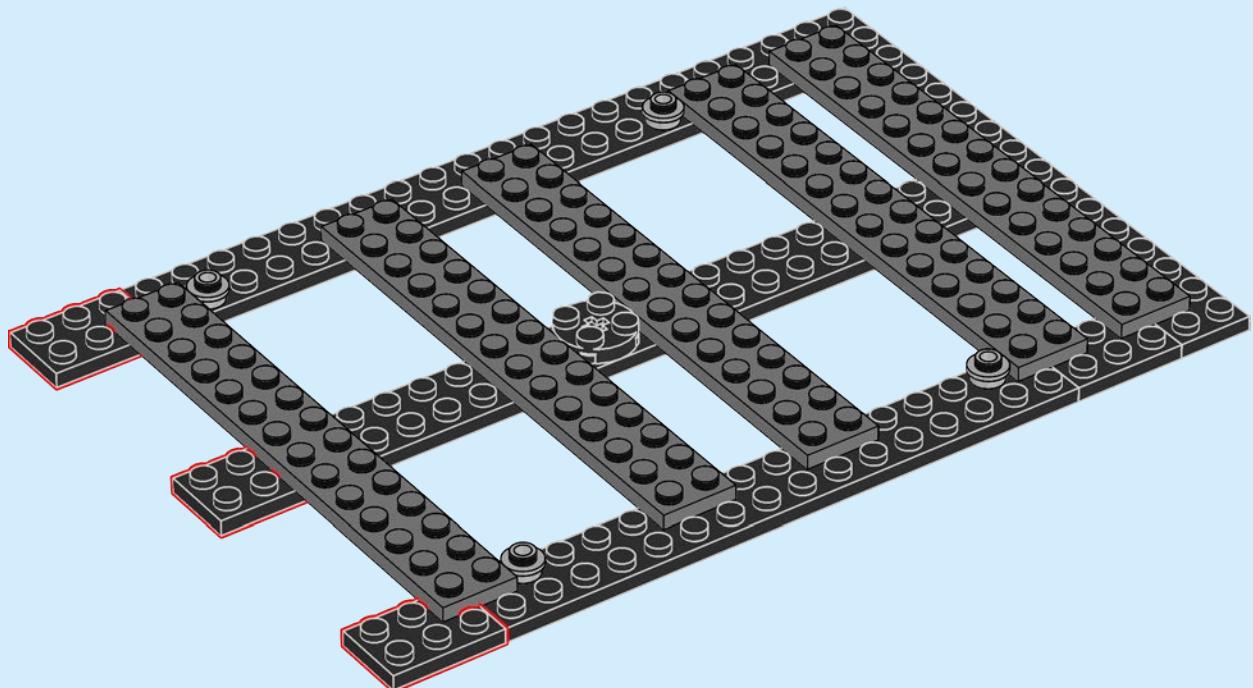


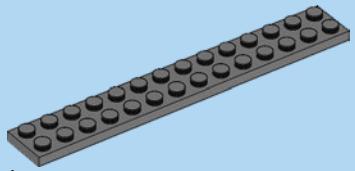


7

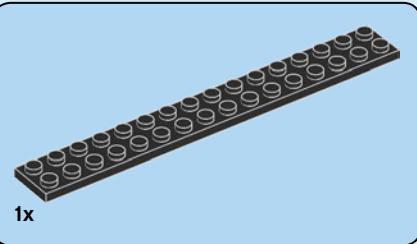
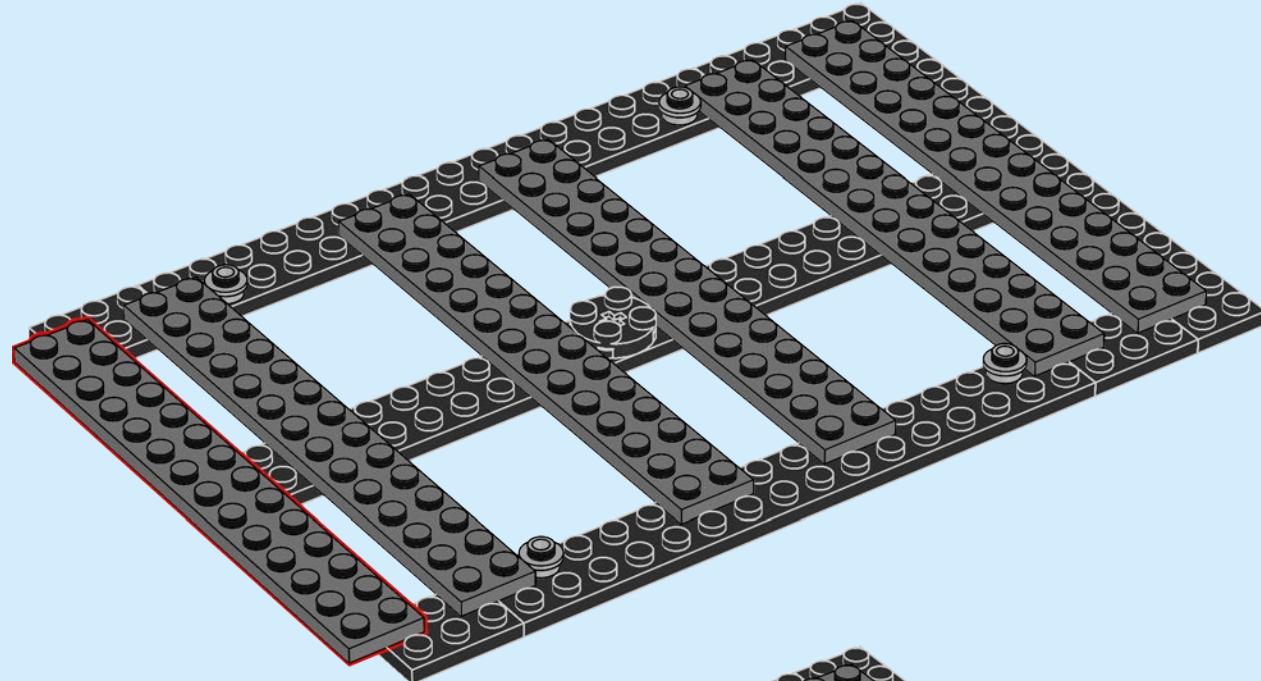


8

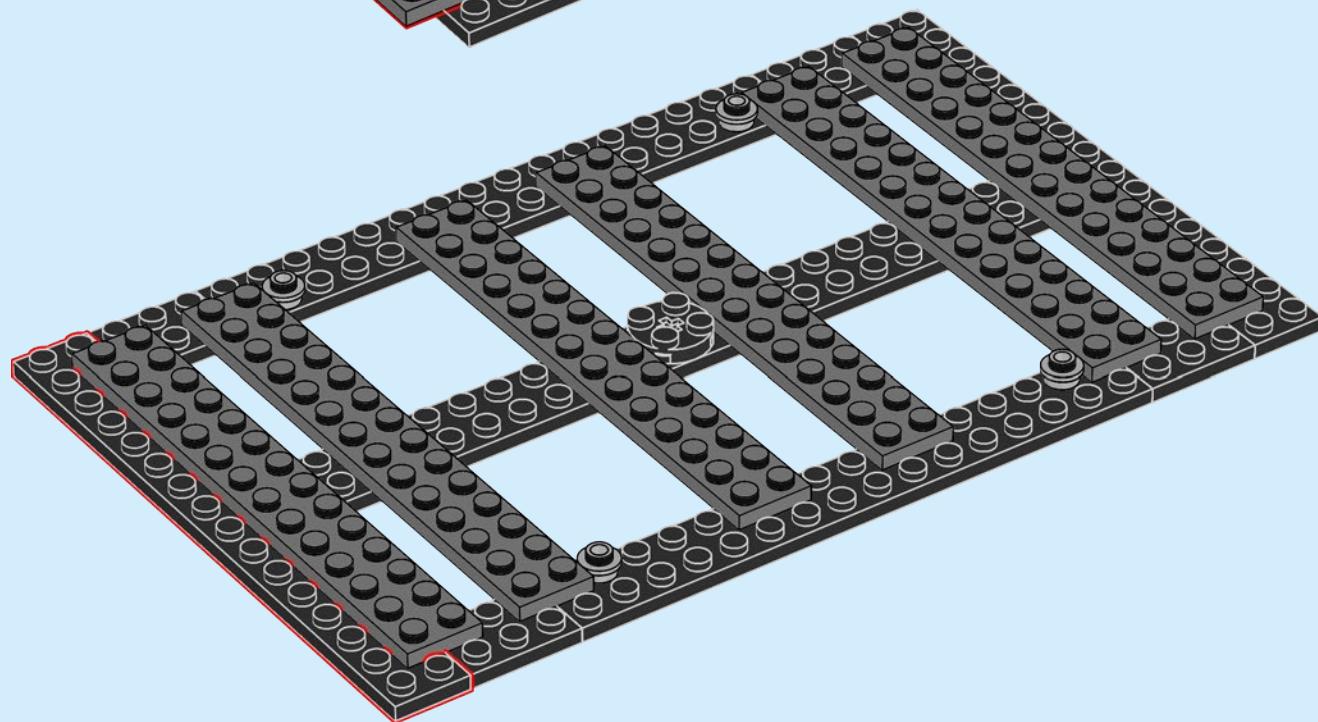


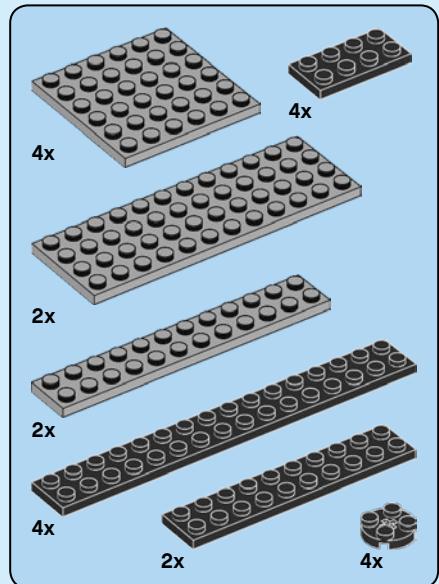
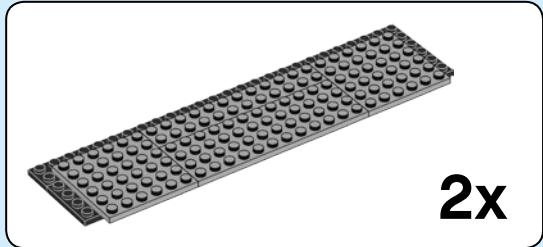


9



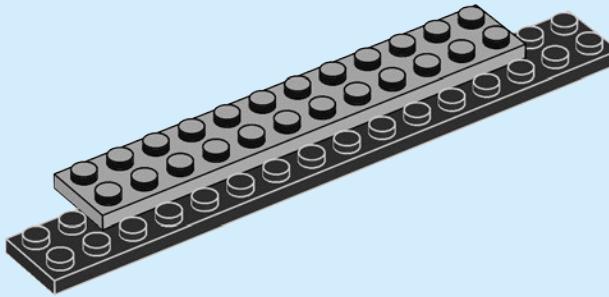
10



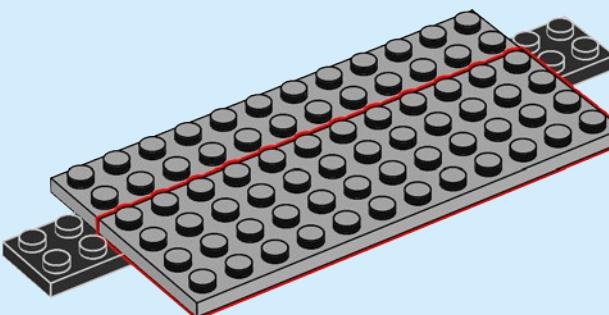


11

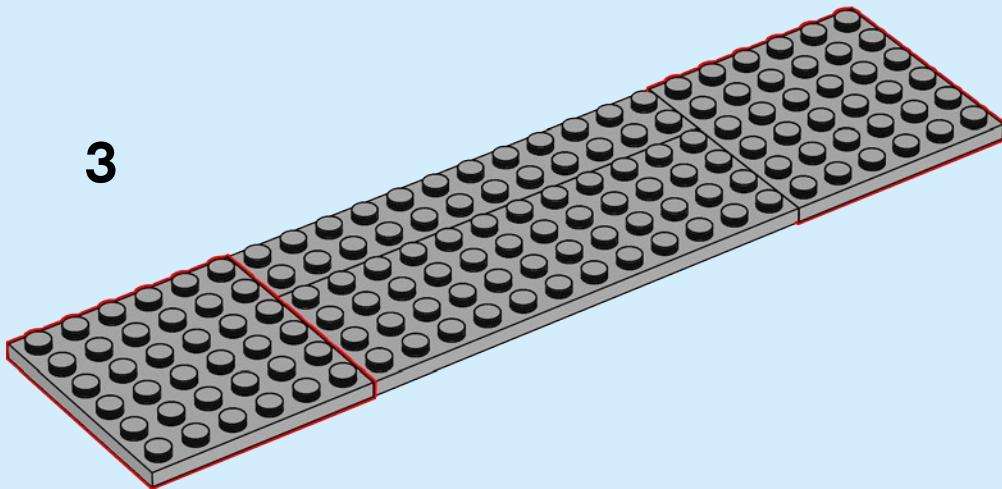
1

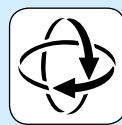


2

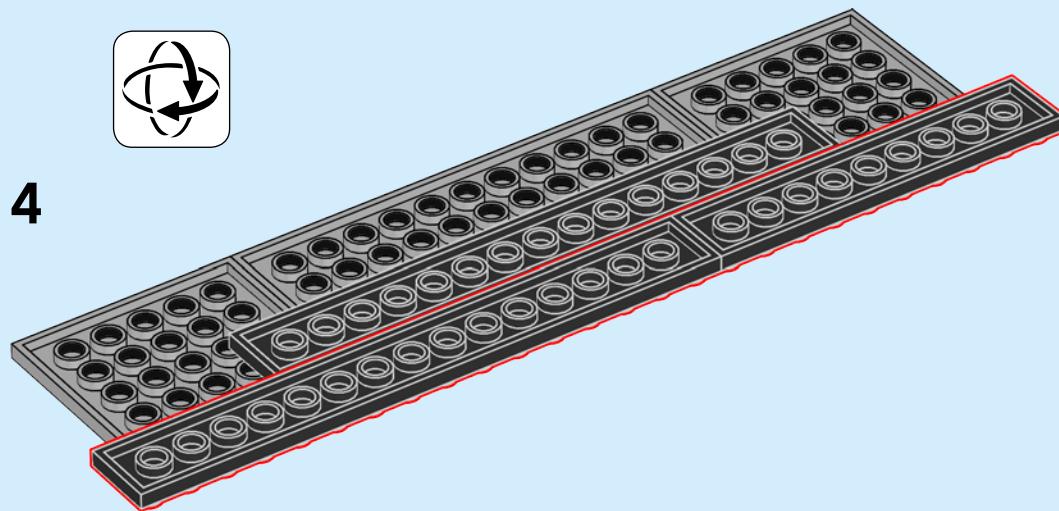


3

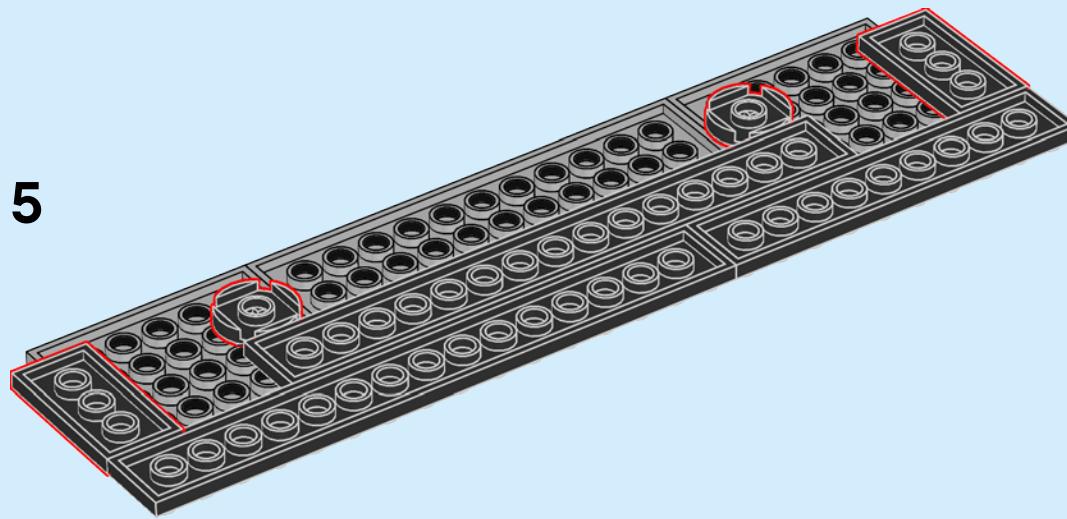




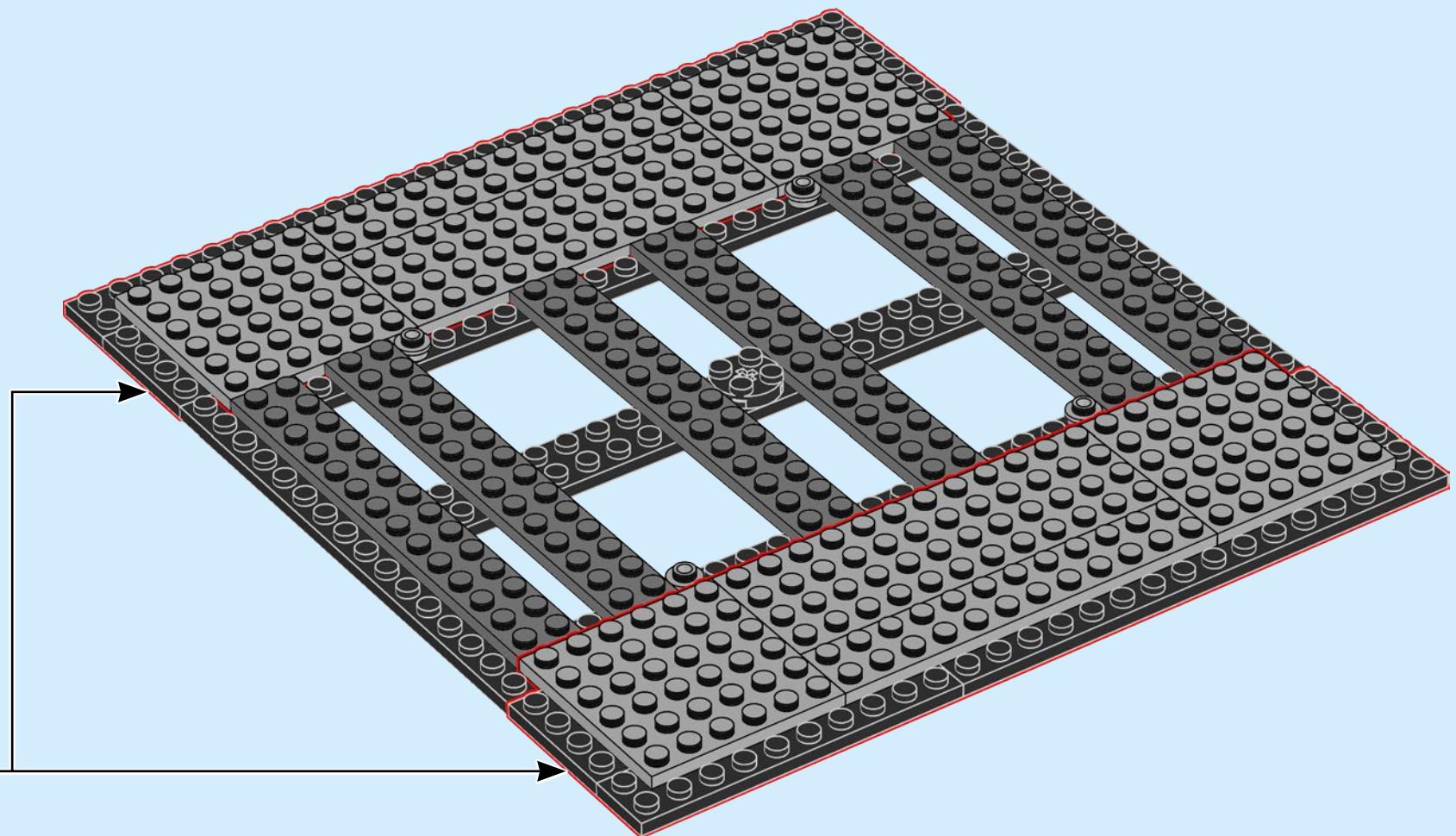
4

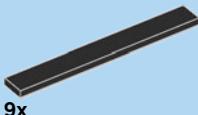


5



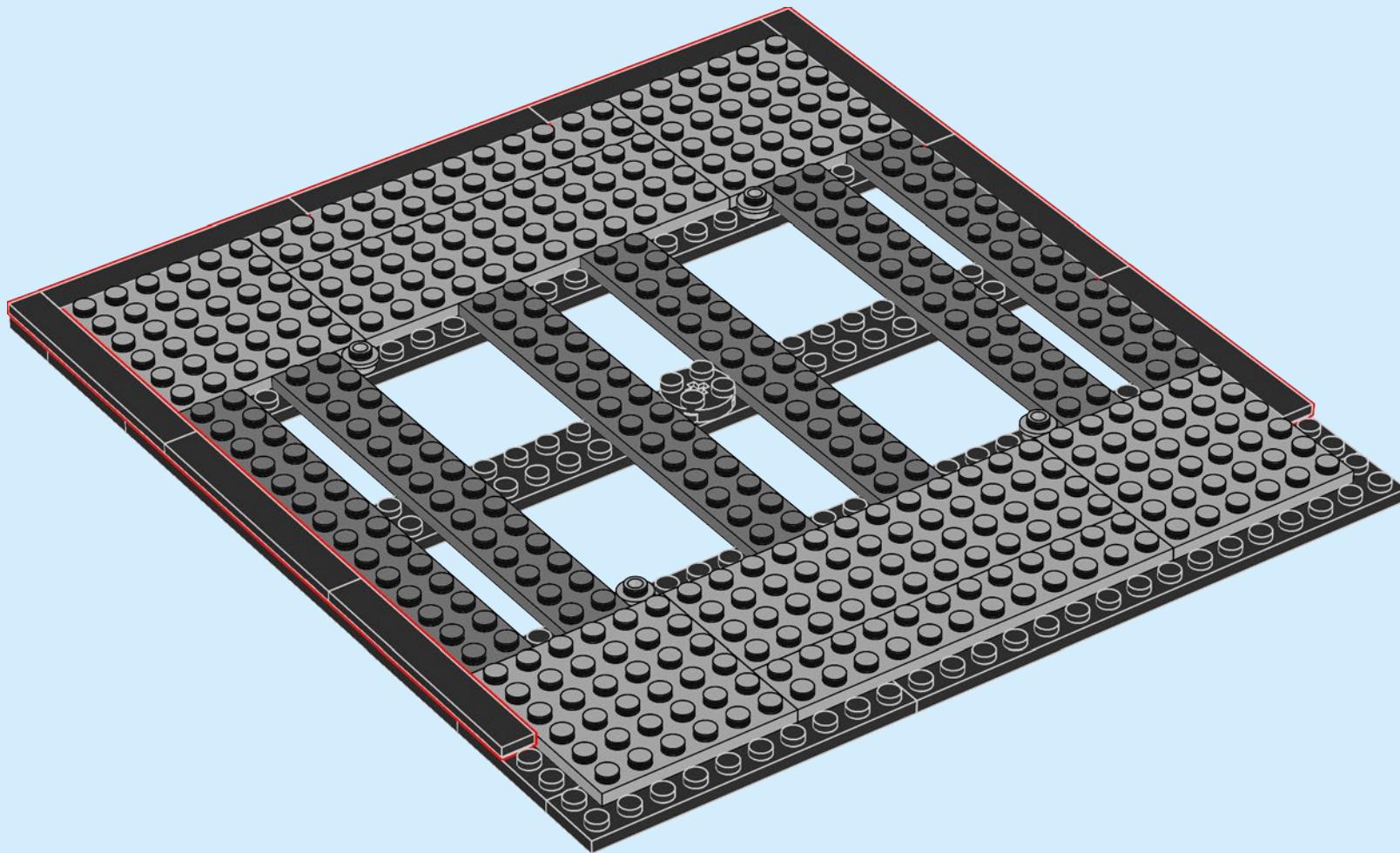
2x

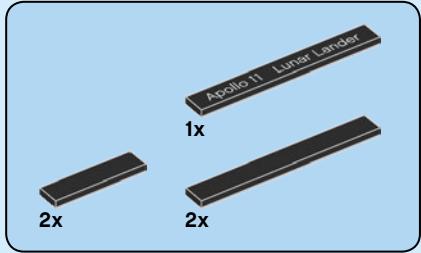




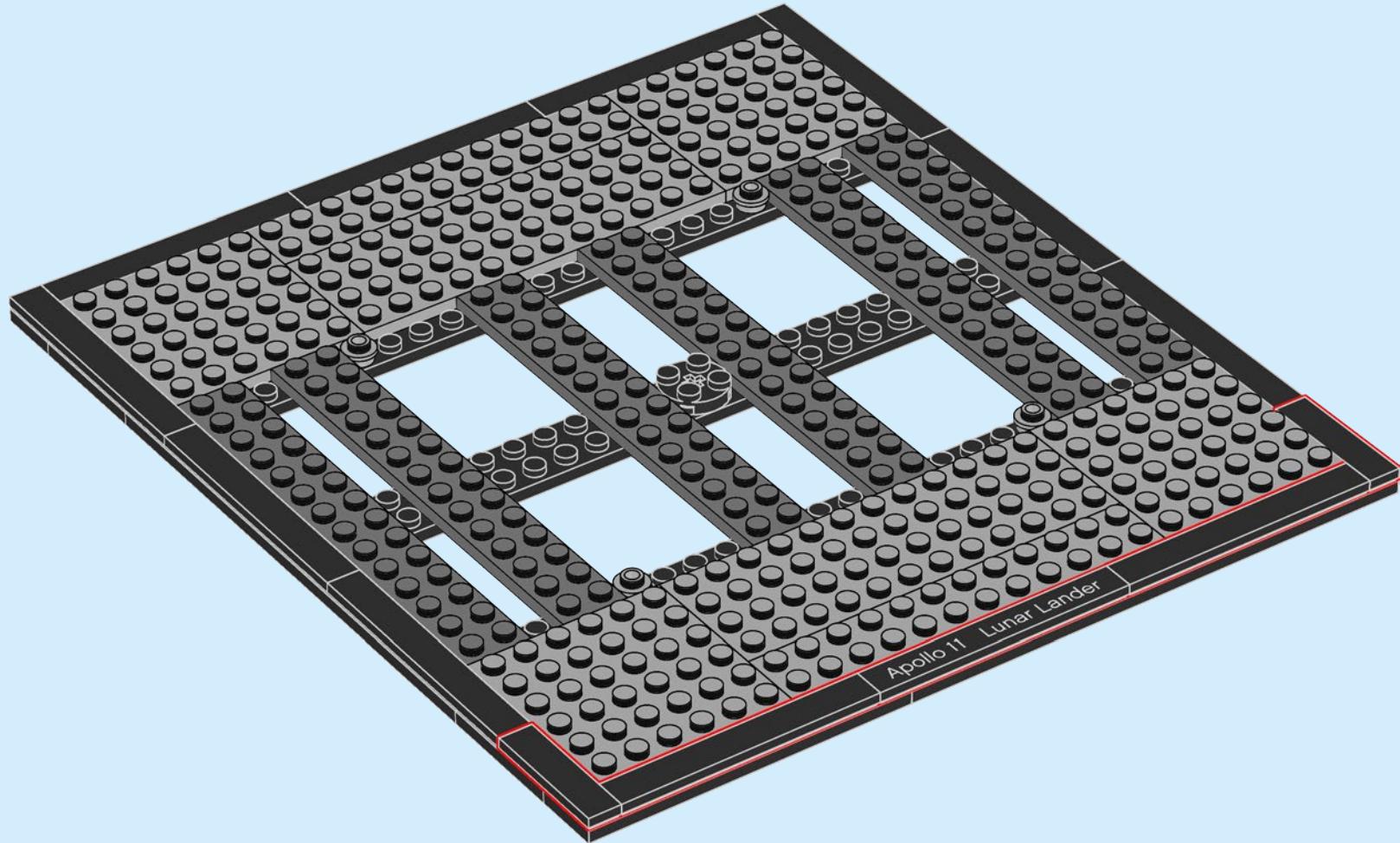
9x

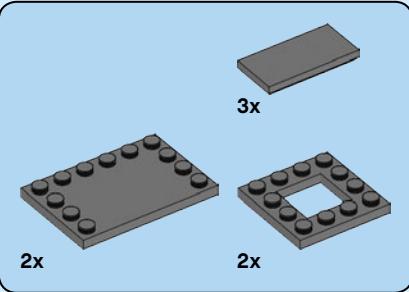
12



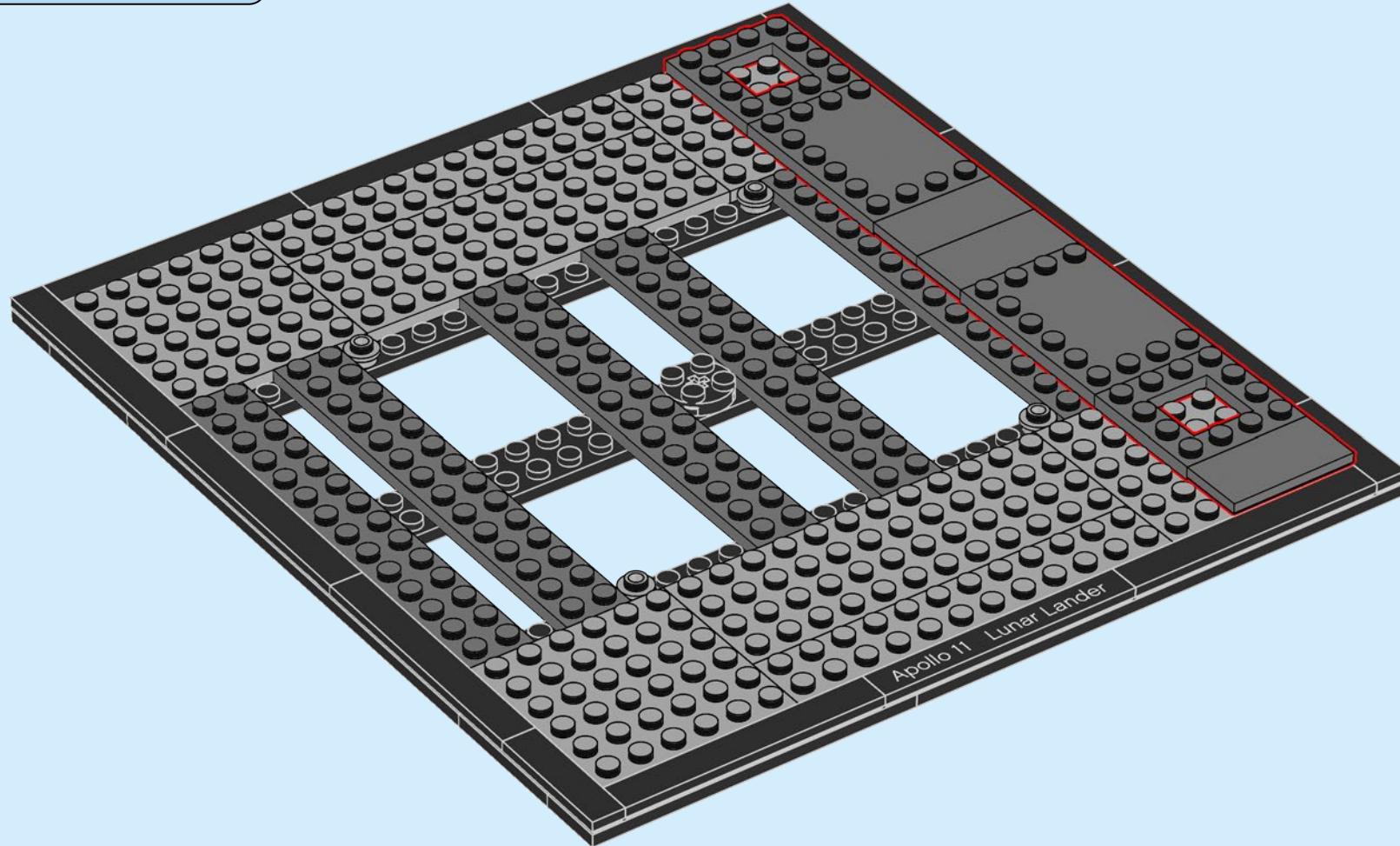


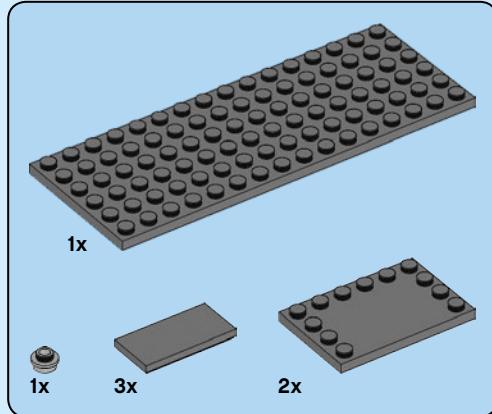
13



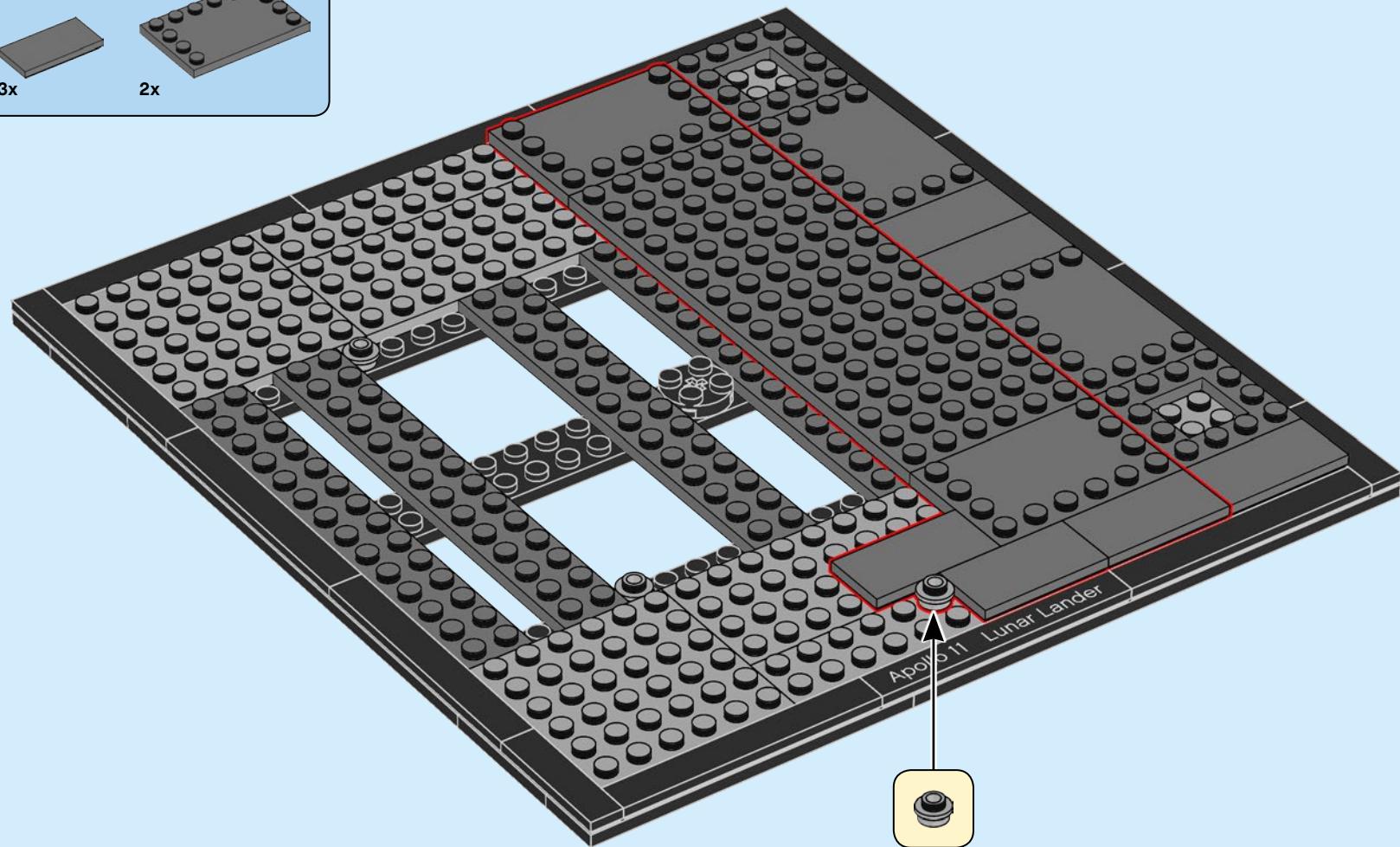


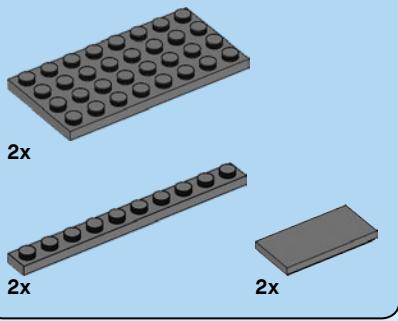
14



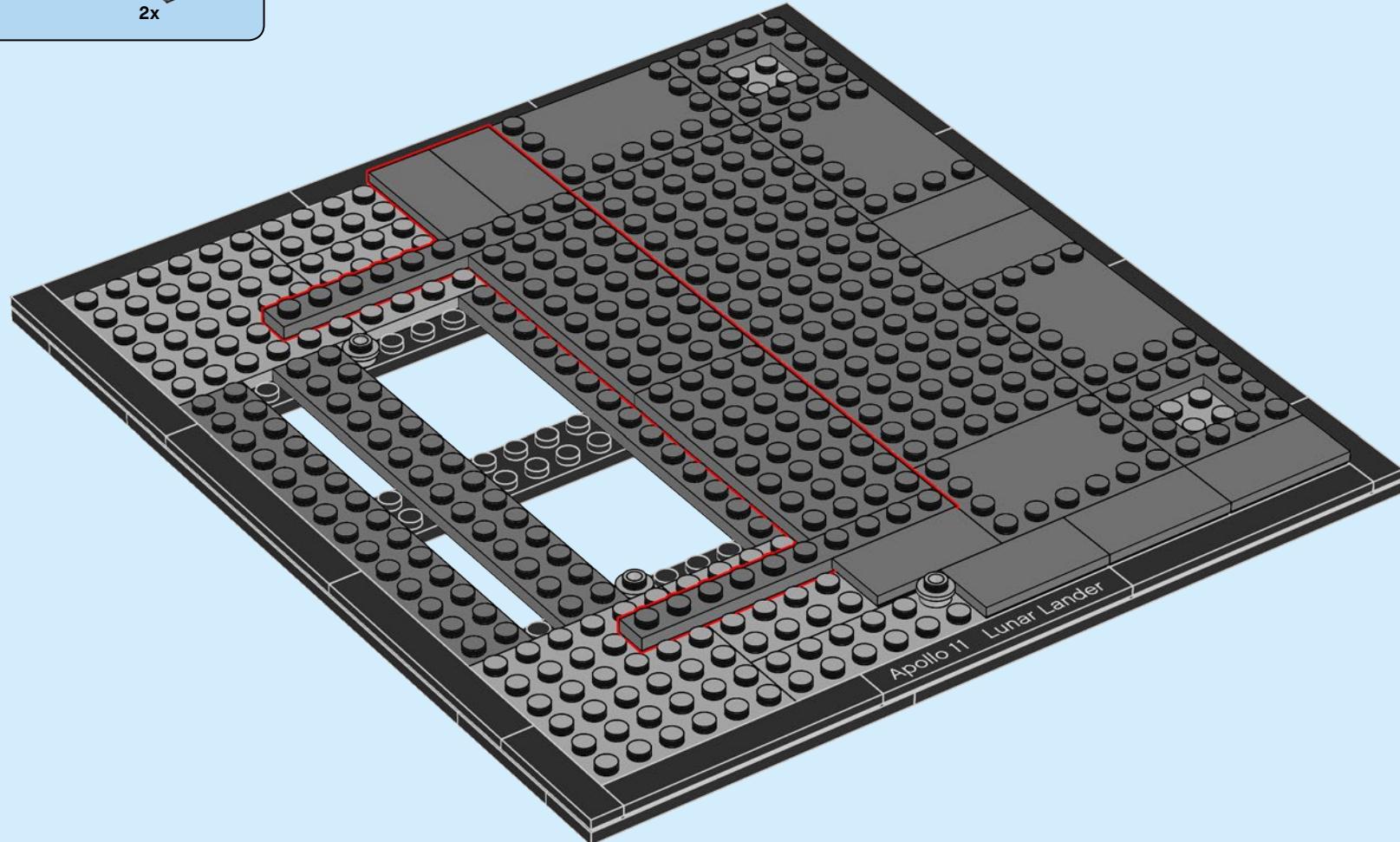


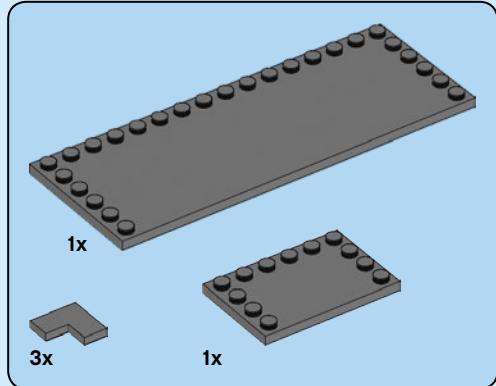
15



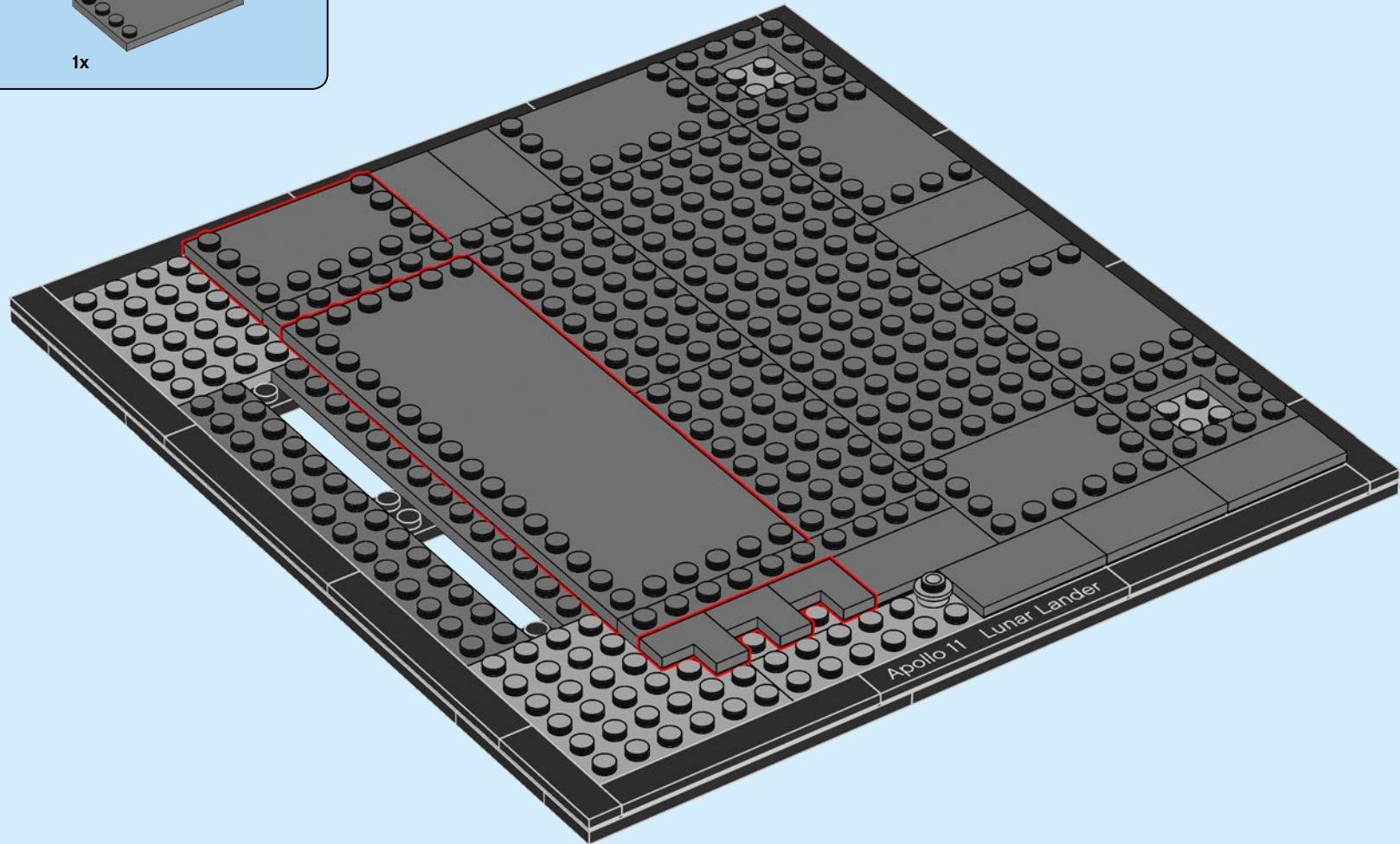


16





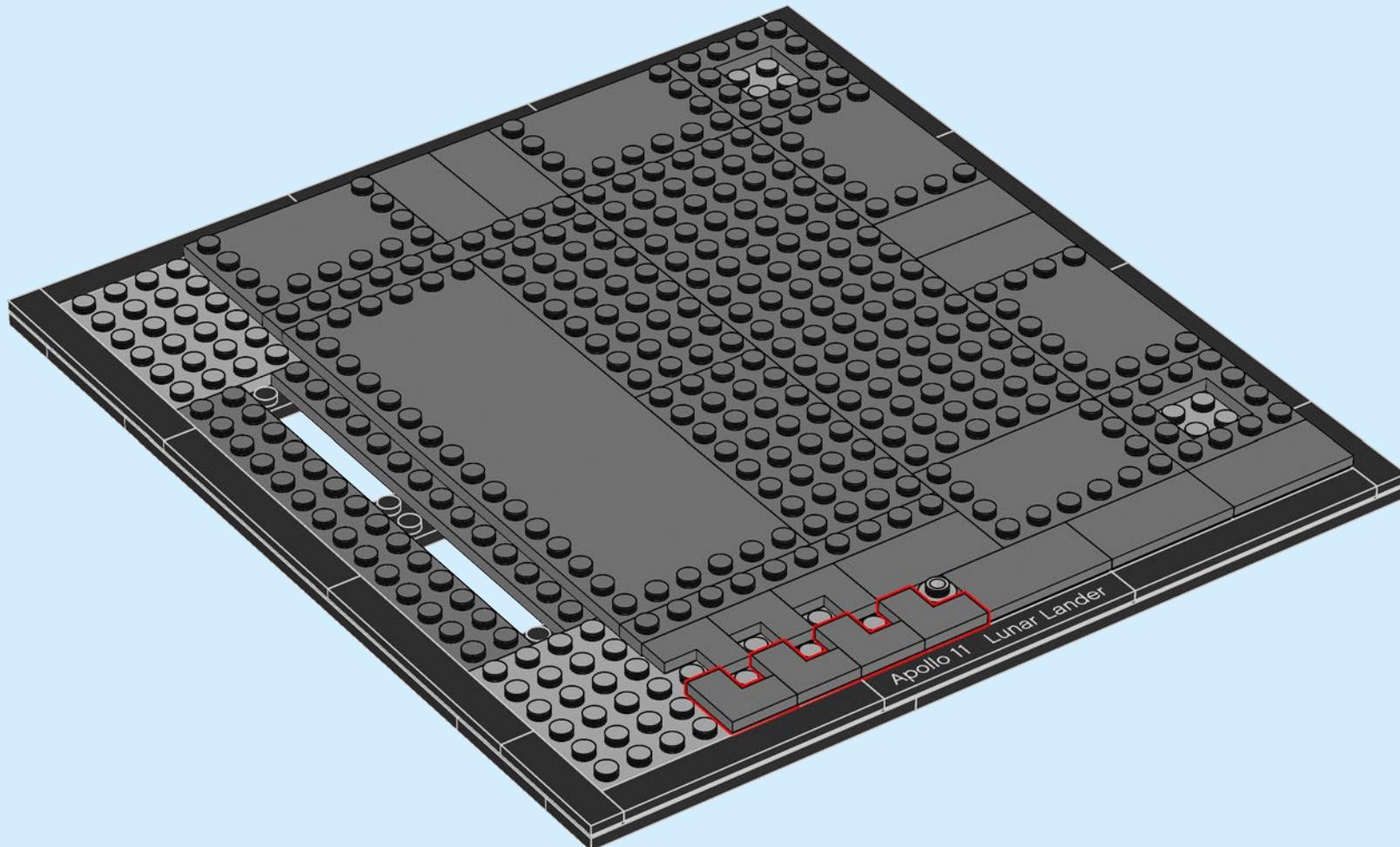
17

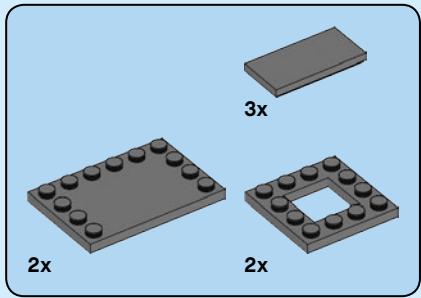




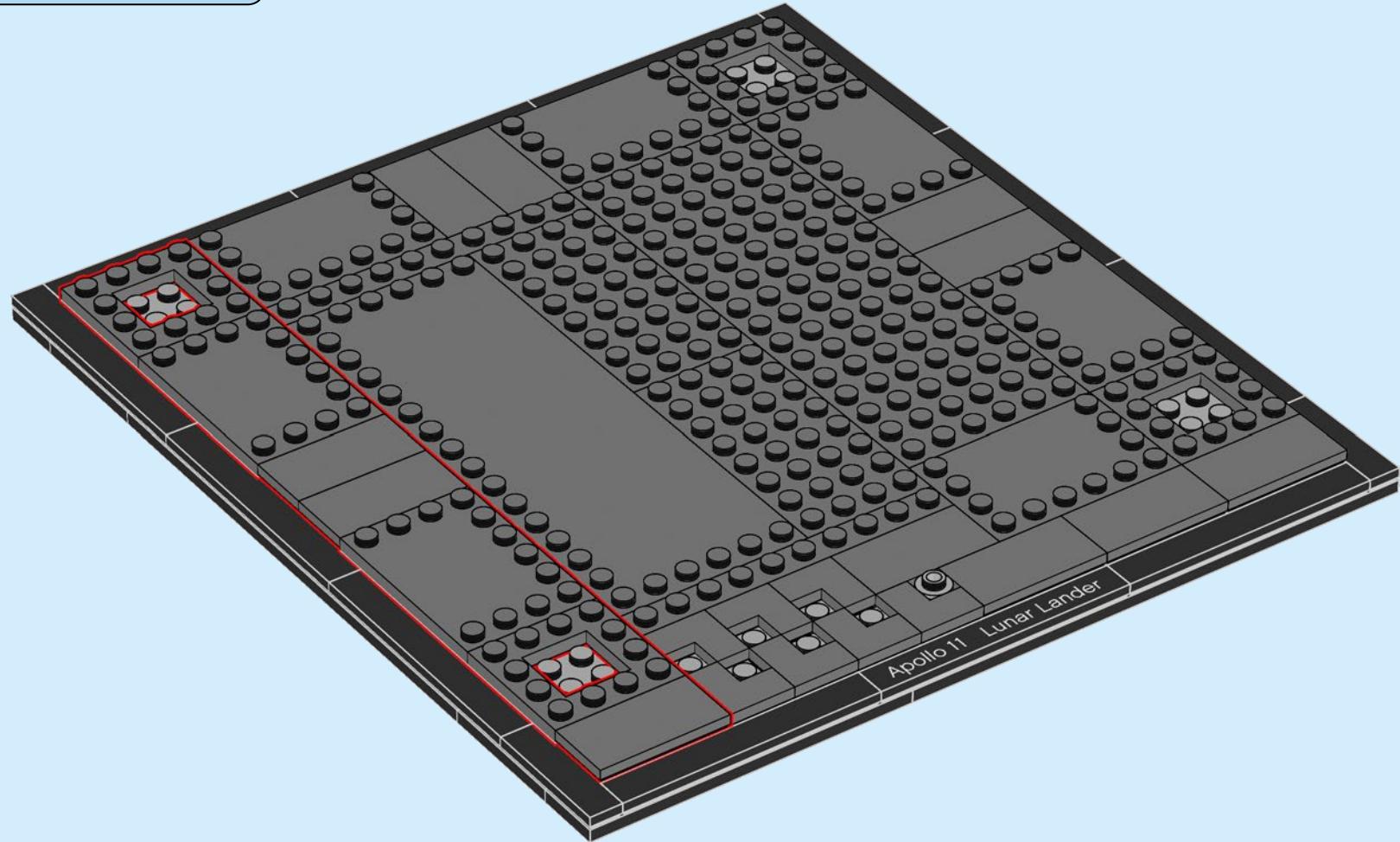
4x

18





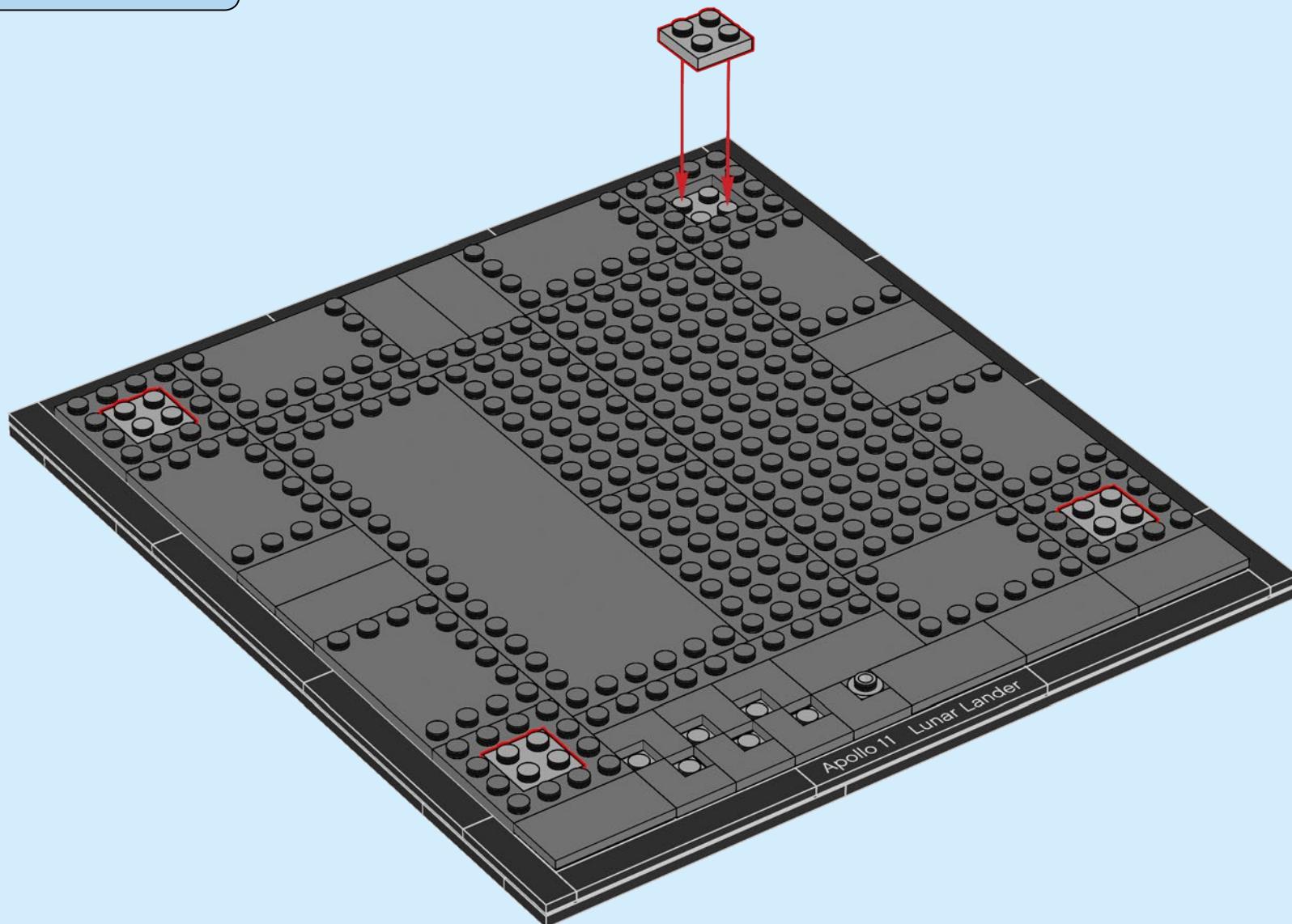
19

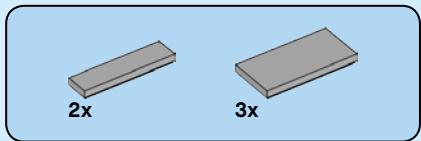




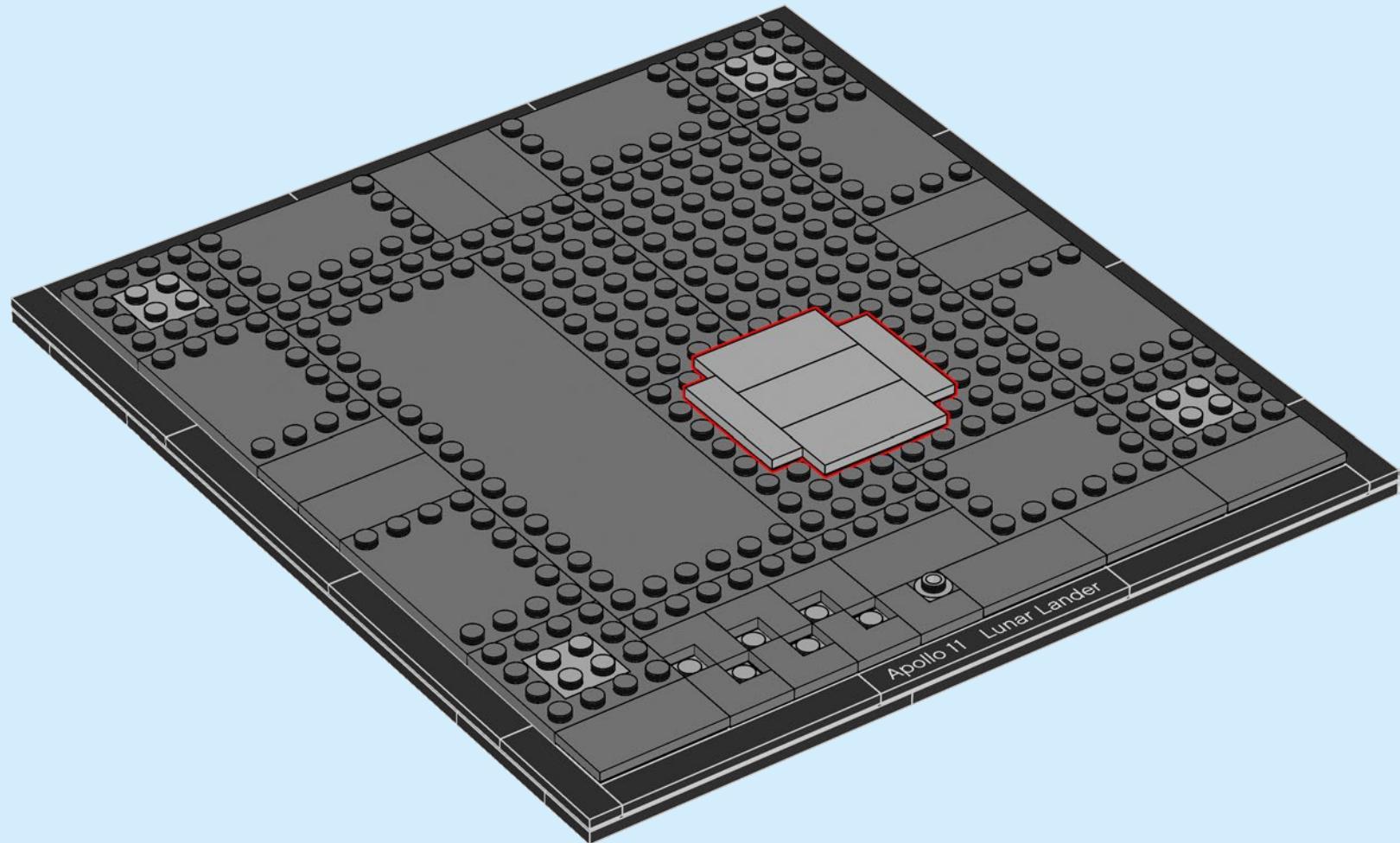
4x

20





21



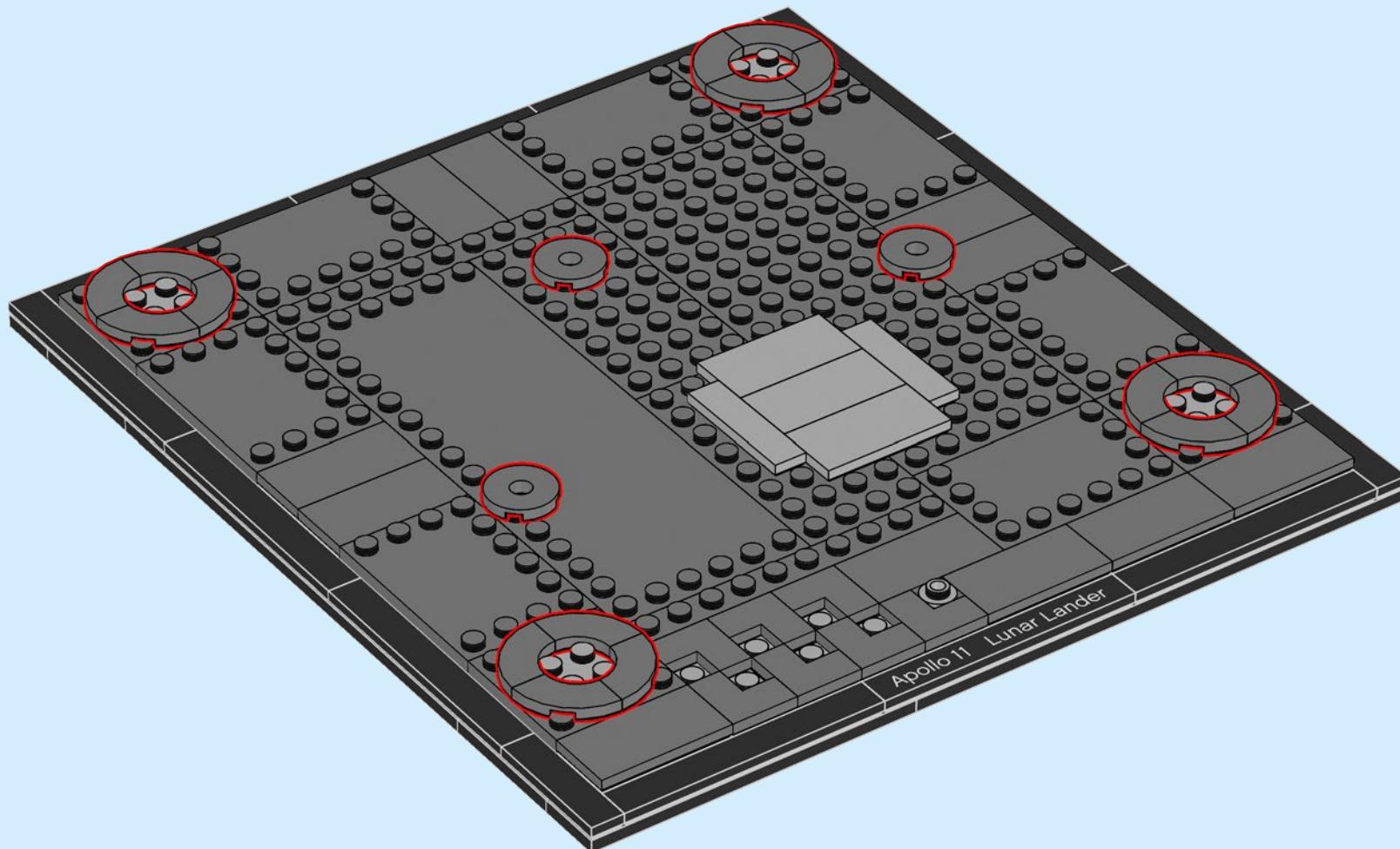


16x



3x

22



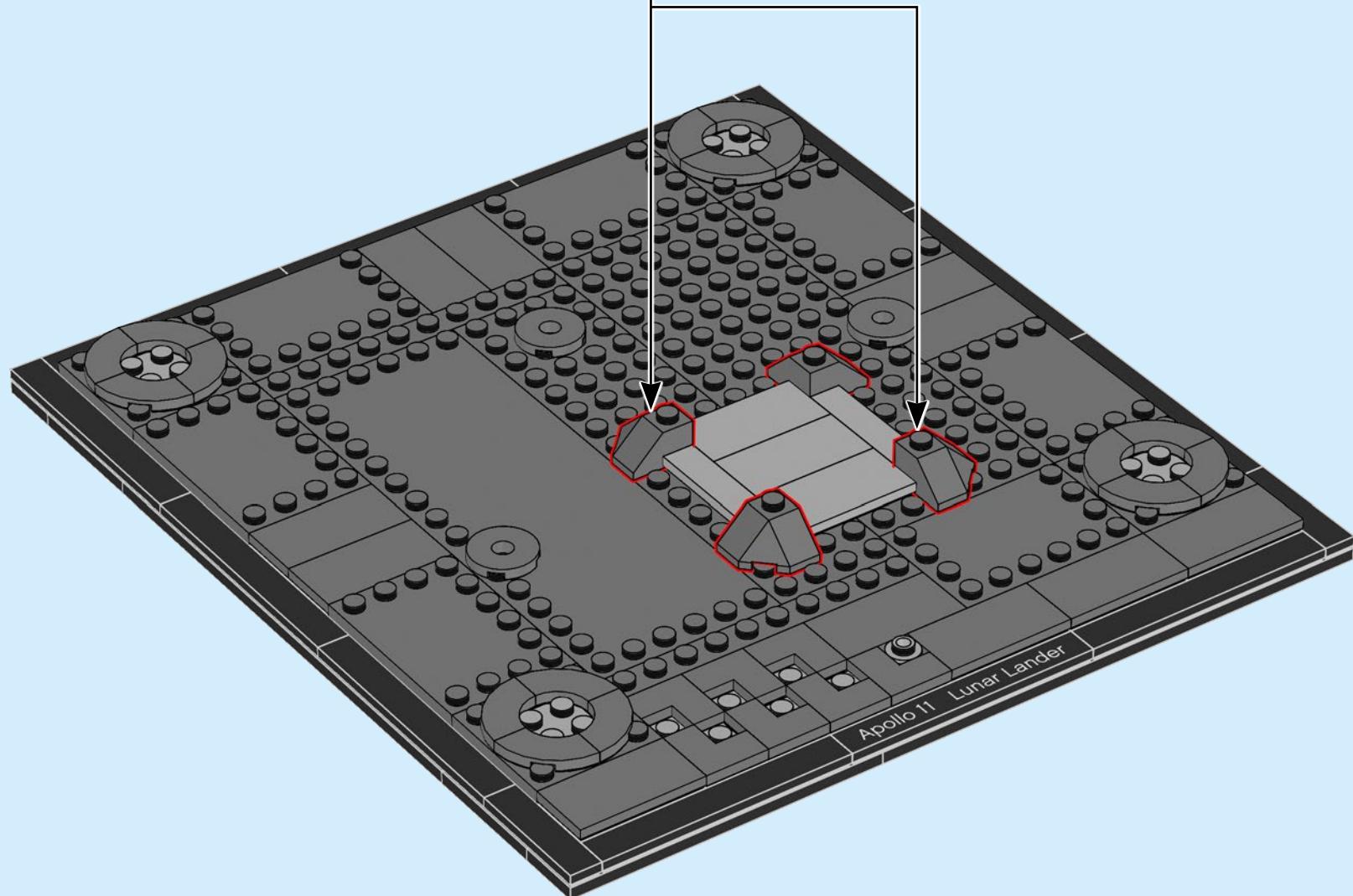


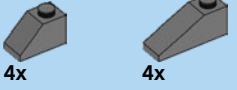
4x



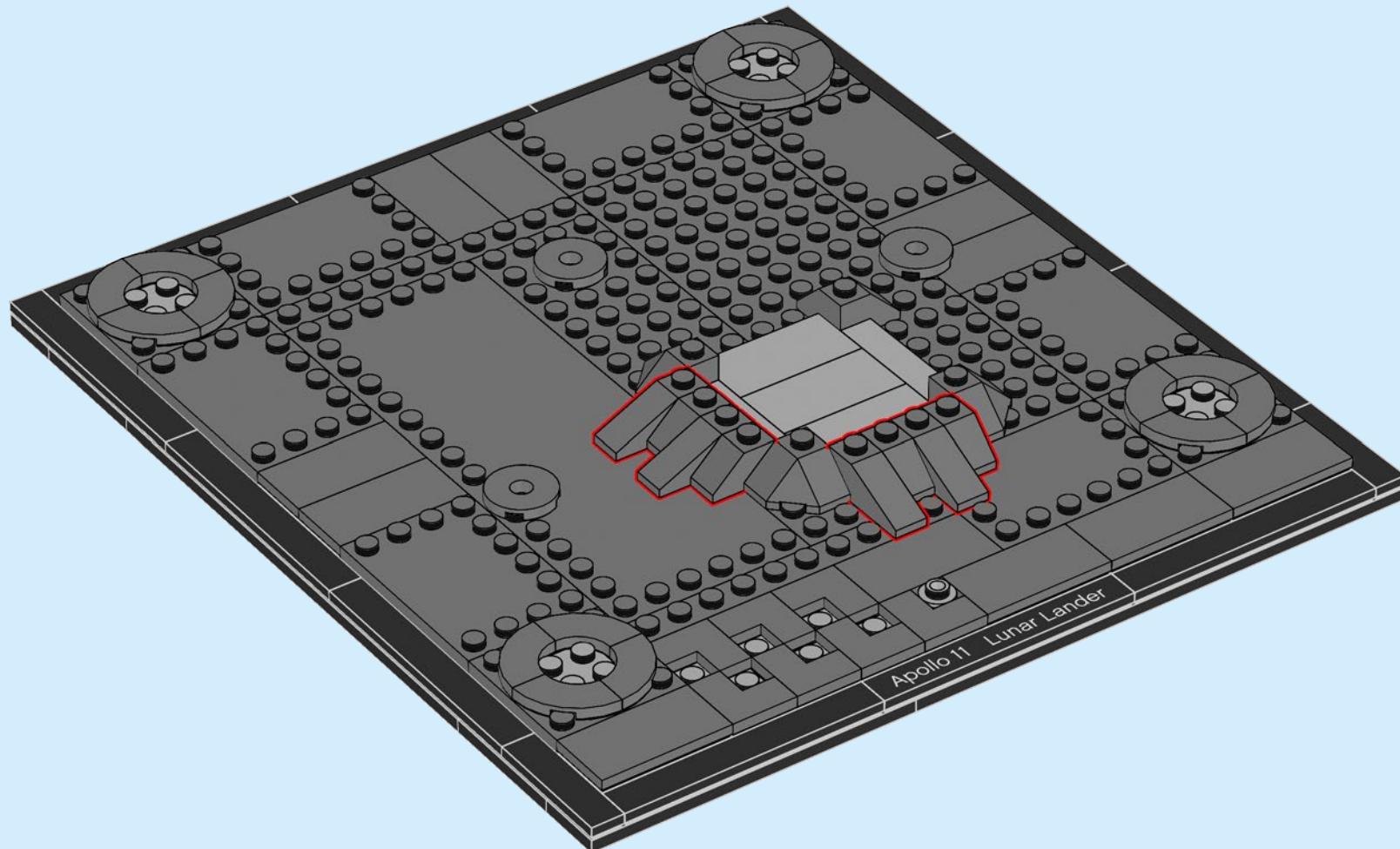
4x

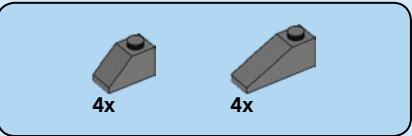
23



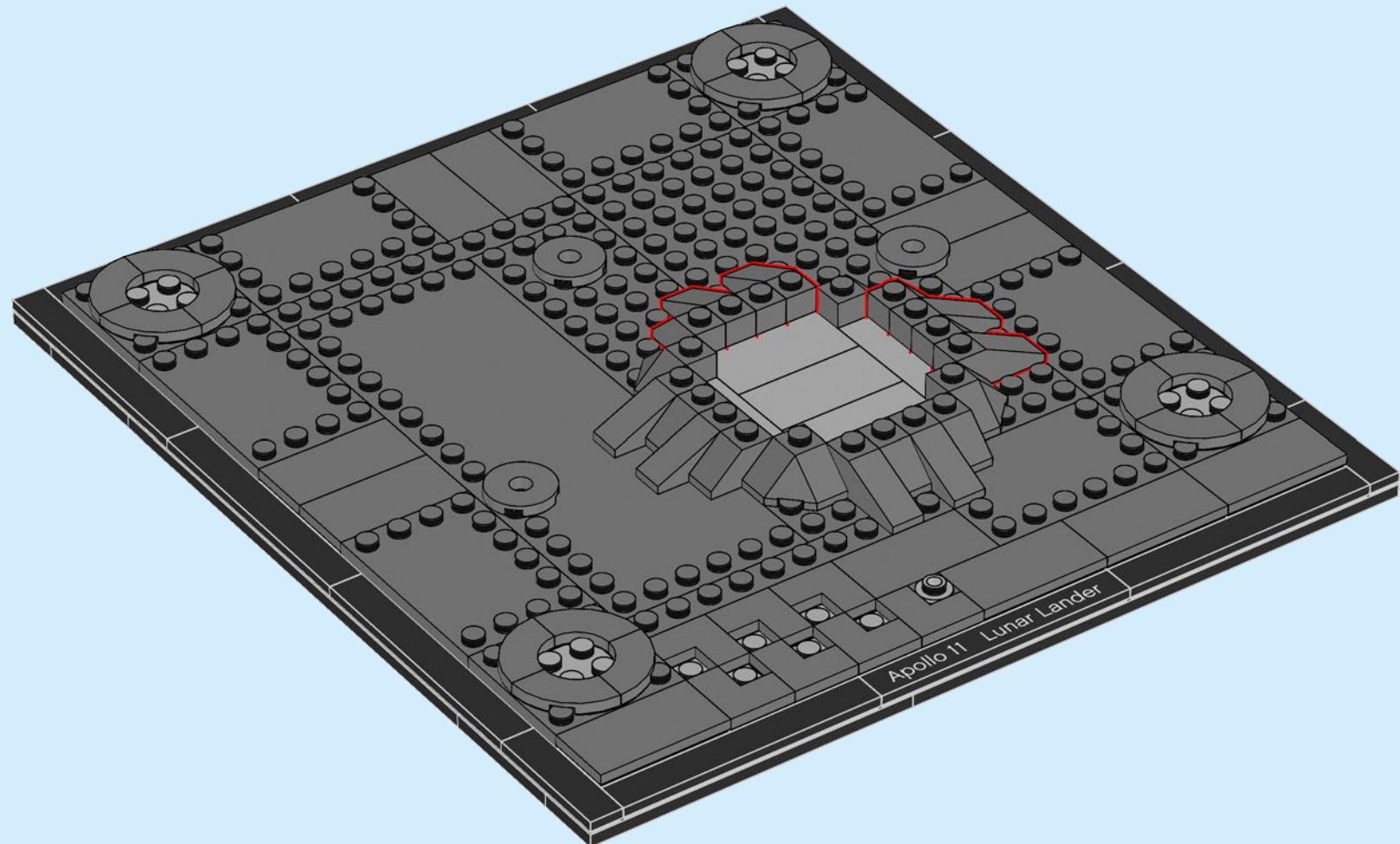


24





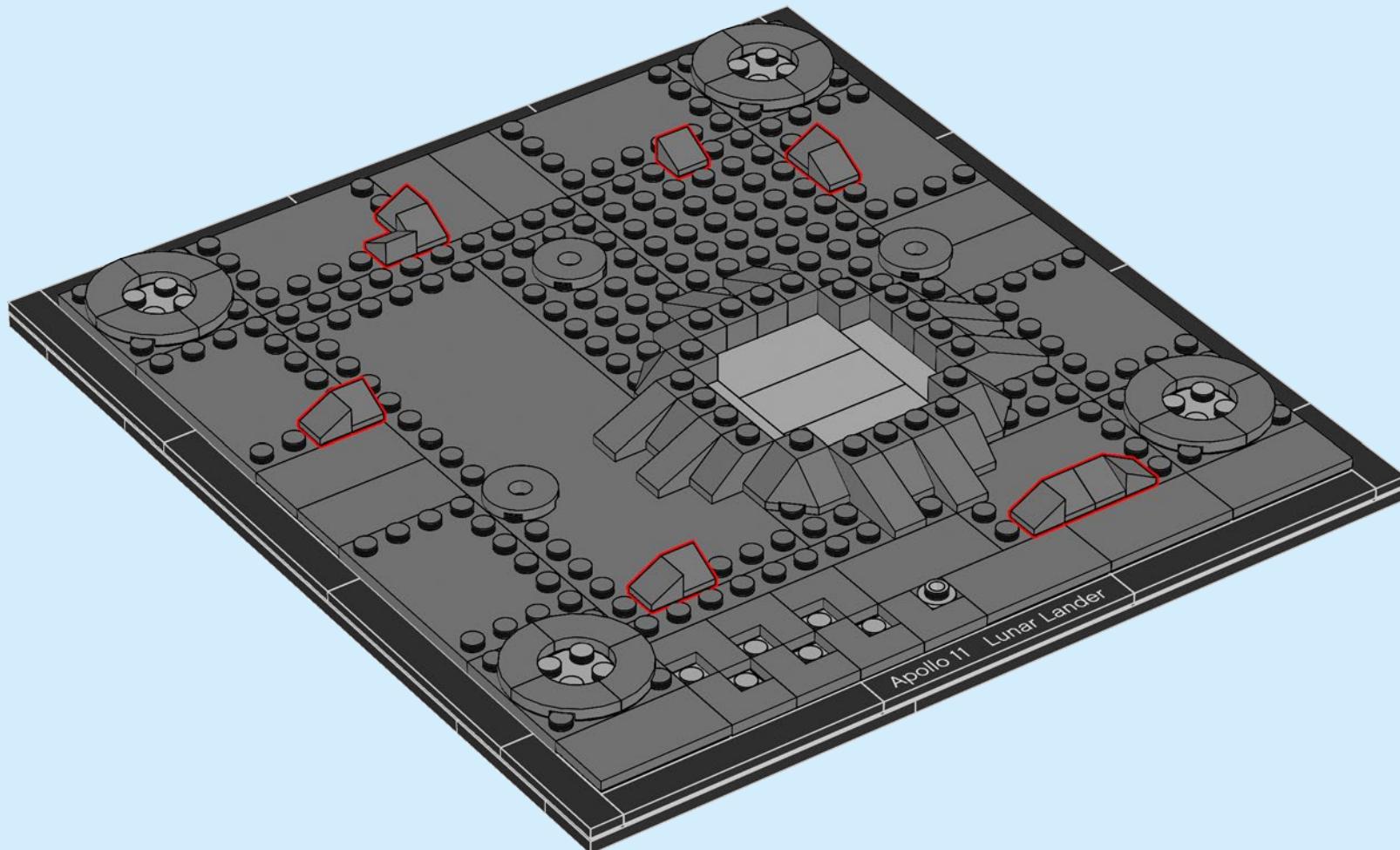
25





14x

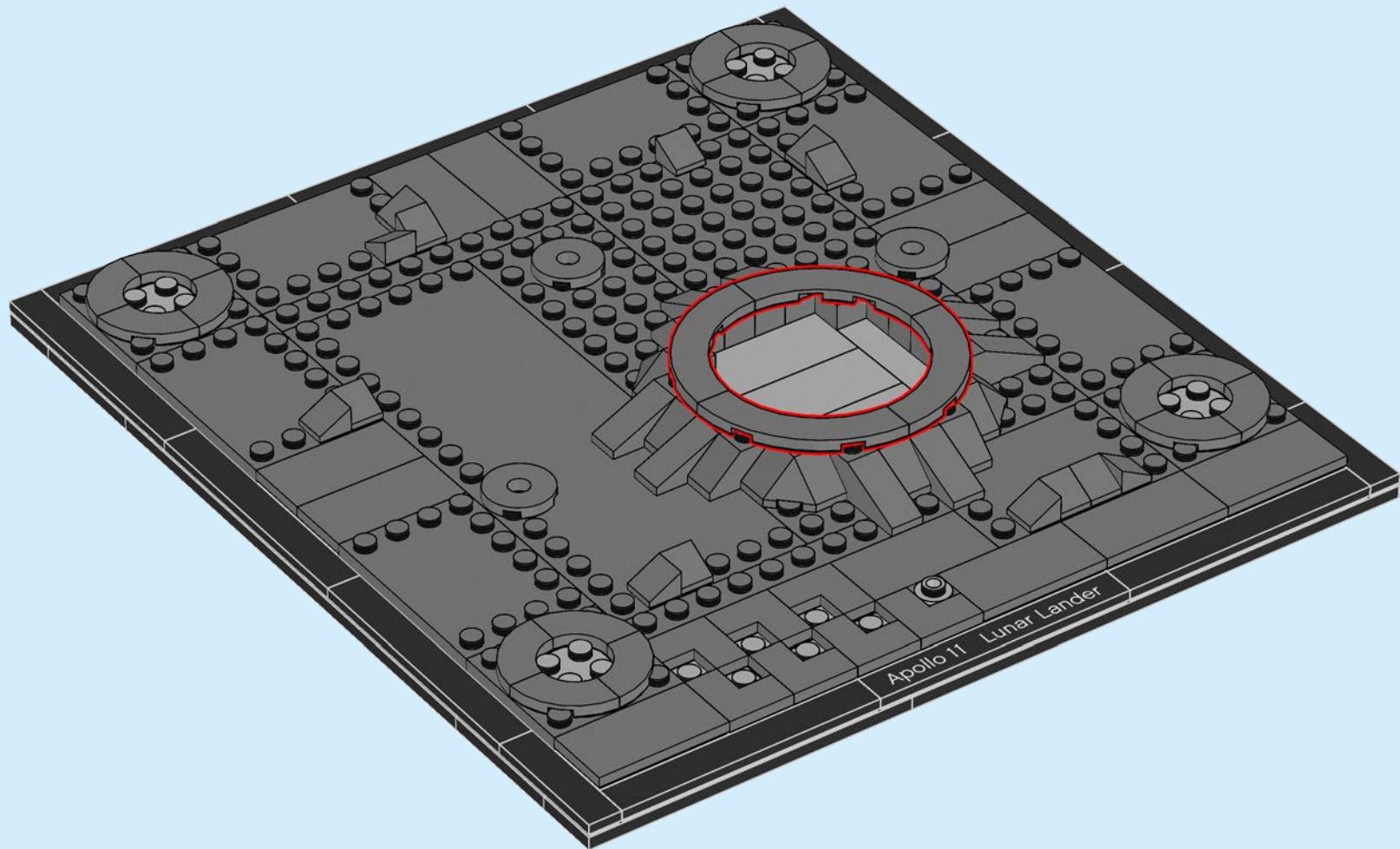
26





4x

27



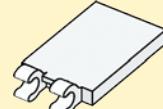
1x



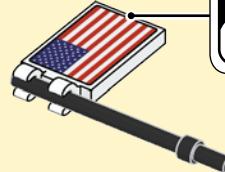
1x



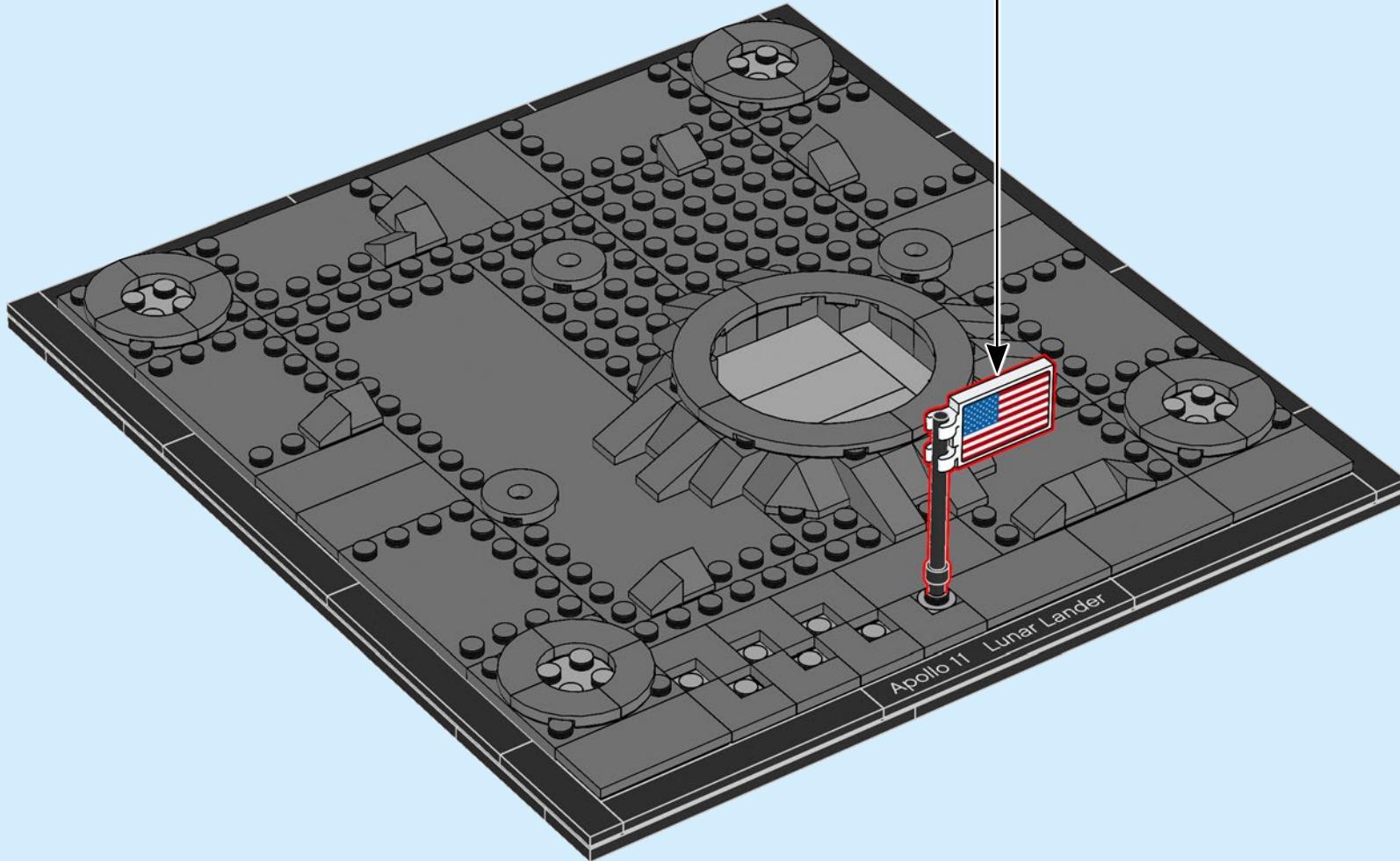
1

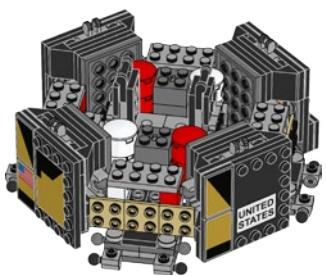


2



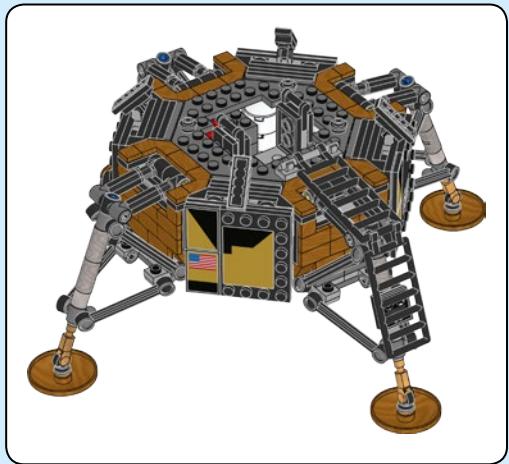
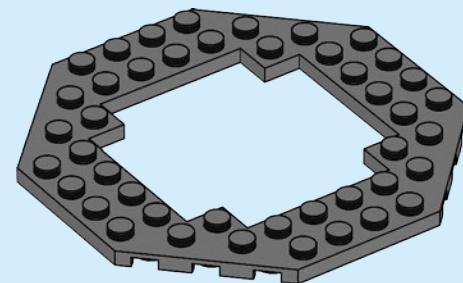
28

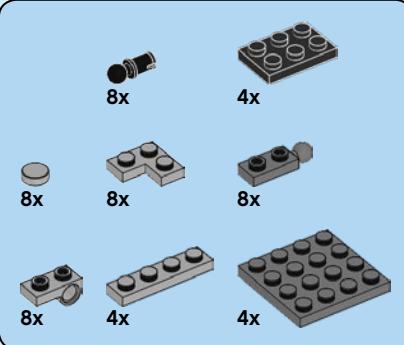




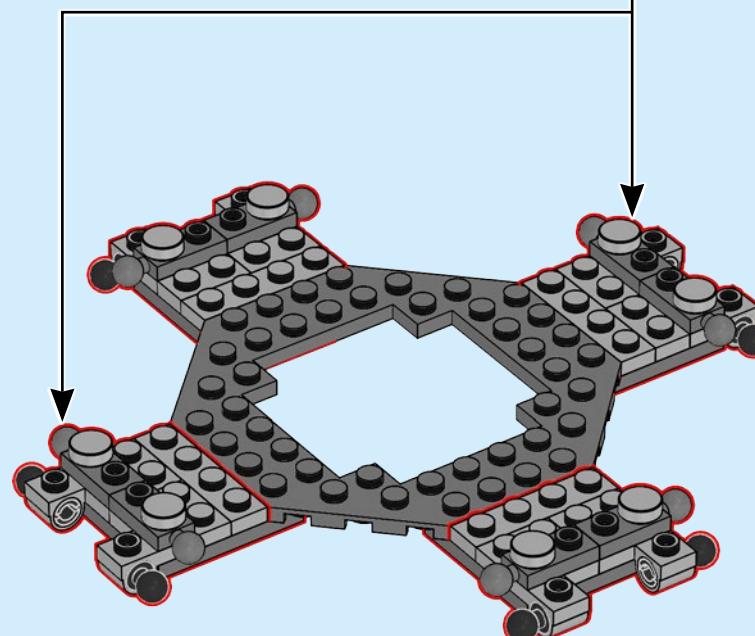
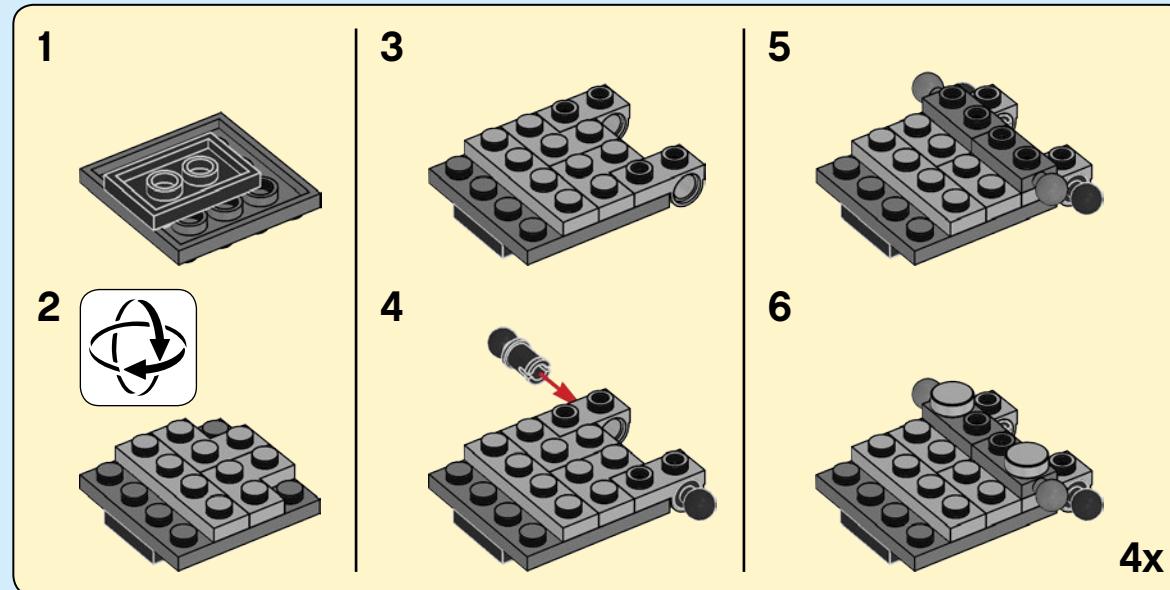
1x

1





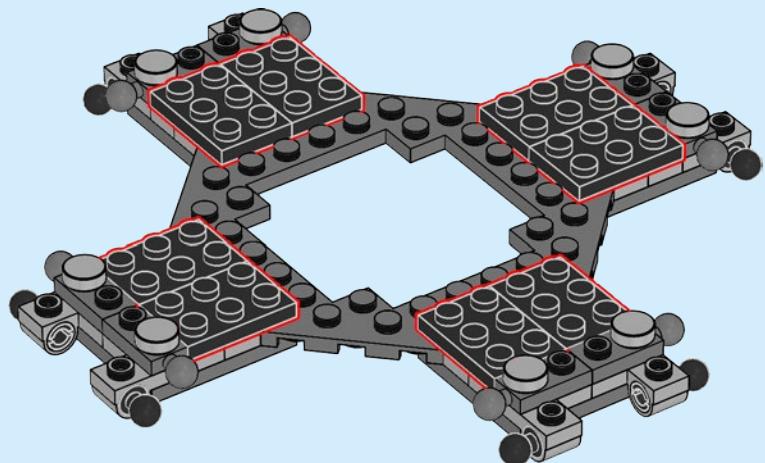
2





8x

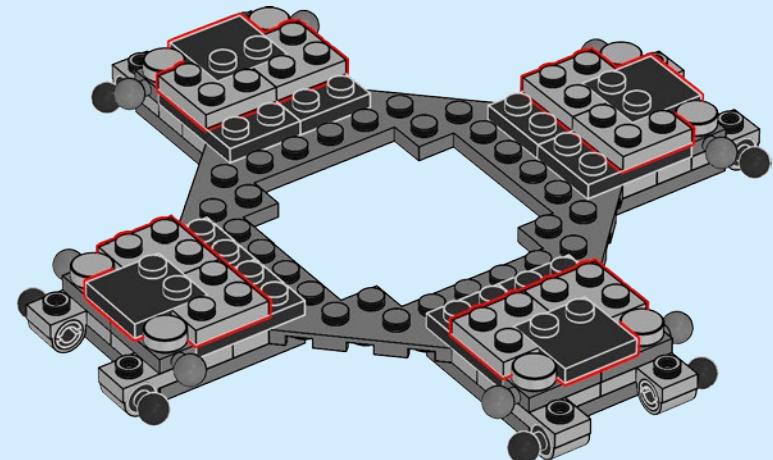
3



8x

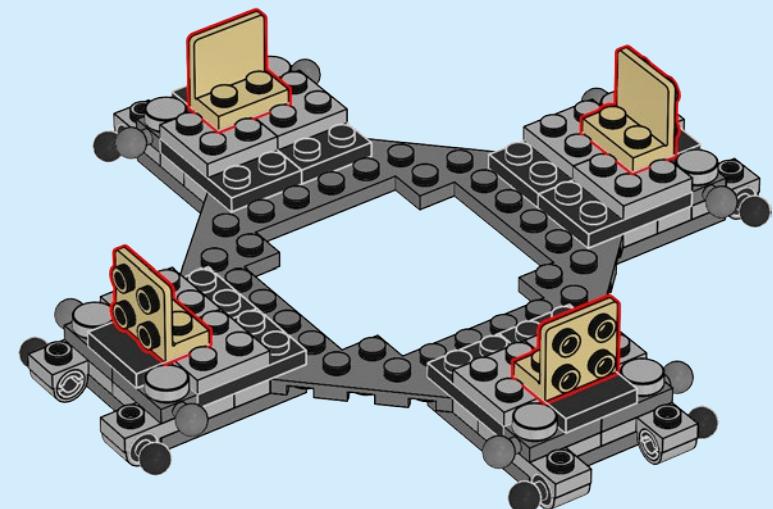
4x

4



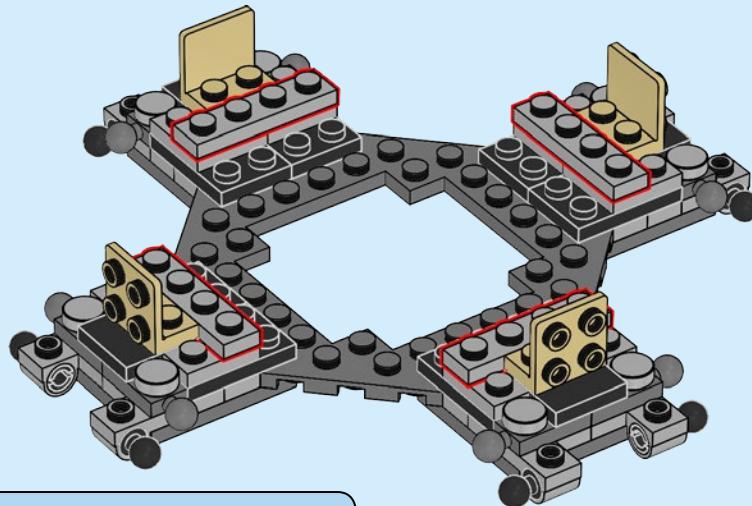
4x

5

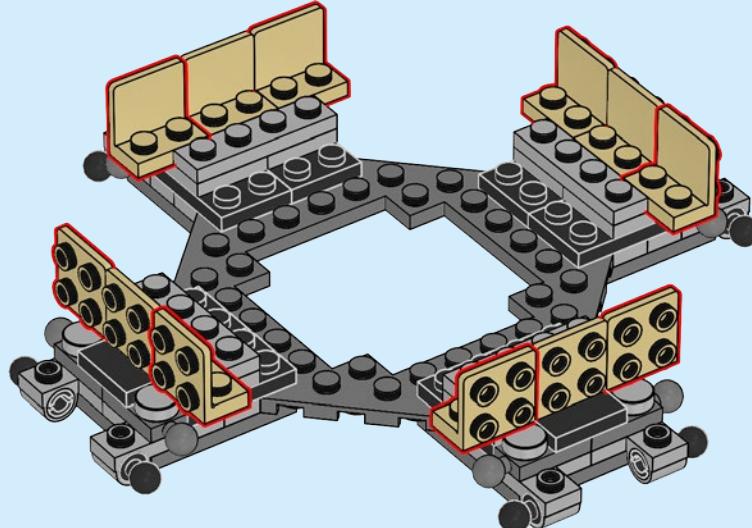




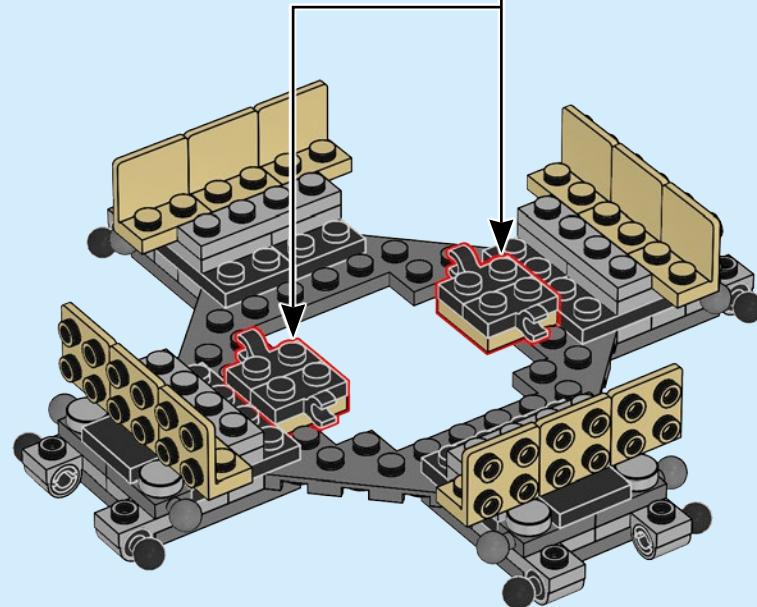
6



7

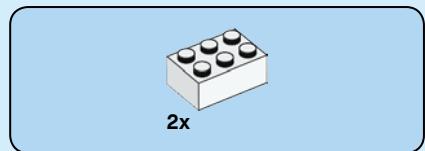
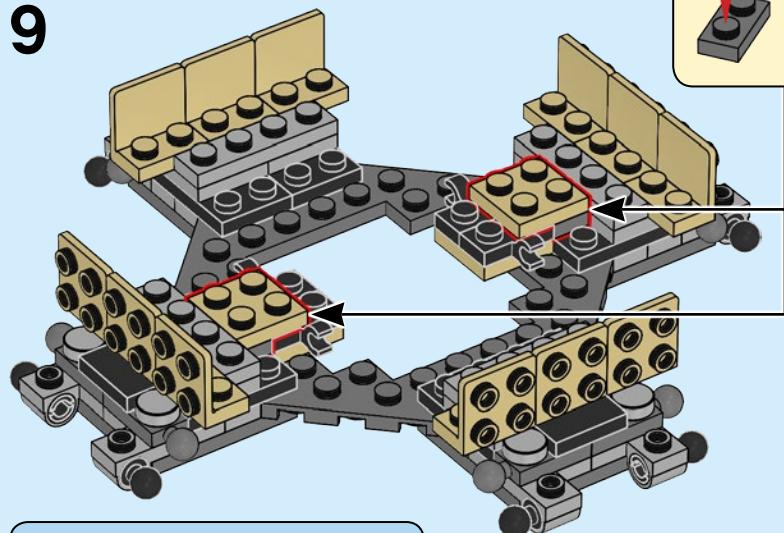


8

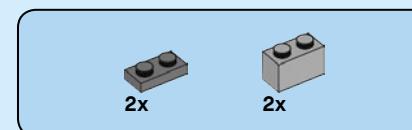
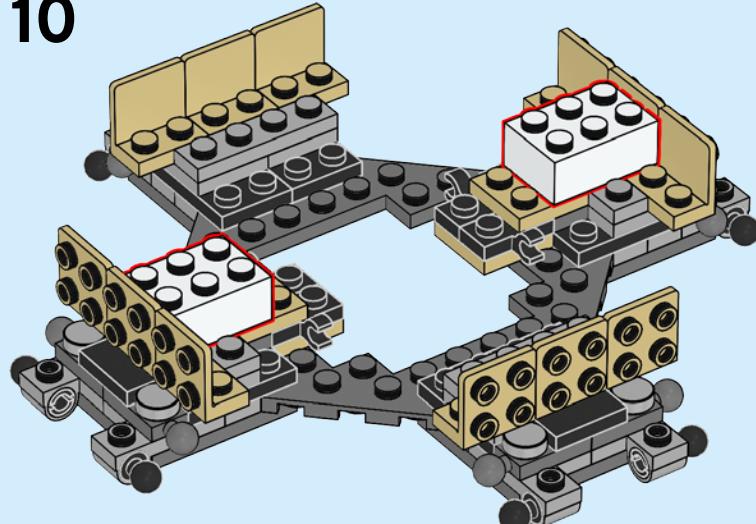




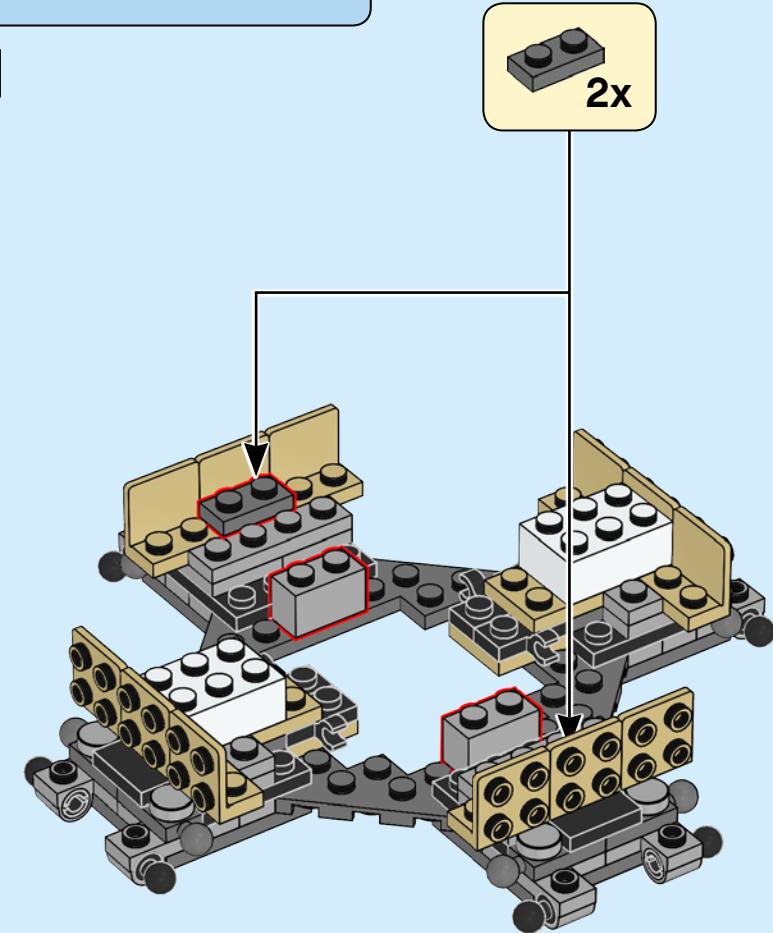
9

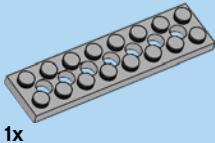


10

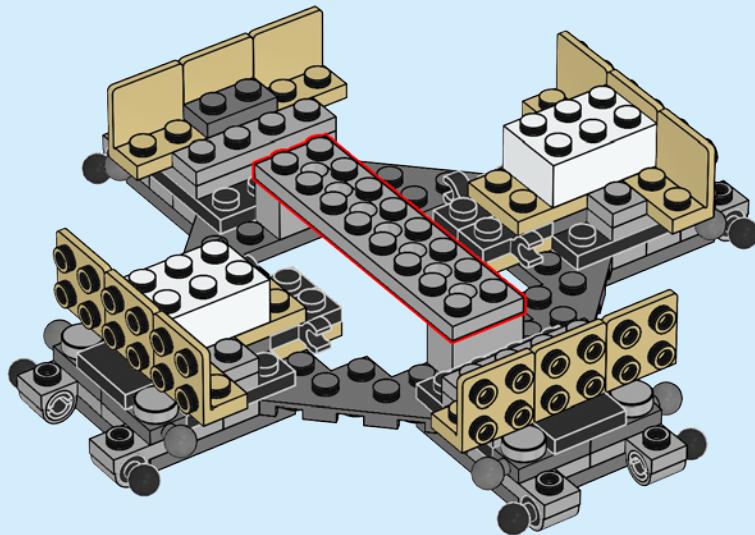


11

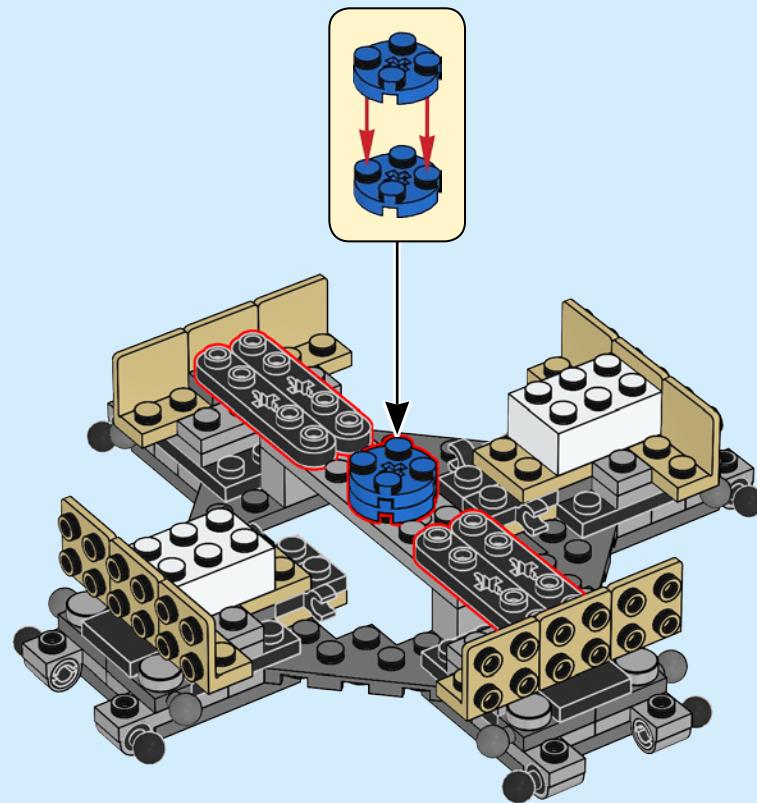




12



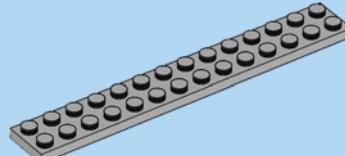
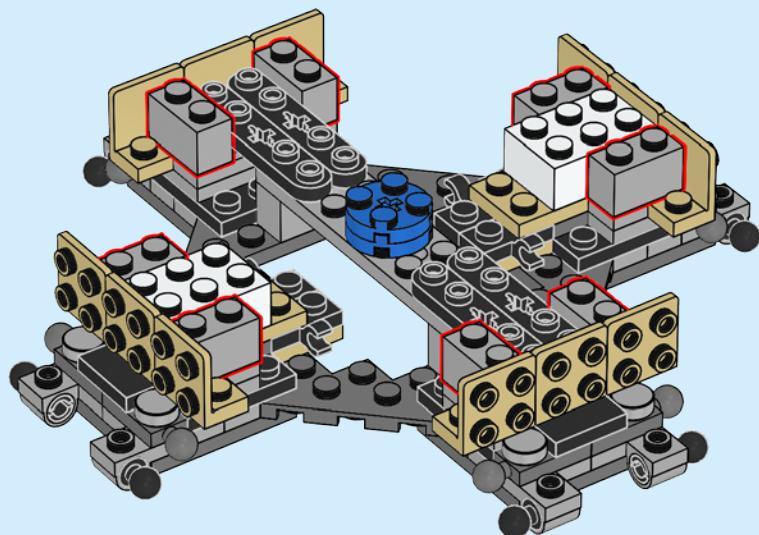
13





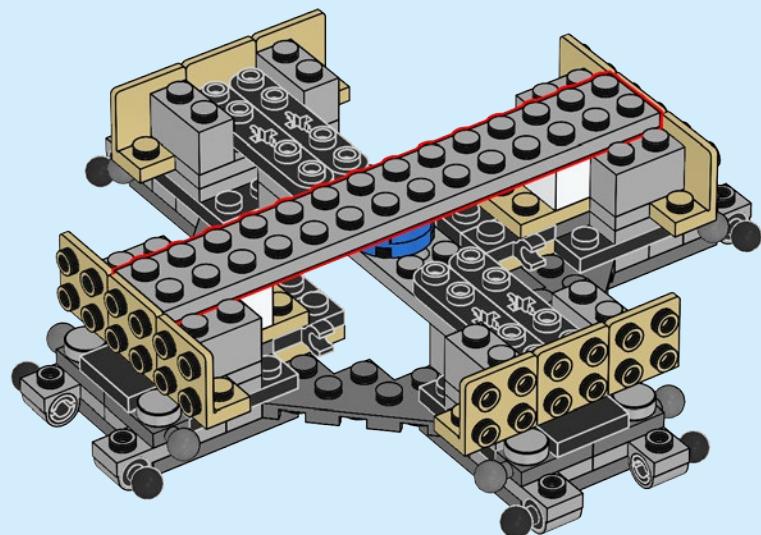
8x

14

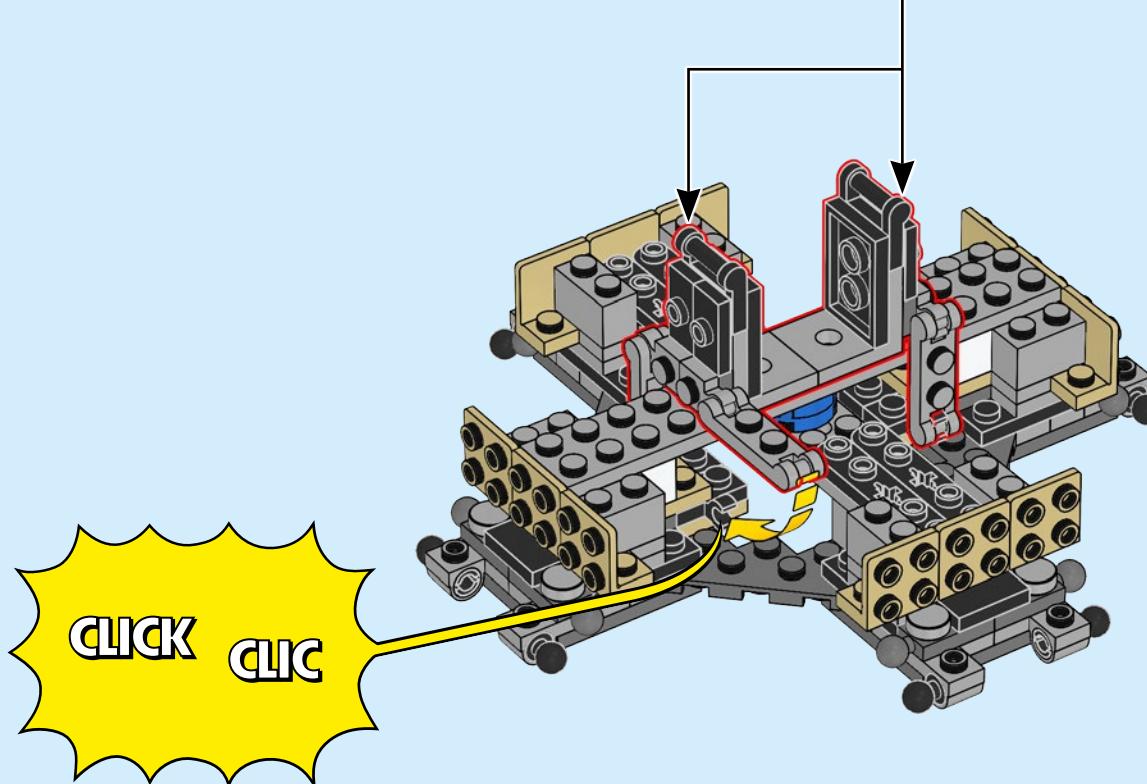
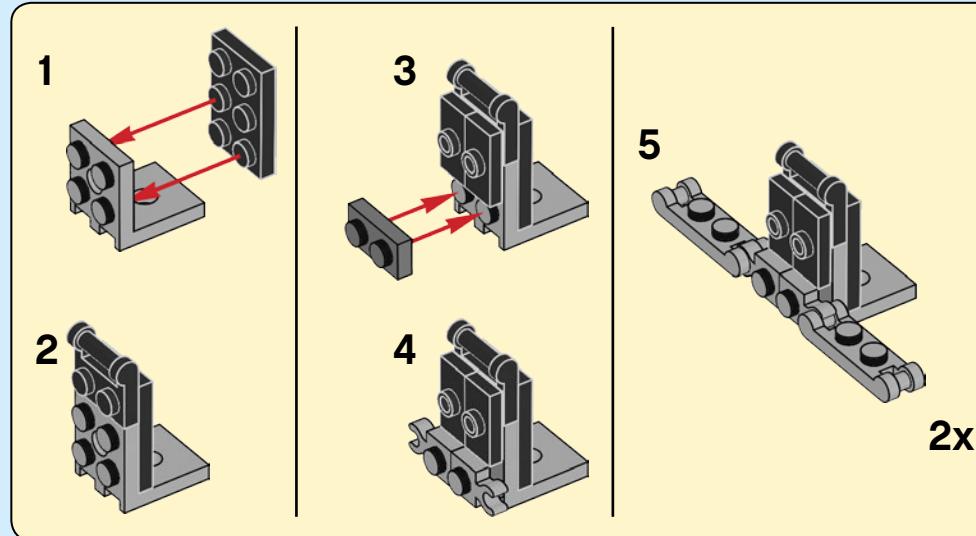
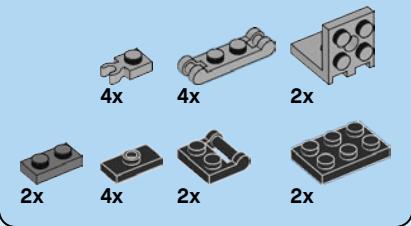


1x

15



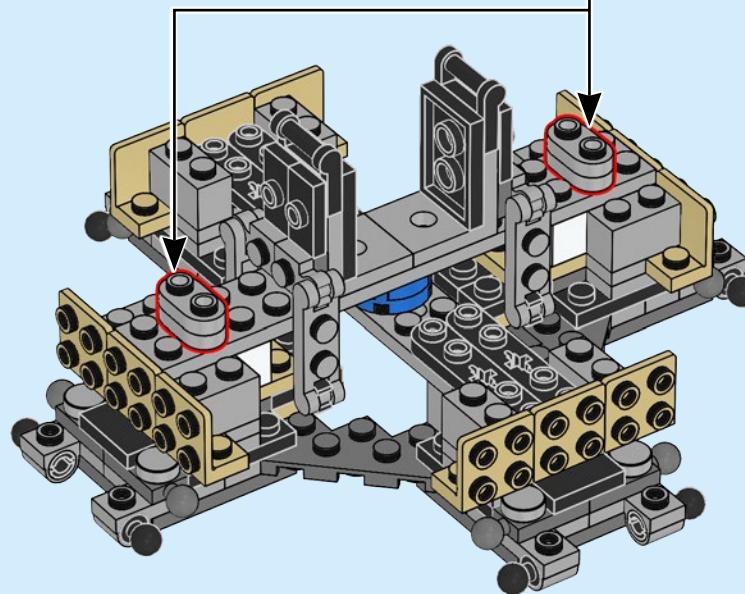
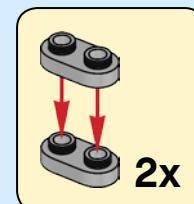
16

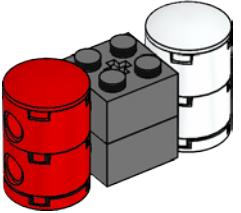




4x

17



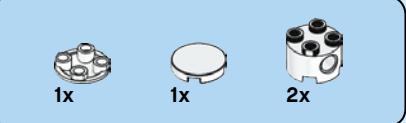
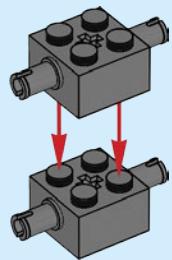


2x

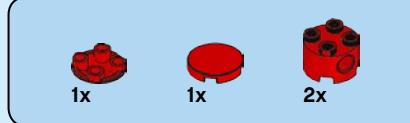
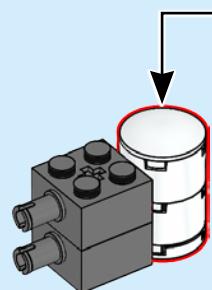
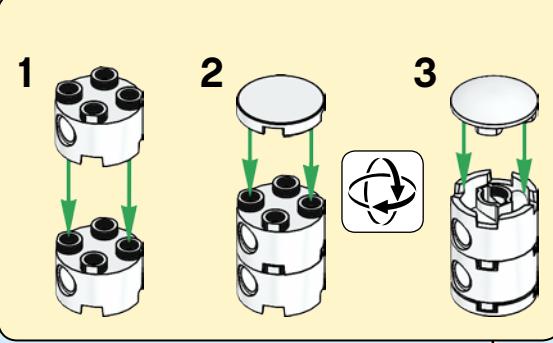


2x

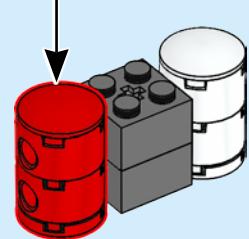
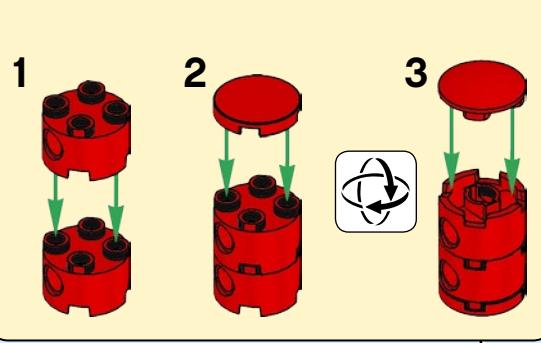
18



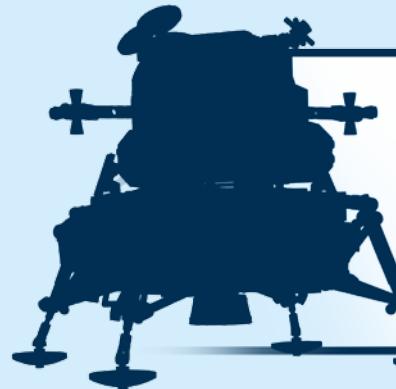
19



20



2x

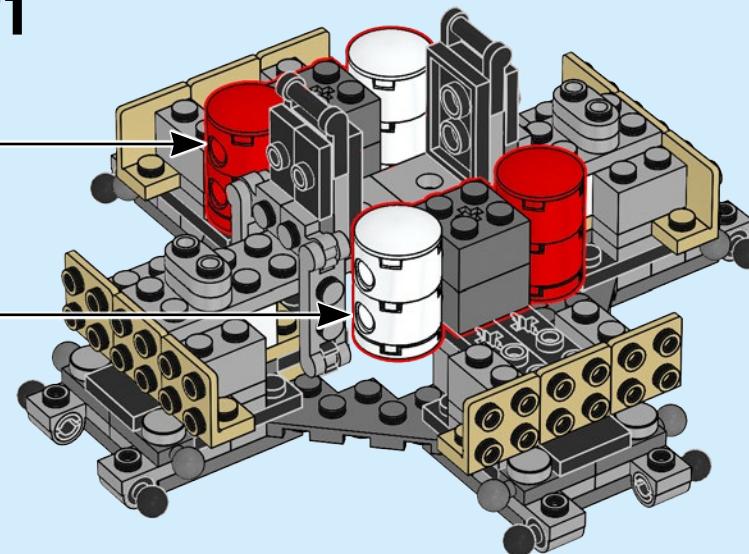


The Lunar Lander carried both fuel and an oxidizer to ignite the hypergolic fuels, since it is not possible to use fuel without an oxidizer in space.

Le module lunaire transportait à la fois du carburant et un oxydant pour enflammer les carburants hypergoliques, car il n'est pas possible d'utiliser du carburant sans oxydant dans l'espace.

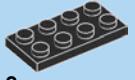
El módulo lunar contenía combustible y un oxidante para prender los combustibles hipergólicos, ya que resulta imposible usar combustible sin un oxidante en el espacio.

21



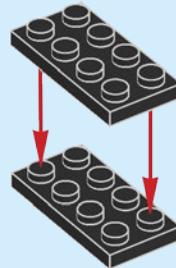


2x



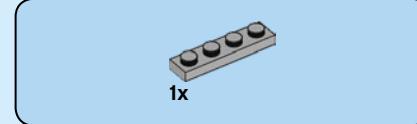
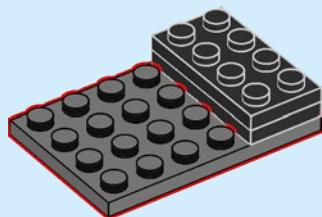
2x

22



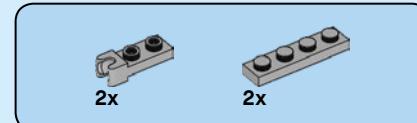
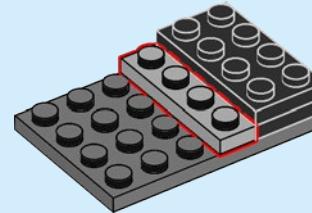
1x

23



1x

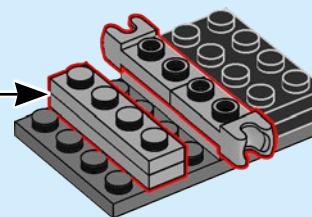
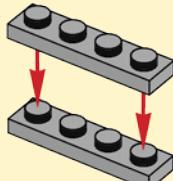
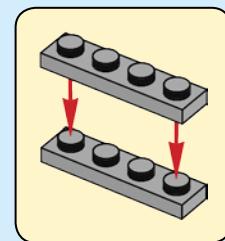
24

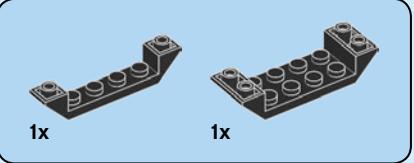


2x

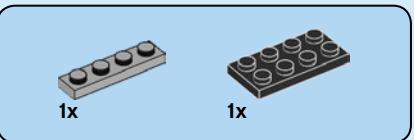
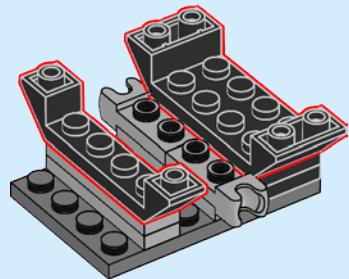
2x

25

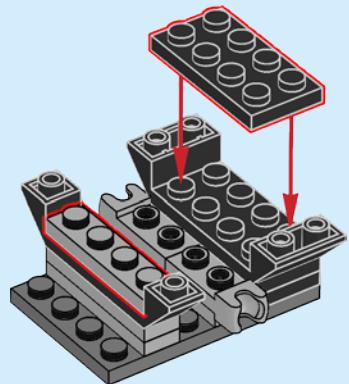




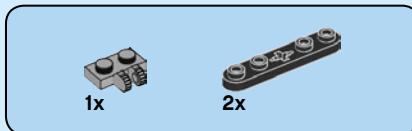
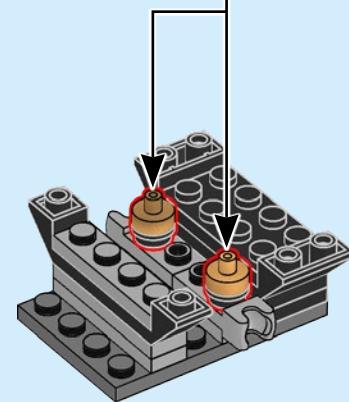
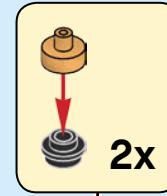
26



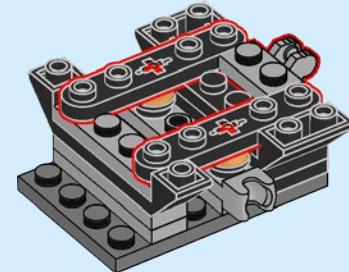
27

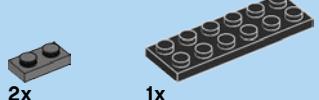


28

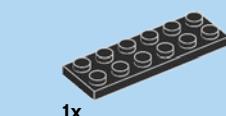
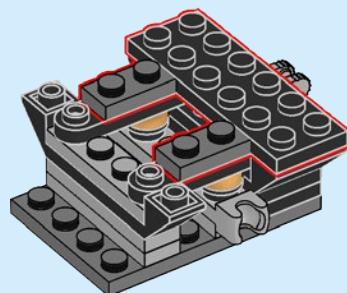


29

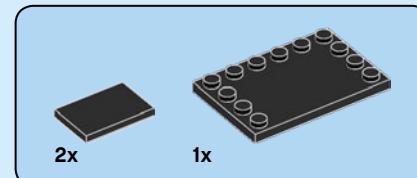
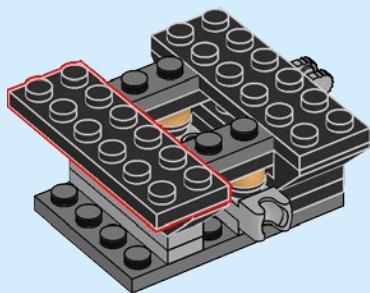




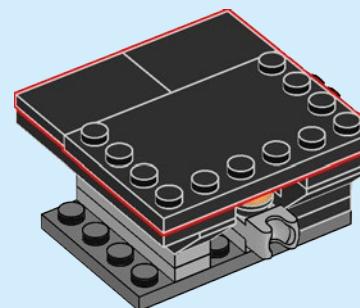
30



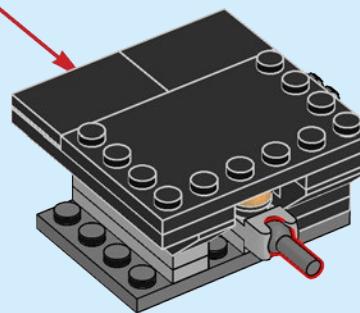
31



32

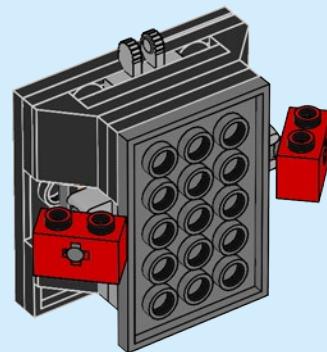


33



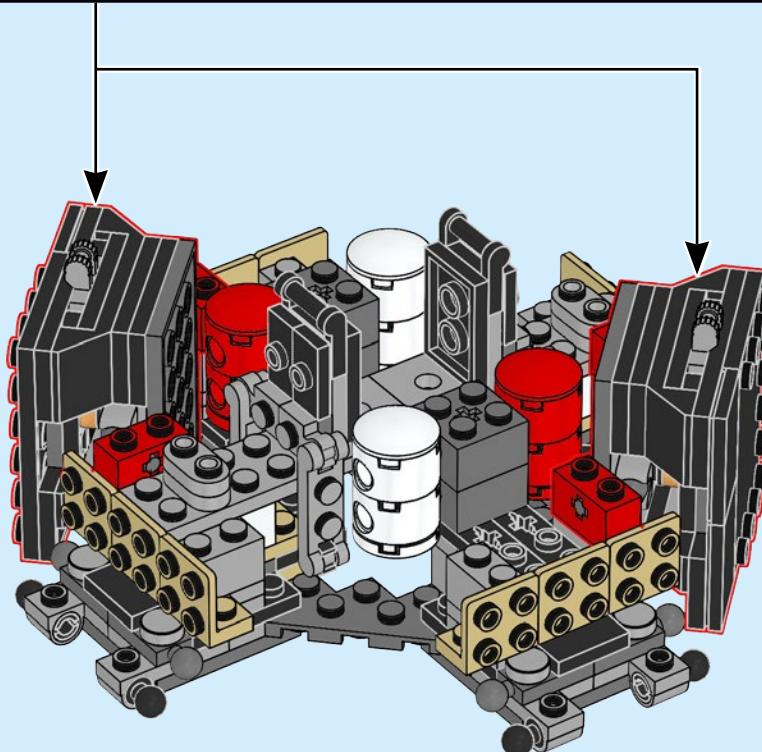


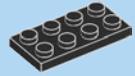
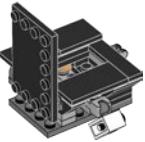
34



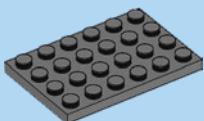
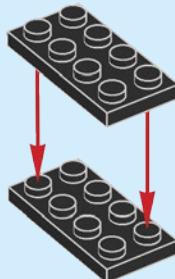
2x

35

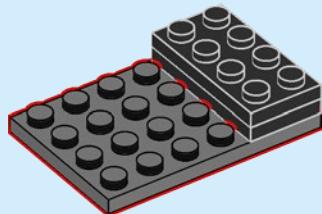




36

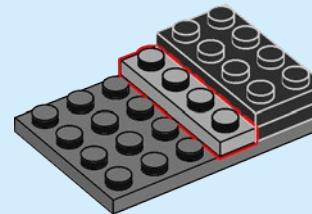


37

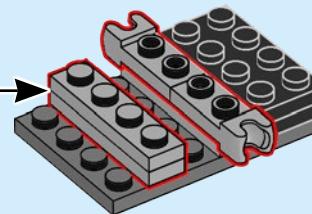
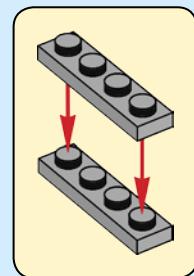


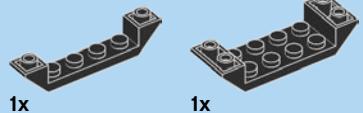
1x

38

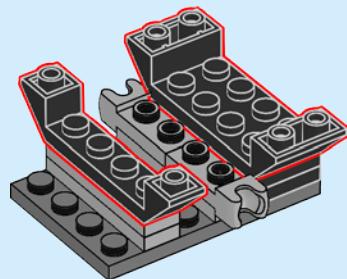


39

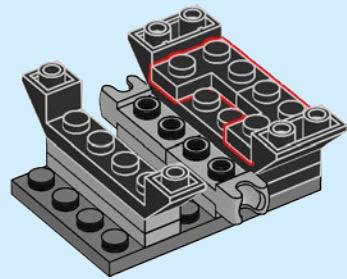




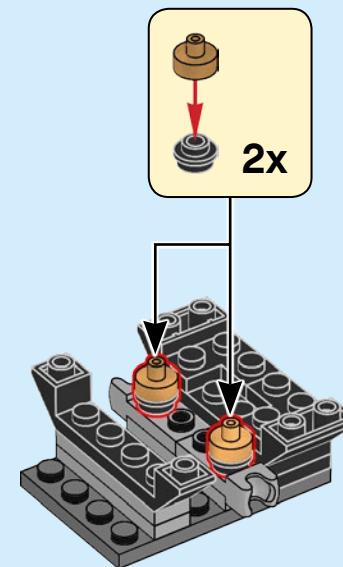
40

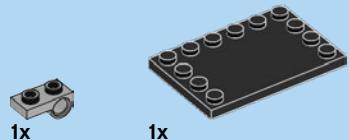


41

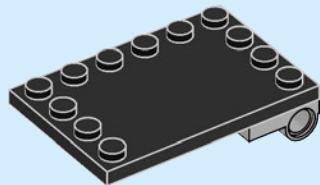


42

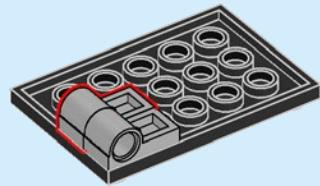




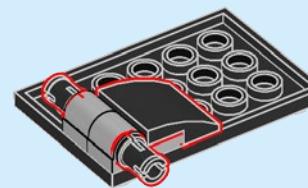
43



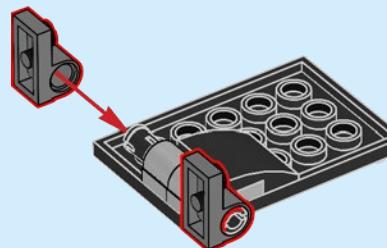
44



45

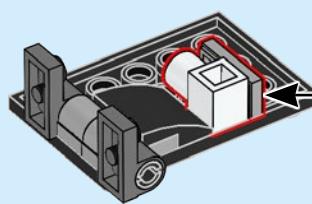
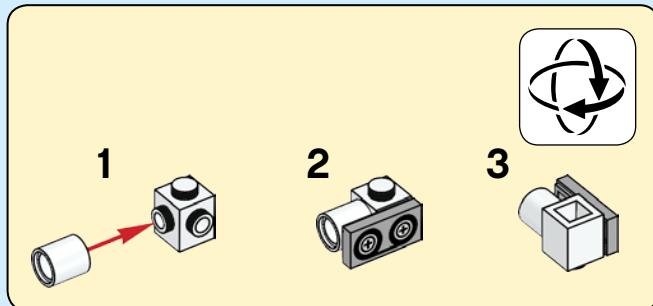


46

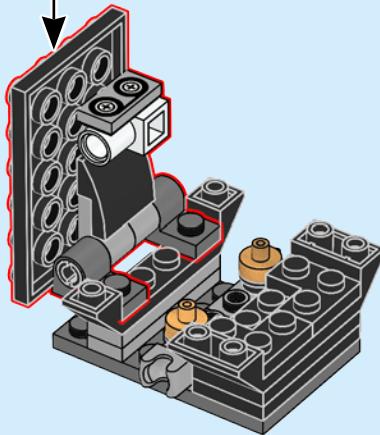




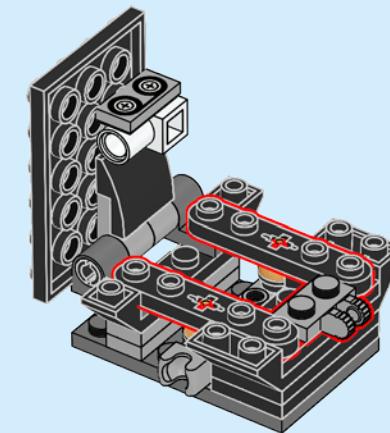
47



48



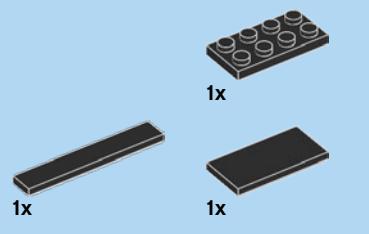
49



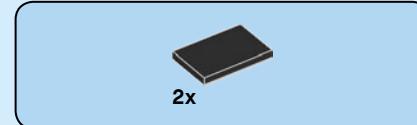
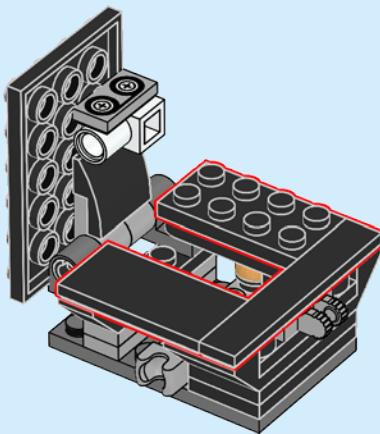
The camera in quadrant 4 filmed Armstrong as he climbed down the ladder and placed his foot on the moon.

La caméra du quadrant 4 a filmé Armstrong alors qu'il descendait l'échelle et posait le pied sur la Lune.

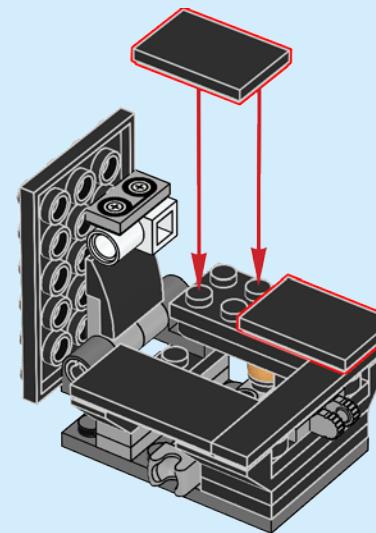
La cámara del cuadrante 4 grabó a Armstrong mientras bajaba por la escalera y ponía el pie en la Luna.



50

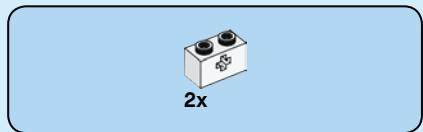
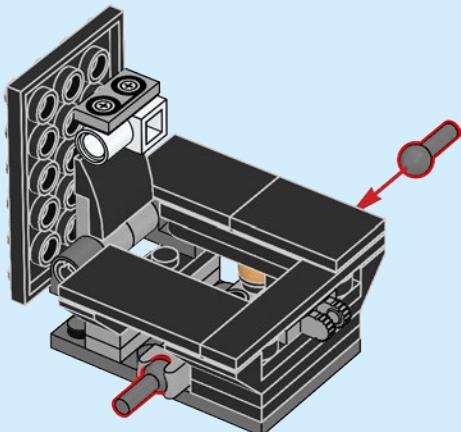


51

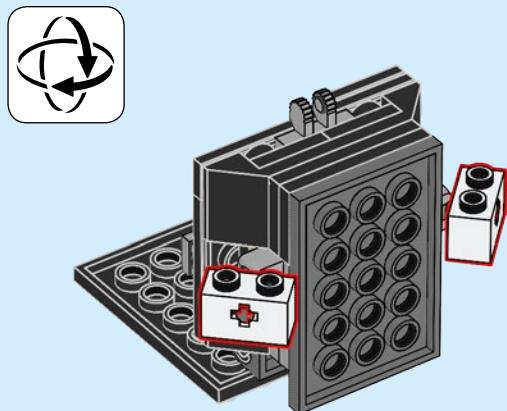




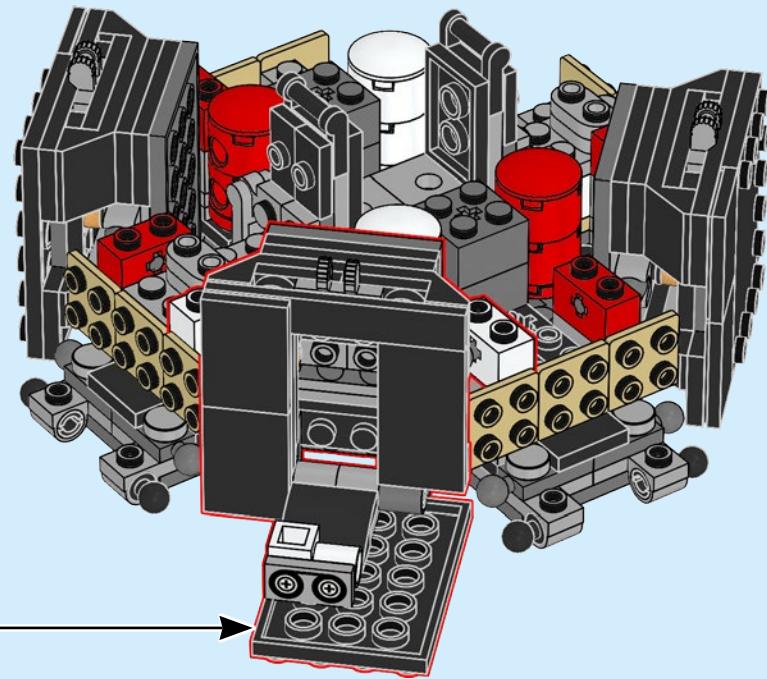
52

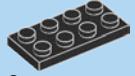


53

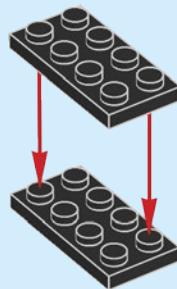


54

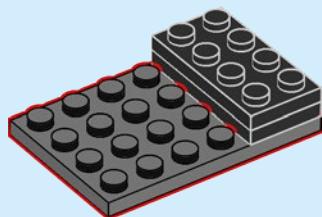




55

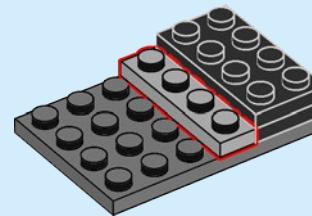


56

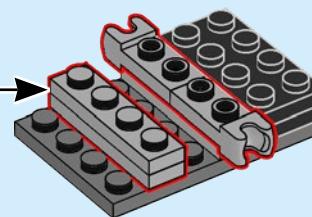
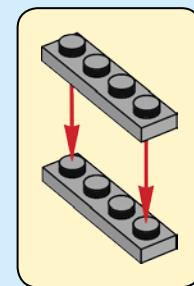


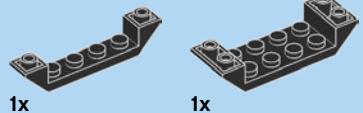
1x

57

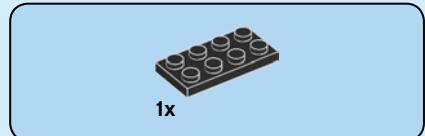
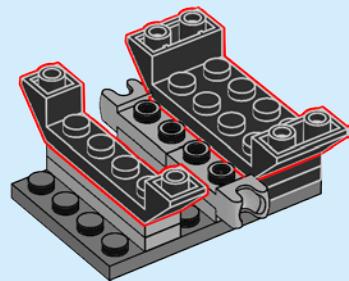


58

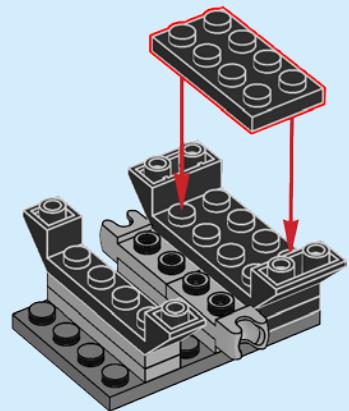




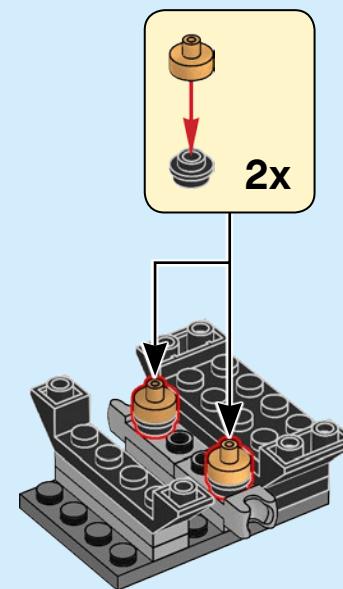
59

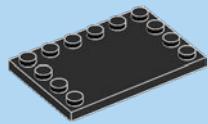


60

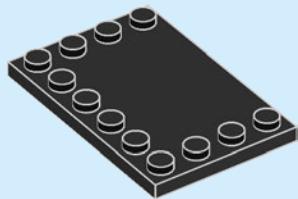


61

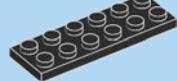
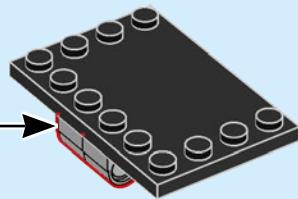




62

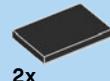
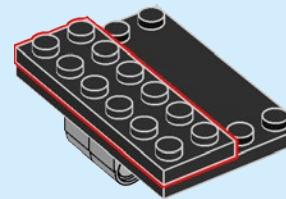


63

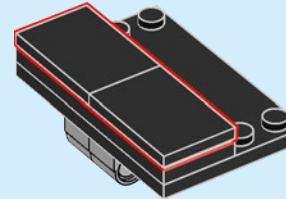


1x

64

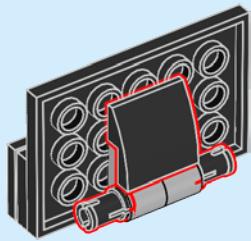


65



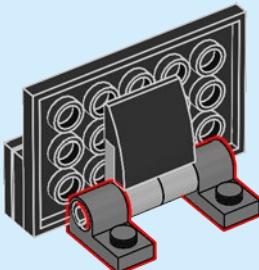


66

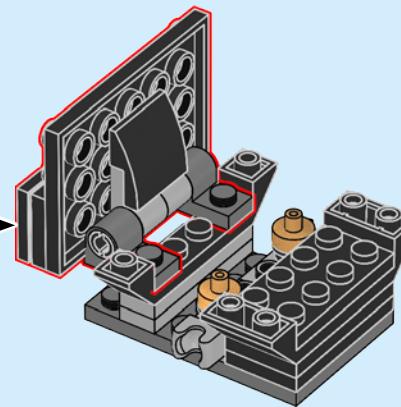


2x

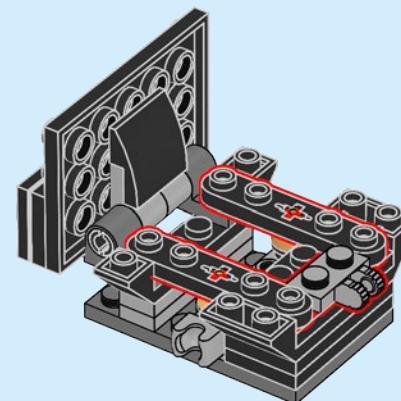
67

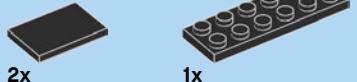


68

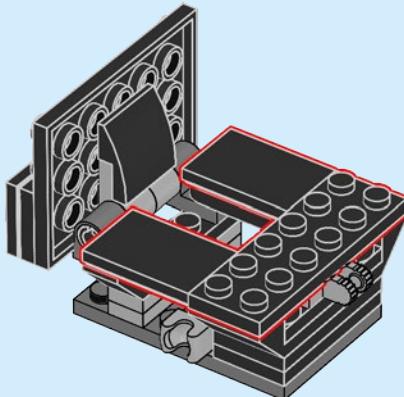


69

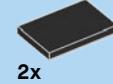
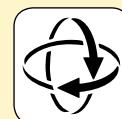
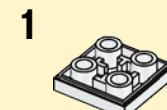
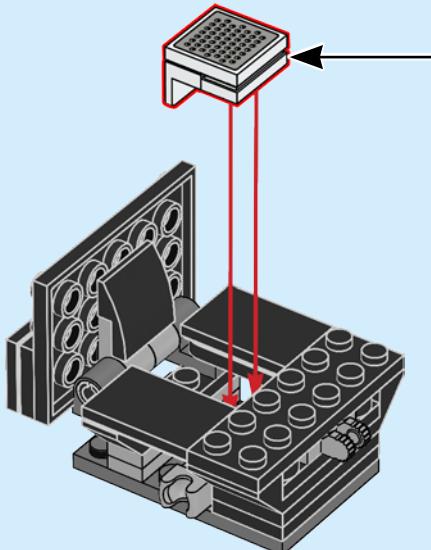




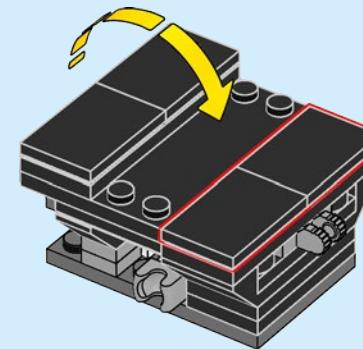
70



71



72



The laser reflector in quadrant 2 was placed on the surface of the moon. When a laser light was pointed at it from Earth, the distance to the moon could be measured.

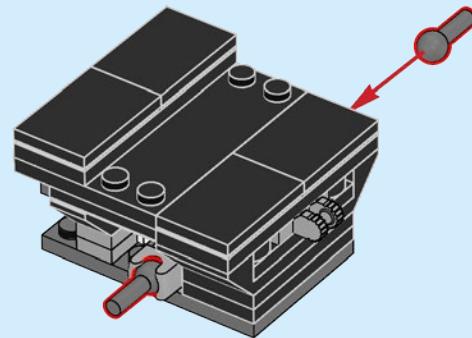
Le déflecteur laser du quadrant 2 a été déposé sur la surface de la Lune. Lorsqu'on pointait une lumière laser vers le déflecteur à partir de la Terre, il était possible de mesurer la distance Terre-Lune.

El reflector láser del cuadrante 2 se colocó en la superficie de la Luna. Al apuntar un rayo láser hacia él desde la Tierra, era posible medir la distancia hasta la Luna.

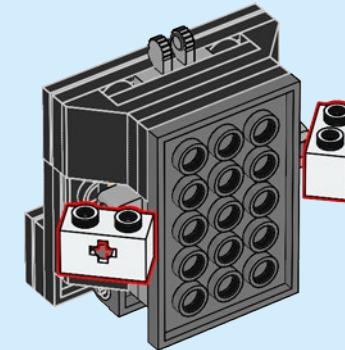




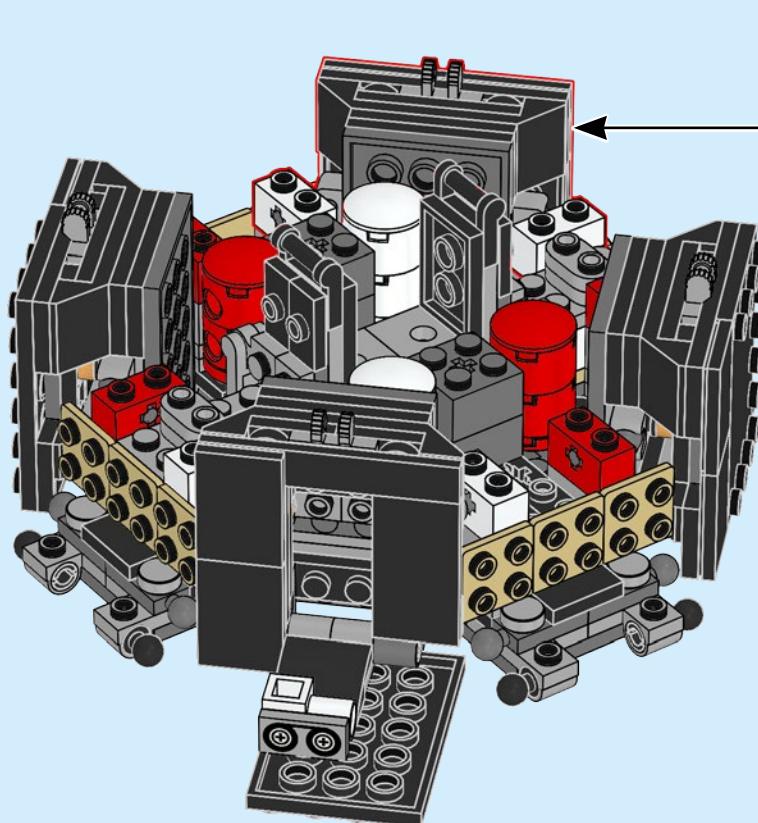
73



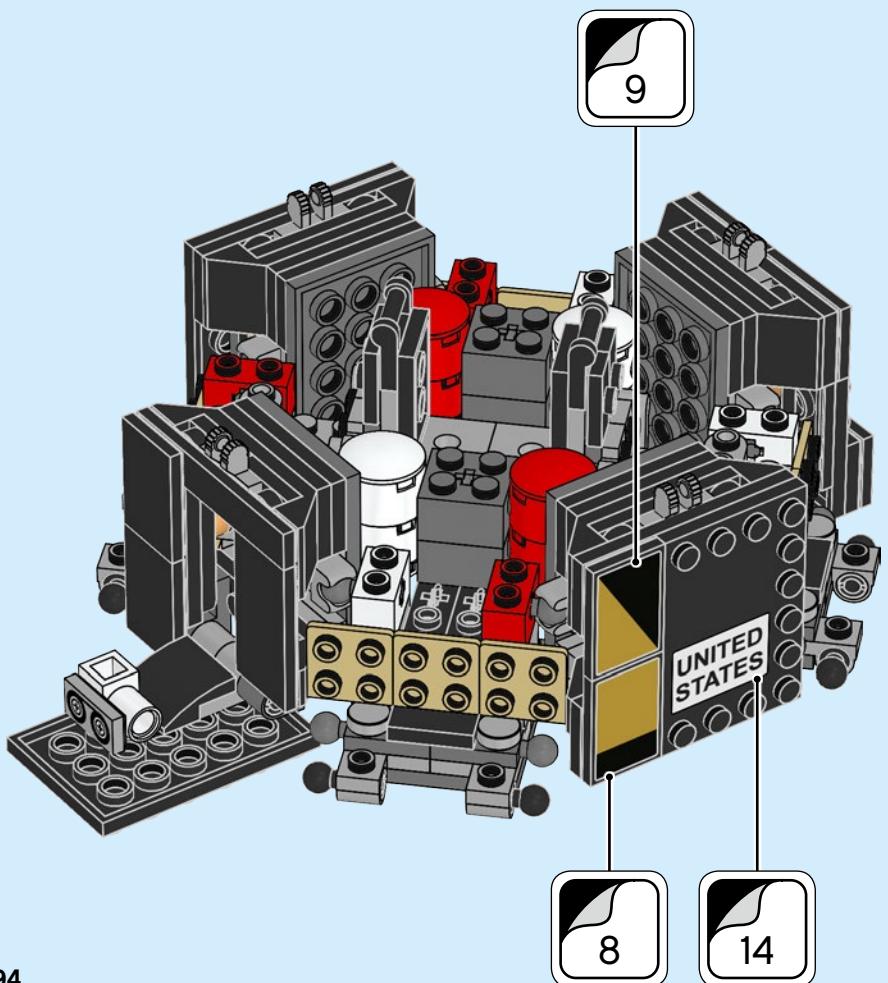
74



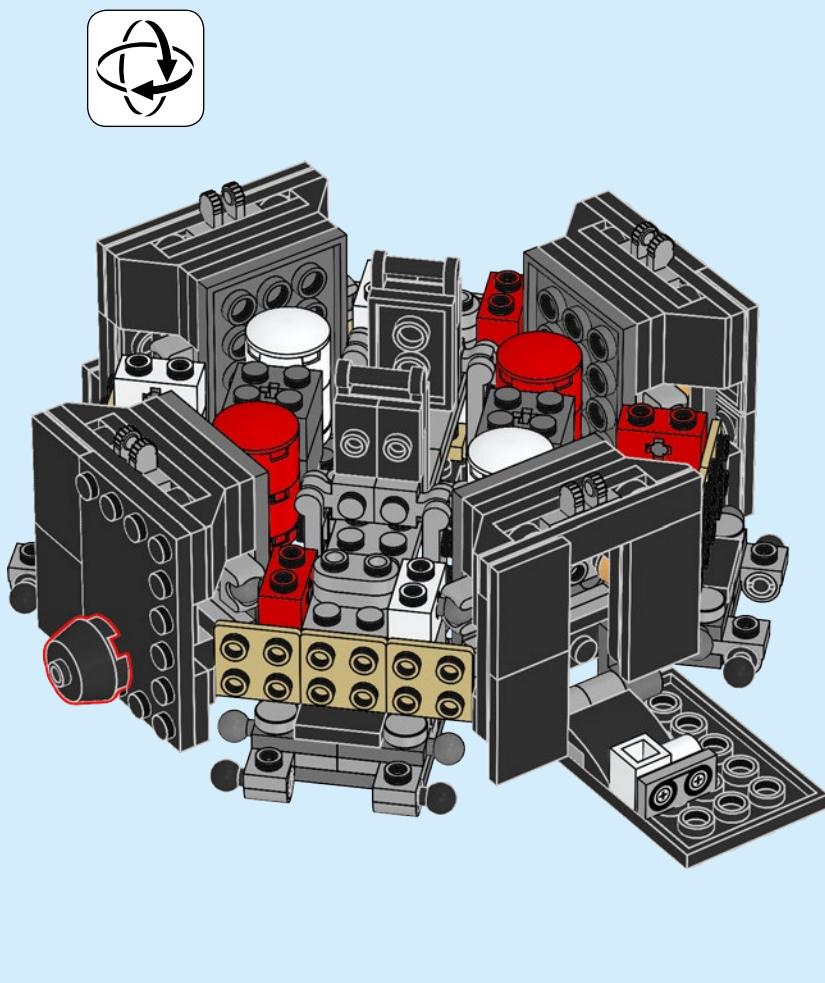
75



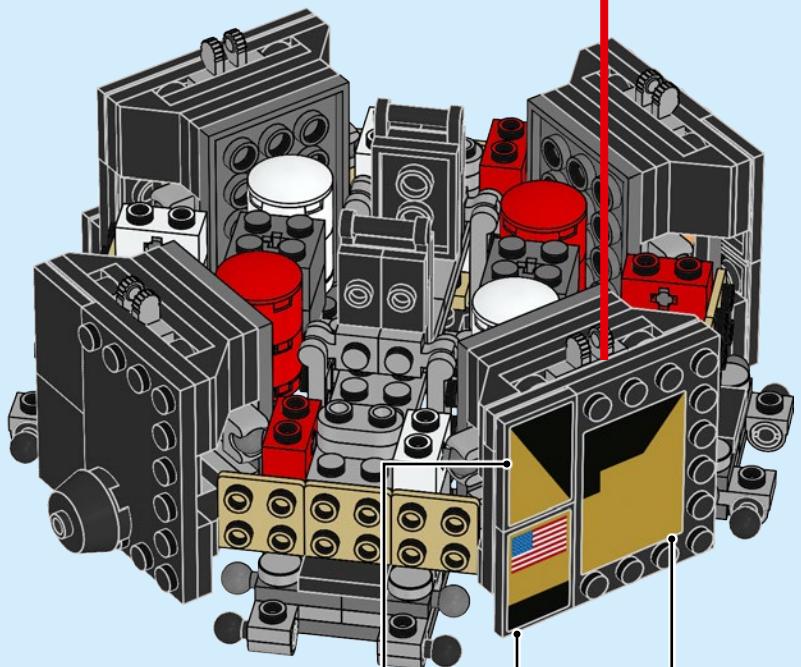
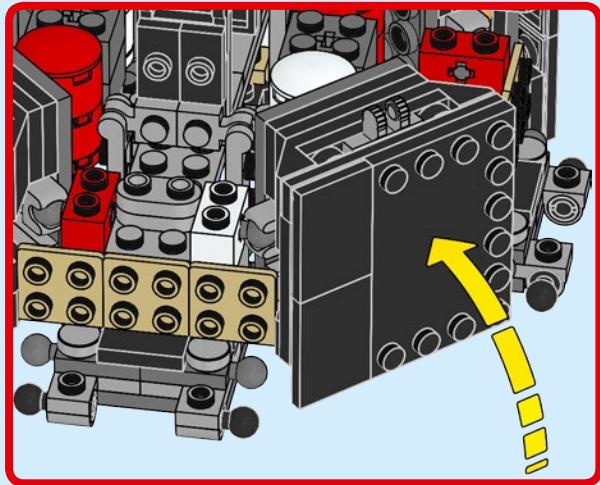
76



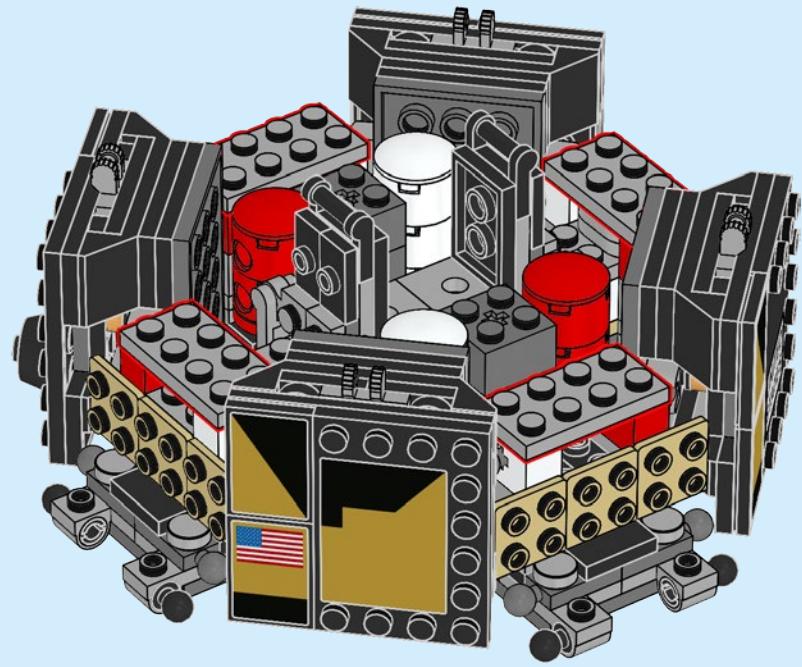
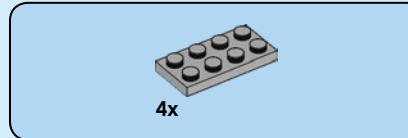
77

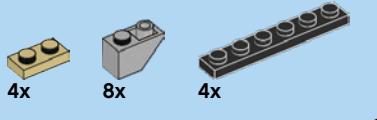
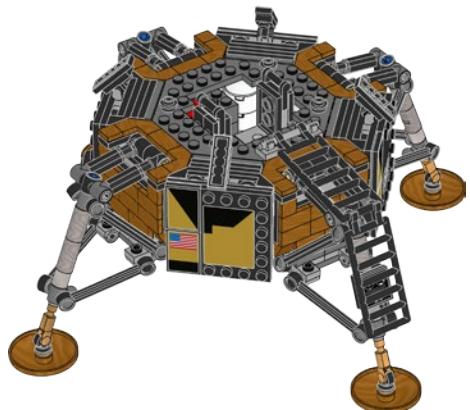


78

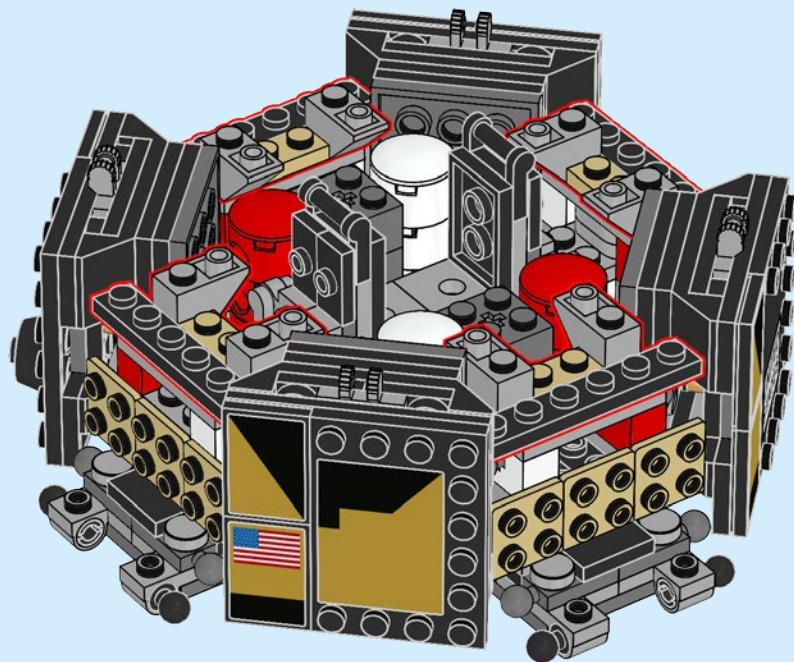


79



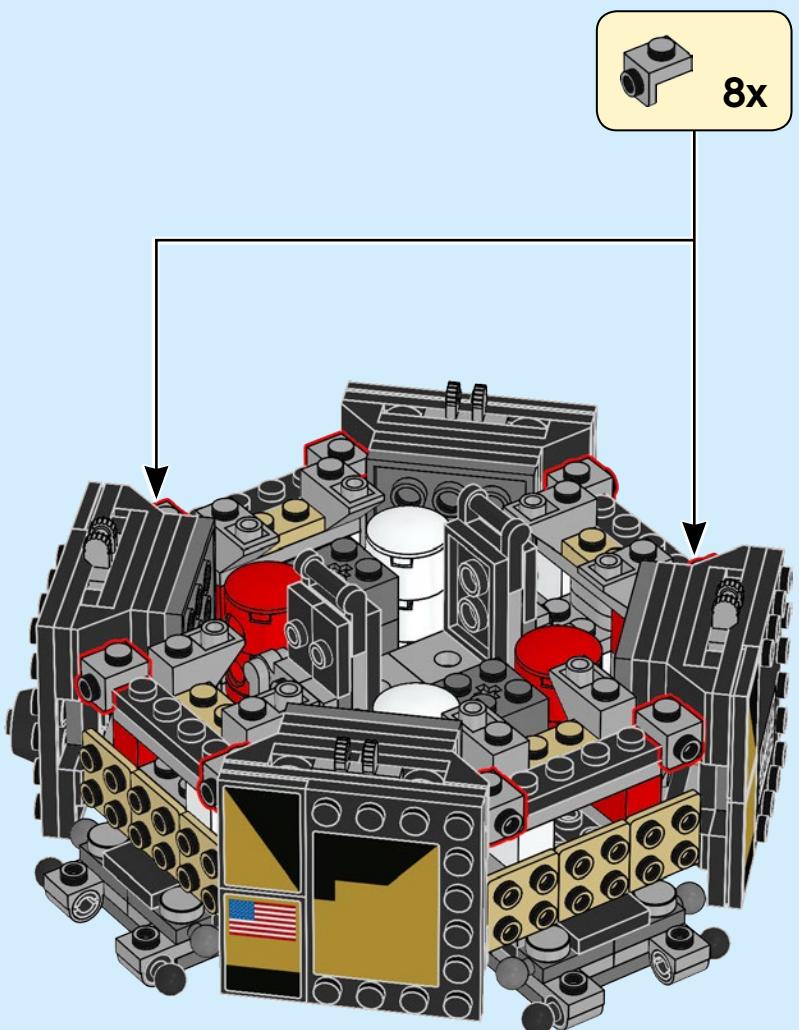


80

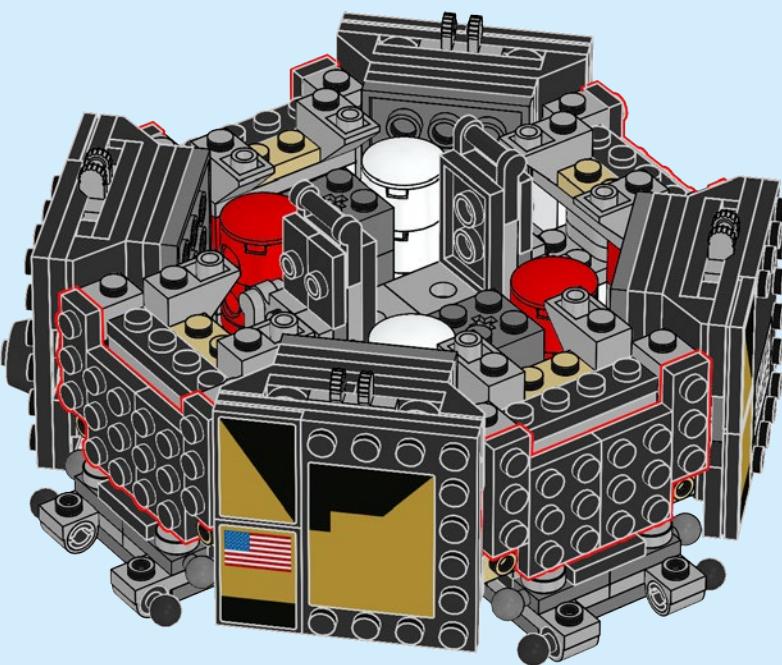




81



82



 8x  8x  32x

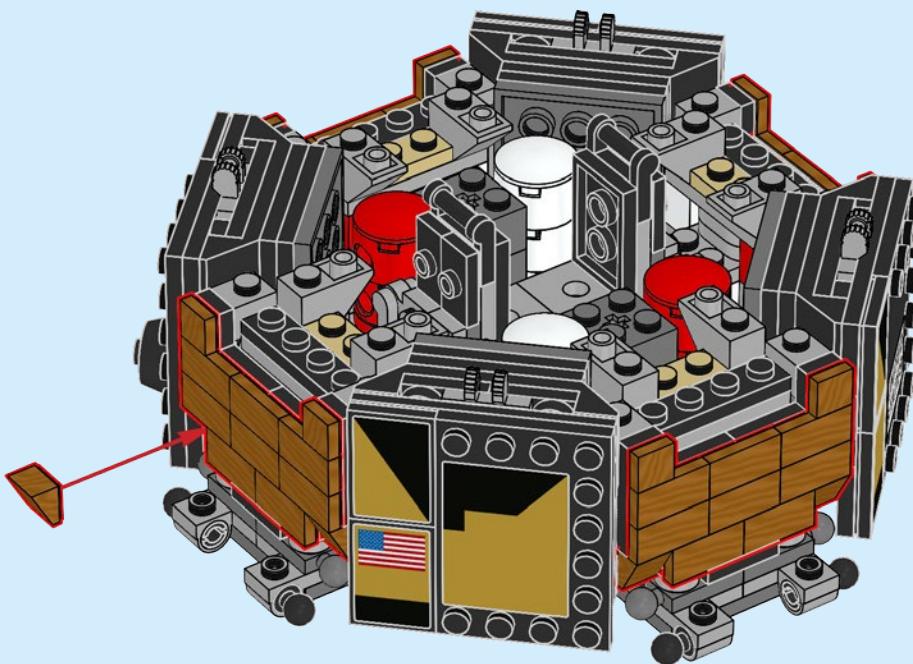
83

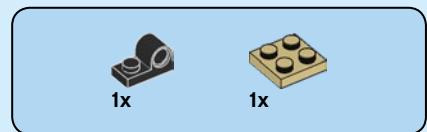


The foil on the Lunar Lander was used for thermal and micrometeoroid protection.

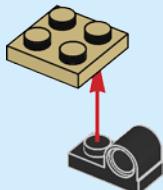
La pellicule dans laquelle était enveloppé le module lunaire servait à en assurer la protection thermique et micrométéorite.

La lámina que envolvía al módulo lunar le proporcionaba protección térmica y contra los micrometeoroides.

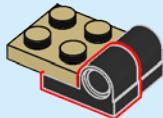




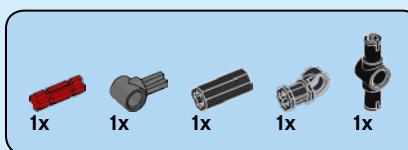
84



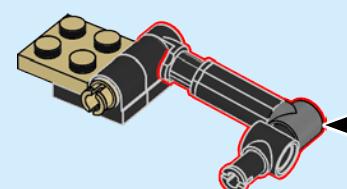
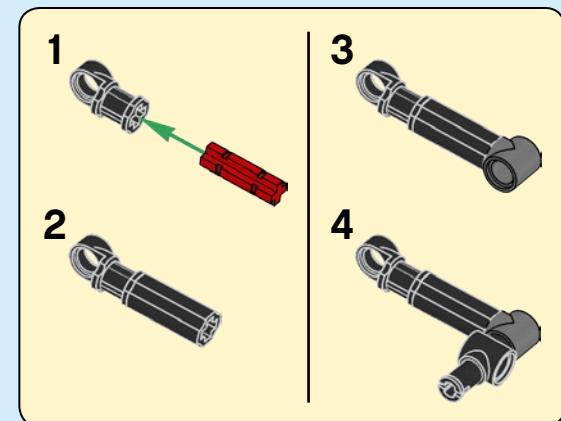
85



86

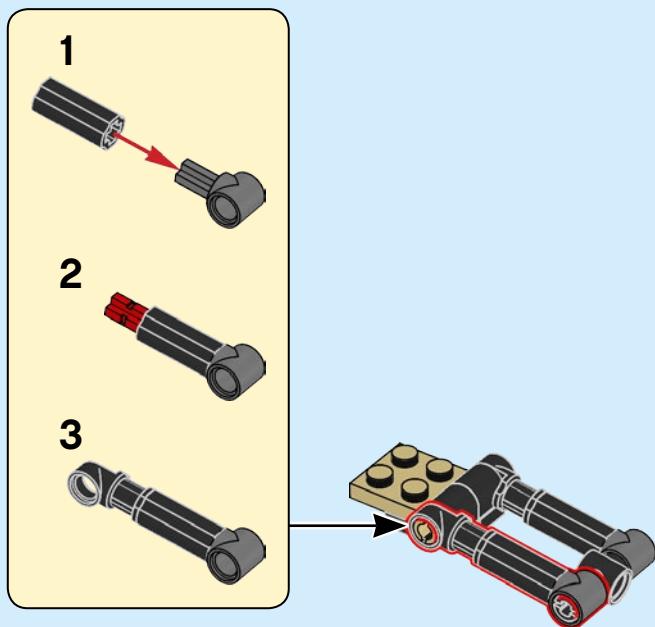


87



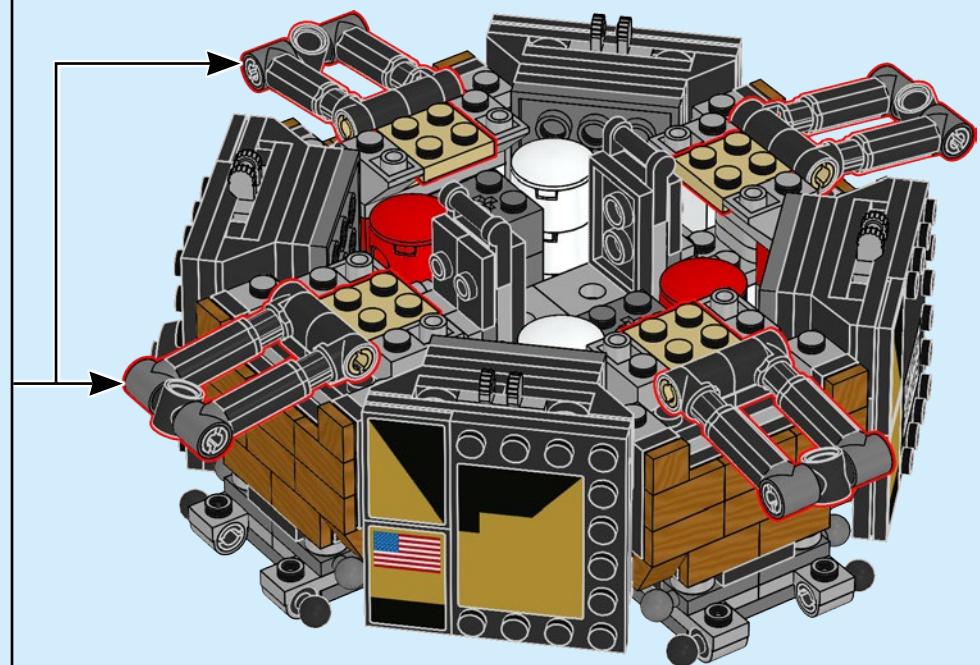


88



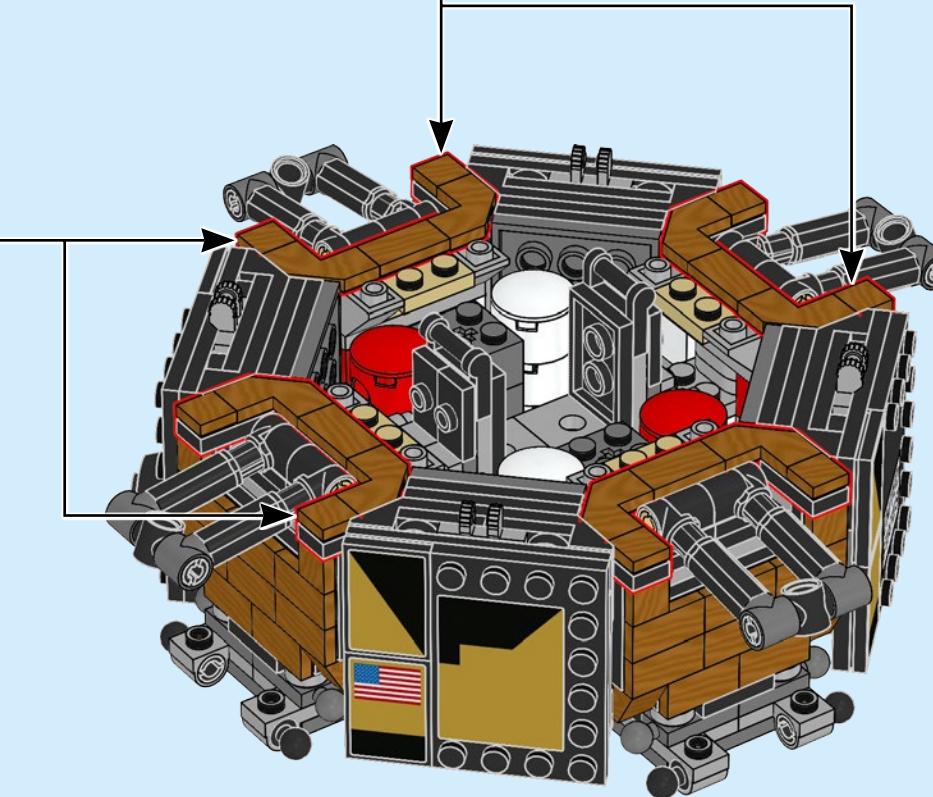
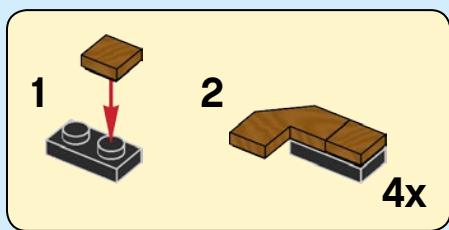
4x

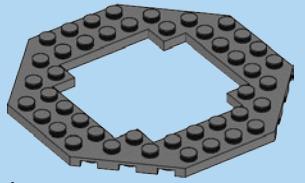
89



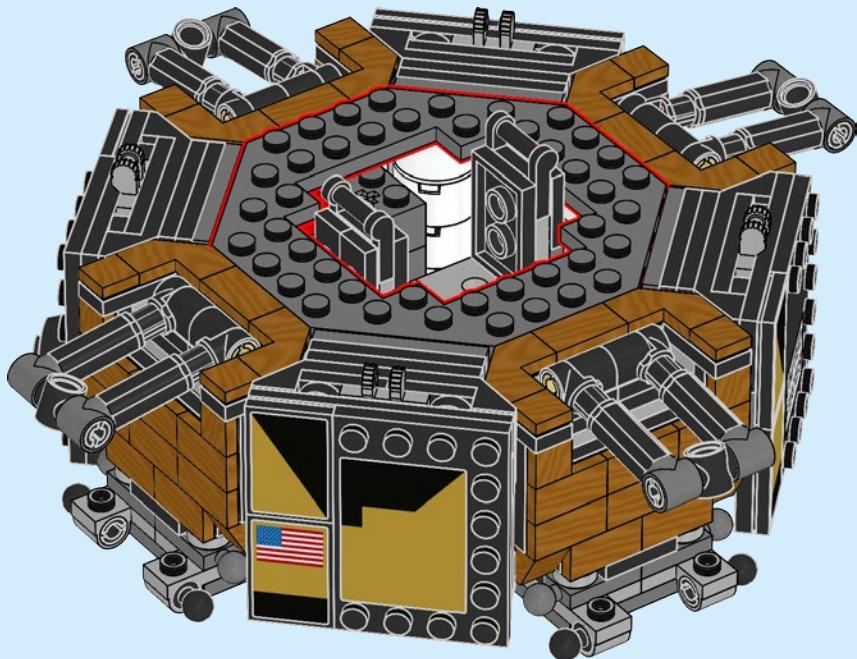


90



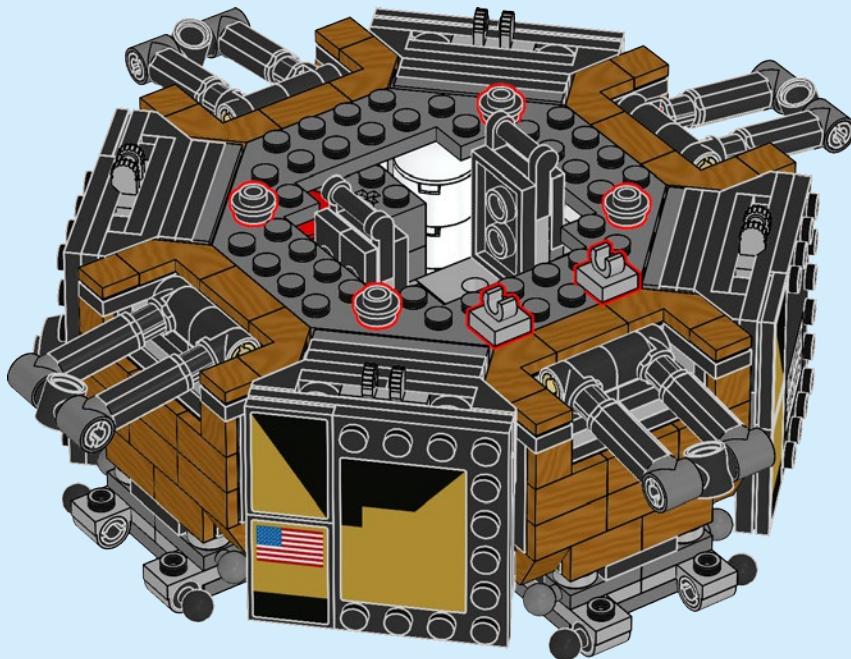


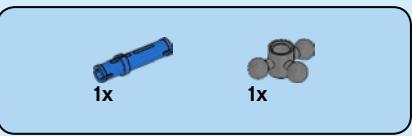
91



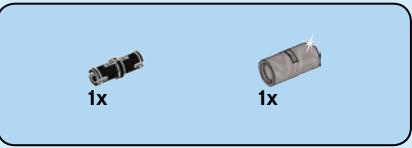
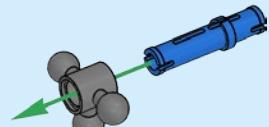
4x
2x

92

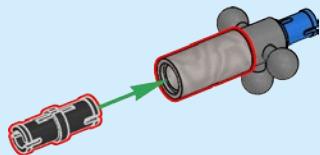




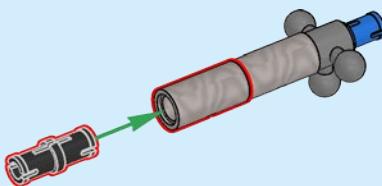
93



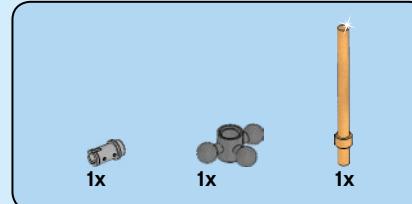
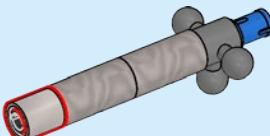
94



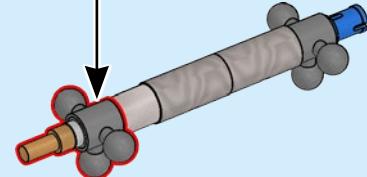
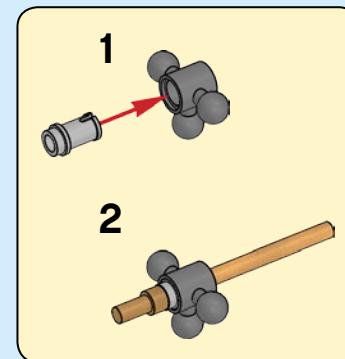
95



96

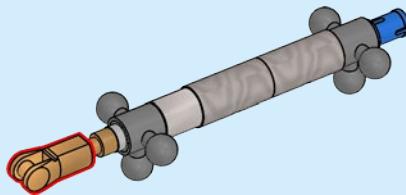


97

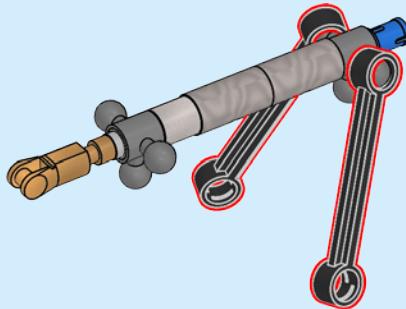




1x

98

2x

99

104



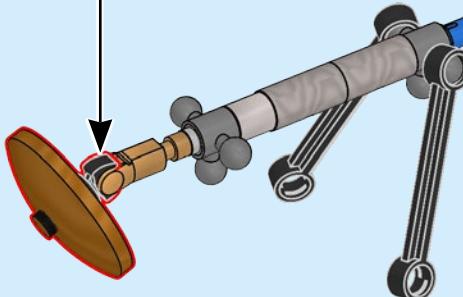
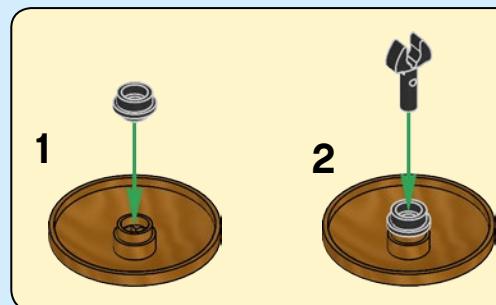
1x



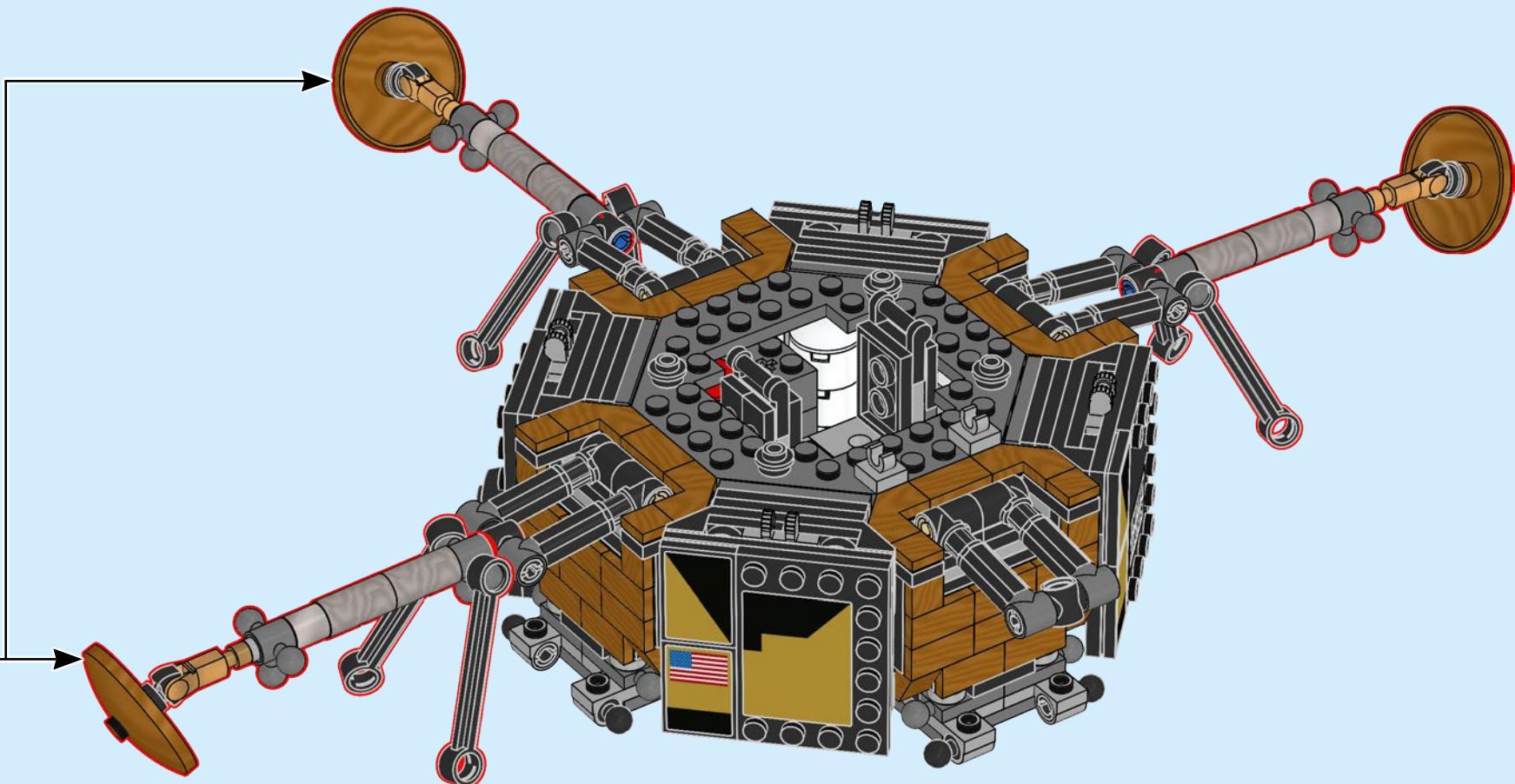
1x



1x

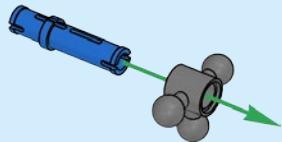
100**3x**

101

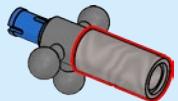




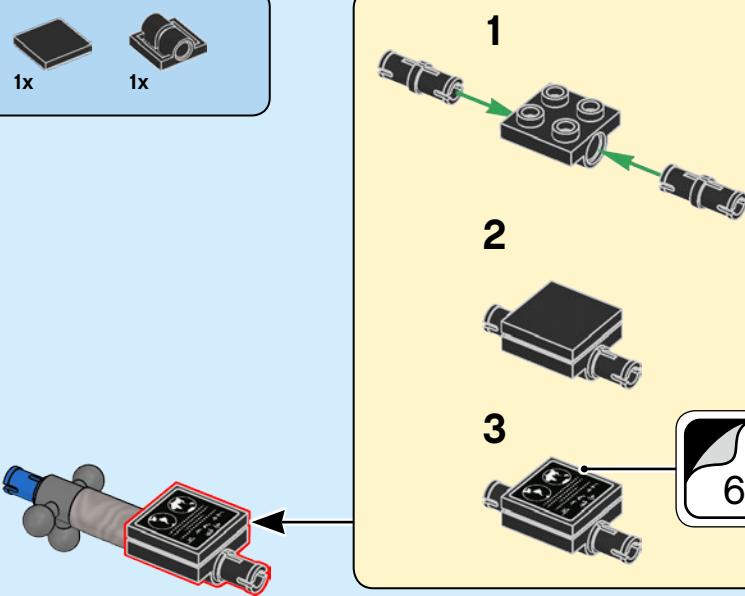
102



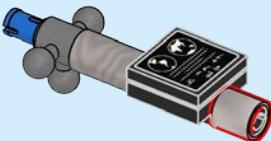
103



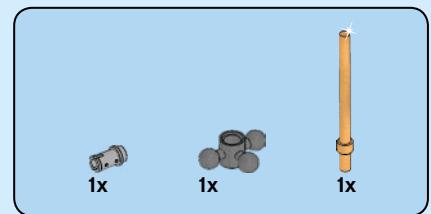
104



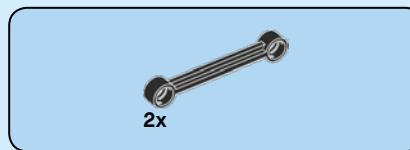
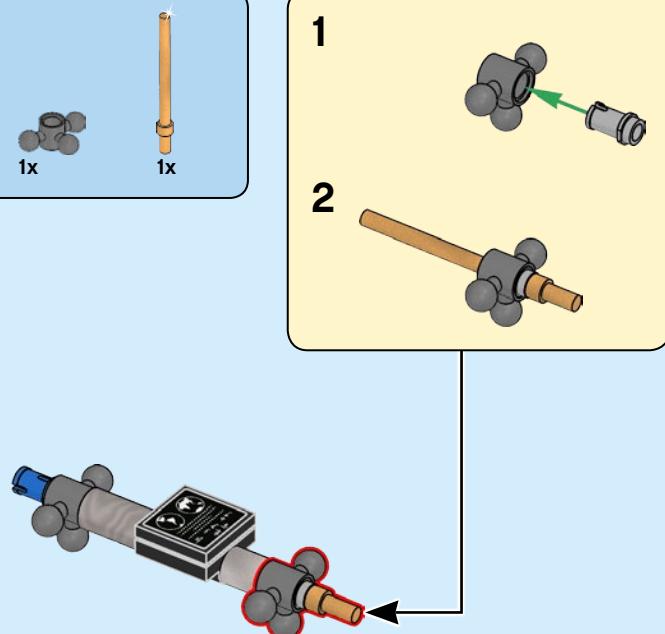
105



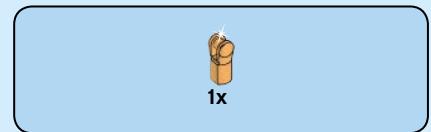
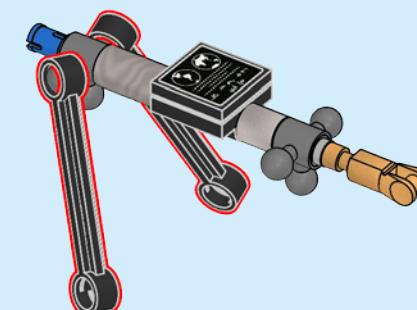
106



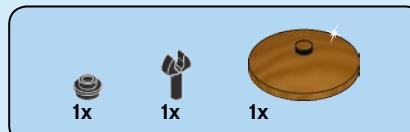
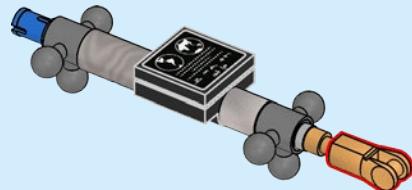
106



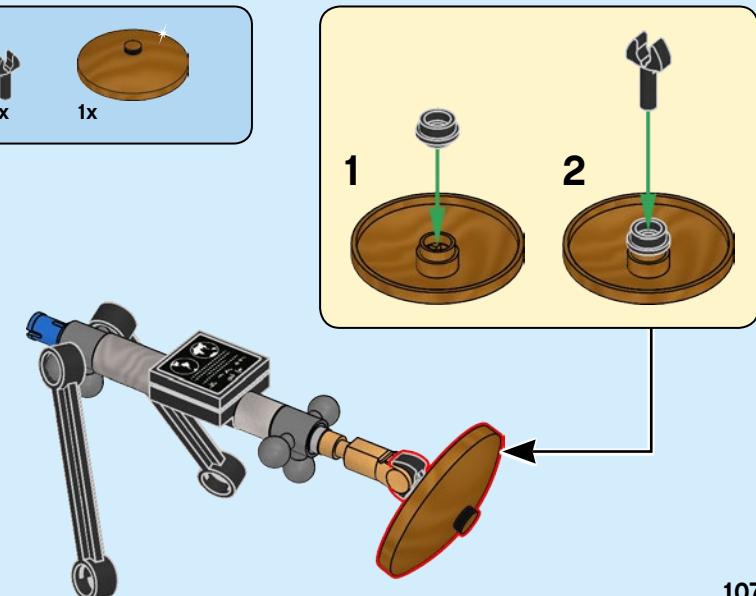
108



107

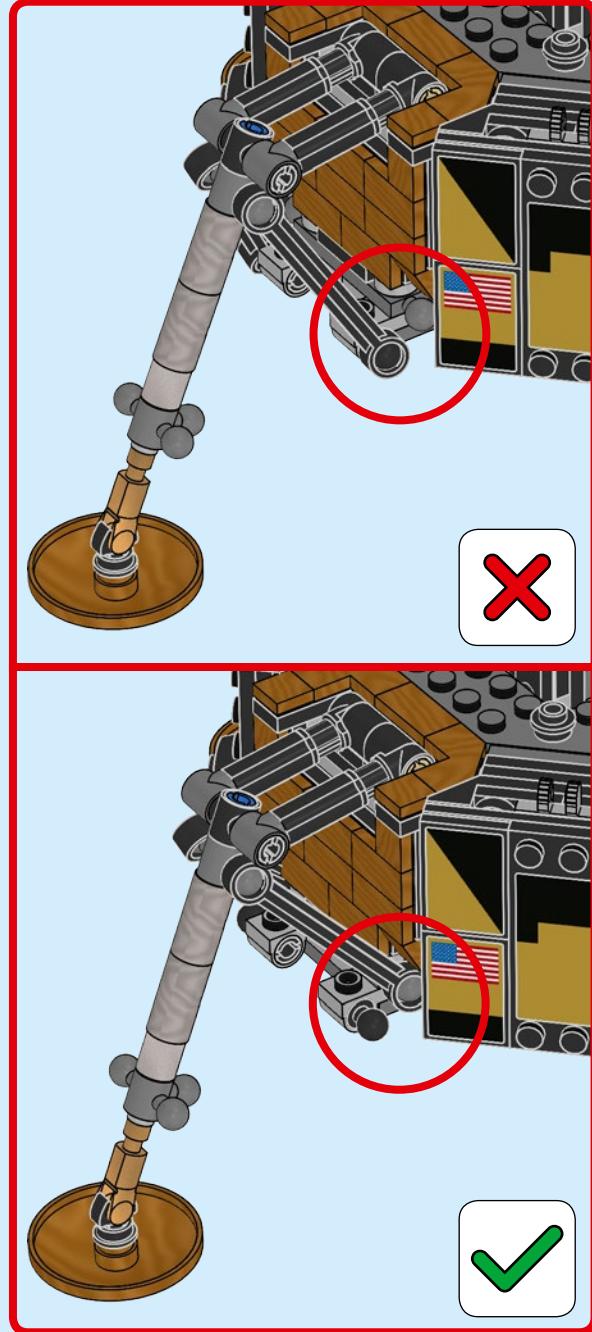
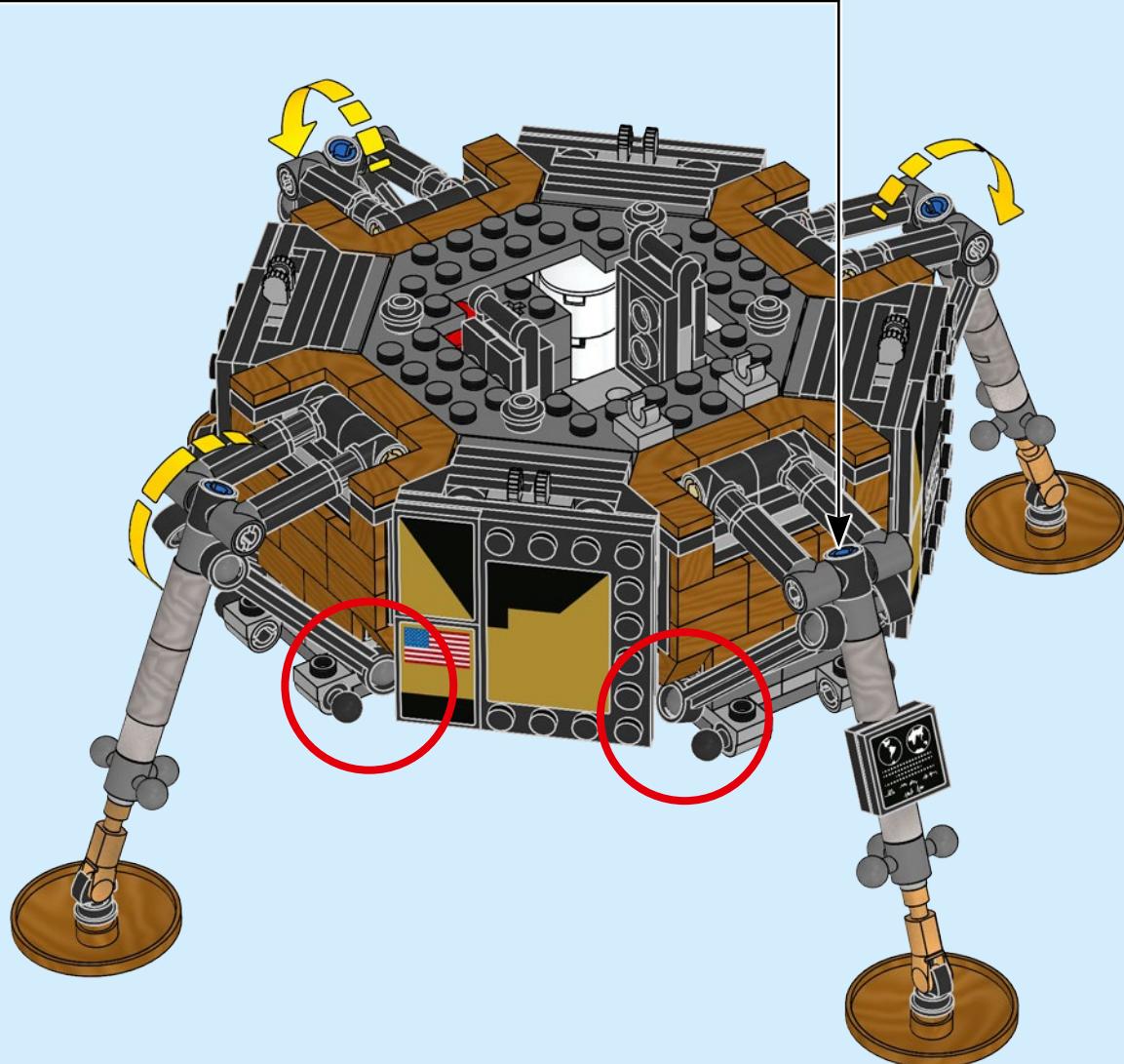


109



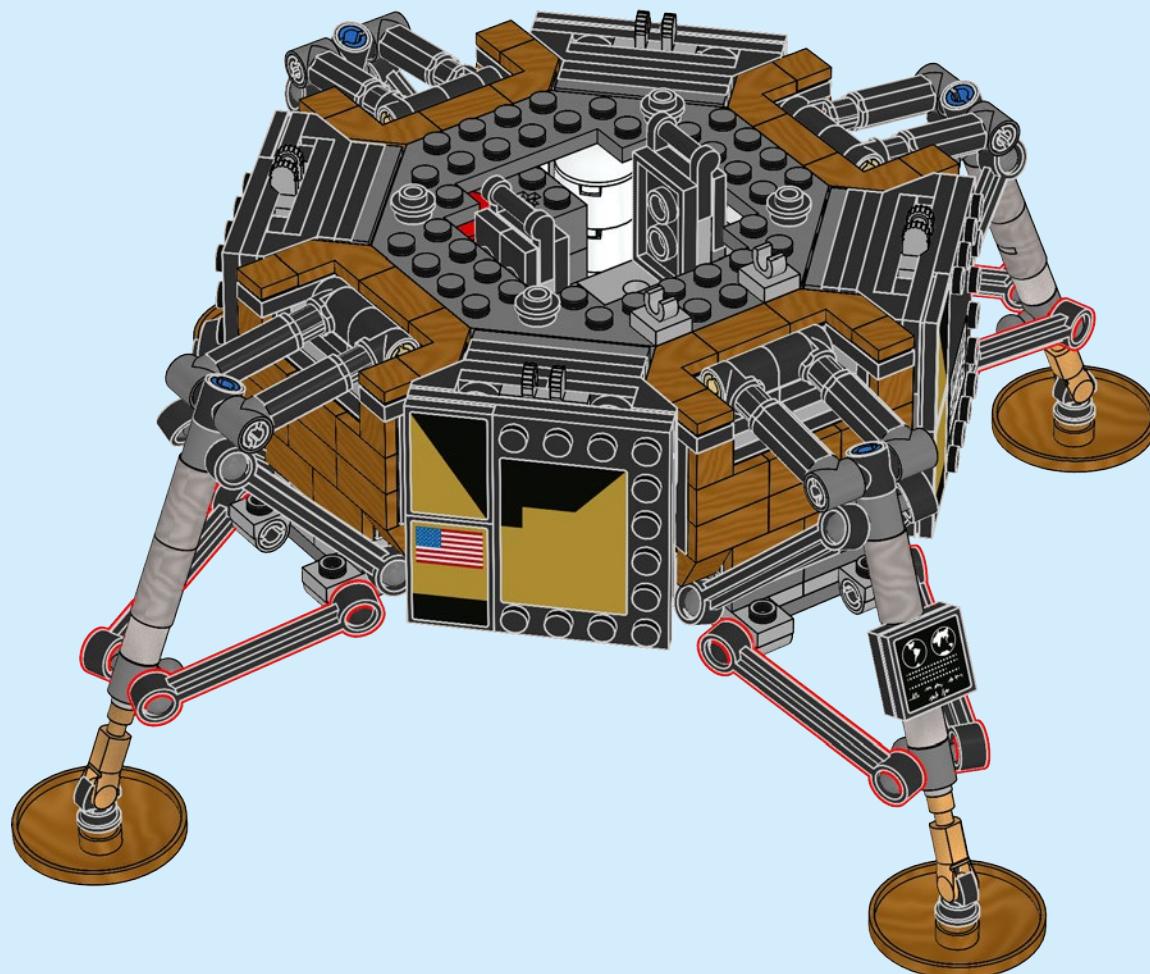
107

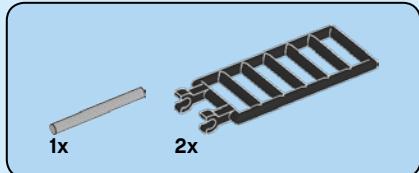
110



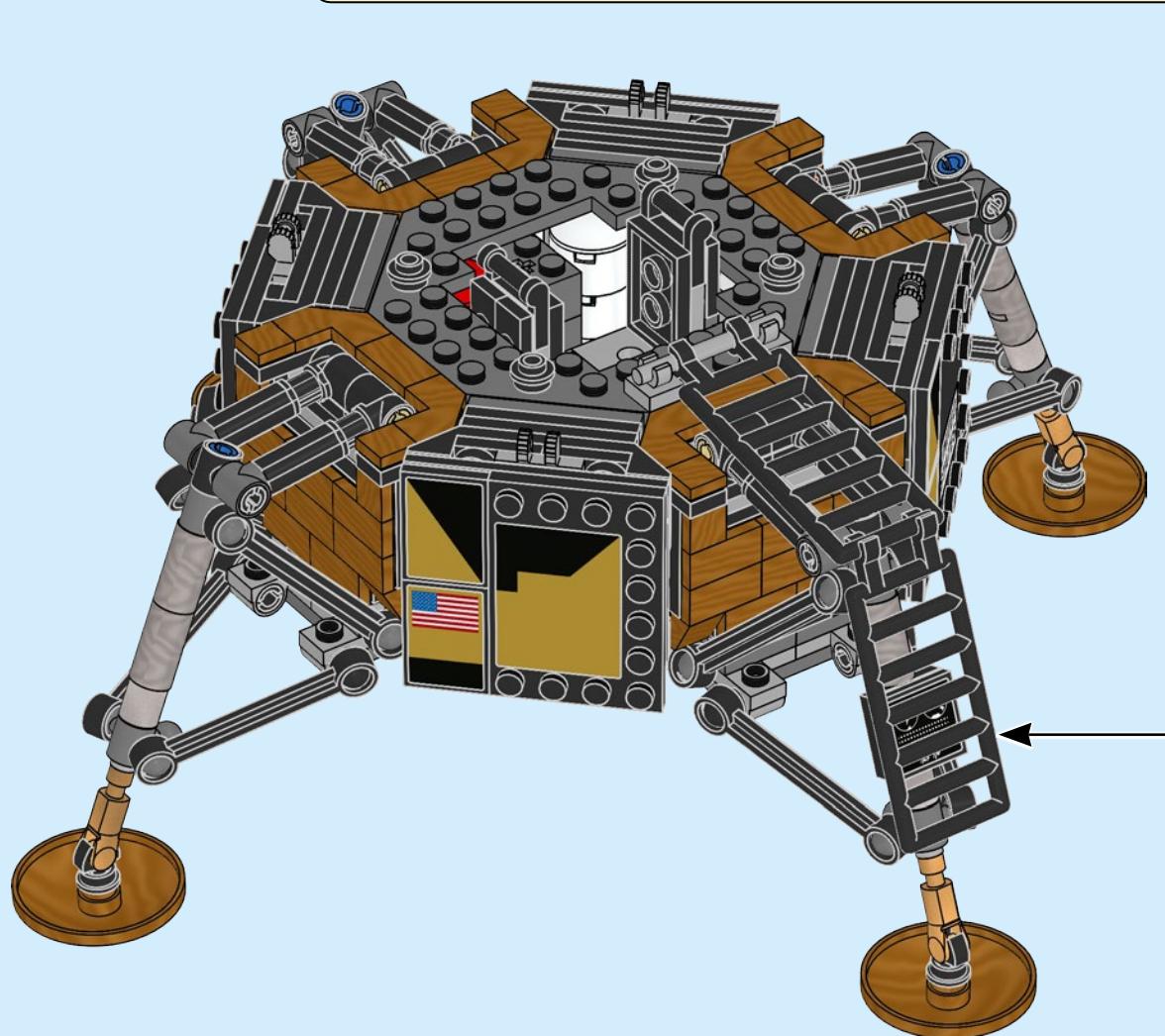
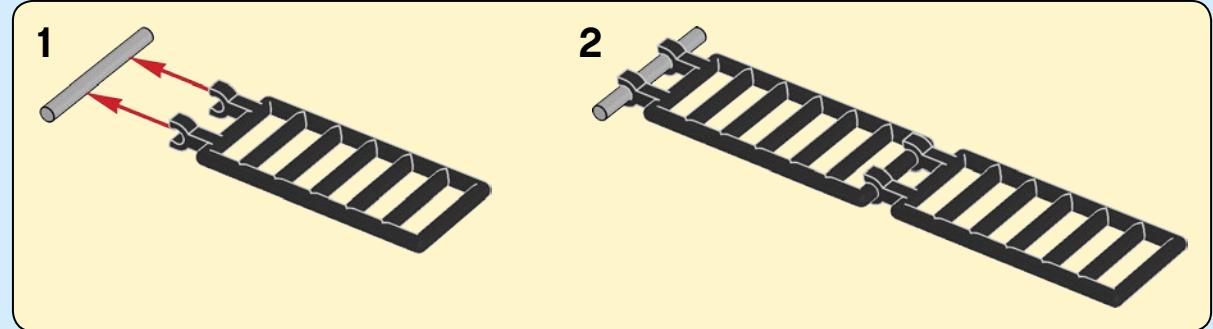


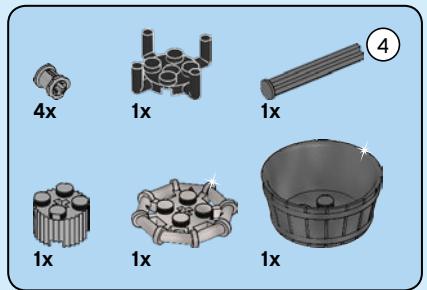
111





112

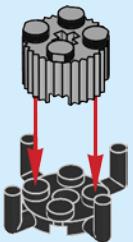




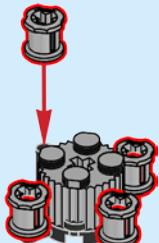
(4) 1:1

113

1



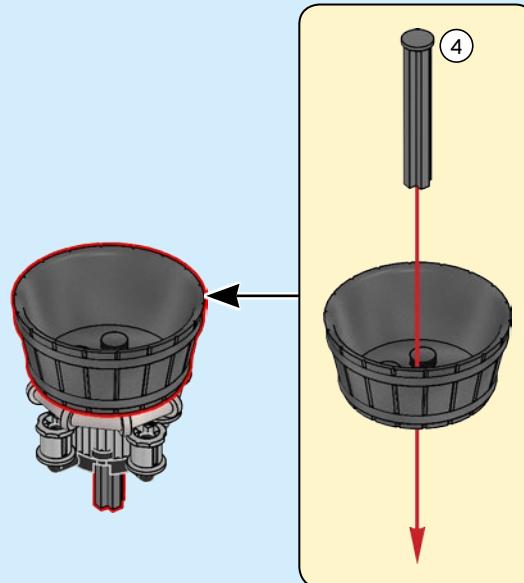
2

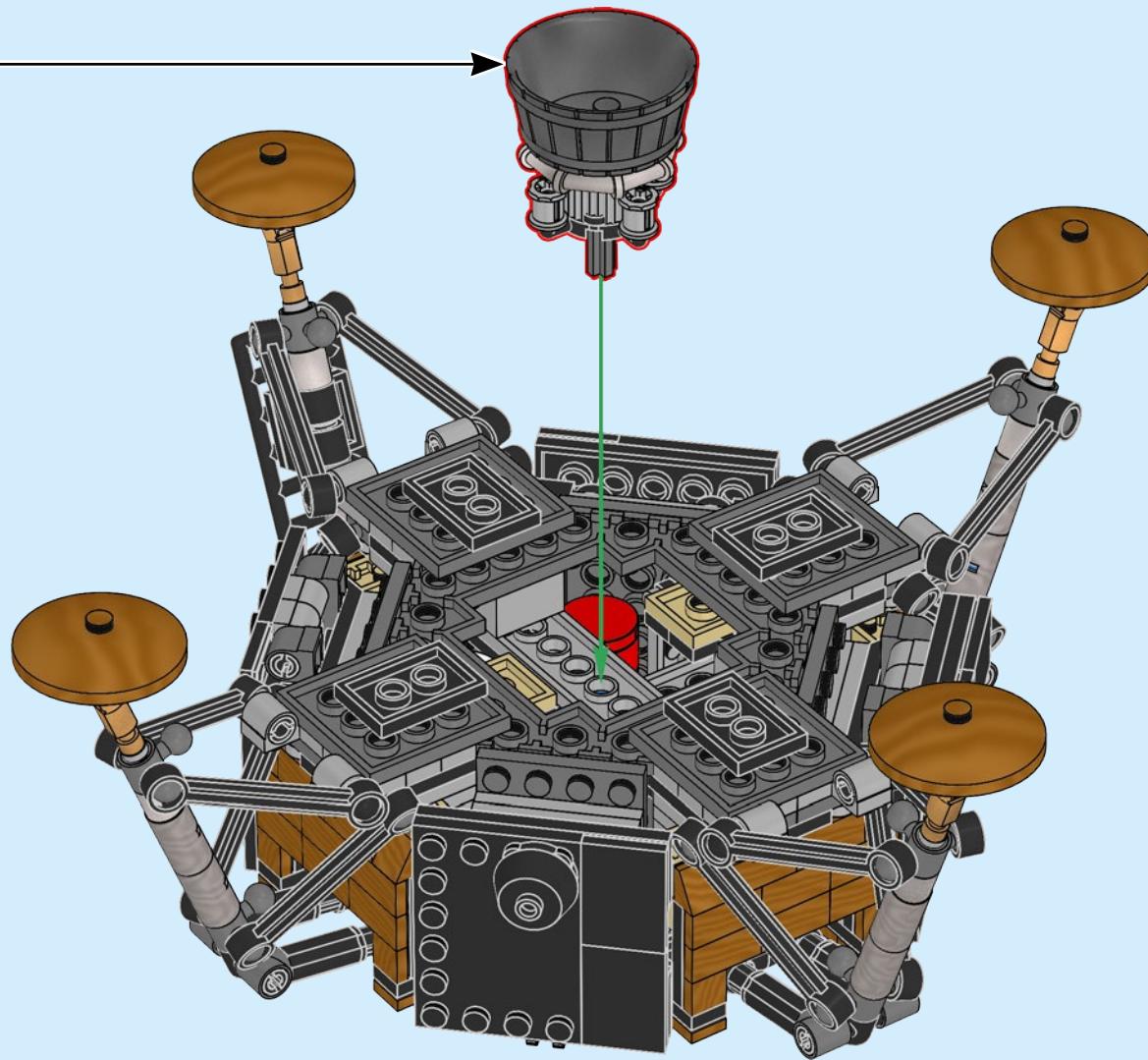
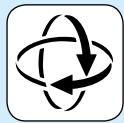


3



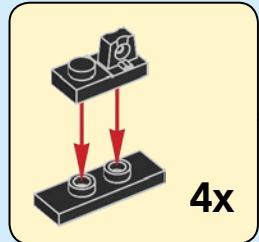
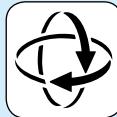
4



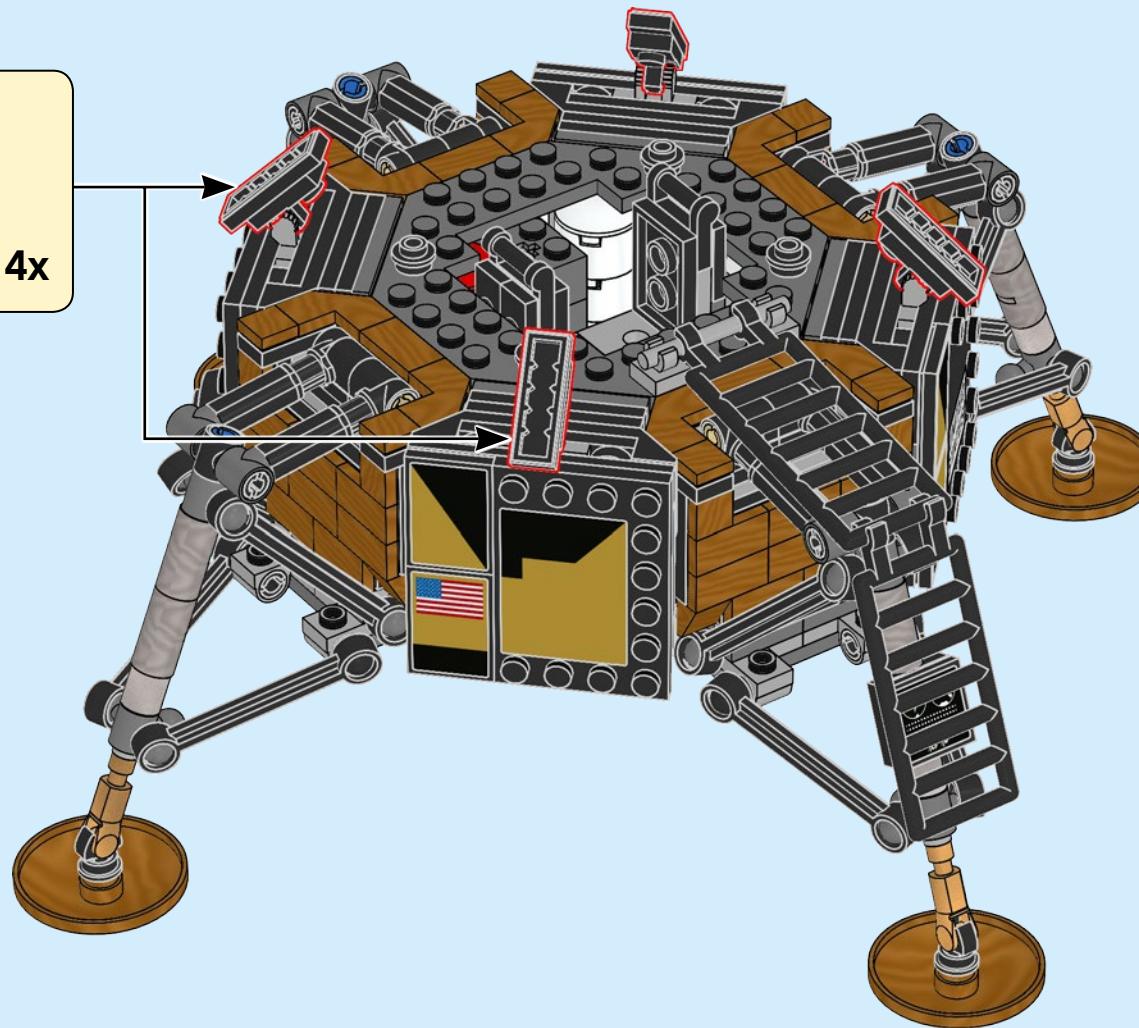




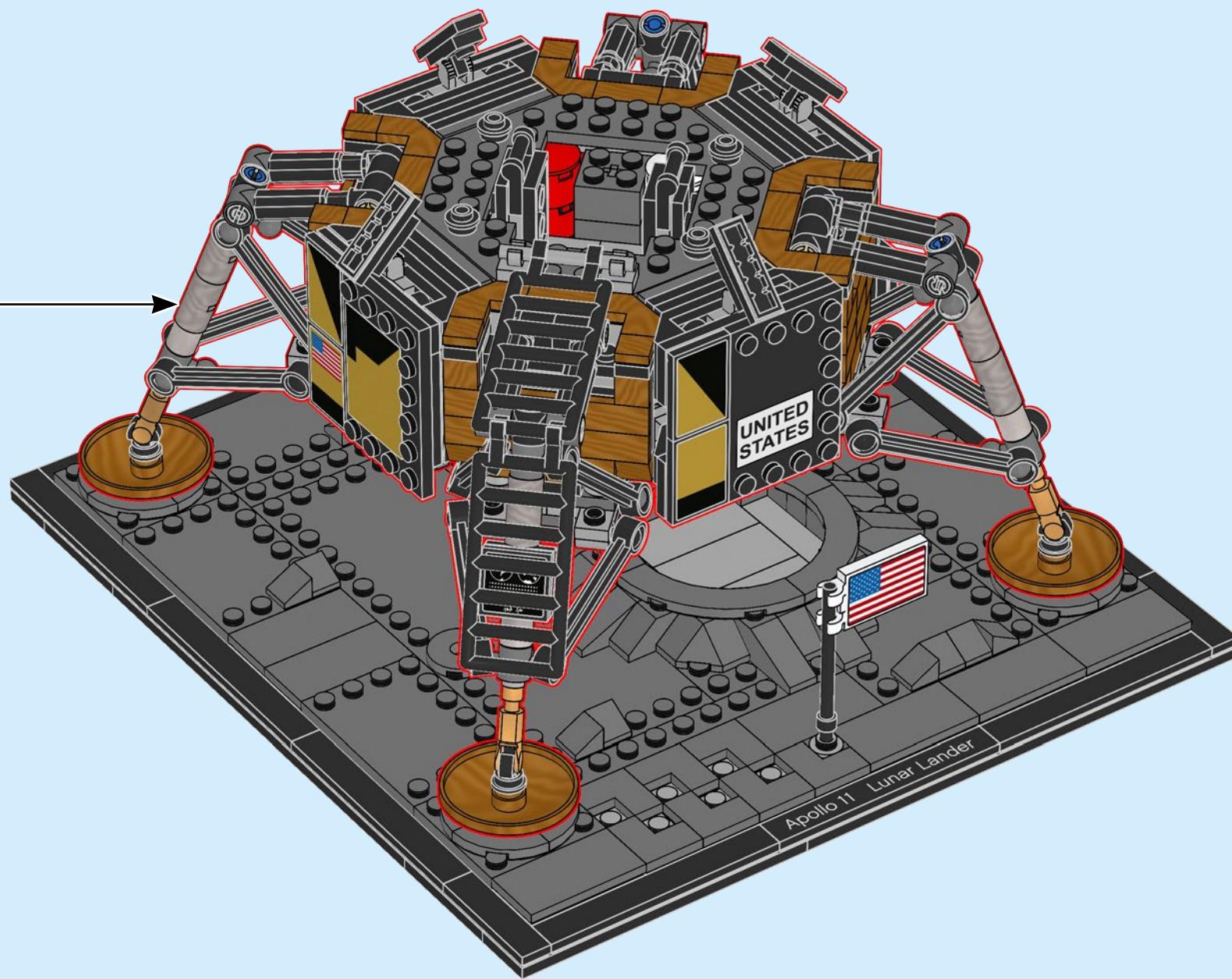
114



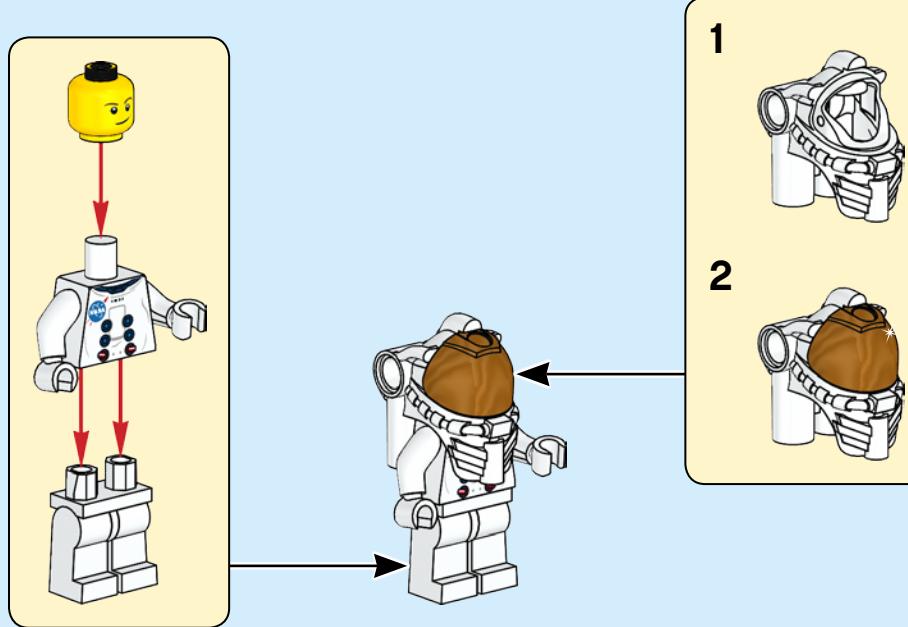
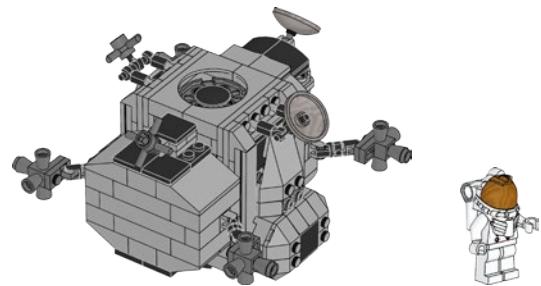
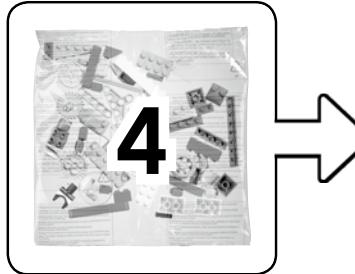
4x

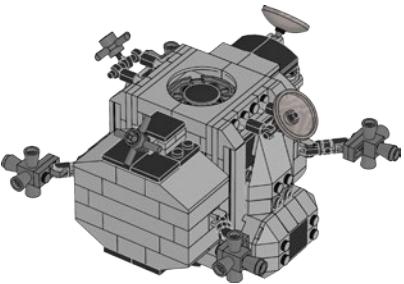


115



114

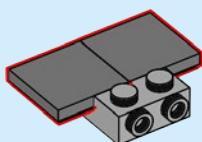




116

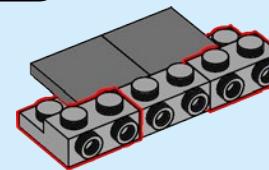


117



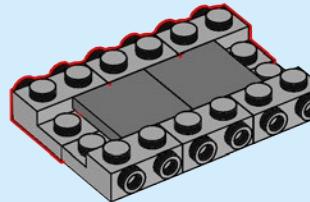
2x

118



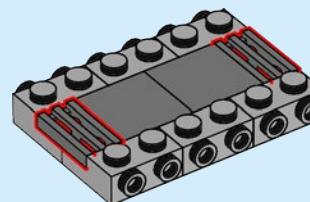
3x

119

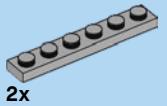


2x

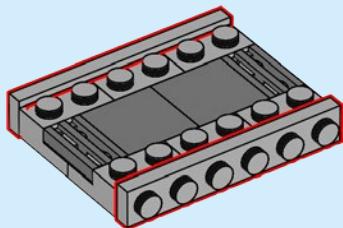
120



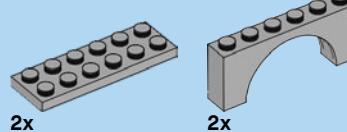
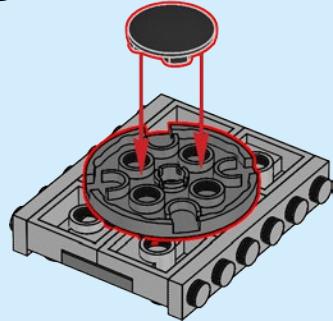
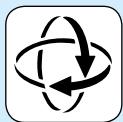
116



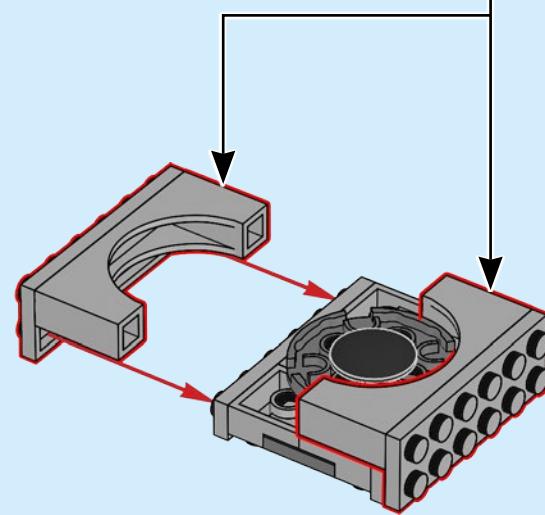
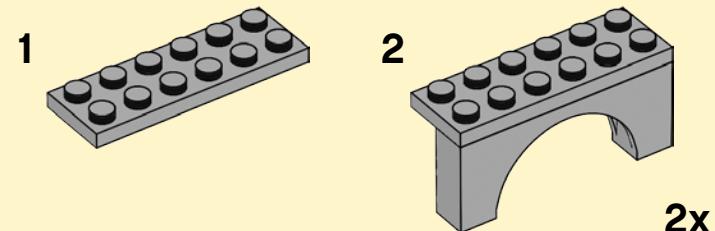
121

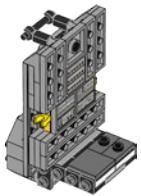


122



123



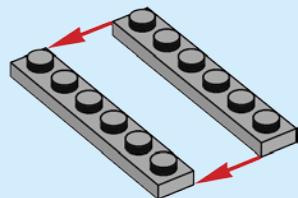


2x

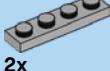


2x

124

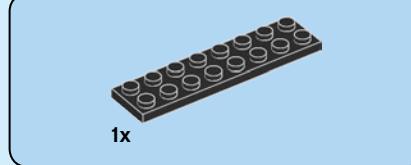
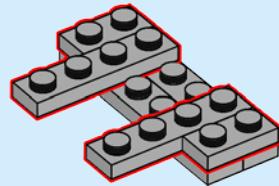


2x



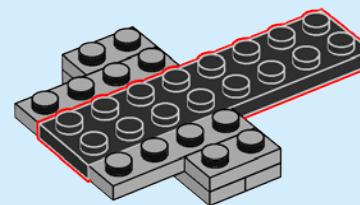
2x

125



1x

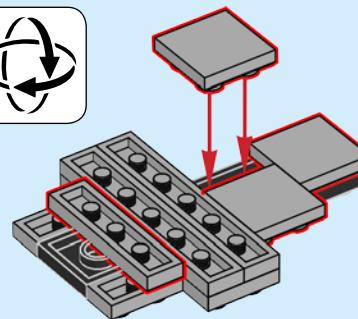
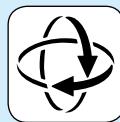
126



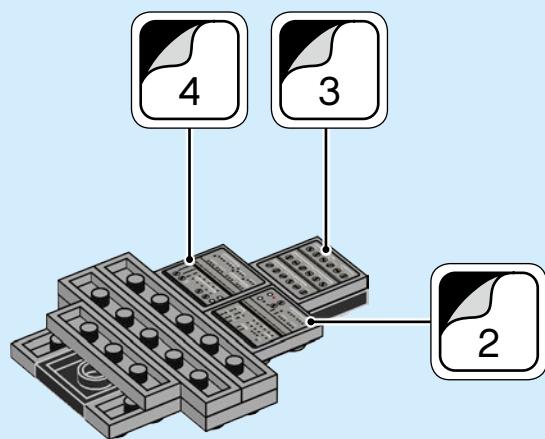
3x

1x

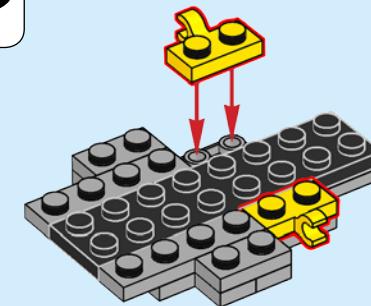
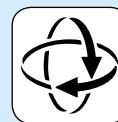
127

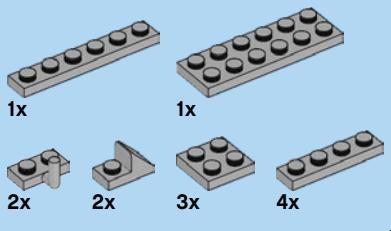


128

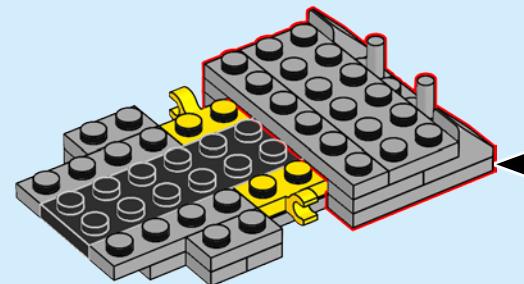
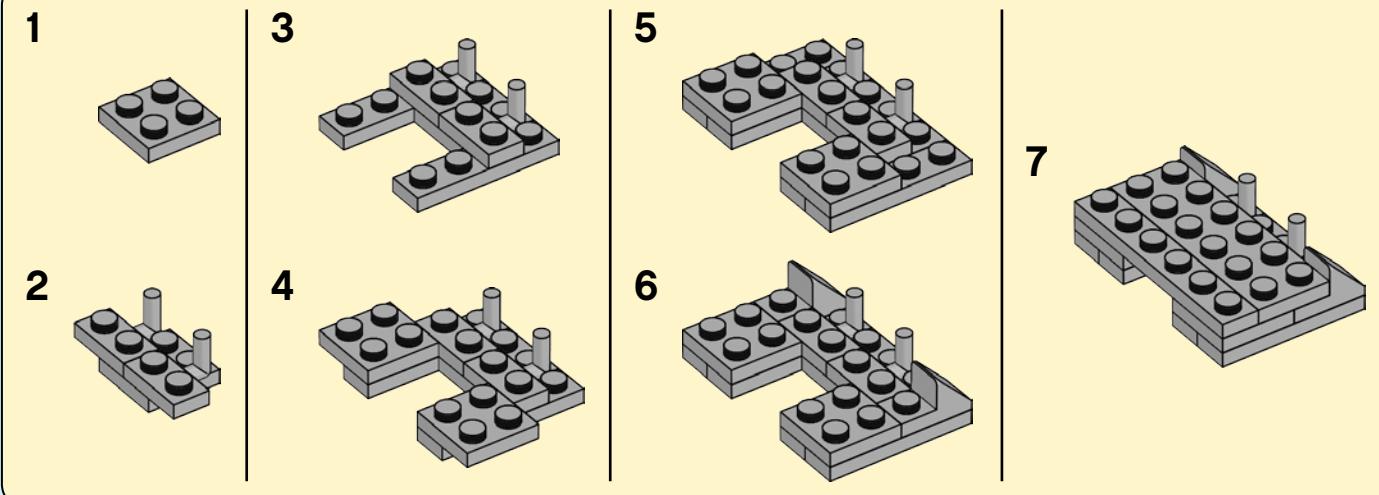


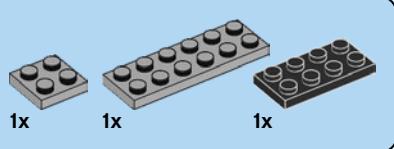
129



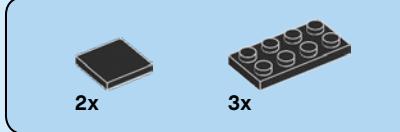
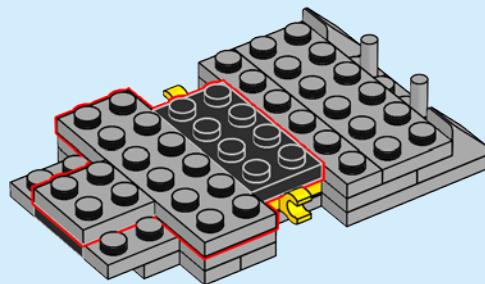


130

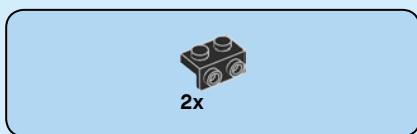
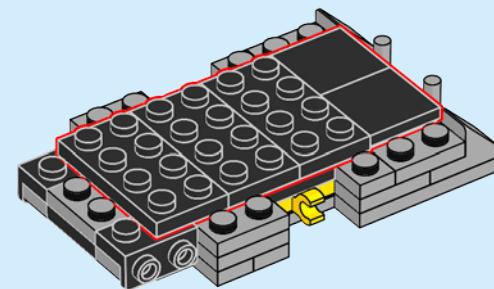




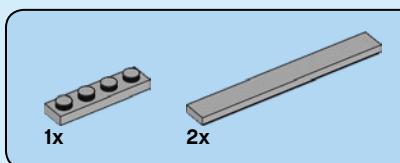
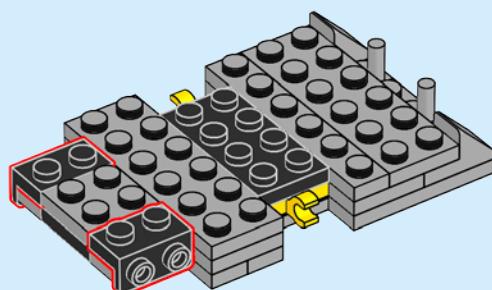
131



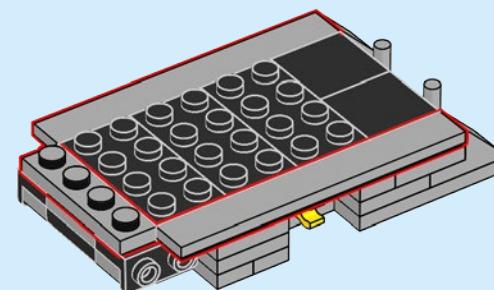
133

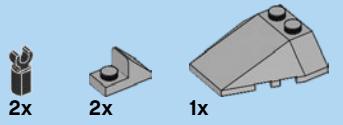


132

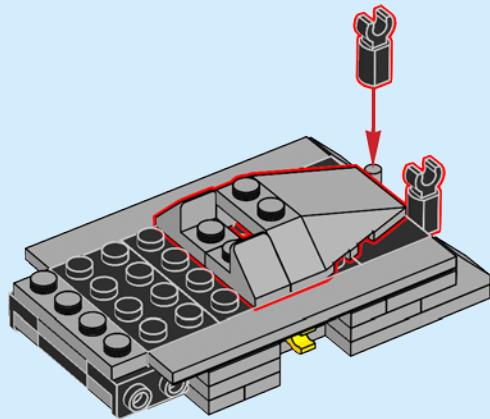


134

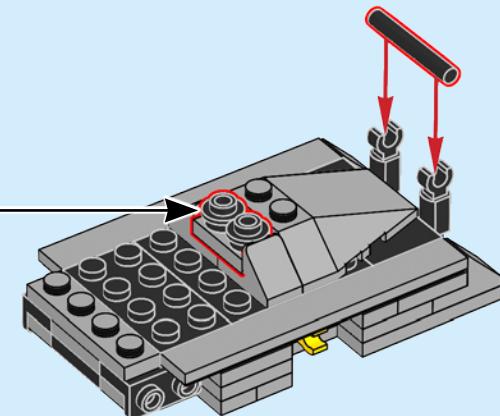
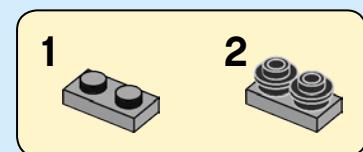




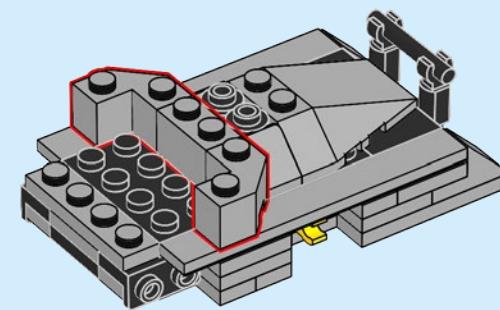
135



136



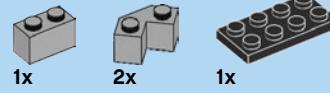
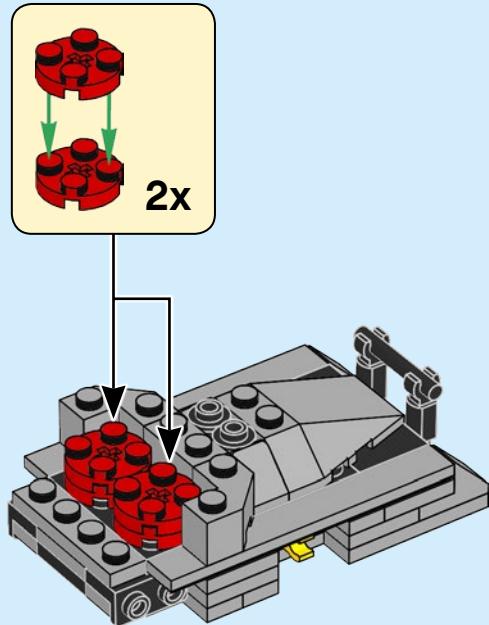
137





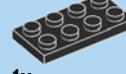
4x

138



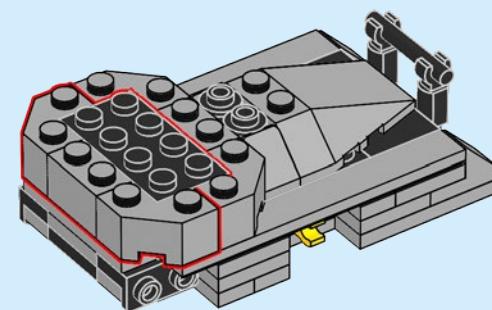
1x

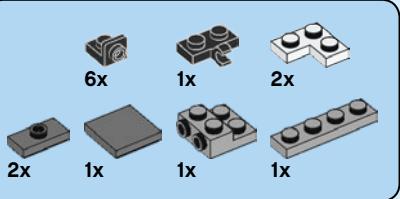
2x



1x

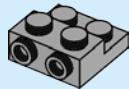
139



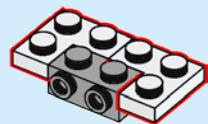


140

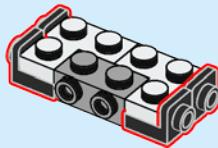
1



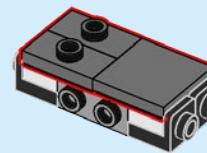
2



3



4



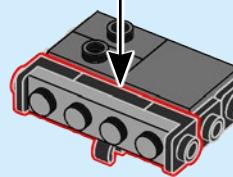
1

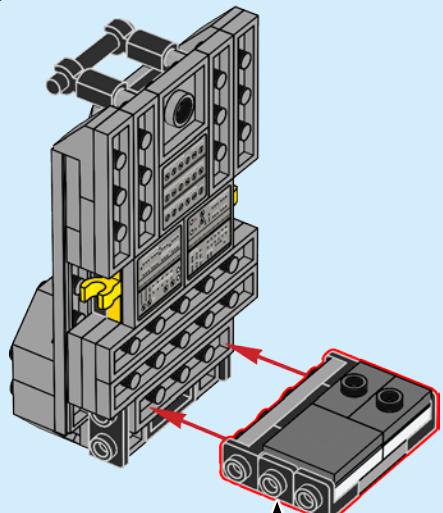
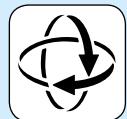


2



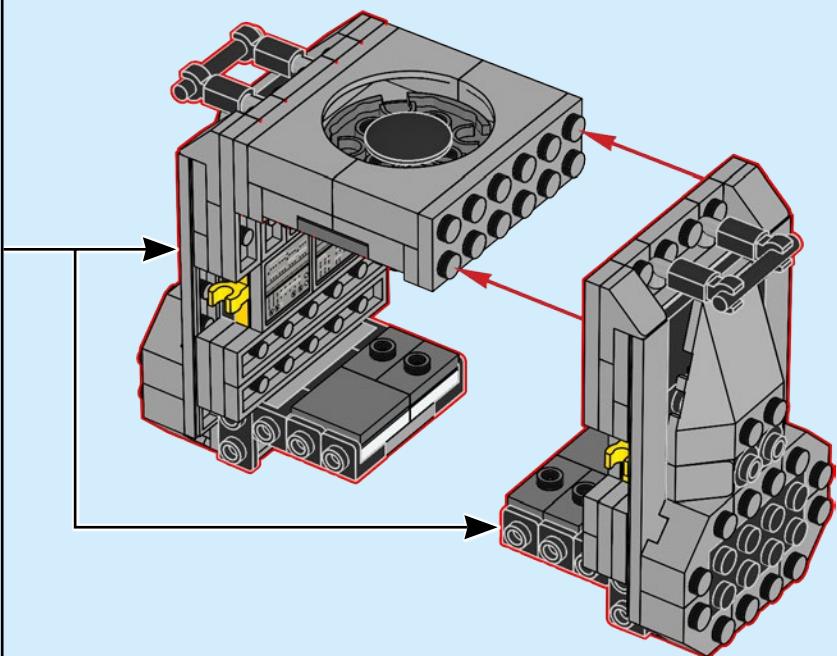
5

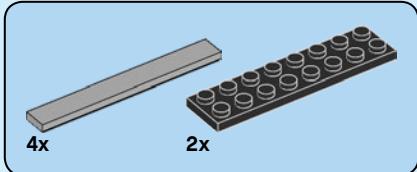




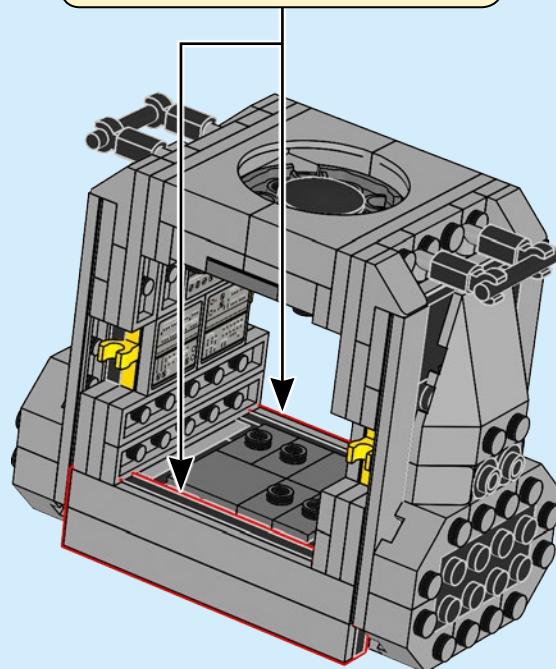
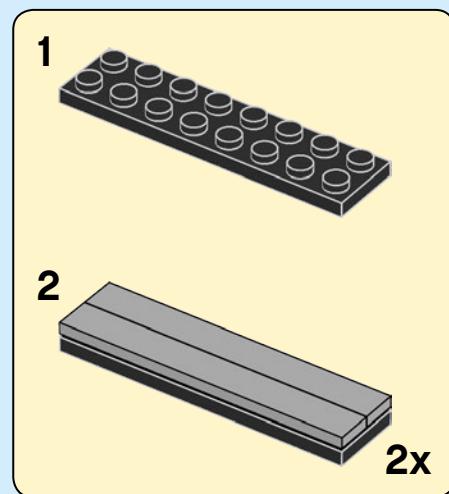
2x

141





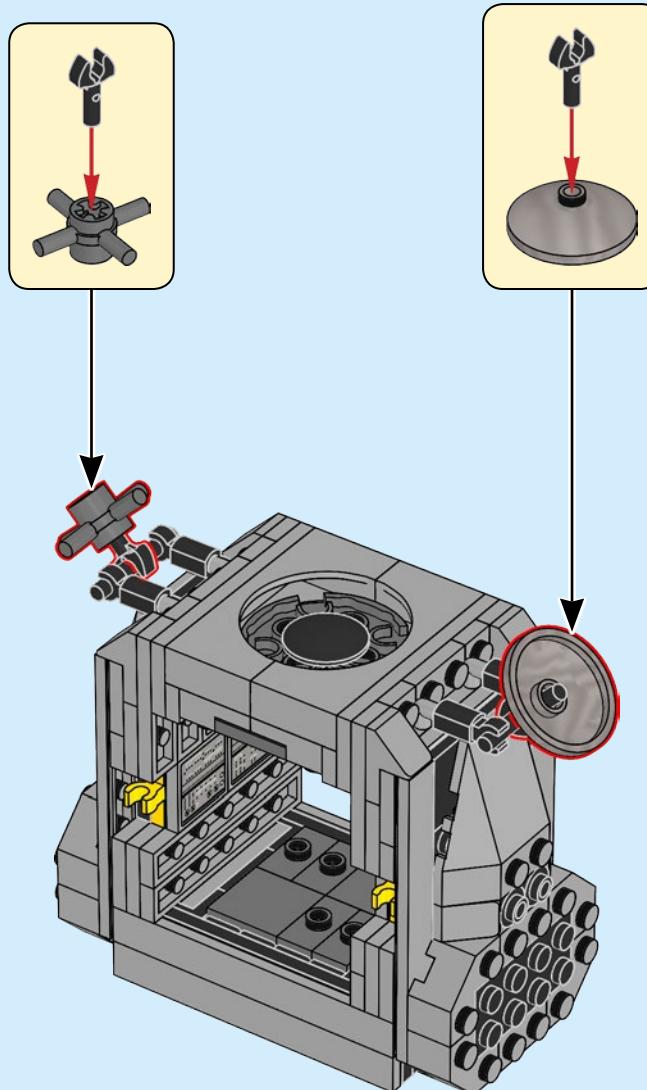
142

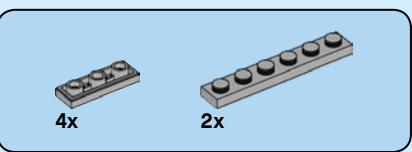


126

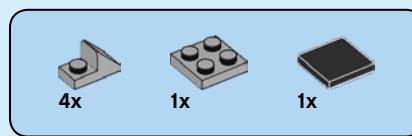
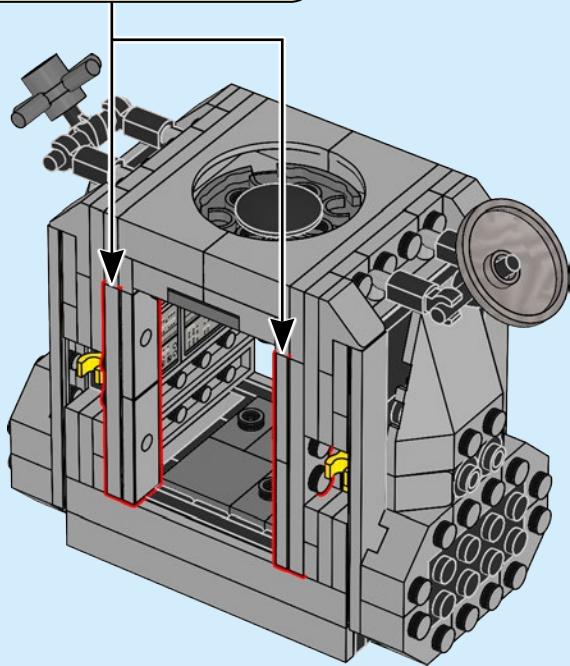
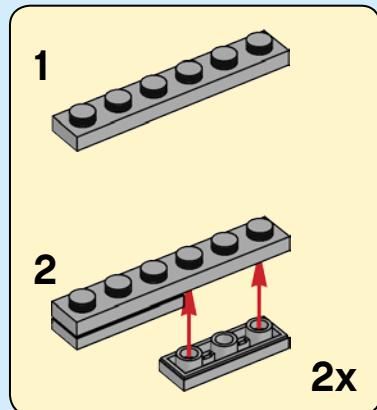


143

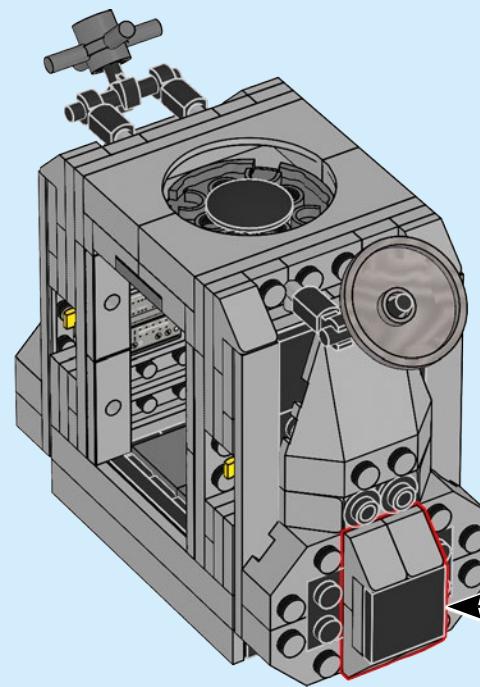
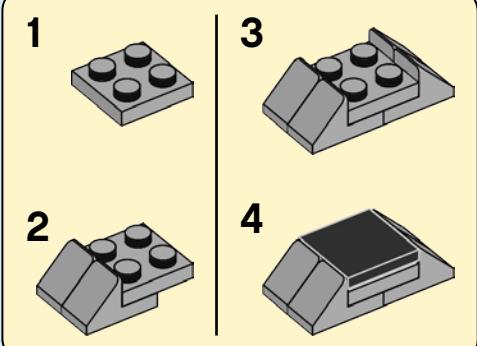




144

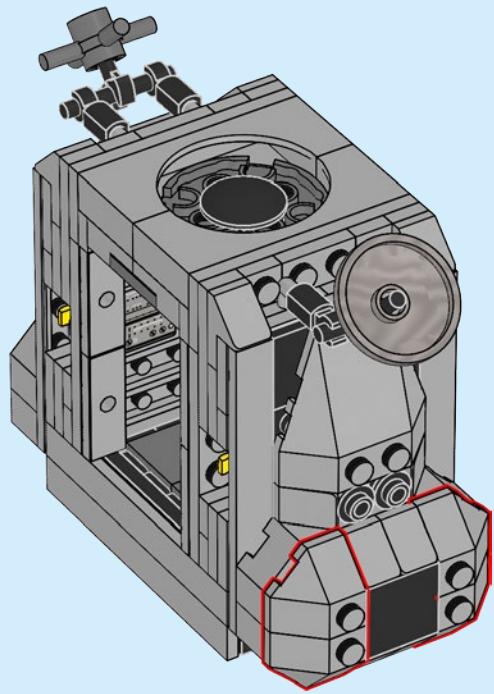


145

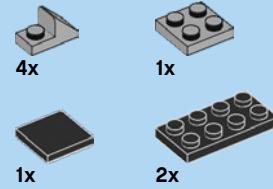




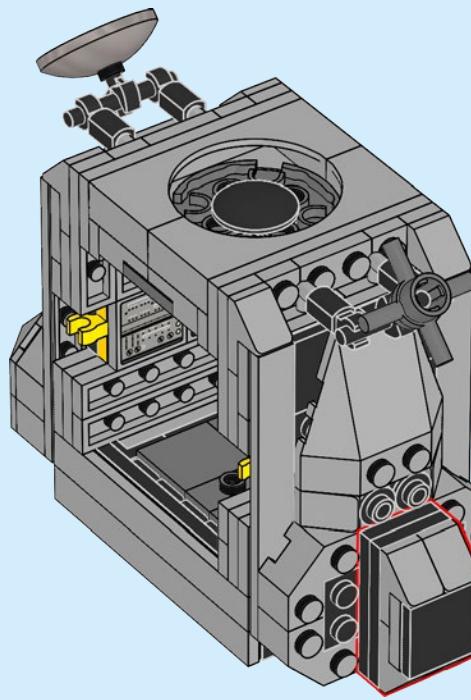
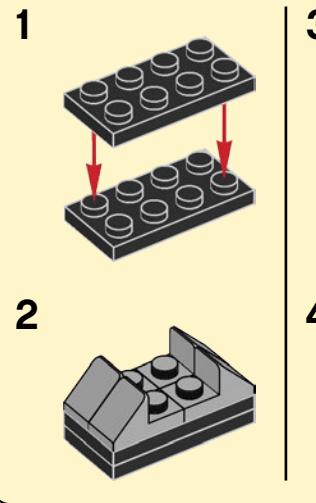
146



128

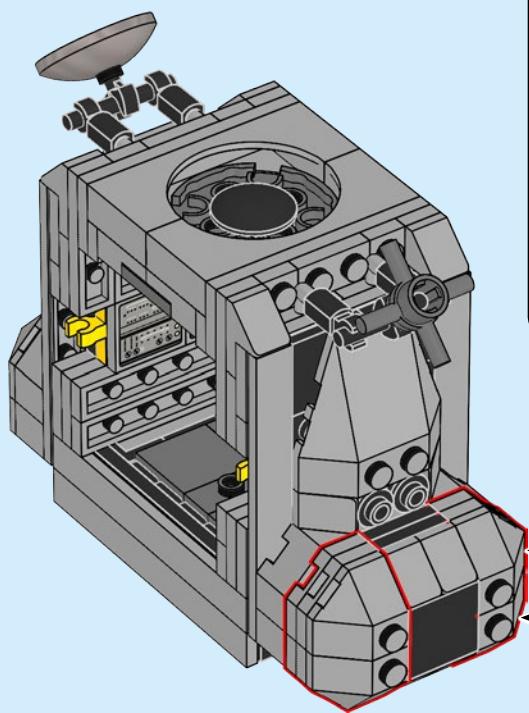


147

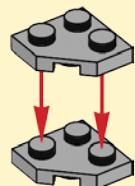




148



1



2



4x

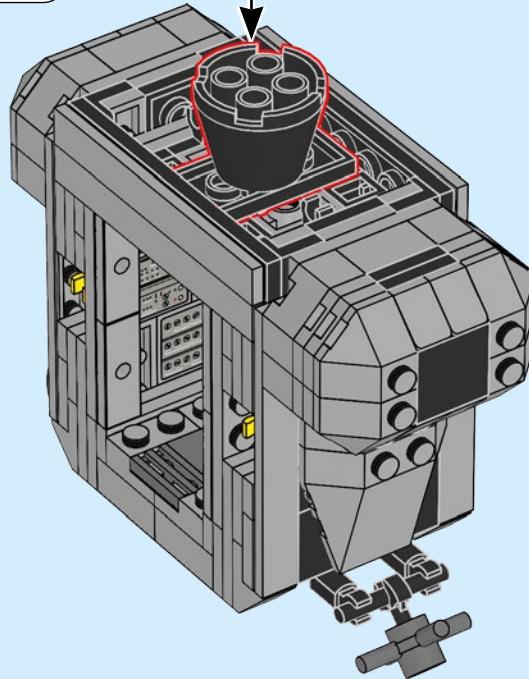
149

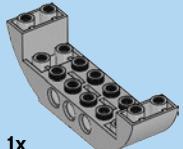
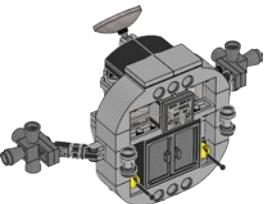


1



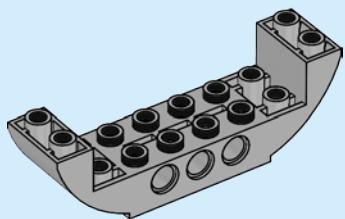
2





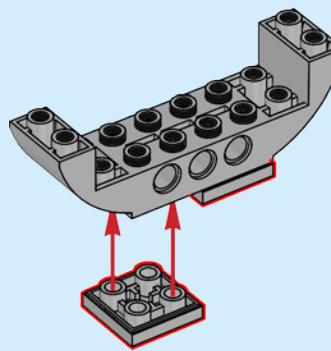
1x

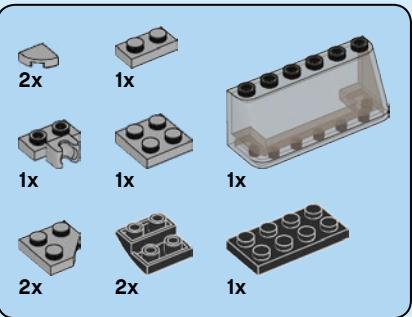
150



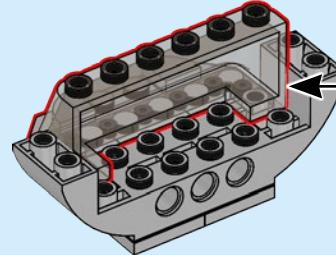
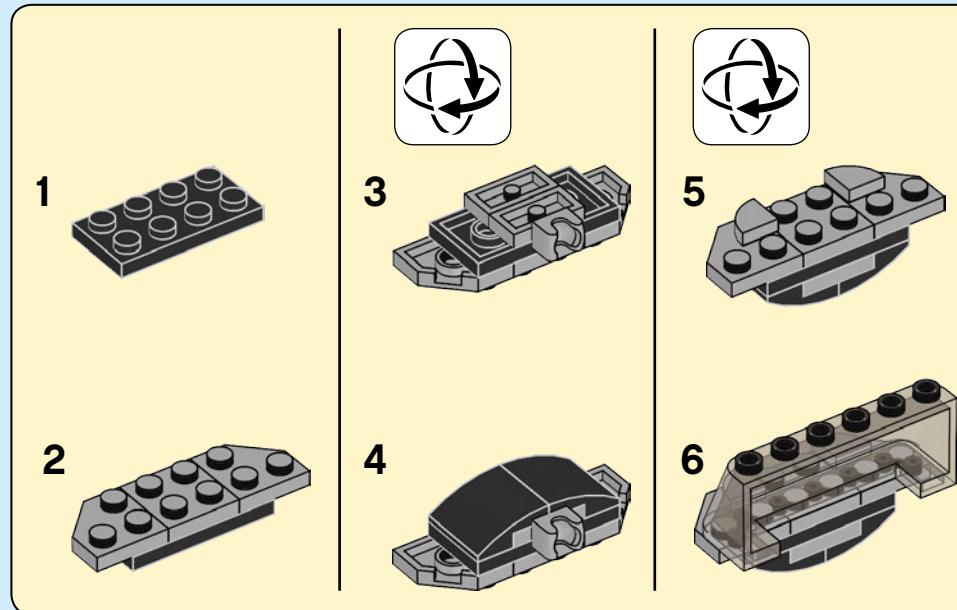
2x

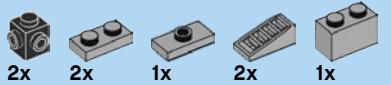
151



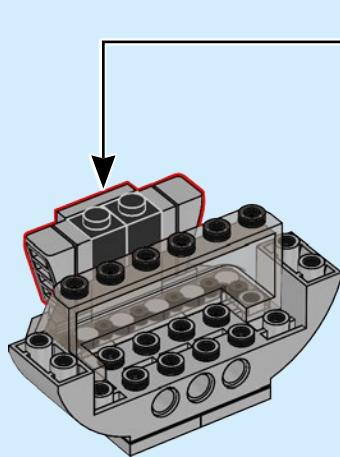
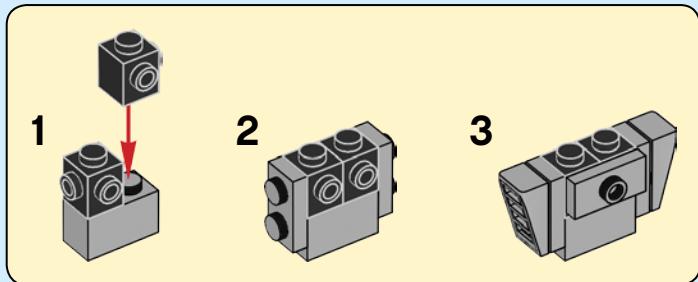


152

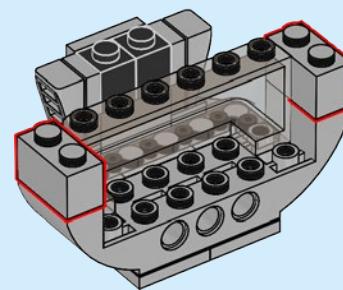


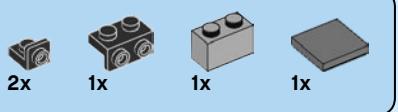


153

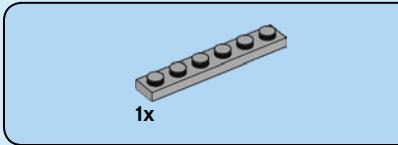
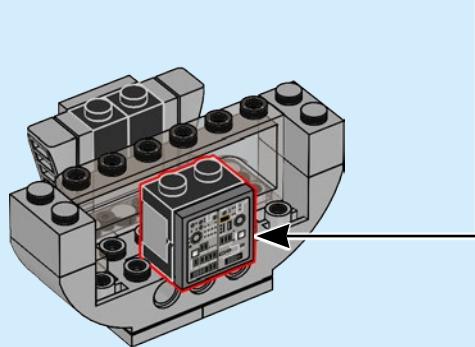
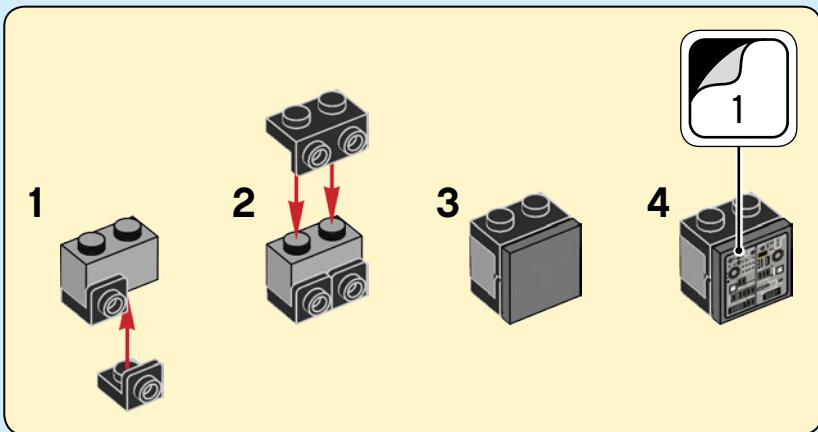


154

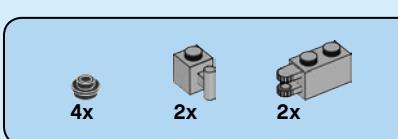
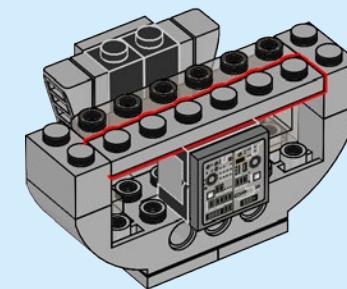




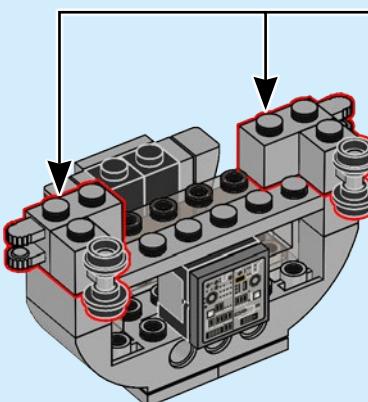
155

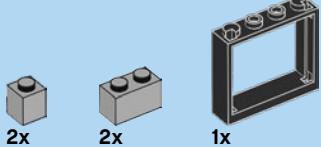


156

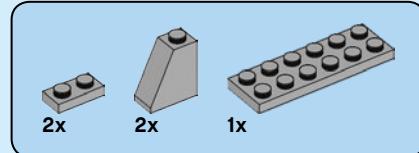
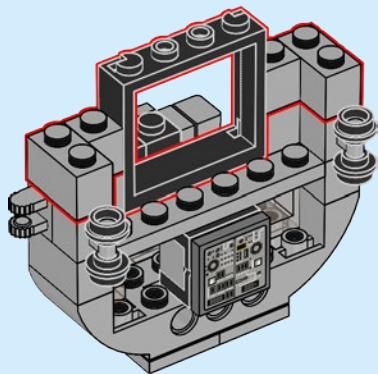


157

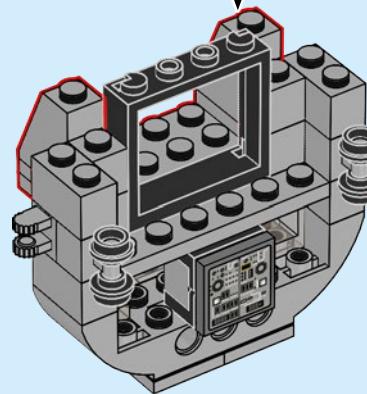
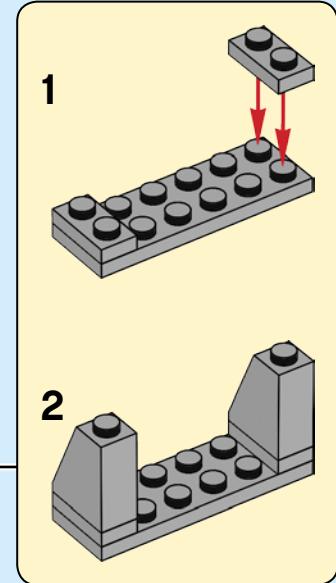


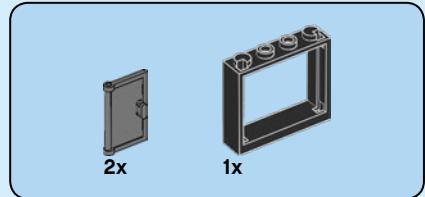


158

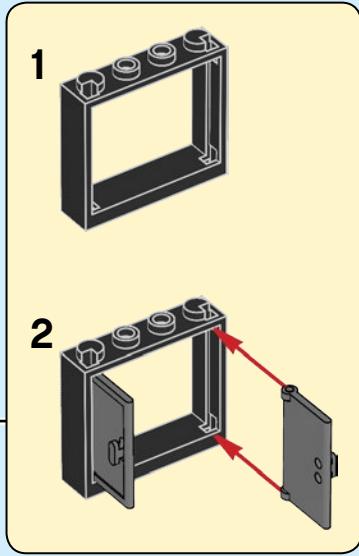
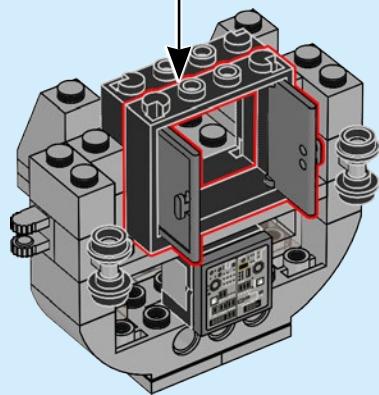


159

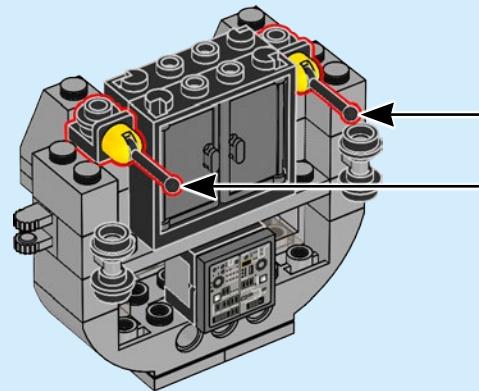
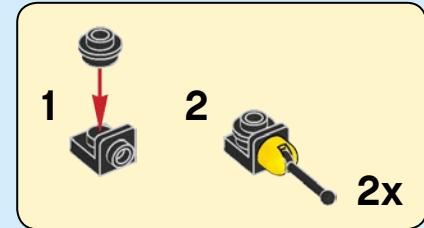




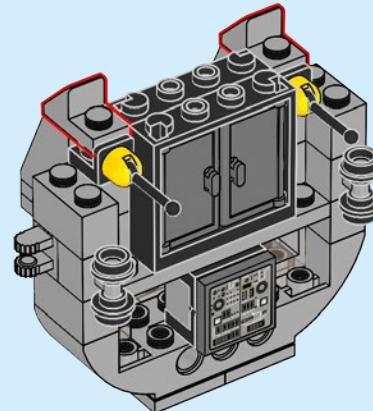
160



161



162

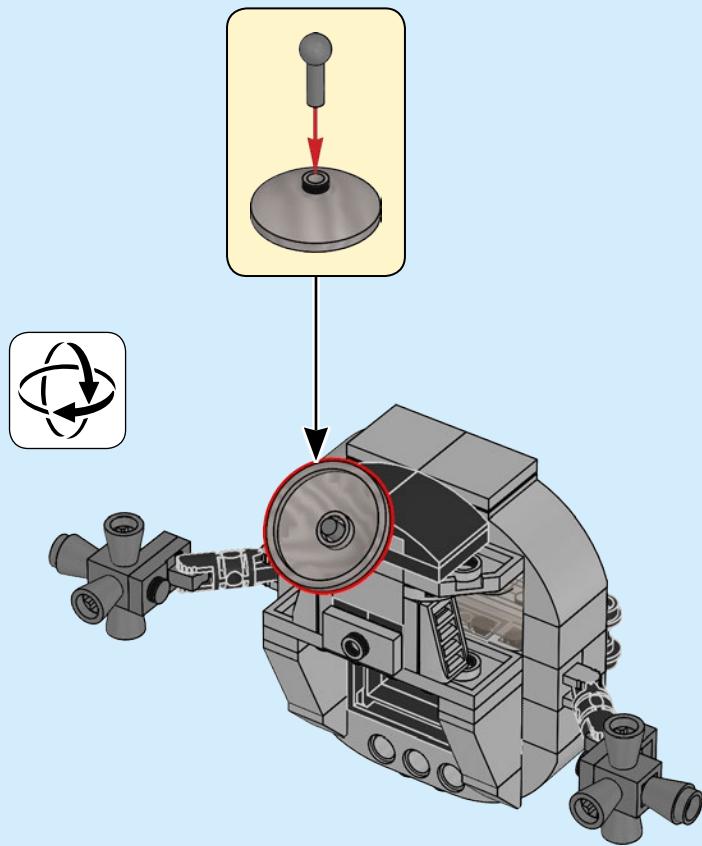




1x



165



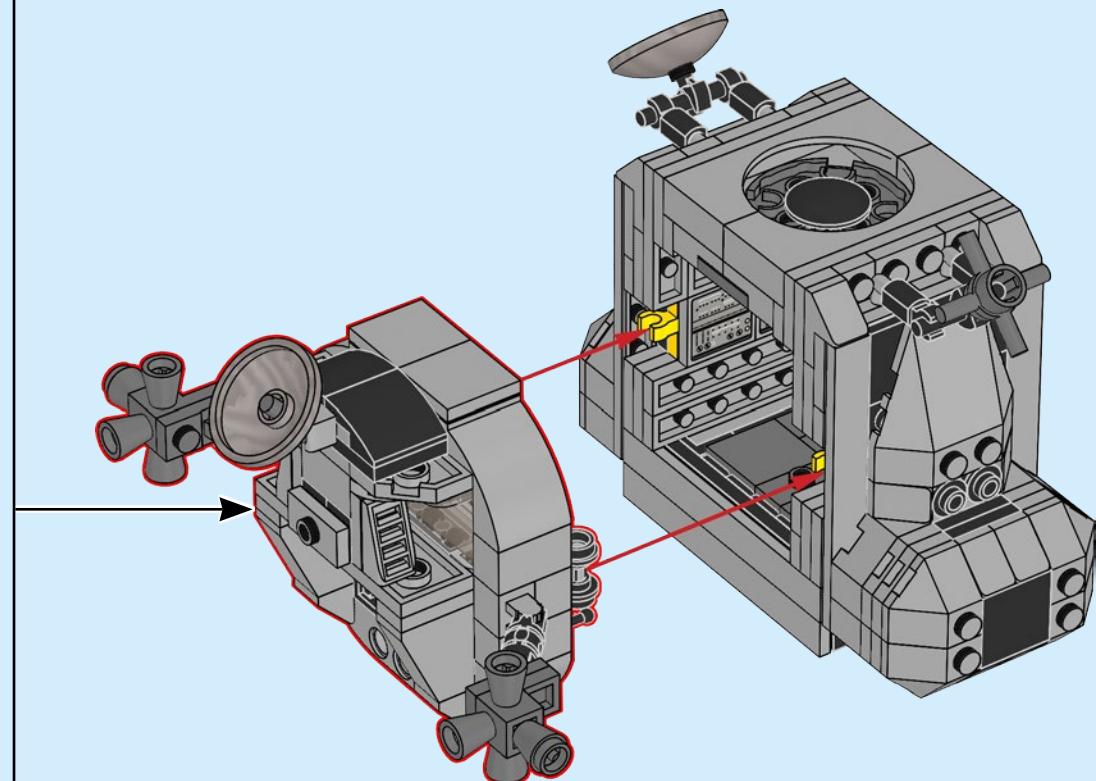
166

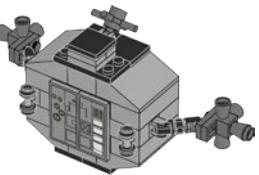


The reaction control system (RCS) provides thrust to a spacecraft, allowing it to be steered in the right direction. This system was used by the Apollo Lunar Lander when descending to the Moon.

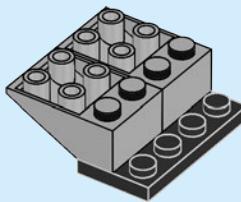
Le système de contrôle d'attitude (RCS) fournit une certaine poussée à l'engin spatial, lui permettant de se diriger dans la bonne direction. Ce système a été utilisé par le module lunaire Apollo lors de sa descente sur la Lune.

El sistema de control de reacción (RCS, por sus siglas en inglés) proporciona empuje a una nave espacial y permite orientarla en la dirección correcta. El módulo lunar Apolo usó este sistema durante su descenso sobre la Luna.

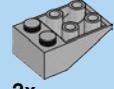
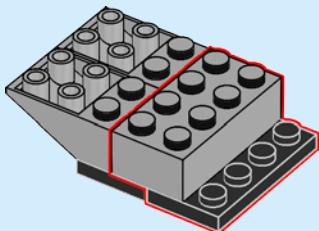




167

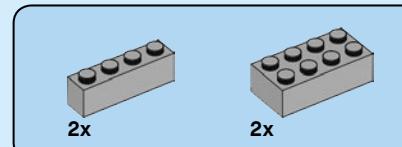
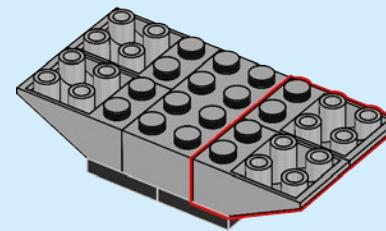


168

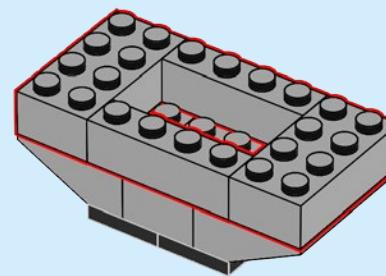


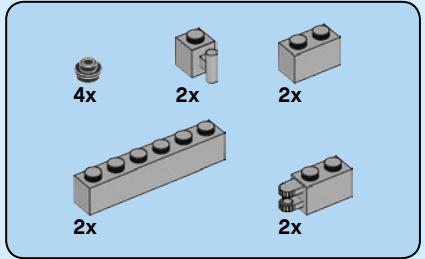
2x

169

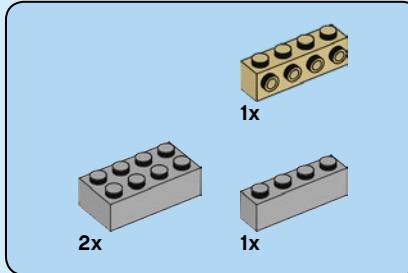
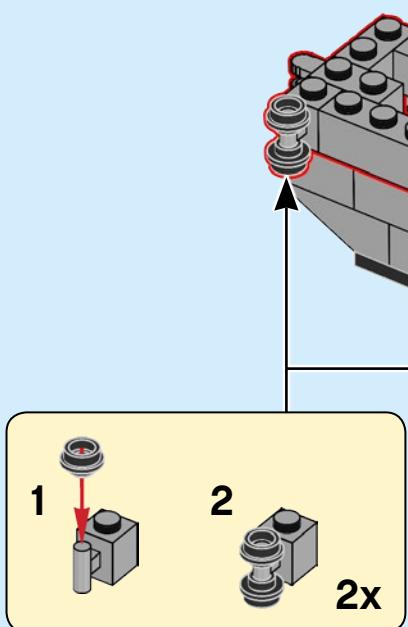


170

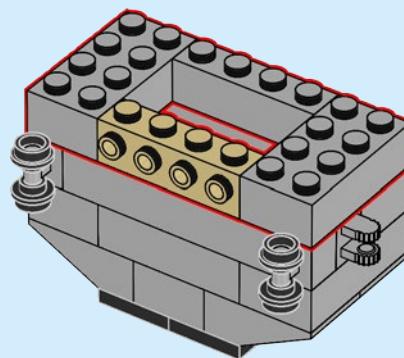


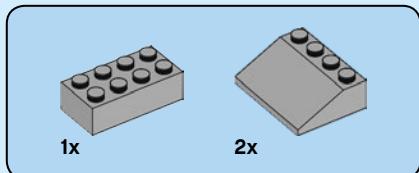


171

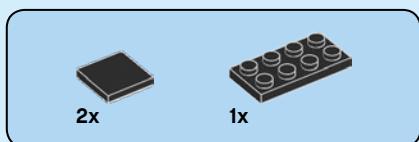
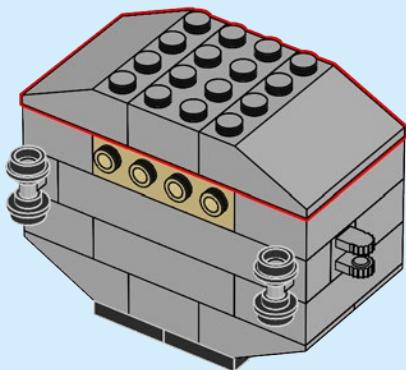


172

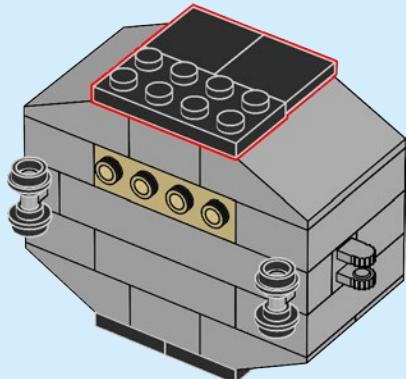




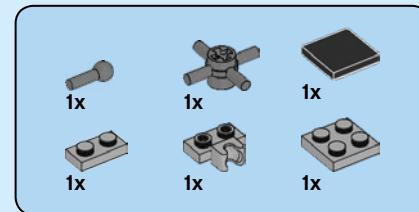
173



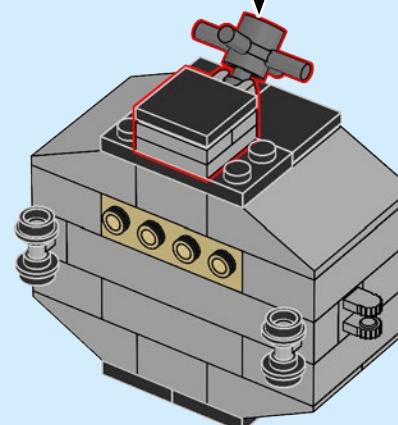
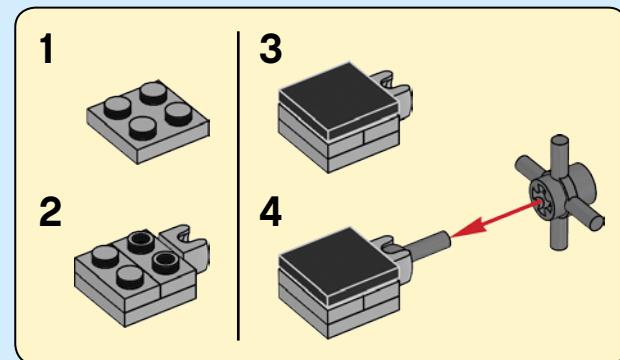
174

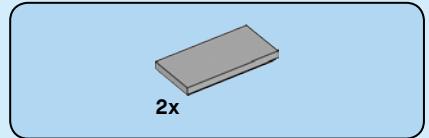


140

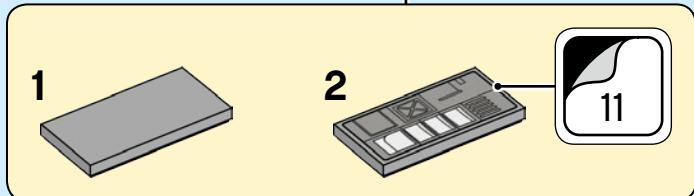
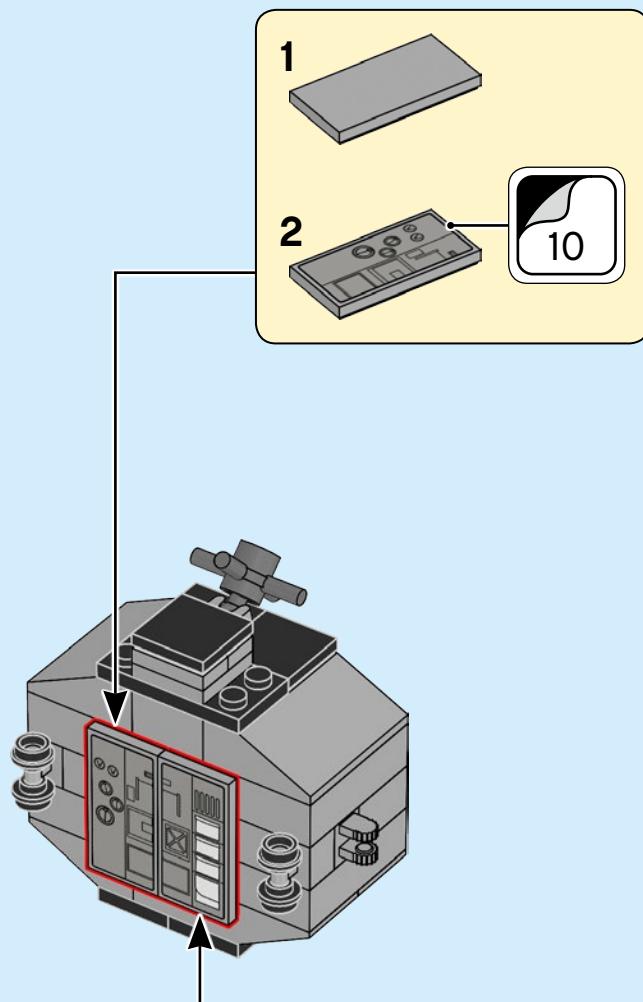


175

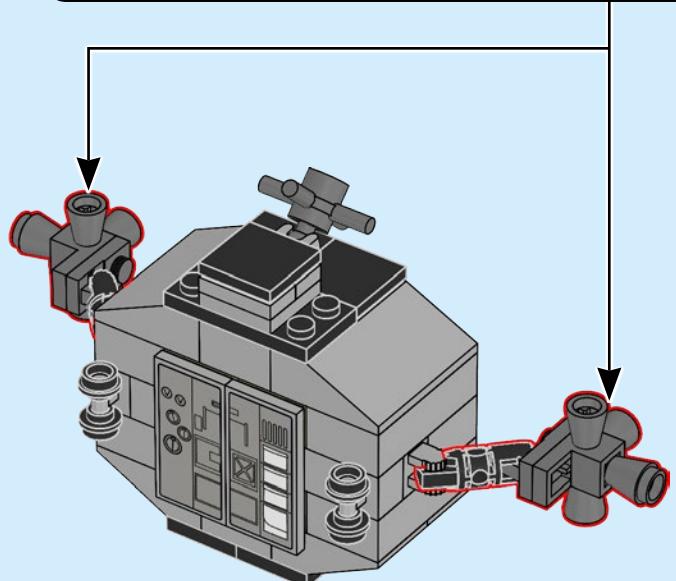
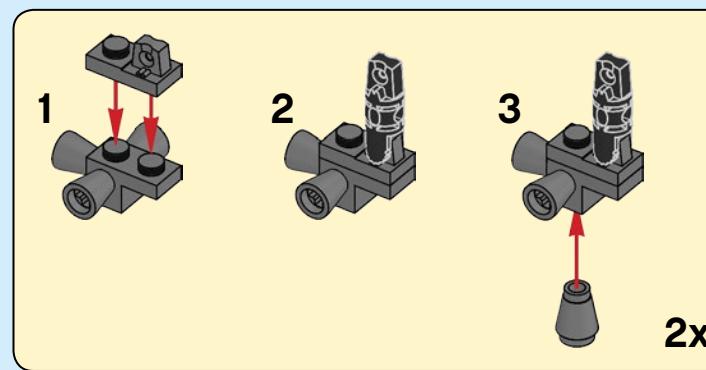




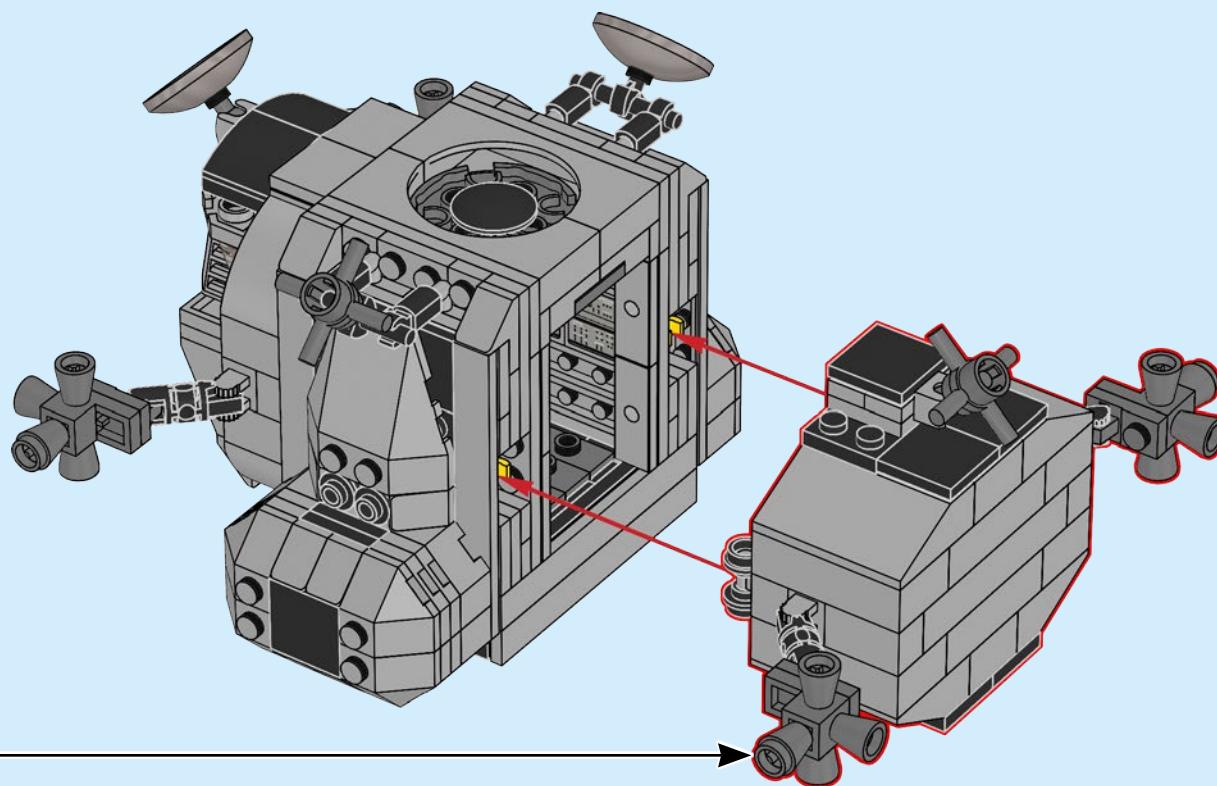
176



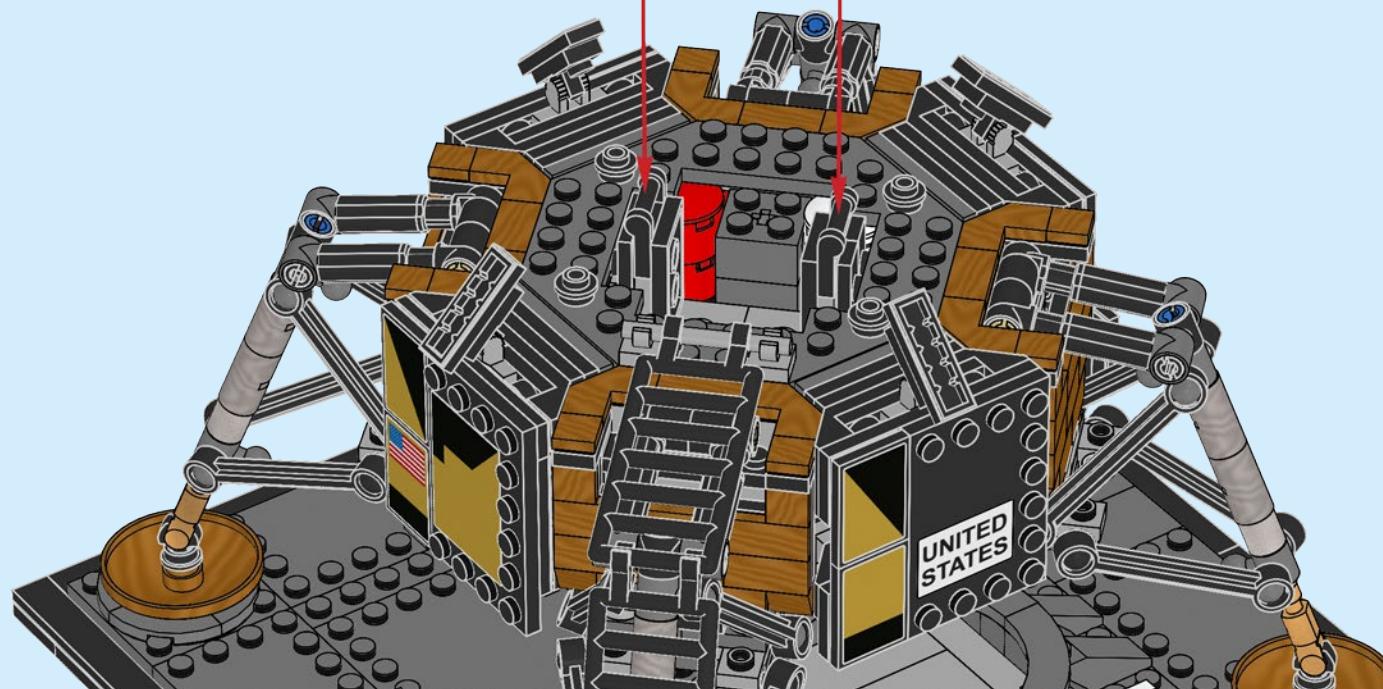
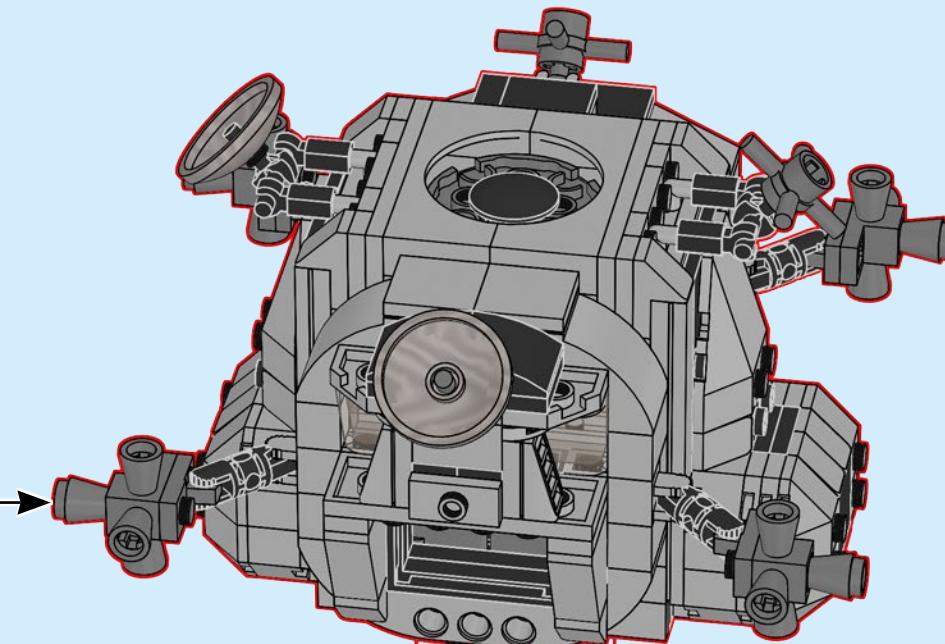
177

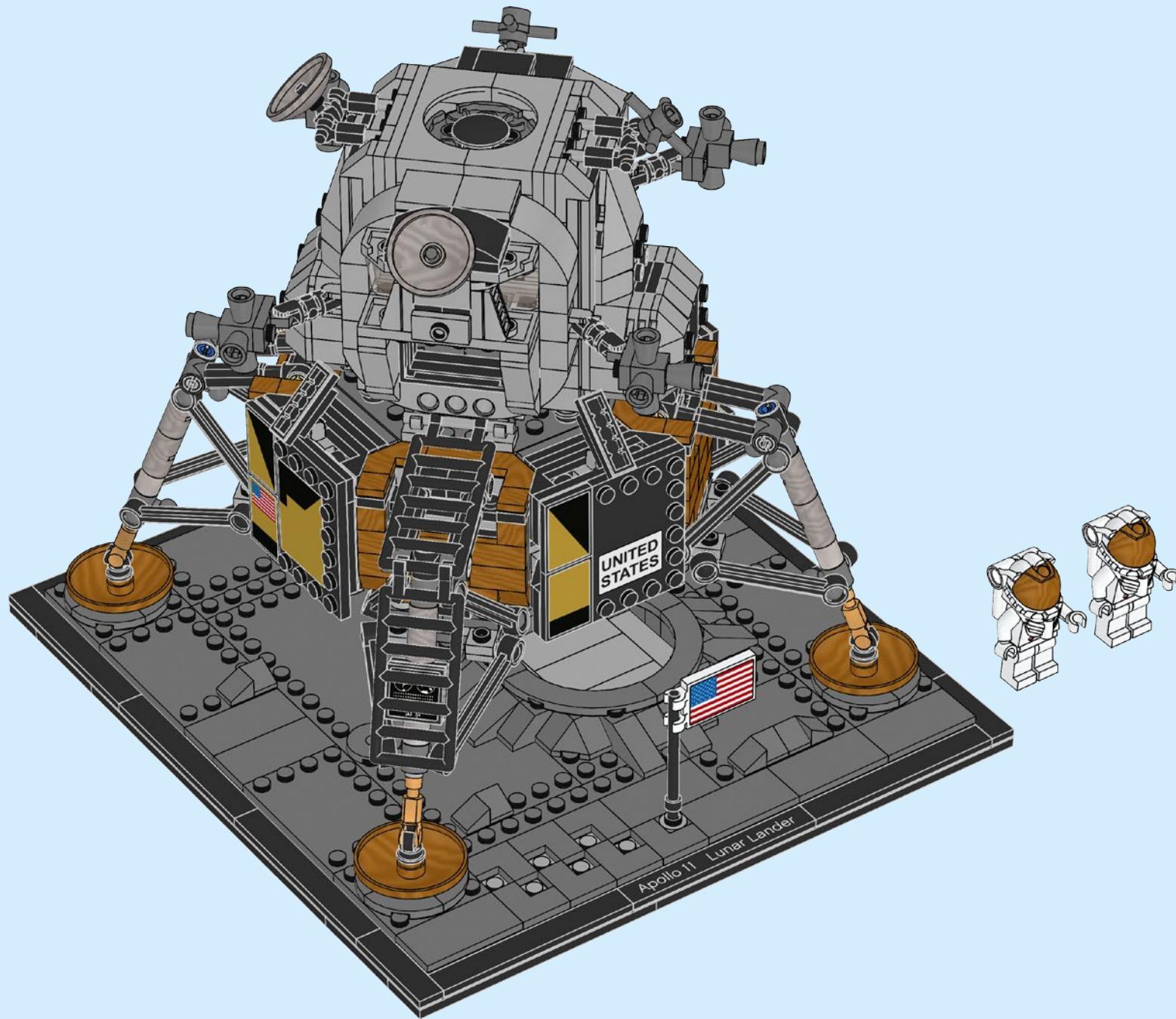


178

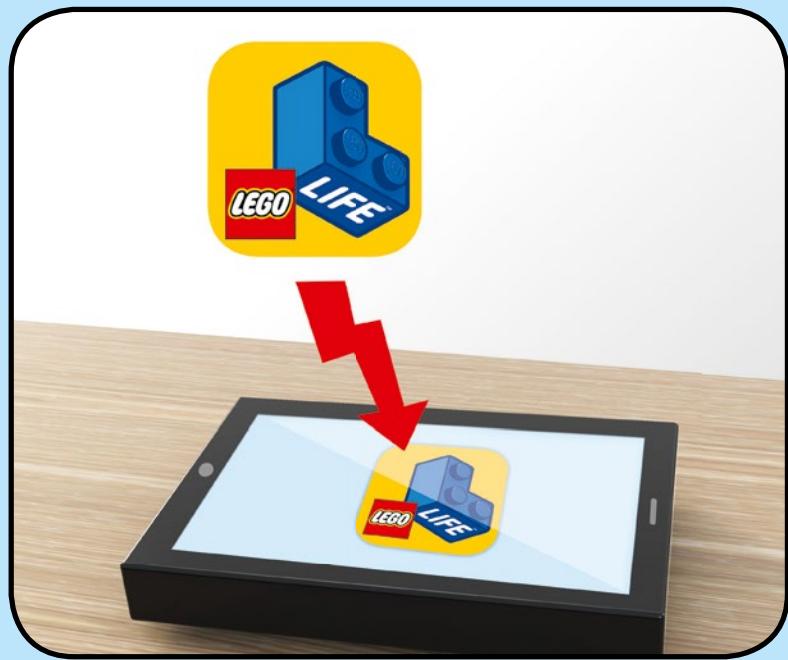


179

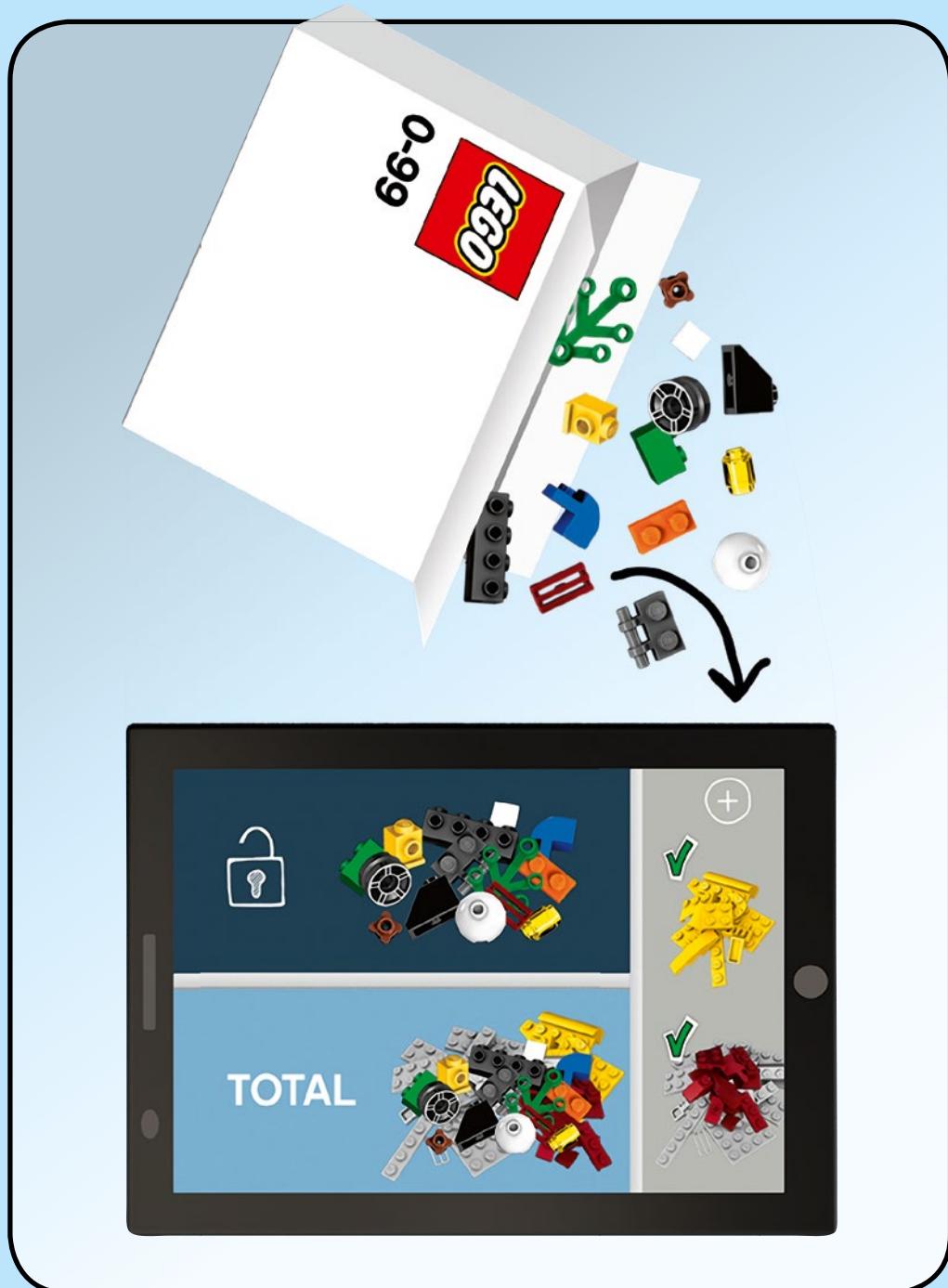




1



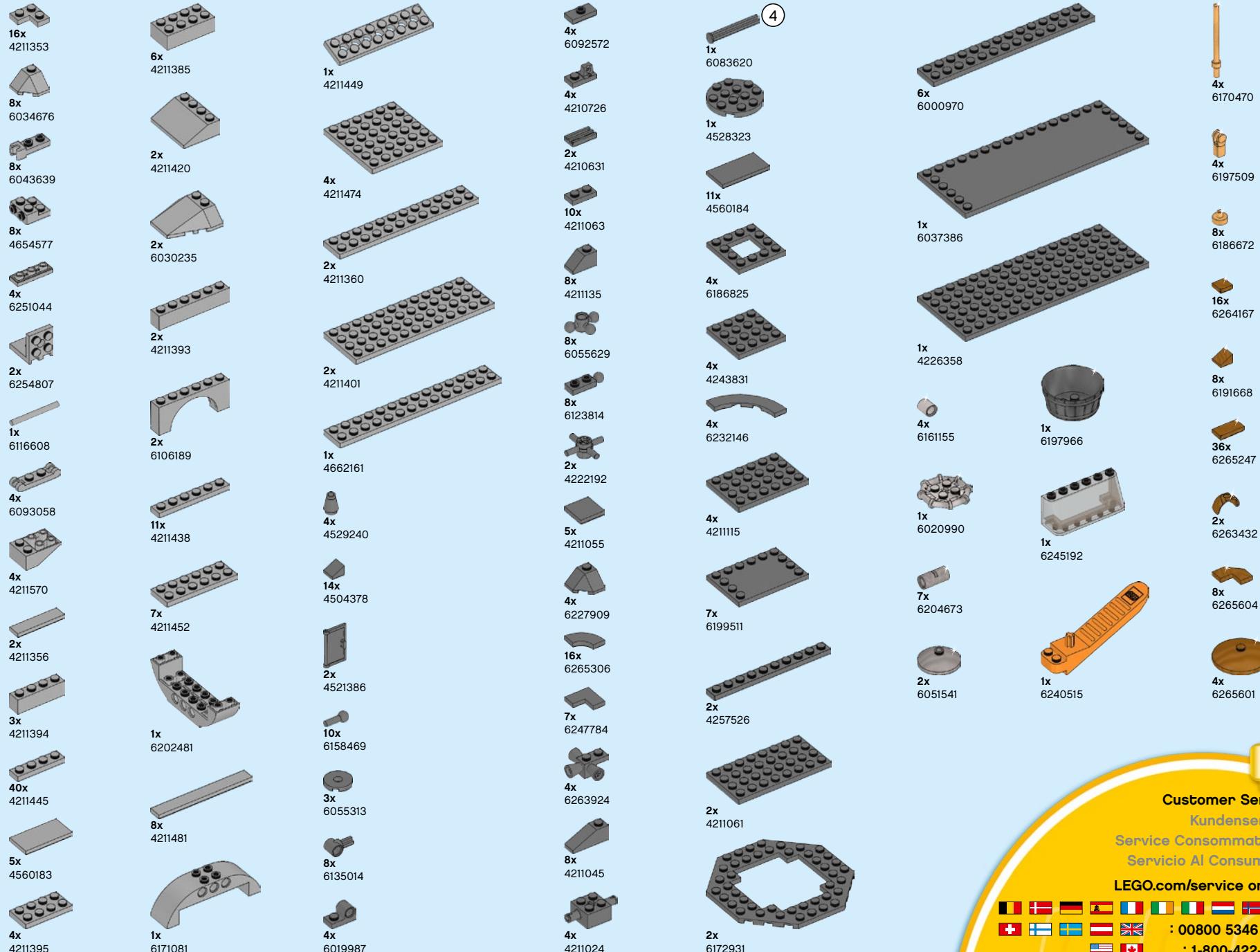
3



2







Customer Service

Kundenservice

Service Consommateurs

Servicio Al Consumidor

LEGO.com/service or dial

: 00800 5346 5555

: 1-800-422-5346



WIN

GO TO WWW.LEGO.COM/PRODUCTFEEDBACK AND
GIVE US YOUR SHORT **FEEDBACK** ABOUT THIS
LEGO® SET FOR A CHANCE TO WIN
A COOL LEGO PRIZE.

Terms & Conditions apply

LEGO.com/productfeedback

GEWINNE

Erzähle uns auf
www.LEGO.com/productfeedback

etwas über die Erfahrungen, die du mit diesem LEGO® Set gemacht hast, und sichere dir die Chance auf einen coolen LEGO Preis!

Es gelten die
Teilnahmebedingungen

GAGNE

Rends-toi sur
www.LEGO.com/productfeedback

et donne-nous quelques commentaires sur ce produit LEGO® pour avoir une chance de gagner un prix LEGO !

Voir Conditions Générales

GANNA

Visita
www.LEGO.com/productfeedback

y envíanos tu opinión acerca de este set LEGO®. ¡Participarás en el sorteo de un premio LEGO!

Términos y Condiciones aplicables

获取奖品

登录
www.LEGO.com/productfeedback

给出关于此乐高®套装的简短反馈，就有机会获得炫酷乐高奖品

《条款及条件》适用

경품 당첨 기회

www.LEGO.com/productfeedback

페이지로 이동하여 이 레고® 세트에 대한 간략한 피드백을 보내 주시고 멋진 레고 경품을 탈 수 있는 기회도 잡으십시오

약관 적용

ЗАПОЛНИ АНКЕТУ И ПОЛУЧИ ПРИЗ

Перейди по ссылке
www.LEGO.com/productfeedback
ответь всего на несколько во-
просов об этом наборе LEGO®,
и у тебя появится шанс выиграть
замечательный приз от компании
LEGO.

Применяются Условия и правила
участия