

11389 Project Hail Mary

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Launch into the realm of cinematic science fiction with the LEGO® Icons Project Hail Mary spaceship model kit for adults 18+. Enjoy a creative journey as you craft each detail of this microscale replica of the Hail Mary that captures the design of the iconic interstellar spacecraft. (Please note that because this is a microscale replica, you can't actually place the figures into the ship — they are only displayed on nearby dioramas.)

Turn the crank to send the crew module into orbit, simulating the centrifugal gravity system from the movie. Then add the Ryland Grace minifigure and brick-built Rocky figure to complete your display. This detailed model makes a futuristic centerpiece for display in the home or office.

The model, including the display stand, in this 830-piece building set measures over 12 in. (30 cm) high, 9.5 in. (25 cm) long, and 8.5 in. (22 cm) wide.

The front of the box features the Project Hail Mary movie logo, which uses the Greek letter delta in place of the A in Hail and Mary, as well as the Lego Icons logo. The ship is placed horizontally on its display stand so the solar panels are on the left. The Ryland Grace and Rocky figures are on either side of the stand, which also has a nameplate for the Hail Mary with its destination and dimensions.

The top of the box shows the Grace and Rocky figures in a small diorama depicting their airlock meeting, standing on opposite sides of a clear 5x6 hexagonal panel with silver, dark silver and gold geometric sectors and hairline cracks. There is also a 1 to 1 scale image of the Grace minifigure.

The left side of the box shows the ship in a vertical orientation on its display stand. The right side includes this text: "Components made in Denmark, Mexico, Hungary, China, Vietnam, the USA, Germany and the Czech Republic. Distributed in the USA by Lego Systems, Inc., Boston, MA 02115"; the same text appears in French and Spanish.

The back of the box has another image of the ship on its stand, this time placed horizontally with the solar panels on the right. Grace, holding a flashlight, and Rocky are pictured standing on opposite sides of the aforementioned panel on a separate platform. There is also a diagram showing the dimensions of the set, an image from the movie that shows the Hail Mary in space, and another image of the ship on its stand indicating that you can turn a crank to make the ship turn as if it is in the centrifugal gravity system.

The box contains six main bags, a bag with extra-large pieces and an instruction booklet. Bag 1 contains the Grace minifigure, the parts to make Rocky and the pieces for the Rocky-Grace diorama. Bag 2 has the first parts for the display stand. Bag 3 has more parts for the stand. Bag 4 has the last parts for the stand and the first pieces of the ship. Bag 5 has more parts for the ship. Bag 6 has the last parts for the ship.

Welcome to Text-Based Building Instructions from Bricks for the Blind. Here is some helpful information on how to best use screen readers and browsers: bricksfortheblind.org/help-with-screen-readers. Before you start building, here are some terms we will be using:

- In Front of/Front: towards you.
- Behind/Back: away from you.
- Up: towards the ceiling.
- Down: towards the floor.
- Stud: the bump on a LEGO brick. Example: A 2x1 brick has two studs on it.
- Vertically: with the longest side going from front to back.
- Horizontally: with the longest side going from left to right.
- Upright: pointing up towards the ceiling.
- Standing upright: The piece is perpendicular to the ground, like a wall.

- Lying flat: The piece is parallel to the ground, like a piece of toast which fell off the table.
- That one/ppp: previously placed piece.
- Plate: piece with studs.
- Tile: smooth piece without studs (unless otherwise specified).
- A jumper plate is a 1x2 plate with a single stud on top, or a 1x3 plate with only two studs on top.
- "Anti-stud" is a term for the portion of a LEGO piece which accepts studs, like the bottom of a plate or brick.
- Symmetrically: a mirror image. Example: If you place a 2x1 brick with technic connector on the front wall at the right, connector to the front, and then place another such piece symmetrically on the back wall, at the right, the technic connector of the second piece should point to the back, since it will be placed symmetrically.
- Centered-vertically: even amount of space in front of and behind piece.
- Centered-horizontally: even amount of space left and right of piece.
- Row: studs lined up horizontally (left to right/side to side).
- Column: studs lined up upright or vertically (top to bottom/back to front).

A note on LEGO Technic™ part names. These parts are somewhat different from regular LEGO bricks. Here are some definitions in case the builder or helper is not familiar with LEGO Technic™.

Axles - An axle is a connector which has an X shaped cross-section. Because their cross section is not round, anything connected to an axle using an axle-hole will rotate with that axle. Axles are longer than they are wide, and the length of an axle corresponds with how many bricks long it is. Aka a 3L axle is three bricks long. Axles come in a variety of lengths, with a 2L axle being the shortest available. They may be combined with pins, or have circular stops on them. A stop prevents the axle from sliding through an axle-hole at a specific point on the axle.

Pins - A pin is a connector which has a circular cross section and a flanged notch out of one or both ends. This flanged notch allows them to click into bricks with a pin-hole. Pins come with and without friction ridges, which are small bumps on the pin which prevent them from rotating freely. For standard pins, black is a high friction pin, and gray is a low friction pin. A standard length pin is two brick lengths long, with a stop in the middle. This prevents a brick from being pushed from one side of the pin to the other. A 1L pin is one brick long and still retains the stop, however it also includes a hollow stud at the other end. A 3L pin is three bricks long, and only contains a stop at one side, allowing two bricks to be pushed onto the other side of the pin. Pins may also have one side which is an axle.

Technic brick - a brick which contains one or more holes which accept technic pins.

Lift-arms - A lift-arm is a basic structural element, similar to a brick or a plate, but usually without any studs. It is a beam with rounded ends and with holes in it, with the same spacing as the studs on a LEGO brick. lift-arms come in a variety of lengths, including a 1x1 lift-arm which looks like a cylinder. Thick lift-arms are as wide as a LEGO brick, and thin lift-arms are half as wide as a LEGO brick, but not the same thickness as a LEGO plate! The holes in a lift-arm may accept axles or pins. They also come in a variety of shapes, including tees, ell's and triangles.

Gears - A gear is a functional element. They are typically discs with teeth on the outside, there are also worm gears which look like a spiraling cylinder! Gears connected by axles transmit or even transform rotational motion!

Axle and Pin Connectors - These elements are typically smaller than lift-arms and are used to connect some combination of pins or axles. They might have pins or axles, as well as axle or pin-holes. They have a lot of different angle combinations! The simplest just connects two axles or pins together in a straight line.

For builders with low vision, or a sighted building partner who may want to follow along with the printed visual instructions that come with each set, PDF versions are always online at [<https://www.lego.com/en-us/service/building-instructions/11389>]. Low-vision users may benefit from viewing the instructions on a personal device where they can zoom in on content and use assistive technologies to enhance the visuals.

Sorting the pieces

To begin a successful build, it helps to sort the pieces into groups, bags or small containers. Have a sighted friend or family member do this in advance following the instructions below. You will see that the pieces should be sorted into groups according to the building steps in the set. Doing this in advance makes locating the pieces easier. See below on how to sort the pieces to correspond to the steps in this set. Number the containers using letters A-Z, numbers or meaningful names. The parts will be collected into a small number of steps in the instructions. Example: Steps 1-3 means collect all the parts used in steps 1, 2 and 3, and put them in one container. Note that where there are multiple colors of the same brick in a step, the colors will be split into two groups to make telling the difference easier for the builder!

Bag 1: Building the Grace minifigure, Rocky and the Rocky-Grace airlock diorama.

Group 1: Starting the Grace minifigure, building through substep 4. (The transparent yellow 1x1 plate should go in this step, and the white 1x1 plate should go in the next step.)

Group 2: Finishing the Grace minifigure and steps 1-26.

You will have a few leftover pieces: a pearl gold 1x2 round plate with open stud, a dark gray technic half-pin, a transparent yellow 1x1 plate, a dark gray 1x1 slope tile, a dark gray 2L bar with stop ring, a black 1x1 round half-circle, a black 1L bar with a stud on one end, a white 1x1 plate, a satin transparent clear 1x1 jewel, a transparent clear 1x1 tile with a black, red and yellow tape measure pattern, and a transparent clear 1x1 tile with a silver, gold and copper circuits pattern.

Bag 2: Starting to build the stand for the ship.

Group 3: Steps 27-64 (the entire bag).

You will have a few leftover pieces: a black small rubber wheel, a black 2L technic pin with short friction ridges, a light gray 1x1 quarter round tile and a black 1x1 plate.

Bag 3: Continuing to build the stand.

Group 4: Steps 65-97 (the entire bag). You will also need the oversized pieces from the separate bag: a lime green 15x15 technic round thick liftarm with an open center and two black 3x19 technic thick liftarms with an open center.

You will have a few leftover pieces: a red technic half-pin with friction ridges and a black 1x1 technic thick spacer.

Bag 4: Finishing the stand; starting the ship.

Group 5: Steps 98-145, working on the stand.

Group 6: Step 146-147, finishing the stand.

Group 7: Steps 149-158, starting the microscale crew compartment.

Group 8: Steps 159-161, continuing the crew compartment. Note: Step 161 contains two parts of the same color, which you will split between this group and the next.

Group 9: Steps 161-165, finishing the crew compartment.

You will have a few leftover pieces: a blue technic half-bush, a white technic half-bush, a white 1x1 round tile, a red 1x1 round tile, a light gray 1x1 round tile with a bar, a tan 6L bar with stop ring and a dark gray 1x1 round plate.

Bag 5: Continuing to build the ship.

Group 10: Steps 166-175, starting to build the first two engines. Note: Step 175 contains two of the same parts in different colors, which you will split between this group and the next.

Group 11: Steps 175-179, continuing to build the engines.

Group 12: Steps 180-184, continuing the engines.

Group 13: Steps 185-186, continuing the engines.

Group 14: Steps 187-195, continuing the engines.

There are no leftover pieces from bag 5.

Bag 6: Finishing the ship and attaching it to the stand.

Group 15: Steps 196-199, starting the last engine.

Group 16: Steps 200-204, continuing the last engine.

Group 17: Steps 205-206, continuing the last engine.

Group 18: Steps 207-213, continuing the last engine.

Group 19: Steps 214-215, continuing the last engine. Note: Step 215 contains two of the same parts in different colors, which you will split between this group and the next.

Group 20: Steps 215-242, finishing the last engine, making the solar panels and attaching the ship to the stand.

You will have a few leftover pieces: a dark gray technic half-pin, a red technic half-pin, a white 1x1 slope and a white 1x1 tile.

On the cover of the instruction booklet, the Hail Mary is positioned horizontally on its stand with the solar panels on the left.

On the first page, Lego informs you that they're switching from plastic to paper-based packaging and that's why you might find a mix of both in the box; there is a photo of kids playing with Lego, and both kinds of packaging are visible on the table next to the bricks. On the next page is an ad with a QR code to download the Lego Builder app.

The third page has more information about the story of Project Hail Mary. The text, which is also copied in French and Spanish, reads: "Humanity's last hope: Imagine you wake up and you're the only human alive aboard a spaceship. You learn you're on an interstellar mission, but you have no clue who you are, where you are and how or why you got there. And then you realize that the survival of humanity is up to you alone. No pressure! As Ryland Grace, the schoolteacher/astronaut in the 2026 blockbuster Project Hail Mary discovers, you can get far with a little help from physics, biology and engineering — but to finish the mission, you might have to make a strange new friend light-years from home. Working with the film's directors Phil Lord and Chris Miller (of The LEGO® Movie, 2014) who naturally understand LEGO building, we interpreted the Hail Mary in LEGO form, with a diorama side-build depicting the airlock-tunnel meeting between Grace and his newfound friend Rocky." The fourth page has a close-up image of the ship flying through space in the movie.

On the fifth and sixth pages, it reads: “From the Lego Icons Design Team: The architecture of the main ship was a complex design challenge with its three long, projecting fuel tanks in a triangular configuration. To achieve that in a ‘square-based’ building system, we’ve applied some creative building techniques. To capture the scientific heart of Project Hail Mary, we wanted to include a lot of the movie’s STEM-related references, particularly the centrifugal gravity function. We just weren’t sure how to depict this complex movement. Grace and Rocky use their respective skills — one as a scientist, the other as an engineer — to develop on-the-fly solutions. We had to experiment too, with gear ratios, linear vs. radial movement, torque and mechanical efficiency. We realized that by driving a toothed beam with a gear, it would automatically transition from linear motion to radial motion when it reached its end. This discovery, and the placement of stops to trigger the 90-degree rotation, was the key to achieving the motion. We hope your building journey, like Grace’s, will be filled with wonder and discovery (and easy access to all the ramen you can eat).”

The next page has a diagram of multiple ways to use the included brick separator. First, the underside of the brick separator’s two studs attach to the top of a plate to detach it from on top of a brick. Then, the separator’s two studs attach to the underside of a plate to detach it from under a brick. Next, the separator’s axle pushes a bar through a brick’s axle hole to remove the bar. Finally, the angled edge of the separator removes a tile from a plate.

Let’s build!

Bag 1

Building the Grace minifigure, Rocky, and the Rocky-Grace airlock diorama.

Group 1

Starting the Grace minifigure.

First, build the Grace minifigure. Attach a pair of legs to a torso piece to make Grace’s spacesuit; the suit is red with a black belt and straps, silver buckles and buttons, dark gray gloved hands, and a “PHM” logo on the back of the torso.

Make his breathing tank: Hold vertically upright a red 1x1 tile with a clip; the hands should be on the left and face front and back. Now, hold a red jetpack with a stud vertically so the neck hole is on the right and the stud faces left. Keeping these orientations, attach the 1x1 to the jetpack’s stud.

Rotate the tank so the neck hole faces front, then place it on the neck of the torso. Then, attach a light nougat minifigure head to the torso. Grace has two facial expressions, one with an open-mouth smile and some chin stubble, the other with his gold glasses, some stubble and a smaller closed-mouth smile. Ask a friend for help to ensure you are displaying the expression you’d like.

Next, make his helmet. Hold in front of you a red astronaut helmet with a dark gray neck base so the opening of the helmet faces front. Then, hold in front of you a transparent large visor piece so the attachment points inside are on the left and right, the open part faces back and the hole is at the top; attach this to the ppp so it clicks. Place the helmet on Grace’s head, or, if you prefer, give him his dark tan tousled hair instead.

Now, vertically place a silver flat wrench on the clip on Grace’s breathing tank so the head of the wrench is at the top and the larger part of the head is on the left. Also, put in Grace’s right hand a transparent clear 1x1 tile with a black, red and yellow tape measure pattern.

Let’s start to make Grace’s flashlight. Place in front of you a transparent yellow 1x1 plate.

Group 2

Finishing the Grace minifigure, building Rocky and the Rocky-Grace airlock diorama.

Let's continue the flashlight. Place on top of the ppp a white 1x1 plate. Then, horizontally place on top of the ppp a white 1x1 round plate with a bar arm hanging down to the left. Flip the flashlight and place the short part of the bar in Grace's right hand so the transparent yellow 1x1 faces front.

Step 1

To start the diorama, let's build a platform for Grace to stand on. Place in front of you a dark orange 3x3 plate. Then, vertically place a light blue 1x2 plate with an end clip on the middle column on the front two rows with the clip facing front.

Step 2

Place a pearl gold 1x1 round plate with open stud on the front left corner of the 3x3 plate. Then, place another symmetrically to the back of it. Next, place an orange 1x1 plate with a side clip between the two ppp with the clip on the left.

Place another pearl gold 1x1 round plate on the back right corner of the 3x3 plate. Now, place another orange 1x1 plate with side clip on the back row on the middle column with the clip facing back.

Then, place another pearl gold 1x1 round plate on the front right corner of the 3x3 plate. Lastly, place another orange 1x1 plate with side clip on the rightmost column on the middle row.

Step 3

Stack a dark orange 3x3 plate on top of the build.

Step 4

Flip the build upside down. Place a dark gray 2x2 plate centered vertically and horizontally on the build.

Step 5

Flip the build right-side-up.

Let's make four identical parts. Horizontally place in front of you a black 1x4 rounded plate. Next, horizontally place a black 1x2 brick with an open center and bars centered horizontally on the ppp.

Now that you have four identical parts, place the left bar of one on the front-facing clip of the build. Place another symmetrically to the back. Now, rotate one so it is vertical and attach the back bar to the left-facing clip on the build. Place the last one symmetrically to the right of it.

Step 6

Horizontally place a black 1x2 brick with an open center and bars on the two leftmost columns on the front row of the build. Vertically place another on the rightmost column on the two rows closest to the front of the build.

Horizontally place another on the two rightmost columns on the back row of the build. Vertically place another on the two rows closest to the back of the build on the leftmost column.

Step 7

Vertically place a black 1x3 tile centered vertically on the leftmost column of the build. Place a black 1x1 round half-circle tile in front of the ppp with the flat part facing the ppp. Place another symmetrically to the back of the ppp.

Now, vertically place another black 1x4 tile centered vertically on the rightmost column of the build. Place a black 1x1 round half-circle tile in front of the ppp with the flat part facing the ppp. Place another symmetrically to the back of the ppp.

Next, horizontally place a silver 1x2 grill tile to the left of the ppp.

Step 8

Horizontally place a metallic silver 1x2 grill slope in front of the ppp so it slopes to the right. Vertically place another with its front row to the left of the ppp so it slopes to the back.

Then, horizontally place a dark gray 1x3 plate with two jumper studs centered vertically and horizontally on the build.

Step 9

Horizontally place a metallic silver 1x2 grill slope on the second row from the front of the build on the second and third columns so it slopes to the left. Vertically place another on the second column from the right on the front two rows of the build so it slopes to the front. Next, horizontally place a silver 1x2 grill tile on the front row of the build on the second and third columns from the left.

Step 10

Hold a black 2x2 tile with a centered clip upright so the clip is on the left and its arms face front and back. Place it in this orientation upright on the second right-facing bar from the front on the rightmost column of the build. Then, place another in the same orientation behind it.

Now, hold another upright so the clip faces back with its arms facing left and right. Place it in this orientation upright on the second front-facing bar from the right on the front row of the build. Place another in the same orientation to the right of it.

Next, hold another upright so the clip is in the front and the arms face left and right. Place it in this orientation upright on the second left-facing bar from the back on the back row of the build. Place another in this orientation to the right of it.

Step 11

Place the Grace minifigure on top of the base's studs, centered vertically and horizontally on the build, so he is looking to the base's side that has none of the 2x2 tiles.

Step 12

Let's make the panel that separates Rocky and Grace. Place in front of you a black 2x2 inverted tile. Stack a dark gray 2x2 plate on top of it.

Vertically place a light gray 1x2 plate with centered side clip on the left column of the ppp so the clip faces left. Then, vertically place another symmetrically to the right of the ppp. Now, place another dark gray 2x2 plate on top of the two ppp.

Next, horizontally stack two dark gray 2x3 plates with a round end and a hole so the round ends face front; place this stack on the ppp. Place another dark gray 2x2 plate on top of the ppp.

Now, vertically place another light gray 1x2 plate with centered side clip on the left column of the ppp so the clip faces left. Then, vertically place another symmetrically to the right of the ppp.

Place another dark gray 2x2 plate on top of the two ppp. Next, stack a black 2x2 tile on top of the ppp.

Place a dark gray half-pin in the upward-facing holes on the front of the build. Then, vertically place a 4L dark gray bar upright in the ppp; push it in so slightly more of the bar is below the holes than above them. Rotate the build so the bar faces up and the clips are in the front and back.

Hold in front of you a transparent clear 5x6 hexagonal panel with a pattern of silver, dark silver and gold geometric sectors and hairline cracks so its two clips are on the bottom. Ask a friend to ensure the pattern faces front. Attach it in this orientation so its clips are on the 4L bar.

Attach the build to Grace's platform: Push the back-facing clips onto the front-facing bars of Grace's platform until they click.

Step 13

Let's build Rocky. Place in front of you a dark tan eggshell with five points and a center stud. Then, place a pearl gold 1x1 round plate on the center stud of the ppp. Now, place vertically upright a dark gray 2L bar with stop ring into the ppp, pushing it down until you hit the stop ring.

Next, place another pearl gold 1x1 round plate on the center stud of a sand green steering wheel; place this part on top of the 2L bar.

Now, place a dark tan 2x2 radar dish on top of the ppp; the dish has a pattern of dark gray and sand green armor with light gray splotches.

Next, horizontally hold a dark tan skeleton arm with a clip on each end so the clips and angled arm face down. Attach the right-facing clip to the steering wheel at approximately 10 o'clock. Vertically hold another dark tan skeleton arm so its clips and angled arm face up; attach the back-facing clip to the steering wheel at approximately 6 o'clock. Then, horizontally hold a dark tan claw with a clip so the clip is on the left; attach it to the steering wheel at approximately 2 o'clock.

Then, horizontally hold a dark tan thick mechanical arm with a clip so the clip is on the right and faces down. Attach it to the steering wheel with equal space between the two skeleton arms. Horizontally hold another so its clip is on the left and faces down, then attach it to the steering wheel with equal space between the bottom skeleton arm and the claw.

Give Rocky his tablet, a transparent clear 1x1 tile with a silver, gold and copper circuits pattern, by placing it in his front-facing skeleton arm's clip.

Make Rocky's scanner. Hold a black 1L bar with a stud on one end vertically upright so the stud faces front. Place on its stud a satin transparent clear 1x1 jewel. Place the stem of this part in the hole of Rocky's front right arm.

A note from the Icons designers reads: "Rocky belongs to a species that uses echolocation, not light, to 'see', so he uses a special scanner and tablet device to translate data screens and things that are invisible to him into textures."

Step 14

Let's make a platform for Rocky to stand on. Place in front of you a dark orange 3x3 plate. Then, vertically place a light blue 1x2 plate with an end clip on the middle column on the front two rows with the clip facing front.

Step 15

Place a pearl gold 1x1 round plate with open stud on the front left corner of the 3x3 plate. Then, place another symmetrically to the back. Next, place an orange 1x1 plate with a side clip between the two ppp with the clip on the left.

Place another pearl gold 1x1 round plate on the back right corner of the 3x3 plate. Now, place another orange 1x1 plate with side clip on the back row on the middle column with the clip facing back.

Then, place another pearl gold 1x1 round plate on the front right corner of the 3x3 plate. Lastly, place another orange 1x1 plate with side clip on the rightmost column on the middle row.

Step 16

Stack a dark orange 3x3 plate on top of the build.

Step 17

Flip the build upside down. Place a dark gray 2x2 plate centered vertically and horizontally on the build.

Step 18

Flip the build right side up.

Let's make four identical parts. Horizontally place in front of you a black 1x4 rounded plate. Horizontally place a black 1x2 brick with an open center and bars centered horizontally on the ppp.

Now that you have four identical parts, place the left bar of one on the front-facing clip of the build. Place another symmetrically to the back of it. Now, rotate one so it is vertical and attach the back bar to the left-facing clip on the build. Place the last one symmetrically to the right of it.

Step 19

Horizontally place a black 1x2 brick with an open center and bars on the two leftmost columns on the front row of the build. Vertically place another on the rightmost column on the two rows closest to the front of the build. Horizontally place another on the two rightmost columns on the back row of the build. Vertically place another on the two rows closest to the back of the build on the leftmost column.

Step 20

Vertically place a black 1x3 tile centered vertically on the leftmost column of the build. Place a black 1x1 round half-circle tile in front of the ppp with the flat part facing the ppp. Place another symmetrically to the back of the ppp.

Now, vertically place another black 1x3 tile centered vertically on the rightmost column of the build. Place a black 1x1 round half-circle tile in front of the ppp with the flat part facing the ppp. Place another symmetrically to the back of the ppp.

Next, horizontally place a silver 1x2 grill tile to the left of the ppp.

Step 21

Horizontally place a metallic silver 1x2 grill slope in front of the ppp so it slopes to the right. Vertically place another with its front row to the left of the ppp so it slopes to the back.

Step 22

Place a dark gray 1x1 slope tile in front of the ppp so it slopes to the front. Now, place a dark gray 1x1 short brick to the right of the ppp. Next, place another dark gray 1x1 slope tile to the right of the ppp so it slopes to the back.

Step 23

Vertically place a metallic silver 1x2 grill slope in front of the ppp so it slopes to the front. Now, horizontally place another to the left of the back row of the ppp so it slopes to the left. Then, horizontally place a silver 1x2 grill tile in front of the ppp.

Step 24

Let's build the sides of the platform, which will be identical to the previous one.

Hold a black 2x2 tile with a centered clip upright so the clip is on the left and its arms face front and back. Place it in this orientation upright on the second right-facing bar from the front on the rightmost column of the build. Then, place another in the same orientation behind it.

Now, hold another upright so the clip faces back with its arms facing left and right. Place it in this orientation upright on the second front-facing bar from the right on the front row of the build. Place another in the same orientation to the right of it.

Next, hold another upright so the clip is in the front and the arms face left and right. Place it in this orientation upright on the second left-facing bar from the back on the back row of the build. Place another in this orientation to the right of it.

Step 25

Place Rocky centered vertically and horizontally on top of the platform so his scanner faces front.

Step 26

To complete the diorama, attach the platform to the panel: Rotate Rocky's platform 90 degrees counterclockwise so the open bars face right.

Push the left-facing clips onto the right-facing bars of Rocky's platform until they click.

A note from the Icons designers reads: "Grace meets Rocky in a tunnel between their two ships, made with a patchwork of different materials, to determine how they can best communicate. They use a material Grace can see through."

Bag 2

Starting to build the stand for the ship.

Group 3

Step 27

Place in front of you a light gray 2x2 plate. Place a black 1x2 technic brick with a centered 1x2 plate with its plate cutout on top of the left column of the ppp.

Step 28

Place a black 1x2 technic brick with a centered 1x2 plate symmetrically to the right of the ppp.

Step 29

Horizontally place a black 1x2 plate with 1x4 studs hanging down with its cutout plate on the back row of the build so the studs face back. Place another symmetrically to the front.

Step 30

Flip the build upside down. Horizontally place two black 1x2 plates with a pinhole on the bottom, one behind the other, on the two rightmost columns of the build so the pinholes are on the right. Now, vertically place a light gray 1x2 plate to the left of the two ppp.

Step 31

Horizontally place a dark gray 1x2 plate with 1x2 studs sticking up on the front row of the build centered horizontally so the studs overhang to the front. Then, horizontally place another symmetrically to the back of the ppp.

Step 32

Place a light gray 2x2 plate centered horizontally upright on the front-facing studs, then place another symmetrically to the back of it. Place a black 1x1 plate on each of the front-facing left and right corners of the build, then place another two symmetrically opposite those on the back-facing corners.

Step 33

Place a black 2x2 corner tile in the shape of a braille letter J on the bottom front row on the two left columns of front-facing studs. Now, place another symmetrically to the right of the ppp. Next, place another on the bottom back row on the two leftmost columns of back-facing studs in the shape of a braille letter J. Lastly, place another symmetrically to the right of the ppp.

Step 34

Let's make two identical parts.

Horizontally hold a silver 3L technic pin with friction ridges and a stop bush so the stop bush is on the right. Now, horizontally hold a blue 1L technic axle with a 1L pin with friction ridges so the friction ridges are on the left. Next, push the axle end in this orientation into the stop bush of the 3L pin.

Now that you have two identical parts, rotate one so it is vertical and the blue 1L pin faces back. Push the blue 1L pin of this part into the front-facing pinhole on the rightmost column of the build. Place the other part symmetrically to the back of the ppp in the back-facing pinhole.

Step 35

Flip the build right side up so the pins are on the right.

Place a black 2x2 corner tile in the shape of a braille letter J with its horizontal arm on the front row of the build on the two leftmost columns and its vertical arm on the second column from the left on the front row. Now, place another symmetrically to the right of the ppp.

Then, place another in the shape of a braille letter D with its vertical arm on the second column from the left and its horizontal arm on the back row. Next, place another symmetrically to the right of the ppp.

Step 36

Vertically place on the leftmost column of the build on the two middle rows a black 1x2x2 technic pin connector plate with two holes sticking up; the holes should face left and right.

Step 37

Let's make a part.

Horizontally place in front of you a black 1x3 thick liftarm so its three holes face up. Place a black technic 2L pin with short friction ridges vertically upright in the rightmost hole of the ppp. Next, place another in the same orientation in the middle hole.

Flip this part upright so the pins are on the right. Place this part so the axles push all the way onto the main build in the two bottommost holes of the left-facing pinholes on the left column.

Step 38

Let's make a part.

Horizontally place in front of you a light gray 1x8 technic brick so its holes face front and back.

Then, place a black 1x1 plate with 1x1 studs hanging down on the leftmost column of the ppp so the hanging stud faces left. Next, horizontally place a black 1x3 tile to the right of the ppp.

Now, vertically hold a red technic pin with friction ridges and a ball on one end so the ball is in the front. Push it from the front into the fifth hole from the left on the 1x8 brick.

Rotate the part 180 degrees so the plate with a stud hanging down is on the right.

Place this part on the main build by pushing the rightmost hole of the 1x8 brick onto the front-facing pin in the rightmost column of the main build.

Step 39

Let's make a part.

Horizontally place in front of you a light gray 1x8 technic brick so its holes face front and back.

Then, place a black 1x1 plate with 1x1 studs hanging down on the leftmost column of the ppp so the hanging stud faces left. Next, horizontally place a black 1x3 tile to the right of the ppp.

Now, vertically hold a red technic pin with friction ridges and a ball on one end so the ball is in the back. Push it from the back into the fifth hole from the left on the 1x8 brick.

Rotate the part 180 degrees so the plate with a stud hanging down is on the right.

Place this part on the main build by pushing the rightmost hole of the 1x8 brick onto the back-facing pin in the rightmost column of the main build.

Step 40

Let's make a part.

Place in front of you a black small rubber wheel. Then, hold vertically upright a black 2x2 round plate with a rotation stem. Push it by the stem onto the center of the ppp until you hit the first stop ring on the stem.

Next, horizontally place a black 2x3 stair plate so it steps up and to the right and so the underside of the rightmost column is on the left column of the 2x2 round plate. Symmetrically place another to the right of the ppp.

Rotate this part 90 degrees clockwise so it is vertical. Place the front and back rows of the part on the undersides of the 1x8 bricks on the two leftmost columns of the main build.

Step 41

Vertically place a black 2x6 tile on the two leftmost columns of the build. Next, place a black 2x2 corner tile in the shape of a braille letter H with its horizontal arm on the front row of the build on the third and fourth columns so the vertical arm overhangs to the back (in the open center of the build). Place another symmetrically to the back of it.

Step 42

Vertically place two black 2L technic pins with short friction ridges in the two leftmost front-facing holes of the build and push them as far in as possible. Now, vertically place another in the third front-facing hole from the right and push it in as far as possible.

Next, vertically place another symmetrically to the back of the ppp and push it in as far as possible. Place two more in the back-facing holes of the two leftmost columns and push them in as far as possible.

Step 43

Horizontally place on the two rightmost front-facing pins a light gray 1x4 technic brick with the pins in its leftmost and rightmost holes. Place another symmetrically to the back of it.

Now, horizontally place a light gray 1x12 technic brick to the left of the ppp with the two back-facing pins in the brick's second and third holes from the right. Place another symmetrically in front of it.

Step 44

Holding the black 1x3 thick liftarm on the fifth column from the right on the fourth row from the front of the build, flip to the right the centered part of the build that part is on so the 1x3 liftarm faces down.

Step 45

Flip the build over so the centered part you just flipped over remains on the right. Vertically place a dark gray 2x6 plate on the fifth and sixth columns from the right centered vertically.

Next, horizontally place a dark gray 1x3 plate to the right of the back row of the ppp. Place another symmetrically to the front.

Step 46

Vertically place a black 2x8 plate on the ninth and 10th columns from the right. Horizontally place a dark gray 1x2 plate with 1x2 studs sticking up to the right of the ppp's front row so the studs hang down to the front. Place another symmetrically to the back of it.

Step 47

Place a dark gray 1x1 plate with 1x1 stud sticking up on the front row on the 10th column from the left so the stud hangs down to the front. Place another symmetrically to the back of it.

Then, horizontally place a dark gray 1x2 plate with 1x2 studs sticking up to the left of the ppp so the studs hang down to the back. Place another symmetrically in front of it.

Step 48

Let's make two identical parts.

Place in front of you a black small rubber wheel. Then, hold vertically upright a black 2x2 round plate with a rotation stem. Push it by the stem onto the center of the ppp until you hit the first stop ring on the stem.

Next, horizontally place a black 1x2 plate with 2x2 studs sticking up so the underside of the rightmost column of the 2x2 part is on the left column of the 2x2 round plate.

Now that you have two identical parts, flip one over and rotate it so it is vertical and the wheel is in the front. Place its 1x2 plate on the back row on the sixth and seventh columns from the left so the rest overhangs into the open center of the build. Place another symmetrically in front of it.

Step 49

Vertically place a black 2x8 plate on the fourth and fifth columns from the left.

Now, place a black 4x4 corner plate in the shape of a braille letter J so the back row of its vertical arm is to the left of the back row of the ppp and the rest of the vertical arm and the horizontal arm all overhang into the open center of the build. Place another symmetrically in front of it.

Next, place a dark gray 1x1 with a 1x1 stud sticking up to the left of the front row of the ppp (on the front 1x12 technic brick) so the stud overhangs to the front. Place another symmetrically to the back of it.

Step 50

Let's make a part.

Horizontally place upright in front of you a dark gray 1x2 thin liftarm with axle holes so the holes face front.

Then, vertically hold a black 2L technic axle with a pin and friction ridges so the pin is in the back. Push it from the back of the ppp through the right axle hole until you hit the pin. Repeat this placement to the left.

Now, horizontally hold upright a black 2x4 technic L-shaped thick liftarm so the long horizontal arm is on the bottom and the short arm is vertical, extending upward and on the left. Push the axles of the part from the back through the two rightmost holes of the liftarm.

Next, horizontally place a dark gray 1x2 thin liftarm with axle holes upright on the front-facing part of the axles.

Lastly, vertically push a silver 3L technic pin with friction ridges and a stop bush from the back so the stop bush is in the back and the pin goes through the upper pinhole of the part's vertical arm on the leftmost column. Do not push it all the way though, just until it is flush with the front of the pinhole.

Flip the main build over so its central part is on the right, and flip its central part so it is upright. Place the new part's two back-facing pins from the front into the back 1x12's two leftmost front-facing pinholes.

Step 51

Let's make a symmetrical copy of the last part.

Horizontally place upright in front of you a dark gray 1x2 thin liftarm with axle holes so the holes face front.

Then, vertically hold a black 2L technic axle with a pin and friction ridges so the pin is in the back. Push it from the back of the ppp through the left axle hole until you hit the pin. Repeat this placement to the right.

Now, horizontally hold upright a black 2x4 technic L-shaped thick liftarm so the long horizontal arm is on the bottom and the short arm is vertical and on the right. Push the axles of the part from the back through the two leftmost holes of the liftarm.

Next, horizontally place a dark gray 1x2 thin liftarm with axle holes upright on the front-facing part of the axles.

Lastly, vertically push a silver 3L technic pin with friction ridges and a stop bush from the back so the stop bush is in the back and the pin goes through the upper pinhole of the part's vertical arm on the rightmost column. Do not push it all the way though, just until it is flush with the front of the pinhole.

Rotate the part 180 degrees so the silver 3L technic pin is on the front left. Push the new part's two pins from the back into the main build's front 1x12's two leftmost back-facing pinholes.

Step 52

Vertically place a black 1x2 brick on the build's third column from the left on the fourth and fifth rows from the front. Now, vertically place another to the right of the ppp.

Next, vertically place a light gray 1x2 plate on the seventh column from the left on the fourth and fifth rows from the front.

Place a light gray 1x1 round quarter tile to the right of the back row of the ppp so the right angle is in the back left corner. Place another symmetrically in front of it.

Step 53

Vertically place a black 2x4 tile on the third and fourth columns from the left (counting the whole build) on the first through fourth rows from the front. Repeat this placement behind the ppp.

Now, place a black 1x1 plate with a 1x1 stud hanging down to the left of the back row of the ppp so the stud faces back and hangs down. Repeat this placement symmetrically to the front.

Step 54

Horizontally place a black 1x2 plate with 1x4 studs hanging down so the 1x2 plate is on the fifth and sixth columns from the left on the front row and the studs hang down to the front. Repeat this placement symmetrically to the back.

Now, place another so the 1x2 plate is on the front row on the ninth and tenth columns from the left so the studs hang down to the front. Repeat this placement symmetrically to the back.

Next, vertically place a black 1x8 plate to the left of the two ppp's 1x2 plates. Now, vertically place a black 1x8 tile to the left of the ppp.

Step 55

Vertically place two dark gray 1x2 ingot tiles, one behind the other, on the eighth column from the left on the third through sixth rows from the front.

Step 56

Horizontally place two black 2x4 tiles, one to the right of the other, upright on the front-facing studs of the build on the front row on the eight leftmost columns. Repeat these placements symmetrically to the back.

Step 57

Horizontally hold a red 4L technic axle and a black 2L technic axle connector. Place the end of the axle in the opening of the axle connector. From the right side, push the axle all the way through the right-facing pinholes on the fourth through sixth columns on the fourth row from the front.

Step 58

On the fourth and fifth rows from the front on the second column from the right, vertically place a black 1x2x2 technic pin connector plate with two pinholes sticking up; the pinholes should face left and right.

Step 59

Let's make a part.

Vertically place in front of you a black 3x3 thick T-shaped liftarm so the pinholes face left and right and the horizontal arm is on the bottom. In the second pinhole from the front on the middle row and the second pinhole from the top on the middle row, horizontally place two black 2L technic pins with short friction ridges, pushing them into the pinholes from the right.

Rotate the part 180 degrees so the pins are on the left. Push the part's pins onto the bottom two right-facing pinholes on the rightmost column.

Step 60

Let's make two identical parts.

Make a 1x4 hinge brick: Horizontally place in front of you a white 1x2 hinge brick swivel base so the hole is on the right. Then, horizontally attach to the hole of the ppp the pin of a white 1x2 hinge brick swivel top.

Now, horizontally place in front of you a black 4x6 left wedge plate so the angled side is in the back right. Place the base of the hinge brick on the ppp's second column from the left on the second and third rows from the front so the top of the hinge brick hangs over to the back and right.

Next, horizontally place a black 4x6 right wedge plate in front of you. Rotate it so the angled side is flush with the angled side of the left wedge plate. Place the base of the hinge brick on the right wedge plate's second column from the left on the first and second row from the front.

Make a second 1x4 hinge brick. Place the top of the completed brick on the left wedge plate's second row from the front on the third and fourth columns from the left. Place the base of the completed brick on the right wedge plate's second row from the front on the third and fourth columns from the left.

Now that you have two identical parts, rotate the main build so it is vertical with the T-shaped liftarm from the previous step in the front.

Attach the parts: Place one part so it extends to the left on an angle and its rightmost column is placed under the main build's leftmost column on the first six rows. Place the other part so it extends to the right on an angle and its leftmost column is placed under the main build's rightmost column on the first six rows.

Step 61

Vertically place a black 1x2 brick on the right copy of the angled part you attached in the previous step so the brick is on the sixth column from the right on the sixth row from the front (counting the whole build). Repeat this placement symmetrically to the left.

Now, place a black 1x4 brick to the left of the ppp so it is angled to match the back left side of the frontmost wedge plate. Repeat this placement symmetrically to the right (on the right wedge plate).

Step 62

To the left of the ppp, horizontally place two dark gray 1x2 bricks with a centered side clip, one to the left of the other, so the clips face the front right. Place a black 1x1 brick to the left of the ppp. Repeat all three placements symmetrically to the left (on the left wedge plate).

Step 63

Place a black 1x1 plate on the eighth row from the front (counting the whole build) on the sixth column from the left. Repeat this placement symmetrically to the right.

Now, vertically place a black 4x6 left wedge plate with its leftmost column in front of the ppp on the first through sixth rows from the front so the angled side faces the front right. Place a black 4x6 right wedge plate symmetrically opposite and to the right of the ppp.

Next, vertically place a black 4x6 right wedge plate with its rightmost column in front of the left 1x1 plate on the first through sixth rows from the front so the angled side faces the front left. Place a black 4x6 left wedge plate symmetrically opposite and to the left of the ppp.

Step 64

Horizontally place upright a dark gray 1x2 plate with 1x2 studs sticking up so the underside of its left column attaches to the second column from the left on the front row (not counting the whole build) and the studs face front. Repeat this placement to the right.

Bag 3

Continuing to build the stand.

Group 4

Step 65

Let's set aside the current build and start to make a new build.

Vertically place in front of you a dark gray 3L technic perpendicular axle and pin connector with a center pinhole so the center pinhole faces up and the axle holes face left and right.

Horizontally place a reddish brown 5L technic axle with stop into the back axle hole of the ppp, pushing all the way through from the left side. Next, repeat this placement to the front.

Step 66

Horizontally place a pearl dark gray 2L round pin connector on the ppp, pushing it from the right side all the way through. Repeat this placement to the back.

Step 67

Vertically place in front of you a dark gray 3L technic perpendicular axle and pin connector with a center pinhole so the center pinhole faces up and the axle holes face left and right. Push it from the right side onto the build so the two axles go through the axle holes.

Step 68

Horizontally hold a silver 3L technic pin with friction ridges and a stop bush so the stop bush is on the left. Place it on the back axle of the build, pushing it on from the right. Repeat this placement to the front.

Step 69

Let's make another part.

Place in front of you a black technic turntable with teeth and two sets of three pinholes; the pinholes should be on the bottom.

On top of the ppp, place a light gray technic turntable base with teeth and two sets of three pinholes, which should be on the top; push this part into the ppp until it clicks.

If necessary, rotate the top sets of pinholes so they face left and right. Retrieve the other part and ensure its silver pins are facing right. Push this part from the left side into the turntable's left front and back pinholes just until the pins are inside — do not push them all the way through.

Step 70

Let's make a symmetrical copy of the first part.

Vertically place in front of you a dark gray 3L technic perpendicular axle and pin connector with a center pinhole so the center pinhole faces up and the axle holes face left and right.

Horizontally place a reddish brown 5L technic axle with stop into the back axle hole of the ppp, pushing all the way through from the right side. Next, repeat this placement to the front.

Now, horizontally place a pearl dark gray 2L round pin connector on the ppp, pushing it from the left side all the way on. Repeat this placement to the back.

Next, vertically place in front of you a dark gray 3L technic perpendicular axle and pin connector with a center pinhole so the center pinhole faces up and the axle holes face left and right. Push it from the left side onto the part so the two axles go through the axle holes.

Horizontally hold a silver 3L technic pin with friction ridges and a stop bush so the stop bush is on the right. Place it on the back axle of the part, pushing it on from the left. Repeat this placement to the front.

Attach this part: Push this part from the right side into the turntable's right front and back pinholes just until the pins are inside — do not push them all the way through.

Step 71

Vertically place a black 3x19 technic thick liftarm with an open center so its two frontmost pinholes are between the two sets of pinholes on the turntable.

Push the pins on the left side through the two frontmost pinholes of the liftarm, then push the pins on the right side through as well.

Step 72

Place in front of you a lime green 15x15 technic round thick liftarm with an open center so its two axle holes are on the left and right and face up. Place vertically upright in each axle hole a blue 1L technic axle with a 1L pin with friction ridges.

Align the two ppp with the left and right center pinholes of the dark gray 3L technic perpendicular axle and pin connector on the liftarm structure and push the structure onto the two ppp from the bottom.

A note from the Icons designers reads: "Orbiting the star Tau Ceti is a greenish-hued planet that Rocky, as its discoverer, naturally, names Adrian."

Step 73

Rotate the build 180 degrees so the liftarm faces front and flip it over so the black pinholes on the turntable are facing up.

On the liftarm, place a red technic half pin with friction ridges vertically upright in the left frontmost pinhole; repeat this placement to the right. Repeat this placement in each of the four pinholes behind each of the ppp.

Step 74

Rotate the sets of pinholes on the turntable so they face front and back, if they are not already in this position. Horizontally place a black 3x19 technic thick liftarm with an open center so its front row's and back row's two leftmost front- and back-facing pinholes are between the two sets of pinholes on the turntable. (You will lock this in place soon, but it's just laying in place for now.)

Step 75

Let's make a part.

Place vertically upright in front of you a green 2L technic axle connector. Then, place vertically upright in the ppp's top opening the short side of a tan 4L technic axle with center stop.

Next, horizontally place a dark gray 3L technic perpendicular axle and pin connector with a center pinhole so its pinhole goes through the ppp.

Now, place a blue technic gear with teeth on top of the ppp so the axle goes through its axle hole.

Finally, place this part in the open center of the top liftarm between its two leftmost pinholes so the axle and pin connector's two pinholes align with them.

Step 76

Vertically place a reddish brown 5L technic axle with stop into the leftmost pinhole of the top liftarm, pushing it from the back all the way through the pinholes and connector to the front. Repeat this placement to the right.

Step 77

On the top liftarm, place vertically upright a black 2L technic pin with short friction ridges in the leftmost pinhole that faces up on the back row. Then, place another horizontally in the left-facing pinhole on the top left arm's left column.

Next, place another vertically upright in the fourth upward-facing pinhole from the left in the back row of the top liftarm, then another in the fourth upward-facing pinhole from the right on the back row.

Now, place vertically upright the short end of a blue 3L technic pin with friction ridges in the rightmost upward-facing pinhole on the back row of the top liftarm.

Step 78

Let's make a part.

Horizontally place in front of you a light gray 3L technic pin connector with two pins so the two pinholes face up and the pins face back. Place vertically upright in each of the two upward-facing pinholes a black 2L technic pin with short friction ridges.

Place this part on the main build so the pins of the connector go into the front-facing pinholes that are third and fourth from the left on the front row of the top liftarm. Push the pins all the way through until they click.

Horizontally hold another light gray 3L technic pin connector with two pins so the pins face backward. Place it in the two rightmost front-facing pinholes on the front row of the top liftarm and push the pins all the way through until they click.

Step 79

Let's start to make a part.

Place vertically in front of you a dark gray 1x4 thin technic liftarm with axle holes so the openings face left and right. Then, horizontally hold a blue 1L technic axle with a 1L pin with friction ridges so the axle end is on the right. Push the axle end from the left through the back row's left-facing axle hole.

Step 80

Horizontally push a black 2L technic pin with short friction ridges through the left side of the liftarm's front pinhole. Then, push another dark gray 1x4 thin technic liftarm with axle holes in the same orientation as the first from its right side onto the pin and axle.

Step 81

Place flat in front of you a black 1x3x3 technic pin connector block so its five pinholes on the wide part face up and two of the side pinholes are on the right and face left and right. Push this block onto the part from the left side onto the pin and axle.

Step 82

Place vertically upright the short end of a blue 3L technic pin with friction ridges in the rightmost pinhole of the middle row of the ppp. Place another in the same orientation in the pinhole to the left of the ppp. Now, place vertically upright a black 2L technic pin with short friction ridges in the pinhole behind the ppp.

Step 83

Let's make another part to attach to the main one.

Vertically place in front of you a dark gray 1x4 thin technic liftarm with axle holes so the openings face left and right.

Now, horizontally hold a blue 1L technic axle with a 1L pin with friction ridges so its axle end is on the left. Push it through the back axle hole from the right side.

Horizontally push a black 2L technic pin with short friction ridges through the right side of the liftarm's front pinhole (not the axle hole).

Then, push another dark gray 1x4 thin technic liftarm with axle holes in the same orientation as the first from its left side onto the pin and axle.

Now, push this part from the left side of the main part into its two left-facing pinholes.

Step 84

Horizontally place in front of you a black technic pin with friction ridges and a pinhole so the pinhole is on the left and faces up. Now, push it into the back left-facing pinhole of the ppp until it clicks.

Next, horizontally place in front of you a dark gray technic axle and pin connector hub with a 1L axle so its axle is on the right and the pinhole faces up. Push it into the front left-facing axle hole of the part. Place another symmetrically to the right of it.

Step 85

Place vertically upright in the front left upward-facing pinhole of the part the short end of a blue 3L technic pin with friction ridges. Now, place vertically upright a black 2L technic pin with short friction ridges in the front row's rightmost column's upward-facing pinhole.

Step 86

Place this part on the main build so its right-facing back pinhole pushes onto the left-facing axle on the leftmost column of the top liftarm.

Step 87

Let's make a part.

Horizontally place in front of you a black 1x7 technic thick liftarm so its pinholes face up.

Then, hold vertically upright a silver 3L technic pin with friction ridges and a stop bush so its pin is on the top. Now, push it into the leftmost pinhole of the ppp from the top until you hit the stop bush.

Next, hold vertically upright a black 1x1 technic thick spacer so its openings are at the top and bottom. Push it from the bottom onto the bottom of the ppp.

Now, attach this part to the main build: Place it in this orientation so its rightmost pinhole aligns with the leftmost pinhole on the top liftarm's back row and attaches to the upward-facing pins on the fourth and seventh columns from the left.

Step 88

Horizontally place a black 1x7 technic thick liftarm in front of the other 1x7 so its pinholes face up and the blue 3L pins on the main build go through the fourth and fifth pinholes from the left.

Next, horizontally place a black 1x15 technic thick liftarm with its pinholes facing up so it attaches to the row in front of the top liftarm; push its pinholes onto the leftmost blue 3L pin of that row.

Step 89

Let's make a part.

Horizontally place in front of you a black 1x15 technic thick liftarm so its pinholes face up.

In the two leftmost pinholes of the ppp, place vertically upright the pin part of two black technic pins with friction ridges and a pinhole so the pinhole faces left and right; push them in until they click.

Then, horizontally hold a silver 3L technic pin with friction ridges and a stop bush so the stop bush is on the right. Push it through the two ppp from the right side until you hit the stop bush.

In the pinhole to the right of the stop bush of the ppp, place vertically upright the pin part of another black technic pin with friction ridges and a pinhole so the pinhole faces left and right; push it in until it clicks.

Attach the part: Place it on the back row of the top liftarm so the blue 3L pin on the rightmost column goes through its rightmost pinhole.

Step 90

Let's make a part.

Horizontally place in front of you a black 2x4 technic thick L-shaped liftarm so its pinholes face front and back and the shorter vertical arm is on the left extending upward.

Then, vertically place a black 2L technic pin with short friction ridges in the upper pinhole of the shorter vertical arm, pushing it in from the front. Now, vertically place in the rightmost pinhole on the bottom row the axle end of a blue 1L technic axle with a 1L pin with friction ridges; push it in from the front.

Flip the part so the axle and pin face downward and the shorter vertical arm is on the right. Place it on the main build on the front row in front of the top liftarm on the rightmost columns of the build so its blue axle goes into the leftmost upward-facing pinhole of the light gray 3L technic pin connector with two pins and its black technic pin goes into the rightmost upward-facing pinhole of the top lifter's front row.

Step 91

Place vertically upright a blue 3L technic pin with friction ridges so its long end goes on the ppp's front row in the second upward-facing pinhole from the right. Push it all the way through until it clicks.

Next, place vertically upright a black 1x1 technic thick spacer on the pin in the rightmost upward-facing pinhole on the back row of the top liftarm.

Then, place vertically upright a silver 3L technic pin with friction ridges and a stop bush so the long end goes into the upward-facing pinhole on the fifth column from the right on the back row of the top liftarm.

Step 92

Place vertically upright a black 2L technic pin with short friction ridges into the upward-facing pinhole on the ninth column from the left on the front row in front of the top liftarm.

Step 93

Let's make two identical parts.

Place vertically upright in front of you a blue 3L technic pin with friction ridges so its short end is on the bottom. Then, vertically place on top of the ppp's long end a black 1x1 technic thick spacer. Next, horizontally hold a black technic pin with friction ridges and a pinhole so the pinhole faces up and the pin is on the left; place it on top of the ppp with its pinhole on the pin.

Now that you have two identical parts, flip one over and rotate it so the end of the blue pin faces up and the bottom black pin faces back. Place it in the same column as the pin attached to the build in the last step so it is below it and the bottom black pin pushes from the front into the front-facing pinhole. Place the other one symmetrically to the back of it.

Step 94

Let's make a part.

Place horizontally in front of you a black technic axle and pin connector angled #2 180 degrees so the pinhole faces up. Next, horizontally place a dark gray technic axle and pin connector hub with a 1L axle so its axle is on the left and its pinhole faces up; push it from the right side into the right-facing axle hole of the ppp.

Now, hold in front of you a black technic axle and pin connector hub with two perpendicular axles so one axle faces right and one faces down; the pinhole should face front. Push the right-facing axle from the left side into the left-facing axle hole on the part.

Next, vertically place a black 2L technic pin with short friction ridges, pushing it into the underside of the center upward-facing pinhole. Place another in the same orientation to the right of the ppp.

Now, place horizontally in front of you a black 1x13 technic gear rack with a toothed side, axle holes and pinholes; the pinholes should face front, the axle holes should face up, and the toothed side should face back. Place the leftmost downward-facing axle of the part into the rightmost upward-facing axle hole of the ppp.

Finally, place horizontally flat in front of you a light gray 2x5 technic thick L-shaped liftarm with a curved side; the 5L row of pinholes should be the front row, the 2L side should be on the right, and the curved part should face back. Place the two rightmost pins of the part into the ppp's leftmost pinhole and third pinhole from the left.

Place the part on the main build: Place it in the second row from the front so the leftmost pinhole and axle hole hang over to the left and the rest is lying on the top liftarm; it is not yet attached to the build, though it should line up with the blue gear in the third row from the front so that turning the axle attached to the gear will make the part you just attached move left and right.

Step 95

Vertically place a black 1x7 technic thick liftarm so its pinholes face up on the top liftarm's ninth column from the left on the front row's blue upward-facing pin (counting the whole liftarm), the tan axle attached to the gear four rows from the front, and the blue upward-facing pin in the back row.

Step 96

Place vertically upright a black 2L technic pin with short friction ridges in the second upward-facing pinhole from the left in the third row from the front (not counting the whole top liftarm). Now, place another vertically upright in the same row as the ppp in the seventh column from the left in the upward-facing pinhole.

Next, place another vertically upright in the eighth column from the left in the upward-facing pinhole on the front row of the top liftarm (not counting the whole liftarm). Place another vertically upright in the same row two columns to the right of the ppp in the upward-facing pinhole.

Then, place another vertically upright five columns to the right of the ppp in the upward-facing pinhole.

Step 97

Place vertically in front of you a black 2x3 technic thick L-shaped liftarm with a curved side; the 3L column of pinholes should be on the left, the 2L row of pinholes should be in the back, and the curved side should be on the right. Place it on the main build so its frontmost pinhole goes on the blue upward-facing 3L pin in the front left corner of the top liftarm and the pinhole in the back right corner goes on the black 2L technic pin on the third row from the front (not counting the whole liftarm) on the second column from the left.

Next, place another symmetrically opposite it to the right of it on the seventh and eighth columns from the left on the three frontmost rows of the liftarm.

Then, horizontally place a black 2x4 technic L-shaped liftarm between the two ppp so its back row lines up with their back rows and the 2L arm is on the right and extends one row to the front.

Lastly, horizontally place a black 1x15 technic thick liftarm on the front row of the top liftarm (not counting the whole liftarm) on the second column from the right through the 16th column from the right.

Bag 4

Finishing the stand; starting the ship.

Group 5

Working on the stand.

Step 98

Horizontally place a black 2L technic pin with short friction ridges in the frontmost left-side left-facing pinhole of the bottom liftarm, pushing it in from the left. Place another symmetrically to the right of it.

Next, horizontally place another in the third left-side left-facing pinhole from the front of the same liftarm, pushing it in from the left. Place another symmetrically to the right of it.

Step 99

Flip the build over so the bottom liftarm is now on top, positioned vertically and extending to the front, and the top liftarm is on the bottom positioned horizontally and extending to the left.

Let's make a part.

Place horizontally in front of you a dark gray 3L technic perpendicular axle and pin connector with a center pinhole so its center pinhole faces up.

Then, horizontally place the axle end of a blue 1L technic axle with a 1L pin with friction ridges into the left-facing pinhole of the ppp; repeat this placement symmetrically to the right.

Next, place vertically upright a reddish brown 3L technic axle with stop in the center pinhole of the part, pushing it upward from the bottom until you hit the stop.

Now, place a black 5x5 technic gear with teeth on the part so the technic axle goes through the central axle hole of the gear and the pinholes are to the left and right of the axle.

Flip the part over so the connector is on top and the axle faces down. Place it on the build so the axle goes into the green upward-facing connector between the second row of pinholes from the back of the top liftarm.

Step 100

Let's start to make a part.

Place horizontally in front of you a dark gray 3L technic perpendicular axle and pin connector with a center pinhole so its center pinhole faces front. Then, horizontally place a red 2L technic notched axle in each axle hole of the ppp, pushing one in from the left and one from the right.

Step 101

Vertically place a reddish brown 5L technic axle with stop so it is pushed from the back of the center pinhole of the part through the front until it hits the stop.

Step 102

Place a blue technic smooth half-bush on the front-facing part of the ppp. Then, place upright in front of the ppp a tan technic gear with 20 teeth on one side; the side with teeth should face the back.

Next, vertically place a lime green 3L technic axle and pin connector with two pinholes in front of the ppp so its top pinhole is at the top and the axle connector is at the bottom facing left and right; push it onto the front-facing axle through the top pinhole.

Step 103

Horizontally place a dark gray 3L technic perpendicular axle and pin connector with a center pinhole in front of the ppp so its center pinhole faces front and the axle goes through it. Then, vertically place a black 3L technic axle connector in front of the ppp on the axle.

Step 104

Horizontally place the axle end of a blue 1L technic axle with a 1L pin with friction ridges into the left-facing front axle hole of the part. Now, horizontally place another in the right-facing axle hole of the part.

Step 105

Let's make another part.

Horizontally place a dark gray 3L technic perpendicular axle and pin connector with a center pinhole in front of you so the pinhole faces front. Next, vertically place a red 2L technic pin with a 1L axle and friction ridges, pushing the pin end in from the front through the center pinhole of the ppp.

Now, horizontally place a red 2L technic notched axle in each axle hole of the part, pushing one in from the left and one from the right.

Then, vertically place a dark gray 3L technic perpendicular axle and pin connector with a center pinhole on the front-facing axle so the pinhole faces left and right.

Next, horizontally place a blue 3L technic pin with friction ridges in the center pinhole of the ppp, pushing the long end in from the right side. Vertically place the short end of a red 2L technic pin with a 1L axle and friction ridges in the front-facing pinhole.

Attach this to the previous part: Place the back-facing red pin of the new part into the bottom pinhole of the previous part's lime green 3L technic axle and pin connector with two pinholes.

Step 106

Horizontally place a yellow 9L technic axle in the top front-facing axle hole of the black 3L technic axle connector.

Step 107

Hold vertically upright two lime green 3L technic axle and pin connectors with two pinholes so the pinholes face front and back and the axle holes are at the bottom and face left and right. Push them from the front, one in front of the other, so the yellow front-facing axle goes through the top pinholes and the red front-facing pin goes through the bottom pinholes.

Step 108

On the yellow front-facing axle, vertically place a black 5L technic axle connector without friction on one end, pushing it on from the front so the end with an axle hole is in the back. Then, vertically place a green 2L technic axle connector in front of the ppp, pushing it on from the front.

Step 109

Rotate the part you just finished so it is horizontal with the ppp on the right and the lime green axle and pin connectors extending downward.

Bring back the main build and rotate it so the top liftarm faces right and the bottom liftarm extends to the front.

Attach the part to the main build: On the top liftarm, place it to the right of the vertical dark gray 3L technic perpendicular axle and pin connector with blue pins in each end so the part hangs over the open center. (It's about to be locked in place.)

Step 110

Vertically hold a reddish brown 3L technic axle with a stop so the stop is in the front. Pushing from the front, place it in the main build's leftmost front-facing pinhole on the bottom row of the top liftarm so it goes through the axle hole of the leftmost lime green 3L technic axle and pin connector. (This locks the part in place.)

Step 111

Let's make a part.

Place horizontally upright in front of you a black 2x4 technic L-shaped thick liftarm so its 4L arm is on the bottom, the 2L arm is upright on the left, and the pinholes face front and back.

Now, vertically place a black 2L technic pin with short friction ridges in the second pinhole from the left in the bottom row, pushing it in from the front.

Next, vertically place a blue 1L technic axle with a 1L pin with friction ridges in the rightmost axle hole of the bottom row, pushing the axle end in from the front.

Attach this part to the build: Pushing it in from back to front, place it in this orientation on the seventh through 10th columns from the left on the back row of the top liftarm so its pin and axle attach to the back-facing pinholes in the eighth and 10th columns and the back-facing red axle on the build goes through the top pinhole of the part, pushing it all the way forward.

Let's make another part.

Place horizontally upright in front of you a black 2x4 technic L-shaped thick liftarm so its 4L arm is on the bottom, the 2L arm is upright on the left, and the pinholes face front and back.

Now, vertically place a black 2L technic pin with short friction ridges in the second pinhole from the left in the bottom row, pushing it in from the back.

Next, vertically place a blue 1L technic axle with a 1L pin with friction ridges in the rightmost axle hole of the bottom row, pushing the axle end in from the back.

Attach this part to the build: Pushing it in from front to back, place it in this orientation on the seventh through 10th columns from the left on the front row of the top liftarm so its pin and axle attach to the front-facing pinholes in the eighth and 10th columns and the front-facing red axle on the build goes through the top pinhole of the part, pushing it all the way back.

Step 112

Let's make a part.

Place upright in front of you a black 3x3 T-shaped technic thick liftarm so the top arm extends vertically, the pinholes face front and back and the bottom row is horizontal.

Now, vertically place a black 2L technic pin with short friction ridges in the topmost pinhole of the vertical arm and another in the center pinhole of the bottom horizontal arm, pushing them in from the front.

Next, horizontally place a dark gray 3L technic perpendicular axle and pin connector so its center pinhole faces front and goes through the top pin of the part.

Then, horizontally place a red 2L technic notched axle in each axle hole of the ppp, pushing one in from the left and one from the right.

Step 113

Rotate the part 90 degrees counterclockwise so the part is vertical and the bottom pin faces right. Attach the part: Place the bottom pin in the left-facing pinhole on the leftmost column of the top liftarm, pushing it in from the left.

Step 114

Horizontally place a black 1x7 technic thick liftarm, with its pinholes facing front, on the top row of front-facing pins, so there is no overhang. Repeat this placement symmetrically to the back.

Step 115

Let's make a part.

Vertically place in front of you a lime green 3L technic axle and pin connector with two pinholes so the pinholes face front and back and the axle hole is at the bottom and faces left and right. Then, vertically place a blue 3L technic pin with friction ridges in the bottom pinhole, pushing the long side in from the back until you hit the stop ring.

Next, horizontally place a black 6L technic axle in the bottom axle hole, pushing it in from either side so it is centered horizontally in the axle hole. Vertically place a dark gray 3L technic perpendicular axle and pin connector with a center pinhole with its back axle hole pushed onto the ppp from the right and its central pinhole facing up.

Now, vertically hold another lime green 3L technic axle and pin connector with two pinholes so the pinholes face front and back and the axle hole is at the bottom and faces left and right. Place its bottom front-facing pinhole on the front-facing blue pin of the part.

Then, horizontally place another black 6L technic axle in the frontmost left- and right-facing axle hole of the part, pushing it in from either side so 2L is on the right side and the rest is on the left. It should match the position of the other black 6L technic axle.

Now, vertically place another dark gray 3L technic perpendicular axle and pin connector with a center pinhole so its center pinhole faces up, pushing it onto the part from the left with the ppp going through its back axle hole and the rest extending to the front. Vertically place another in the same orientation and push it onto the part from the left so both axles go through its two axle holes.

Rotate the part 180 degrees so the blue pin faces front. Hold a black 3x3 T-shaped technic thick liftarm so the pinholes face front and back, the top arm is vertical and the bottom row is horizontal. Place the front-facing pin through the middle pinhole of the vertical arm. Next, vertically place a black 2L technic pin with short friction ridges in the bottom center pinhole of the ppp, pushing it in from the front.

Attach the part: Rotate it 90 degrees clockwise so the ppp is on the left. Push the ppp into the right-facing pinhole in the rightmost column of the top liftarm.

Step 116

Let's make two identical parts.

Horizontally place in front of you a black 1x15 technic thick liftarm so the pinholes face front. In the second pinhole from the right, vertically place the pin end of a black technic pin with friction ridges and a pinhole with the pinhole facing up, pushing it in from the front.

Now that you have two identical parts, place one in this orientation on the back row of the top liftarm, pushing from the back so the axles on the previously placed part go through the third and fifth pinholes from the right. Repeat this placement symmetrically to the front (rotating the part so the pinhole is in the back).

Step 117

In the two ppp's second pinholes from the left, vertically place a reddish brown 5L technic axle with a stop, pushing it through from the front until you hit the stop.

Step 118

Hold horizontally upright a black 3x5 technic thin triangular liftarm with short supports so the 5L row is at the bottom and the pinholes face front.

Place it on the five rightmost columns of the top liftarm's front row, ensuring the axle in the fifth column from the right goes through the leftmost axle hole of the bottom row and the axle in the third column from the right goes through the middle pinhole.

Repeat this placement symmetrically to the back.

Step 119

Let's make a part.

Horizontally hold a reddish brown 5L technic axle with stop so the stop is on the right. Now, place vertically upright on the ppp a tan technic gear with teeth all around, pushing it on from the left until you hit the stop.

Attach the part: Place the axle in the right-facing lime green top pinhole on the top liftarm on the third column from the right on the third row from the front (not counting the thin triangular liftarm); push it all the way in.

Step 120
Let's make a part.

Place horizontally in front of you a dark gray 1x13 technic thick liftarm so its pinholes face front. In the rightmost pinhole of the ppp, vertically place the short end of a blue 3L technic pin with friction ridges. Then, vertically place a black 1x1 technic thick spacer on the long end of the ppp.

Attach the part: On the back-facing pin in the 10th column from the left on the second row from the back of the top liftarm, push the part from the back so the pin goes through its leftmost pinhole, and angle the part at a 45-degree angle sloping upward to the right.

Step 121
Horizontally place a dark gray 1x13 technic thick liftarm so its pinholes face front opposite the ppp at the same angle on the two front-facing pins.

Step 122
Flip the build over so that what was previously the top liftarm is on the bottom and facing right.

Now, on the bottom liftarm, place vertically upright a red technic half-pin with friction ridges in the second upward-facing pinhole from the right on the second row from the back (counting the whole liftarm), then place another on the fourth row from the back.

Repeat these placements to the front.

Step 123
Horizontally place a black 3x4 tile with four studs in the center on the first four columns to the right of the lime green ring on the bottom liftarm centered vertically. Repeat this placement twice more to the right of the ppp.

Now, vertically place a black 2x3 plate with a 1x1 centered cutout to the right of the ppp so the cutout is on the right side.

Step 124
Flip the build over so the arm with the tan gear and two dark gray 1x13 technic thick liftarms is on top and facing right.

On the top liftarm's second column from the right on the middle row's upward-facing pinhole, place flat on top of the pinhole a small tan technic gear with teeth on one side so the side with teeth faces up.

Next, lock it in place by holding vertically upright a dark gray 3L axle with a steering joint on one end so the steering joint is facing down, then push it from the bottom up through the ppp's axle hole.

Step 125

Turn the entire build 90 degrees clockwise and bring it upright so the arm that was horizontal and on the right faces down and is vertical and the ppp's steering joint faces front.

Now, vertically hold a light gray 3L technic axle with a steering ball on one end so the steering ball faces back. Place it in the ppp's ball joint so the notched side faces up and clicks in place.

Step 126

Bring back the previous build to attach it to the current one.

Place the current build upright in front of you in the same orientation as the last step but hold and pull back the back-facing dark gray 1x13 liftarms so that part is vertical; the rest of the build will be sloping downward to the front at about a 45-degree angle. Place the first build vertically flat in front of you so the angled ends face front and the two silver 3L technic pins are in the back.

Place the current build on top of the base: Attach the ppp to the back-facing red 2L technic notched axle in the bottom build's seventh row from the front (not counting the whole build) on the center column. Continue holding the stand in place until you lock it in the next step.

Step 127

Place the dark gray 1x13 technic liftarms so their second pinholes from the bottom are in the back row of the base between the silver 3L technic pins. Push the pins through the two pinholes, pushing the left one from the left and the right one from the right until they click.

Step 128

In the base's right-facing pinhole between the ninth and 10th rows from the front (not counting the whole build) on the rightmost column, horizontally place a dark gray 8L technic axle with a stop at one end, pushing it through the pinhole from the right until you hit the stop.

Step 129

Vertically place a black 1x2 plate with 1x4 studs hanging down on the base so the plate is on the eighth and ninth rows from the front (not counting the whole base) on the leftmost column so the studs hang down to the left. Repeat this placement symmetrically to the right.

Then, vertically place a black 1x2 tile behind the ppp and repeat the placement to the left.

Step 130

Vertically place a black 2x6 tile on the left-facing studs on the leftmost column of the base (not counting the whole base) on the seventh through 12th rows. Repeat this placement symmetrically to the right.

Step 131

Rotate the stand 90 degrees counterclockwise so the base is horizontal and the angled part is on the right.

Horizontally hold a dark gray 5.5L technic axle with stop so the stop is on the left. On the top liftarm of the upright part of the stand, place the short end into the right-facing silver stop bush on the top row on the leftmost column.

Horizontally hold a reddish brown 5L technic axle with stop so the stop is on the left. Place it below the ppp, pushing it all the way through the pinholes from the left.

Step 132

Rotate the stand 90 degrees clockwise so the base is vertical with the angled part in the front. Make sure the top arm is horizontal with the two ppp on the left.

Vertically place the axle end of a blue 1L technic axle with a 1L pin with friction ridges in the front-facing axle hole two columns to the right of the ppp, pushing it in from the front.

Let's make a part.

Vertically hold in front of you a blue 1L technic axle with a 1L pin with friction ridges so the axle end faces back. Next, place the axle end of the ppp in the stop bush of a vertically held a silver 3L technic pin with friction ridges and a stop bush. Then, vertically place a black 1x1 technic thick spacer behind the stop bush of the ppp, pushing it on from the back.

Attach the part: Place it in this orientation on the ninth column from the left on the third row from the top (counting the whole liftarm).

Step 133

Let's start to make a part.

Place horizontally flat in front of you a dark gray 1x2 technic thin liftarm with two axle holes so the axle holes face up. Now, place vertically upright a yellow 3L technic axle in the left axle hole of the ppp, only pushing it in until it is flush with the bottom of the ppp.

Step 134

Place vertically upright a red 2L technic notched axle to the right of the ppp, only pushing it in until you hit the first notch on the axle. Now, horizontally place another dark gray 1x2 technic thin liftarm with two axle holes on top of the two ppp, pushing it all the way down (without pushing the axles down any further).

Step 135

Horizontally place on the left column of the part a dark gray technic axle and pin connector hub with a 1L axle, putting its pinhole on the part from the top so the axle faces left. On top of the ppp, place vertically upright a dark gray technic axle and pin connector angled #2 180 degrees so its pinhole faces left and right.

Step 136

Place vertically upright a red 2L technic notched axle in the upward-facing axle hole of the ppp, pushing it all the way in.

Step 137

Place vertically upright in front of you a blue 2L technic axle and pin connector so the pinhole faces left and right and the axle hole faces down. Then, horizontally hold a light gray 3L technic pin with a stop and without friction ridges so the stop is on the left.

Next, put it in the pinhole of the ppp, pushing it from the left until you hit the stop.

Now, place the connector's base on top of the right column of the part.

Step 138

Place vertically upright a dark gray 3L technic perpendicular axle and pin connector with a center pinhole on top of the left column of the part so the center pinhole faces left and right.

Then, place vertically upright a dark gray technic axle and pin connector hub with a 1L axle on top of the ppp so the axle end goes into the ppp's axle hole and the pinhole faces left and right.

Step 139

Rotate the part 90 degrees counterclockwise and flip it so the light gray 3L pin faces front, the dark gray axle on the connector hub faces back, and the pinholes face front and back and are on the left side of the part.

Attach it to the stand's horizontal arm in this orientation so the reddish brown axle in the leftmost column on the second row from the top goes through the leftmost pinhole of the part.

Step 140

Vertically place a black 1x1 technic thick spacer on the leftmost column of the stand's horizontal arm on the topmost row's dark gray axle.

Step 141

Vertically stack, one in front of the other, two dark gray 1x2 technic thin liftarms with two axle holes on the stand's horizontal arm's leftmost column on the two rows closest to the top, pushing them onto the axles. You may need to hold the axles in place so they do not get pushed out the back.

Step 142

Vertically place a black 1x1 technic thick spacer in front of the topmost row of the ppp. Then, place a blue technic smooth half-bush in front of the ppp.

Step 143

Let's make a part.

Place vertically in front of you a silver 3L technic pin with friction ridges and a stop bush so the stop bush is in the front. Then, vertically place a red 2L technic notched axle in the stop bush of the ppp.

Next, horizontally hold a black 2x4 technic L-shaped thick liftarm so the long horizontal arm is on the bottom and the short arm is vertical and on the right. Push the ppp onto its leftmost axle hole from the front.

Place this part on the stand's horizontal arm's top two rows (not counting the whole build) on the sixth through ninth columns from the left so the bottom row's second pinhole from the left goes through the front-facing light gray pin without friction ridges and the top pinhole of the vertical arm goes onto the front-facing blue pin on the top row.

Step 144

Horizontally hold in front of you a reddish brown 3L technic axle with a stop so the stop is on the right. Pushing from the left side, vertically stack two blue technic smooth half-bushes on the ppp.

Now, push this from the right side onto the right-facing pinhole on the topmost row on the 11th column from the right, pushing it in until it clicks.

Step 145

Let's make a part.

Hold flat in front of you a black technic gear knob cog wheel with an axle hole so the axle hole and pinholes face up.

Then, vertically hold in front of you a black 2L axle with a 1L pin with friction ridges so the axle end faces up. Pushing from the bottom, push the axle end through the axle hole of the ppp until it hits the stop ring.

Next, vertically place a black 3L technic axle connector on the ppp. Now, vertically place a red 2L technic notched axle in the upward-facing axle hole of the ppp.

Flip the part so the ppp faces front and the part is vertical (but not upright). Find on the stand's horizontal arm the light gray 2x5 technic thick L-shaped liftarm with a curved side, which should be on the right side of the horizontal arm. Place the part on its first front-facing pinhole from the right, pushing the pin in until it clicks.

Group 6 Finishing the stand.

Step 146
Let's make the nameplate for the ship, which will go on the base of the stand.

Place horizontally in front of you a black 2x8 plate. Then, vertically place a black 1x2 tile on the leftmost column of the ppp, and repeat the placement on its rightmost column.

Next, horizontally place between the two ppp a black 2x6 tile.

Attach the nameplate: Place it upright on the two frontmost rows of the base on the front-facing studs on the seventh through 15th columns from the left. (A friend can ensure the text faces the right way.)

The nameplate text reads: "The Hail Mary. Destination: Tau Ceti. Distance: 11.9 Light Years. Mission Length: 13 Earth Years." The nameplate also has the mission's circular logo, which includes the text "Project Hail Mary" and a tiny white and gold cartoon image of the same-named ship with a red and white streak coming out of the left end of the ship as it passes over two stars and a golden sun and its rays.

Step 147
Let's make the crank for the stand.

Place horizontally in front of you a black 1x3 technic crank with a pin, two axle holes and a squared pinhole; the pin should face front and be on the left.

Next, vertically place a dark gray 4L technic axle with a stop in the rightmost axle hole of the ppp, pushing it all the way through from the front.

Now, on the leftmost column of the crank, vertically place a pearl dark gray 2L round pin connector, pushing it all the way on from the front until it clicks. Vertically place a dark gray technic half-pin in the front-facing pinhole of the ppp.

Then, place a red 1x1 round tile upright on the ppp.

Place the part on the build: Push the back-facing axle into the base's top front-facing pinhole on the center column.

A diagram indicates that by turning the crank you just placed counterclockwise, you can make the top arm of the stand rotate 90 degrees clockwise so it is vertical and the longer part of it faces down.

Group 7 Starting the microscale crew compartment.

Step 148

Place in front of you a white 2x2x2 brick with a semicircular extension, which should be on the bottom, and two side pinholes, which should face left and right. It has a gold and dark silver stripe pattern on the front and back of the body as well as other mysterious silver symbols.

Then, place a white 2x2 round tile with an open stud on top of the ppp.

Next, place a white 1x1 round tile on top of the ppp's stud.

A note from the Icons designers reads: "Element #4595 is a classic brick used in LEGO® spaceships going all the way back to 1985."

Step 149

Horizontally place two dark gray technic half-pins in the left- and right-facing pinholes of the part, respectively, pushing one in from the left and one in from the right.

Step 150

Horizontally place the short end of a tan 6L bar with a stop ring in the left-facing ppp, pushing it in until it hits the stop ring.

Step 151

Vertically place in front of you a light gray 1x2x $\frac{2}{3}$ brick with two open studs on three sides and an extended stud receptacle so the stud receptacle faces up and the three studded sides are in the front, left and back. Place it in this orientation on the ppp, pushing it on from the left so the ppp goes through the top open stud.

Step 152

Vertically place two white 1x2 ingot tiles, one on the front-facing studs of the ppp and one on its back-facing studs.

Step 153

Place a pearl gold 1x1 round plate upright on the part's left-facing axle so the stud faces left, pushing it all the way on from the left side. Then, place a light gray 1x1 round tile with a bar on the bottom left-facing row below the ppp so the bar faces left.

Step 154

Stack vertically two white 1x2 round plates so the studs face you. On the bottom row of the stack, place a white 1x1 round tile.

Attach this to the part: Flip it upright and rotate it 90 degrees clockwise so the tile faces left and remains on the bottom row, then push it onto the two ppp of the part, pushing it as far as possible.

Step 155

Horizontally hold a white 1x1 brick with studs on four sides so the bottom faces right and the top open stud faces left. Push it onto the left-facing axle of the part in this orientation.

Step 156

Horizontally place the left column of a white 1x2 ingot tile on the ppp's front-facing, upward-facing and back-facing studs.

Step 157

Place a pearl gold 1x1 round plate upright on the axle to the left of the 1x1 brick so the stud faces left. Then, place a white technic half-bush to the left of the ppp.

Step 158

Horizontally place the base of a white 1.2L bar with four arms sticking up to the left of the ppp so the bar extends to the left.

Group 8

Continuing the crew compartment.

Step 159

Place in front of you a dark gray 1x1 round plate. Next, place the base of a light gray 2x2 steering wheel on top of the ppp.

Now, place this on the part: Flip and rotate it 90 degrees clockwise so the top of the wheel faces right, then place the part on the left-facing bar and push it all the way on.

Step 160

On the right-facing pinhole on the rightmost column of the part, horizontally place the bar of a white 1.2L bar with four arms sticking up so the arms extend to the right. Then, horizontally place a dark gray 4L bar in the right-facing open stud of the ppp.

Step 161

Place a pearl gold 1x1 round plate vertically upright and push it all the way onto the ppp from the right so the stud faces right.

Group 9

Finishing the crew compartment.

Step 161

Place a dark gray 1x1 round plate vertically upright to the right of the ppp so the stud faces right.

Step 162

Vertically place a light gray technic ball joint with an axle hole to the right of the ppp, pushing it onto the axle from the right.

Step 163

Let's make a part.

Place horizontally in front of you a light gray 1x1x2 brick with two open studs on three sides and an extended stud receptacle so the stud receptacle is on the left.

Then, horizontally place two white 1x2 ingot tiles on the two back-facing and two upward-facing studs of the ppp, respectively.

On the front-facing studs of the part, horizontally place a white 1x2 jumper plate. Then, place the bar of a light gray 1x1 round tile with a bar into the central stud of the ppp.

Now, flip the part so the ppp faces up. Place a dark gray 1x1 round plate so it is centered horizontally within the 1x1x2 brick's front-facing side.

Attach the part: Place the part's stud receptacle on the right-facing bar of the build and push it on from the right side.

Step 164

Let's make a part.

Vertically place in front of you a white 1x1 plate with a ring attachment so the ring faces front. Then, place on top of the plate of the ppp a white 1x1.5x1.5 truncated cone.

Next, in each of the ends of the ring attachment, place the bar of a light gray 1x1 round tile with a bar so they are symmetrically opposite each other.

Now, on each of the ppp, place a dark gray 1x1 round plate upright so they are symmetrically opposite each other.

Rotate the part so the base of the plate under the cone faces left and the two ppp face up and down, respectively.

Attach this part to the build on the rightmost column so the base of the plate attaches to the right-facing stud of the build.

Step 165

Flip the crew compartment forward so the truncated cone faces right and the semicircular extension on the base of the white 2x2x2 brick faces back.

Attach the crew compartment to the stand's horizontal arm: Place the semicircular extension on the base of the white 2x2x2 brick on the front-facing red 2L technic notched axle of the moving part, which should be on the right side of the horizontal arm.

Bag 5

Continuing to build the ship.

Group 10

Starting to build the first two engines.

Step 166

Place in front of you a yellow 2x2 round tile with a central stud on top. Then, place on top of the ppp a transparent orange 2x2 inverted radar dish. (These pieces are similar, but you can distinguish them by feeling for the wider rim around the edge of the yellow 2x2 round tile.)

Step 167

Place upright a dark gray 2x3x3 round brick with a recessed center and axle hole under the two ppp.

Step 168

Flip the build over so the base of the ppp is on the left. Horizontally place a black 10L technic axle in the axle hole of the ppp's base, pushing it in from the left until it clicks.

Step 169

Let's make a part.

Place flat in front of you a pearl dark gray technic round axle connector block with two pinholes and three axle holes so the pinholes are in the front and back.

Next, place vertically upright two red 2L technic notched axles, one in the left axle hole and one in the right.

Then, horizontally place the axle holes of two dark gray 2L technic axle and pin connectors with one pinhole and one axle hole, one on each of the ppp, with the pinholes facing left and right and the rest of the connectors extending to the front.

Place this part on the build: Rotate and flip it so it is vertical and the two ppp are on the left. Push the central axle hole of the part all the way onto the build's left-facing axle.

Step 170

Horizontally place in front of you a blue 3L technic perpendicular axle and pin connector with a center pinhole so the center pinhole faces front and back. Then, horizontally place a red 2L technic notched axle in the right-facing axle hole of the ppp.

Next, rotate the part so it is vertical, the ppp faces up and the pinhole faces left and right. Push it onto the left-facing axle of the build.

Step 171

Place vertically in front of you two black technic three-armed angled axle and pin connectors so two arms face front and back (angled slightly up) and the third faces down. Push them from the left side onto the left-facing axle of the build, one to the left of the other, through their central pinholes.

Next, vertically place a blue technic smooth half-bush to the left of the two ppp.

Step 172

Vertically place in front of you a light gray technic axle connector hub with three axles so one axle faces up and the other two axles face front and back (angled slightly downward). Place it to the left of the ppp.

Step 173

Vertically place a blue technic smooth half-bush to the left of the ppp.

Step 174

Let's make three identical parts.

Place in front of you a tan 2x2 brick with ridged sides and an axle hole.

Then, horizontally place a light gray 1x2 plate on the back row of the ppp. Next, place another in front of the ppp.

Now, vertically place a white 1x2 plate with two bar handles on the right column of the part so the bars face left. Vertically place a pearl gold 1x2 jumper plate to the left of the ppp.

Next, vertically place another white 1x2 plate with two bar handles on the right column of the part so the bars face left.

Now, horizontally stack two light gray 1x2 plates in front of you. Horizontally place a white 1x3 curved slope on the two ppp so its cutout extends to the right.

Place the cutout of the ppp on the jumper stud of the ppp so they extend to the left.

Now that you have three identical parts, rotate them 180 degrees so the ppp faces right on each part. Push each axle of the light gray technic axle connector hub with three axles onto the axle hole of a tan 2x2 brick of the part so one is on the upward-facing axle, one on the back-facing axle and one on the front-facing axle.

Step 175

Let's start to make a part.

Place in front of you a white 4x4 round plate with a central hole. Then, place a tan 2x2 round plate centered on top of the ppp.

Next, place four pearl gold 2x2 round corner tiles around the edges of the 4x4 plate so they surround the ppp (two behind it, two in front of it).

Now, place a white 4x4 round brick with four side pinholes and a center axle hole on top of the build.

Place another tan 2x2 round plate centered on top of the ppp.

Group 11

Continuing the engines.

Step 175

Place four light gray round corner tiles around the edges of the 4x4 plate so they surround the ppp (two behind it, two in front of it).

Then, place a white 2x2 round tile on top of the ppp. This tile has a gold ring pattern surrounding its central hole and light gray "teeth" around the rim.

Place the part on the build: Flip the part sideways so it is vertical and the ppp is on the left, then place the right-facing hole of the part on the left-facing axle.

Step 176

Let's make a part. This will be the first of two identical engines you make by repeating steps 176 through 194.

Place in front of you a yellow 2x2 round tile with a center stud. Then, place on top of the ppp a light gray 3x3 technic gear with teeth on one side and a pinhole.

Step 177

Place a white 2x3x3 round brick with a recessed center and an axle hole upright in front of you. Place it centered under the two ppp until it clicks. This brick has a small silver circuit and panel pattern on part of it that is at the top of the brick in this orientation.

Step 178

Flip the part sideways so the base faces left. Horizontally place a red 4L technic axle in the left-facing axle hole of the part and push it in from the left as far as you can.

Step 179

Vertically place a pearl gold 3x3 technic wheel on the ppp, pushing it on from the left as far as it will go.

Group 12

Continuing the engines.

Step 180

Horizontally place another white 2x3x3 round brick with a recessed center and an axle hole so the base faces right. Push it onto the part from the left so the axle goes through its axle hole. (This brick does not have a pattern on it.)

Step 181

Horizontally place a green 2L technic axle connector on the part's left-facing axle, pushing it on from the left.

Step 182

Horizontally place a yellow 11L technic axle into the left-facing axle hole of the ppp.

Step 183

Horizontally place another white 2x3x3 round brick with a recessed center and an axle hole on the ppp so the base faces left; push it onto the part from the left.

Step 184

Vertically place a silver 3x3 technic wheel to the left of the ppp, pushing it on from the left.

Group 13

Continuing the engines.

Step 185

Place in front of you a black 2x2 round plate. Then, place a black 2x2 round tile on top of the ppp.

Place upright in front of you a white 2x3x3 round brick with a recessed center and an axle hole with the silver circuit pattern. Next, place it centered under the two ppp until it clicks.

Now, flip this sideways so the 2x2 parts face left. Place it in this orientation on the part, pushing it all the way on from the left side.

Note: Ask a friend to help you ensure the part's circuit pattern lines up with the previous one you placed.

Step 186

Vertically place, one to the right of the other, two 2x2 light gray technic gears with teeth on both sides and an axle hole to the left of the ppp.

Group 14

Continuing the engines.

Step 187

Place in front of you a black 2x2 round plate. Then, place a black 2x2 round tile on top of the ppp.

Place upright in front of you a white 2x3x3 round brick with a recessed center and an axle hole. Next, place it centered under the two ppp until it clicks.

Now, flip this sideways so the 2x2 parts face right. Place it in this orientation on the part, pushing it all the way on from the left side.

Step 188

Vertically place to the left of the ppp a light gray 3L technic axle and pin connector with two pinholes, pushing it on from the left so the part's axle goes through its axle hole and the two pinholes hang down and face front and back.

Next, vertically place a dark gray technic half-pin in the top pinhole of the ppp, pushing it in from the front.

Step 189

Let's make a part.

Place horizontally in front of you a blue 1x2 technic thin liftarm with two axle holes.

Then, horizontally place on top of the ppp the two rightmost columns of a bright green 1x3 technic thin liftarm with axle holes and a pinhole.

Now, place vertically upright on the right column of the part the axle of a dark turquoise technic axle and pin connector hub with a 1L axle so its pinhole faces front.

Next, vertically place a red technic half-pin in the pinhole of the ppp, pushing it through from the back.

Let's make another part.

Place in front of you a dark gray technic axle and pin connector with two perpendicular arms; the part's pinhole should face up and the arms should form a braille letter J, with one extending to the back and one to the left.

In the left-facing axle hole, horizontally place a yellow 3L technic axle. Then, place vertically upright a red technic half-pin in the central pinhole of the part.

Rotate and flip the new part so the axle faces down and the other arm faces right. Attach this to the main part from earlier in this step: Place the axle in the main part's center column and push it all the way through from the top.

Let's make another part.

Hold vertically upright in front of you a yellow 1x1 technic thick spacer. Then, place vertically upright a red technic half-pin with a 2L bar extension, pushing it into the ppp from the top until it clicks.

Place this part in the leftmost column of the main part of this step, pushing it all the way in from the top.

Now, place a black 1x1 plate in front of you and horizontally place the cutout of a white 1x3 curved slope on the ppp so it slopes to the left. Place this on the part's leftmost column so two columns of it overhang to the left.

Finally, place a blue technic half-bush on the downward-facing bar of the part, pushing it up from the bottom as far as it will go.

Attach this part to the main engine: Place the right-facing axle hole on the left-facing axle of the engine's leftmost column and push them together.

Step 190

Let's make a part.

Place in front of you a dark gray 1x1 plate with a 1x1 stud sticking up so the stud faces right. Then, horizontally place a dark gray 1x2 curved slope so the cutout is on the ppp and the part slopes to the left.

Place the part on the fifth and sixth columns from the left on the engine's center row and push it from the left into the base of the leftmost 2x3x3 brick on the eighth through 10th columns from the left.

Step 191

Let's make a part.

Place in front of you a light gray 2x2 plate. Now, horizontally place on top of the back row of the ppp the cutout of a white 2x5 left wedge. Next, horizontally place the cutout of a white 1x6 slope in front of the ppp so the rest extends to the right.

Flip and rotate this part so it is horizontally upright, the narrow part faces left and the base of the part faces front. Then, place this part on the back-facing half-pins so it is on the second through sixth columns from the left on the top three rows so the back of it is flush with the dark gray part from the previous step.

Step 192

Let's make a part.

Place horizontally upright in front of you a dark gray 1x2x2 brick with studs on the sides. Then, horizontally place a white 1x2 jumper plate on top of the ppp.

Rotate this part 90 degrees counterclockwise so the ppp faces left. Place it under the center row of the build on the two leftmost columns, pushing it back so the back-facing studs connect to the front-facing base of the part you placed in the last step.

Step 193

Let's make a part.

Place in front of you a light gray 2x2 plate. Now, horizontally place on top of the back row of the ppp the cutout of a white 2x5 right wedge. Next, horizontally place the cutout of a white 1x6 slope in front of the ppp so the rest extends to the left.

Flip this part so it is upright with the narrow part still facing left. Then, place this part on the front-facing half-pin and studs so it is on the second through sixth columns from the left on the top three rows so the back of it is flush with the dark gray part that faces upward.

Step 194

Let's make a part.

Place horizontally in front of you a dark tan 1x2 plate with a rail so the rail faces front. Place horizontally on top of the ppp's right column the cutout of a white 1x3 curved slope so it slopes to the right. Then, place a white 1x1 tile to the left of the ppp.

Rotate and flip this part so it is horizontal and the ppp is on the right and faces back. Place it on the back-facing studs on the bottom row on the four leftmost columns of the engine.

Let's make another part.

Place horizontally in front of you a dark tan 1x2 plate with a rail so the rail faces back. Place horizontally on top of the ppp's right column the cutout of a white 1x3 curved slope so it slopes to the right. Then, place a white 1x1 tile to the left of the ppp.

Rotate and flip this part so it is horizontal and the ppp is on the right and faces front. Place it on the front-facing studs on the bottom row on the four leftmost columns of the engine.

If you haven't already, repeat steps 176 through 194 to make a second identical engine.

Step 195

Rotate one engine 180 degrees and flip it so the angled part faces front and right and the pin and axle face front.

Bring back the previous build and place it so the red notched axle faces up and is on the center row on the fifth column from the right.

Place this engine on the main build by putting its pin and axle on the back-facing angled axle holes on the seventh and eighth columns.

Let's place the other engine. Rotate it 180 degrees and flip it so the angled part faces back and right and the pin and axle face back.

Place the engine on the main build by putting its pin and axle on the front-facing angled axle holes on the seventh and eighth columns.

A note from the Icons designers reads: "Ironically, on its quest to save Earth from the sunlight-consuming organism 'astrophage', the Hail Mary can travel by converting the energy of the organism into a highly powerful rocket fuel."

Bag 6

Finishing the ship and attaching it to the stand.

Group 15

Starting the last engine.

Step 196

Place in front of you a yellow 2x2 round tile with a center stud. Then, place on top of the ppp a light gray 3x3 technic gear with teeth on one side and a pinhole.

Step 197

Place upright in front of you a white 2x3x3 round brick with a recessed center and an axle hole with a silver circuit pattern. Place it centered under the two ppp until it clicks.

Step 198

Flip the part sideways so the base faces left. Horizontally place a red 4L technic axle in the left-facing axle hole of the part and push it in from the left as far as you can.

Step 199

Vertically place a pearl gold 3x3 technic wheel on the ppp, pushing it on from the left as far as it will go.

Group 16

Continuing the last engine.

Step 200

Horizontally place another white 2x3x3 round brick with a recessed center and an axle hole so the base faces right. Push it onto the part from the left so the axle goes through its axle hole. (This brick does not have a pattern on it.)

Step 201

Horizontally place a green 2L technic axle connector on the part's left-facing axle, pushing it on from the left.

Step 202

Horizontally place a yellow 11L technic axle into the left-facing axle hole of the ppp.

Step 203

Horizontally place another white 2x3x3 round brick with a recessed center and an axle hole on the ppp so the base faces left; push it onto the part from the left.

Step 204

Vertically place a silver 3x3 technic wheel to the left of the ppp, pushing it on from the left.

Group 17

Continuing the last engine.

Step 205

Place in front of you a black 2x2 round plate. Then, place a black 2x2 round tile on top of the ppp.

Place upright in front of you a white 2x3x3 round brick with a recessed center and an axle hole with the silver circuit pattern. Next, place it centered under the two ppp until it clicks.

Now, flip this sideways so the 2x2 parts face left. Place it in this orientation on the part, pushing it all the way on from the left side.

Note: You will want to ask a friend to help you ensure the part's circuit pattern lines up with the previous one you placed.

Step 206

Vertically place, one to the right of the other, two 2x2 light gray technic gears with teeth on both sides and an axle hole to the left of the ppp.

Group 18

Continuing the last engine.

Step 207

Place in front of you a black 2x2 round plate. Then, place a black 2x2 round tile on top of the ppp.

Place upright in front of you a white 2x3x3 round brick with a recessed center and an axle hole. Next, place it centered under the two ppp until it clicks.

Now, flip this sideways so the 2x2 parts face right. Place it in this orientation on the part, pushing it all the way on from the left side.

Step 208

Vertically place to the left of the ppp a light gray 3L technic axle and pin connector with two pinholes, pushing it on from the left so the part's axle goes through its axle hole and the two pinholes hang down and face front and back.

Next, vertically place a dark gray technic half-pin in the top pinhole of the ppp, pushing it in from the front.

Step 209

Let's start to make a part.

Place horizontally in front of you a black 3L technic perpendicular axle and pin connector with a center pinhole so its center pinhole faces up.

Then, horizontally place in the right-facing axle hole the axle end of a blue 1L technic axle with a 1L pin with friction ridges.

Step 210

In the central pinhole of the part, place vertically upright a dark gray 4L technic axle with stop, pushing it down from above until you hit the stop.

Step 211

Place vertically upright in front of you a yellow technic axle and pin connector with a perpendicular double split and reinforced sides so that the two arms face left and the axle holes face up and down.

Attach this to the part by pushing it onto the 4L axle from the bottom only through the top upward-facing axle hole of the top arm; do not push it all the way through to the bottom arm.

Step 212

Vertically place upright in front of you a dark turquoise technic double perpendicular axle and pin connector so the pinholes are on the left and face front.

Place its axle connector with an upward-facing axle hole between the two arms of the ppp so the axle holes align with the ones on the ppp.

Now, push the axle all the way through the axle holes and out the bottom so it goes down as far as possible.

Step 213

Vertically hold a black 3L technic perpendicular axle and pin connector with a center pinhole so the pinhole faces left and right. Place it on the right-facing blue pin on the rightmost column of the part so the pin goes through its center pinhole.

Group 19

Continuing the last engine.

Step 214

Vertically place a dark gray technic axle and pin connector hub with two axles on opposite sides so its pinhole faces front and one axle end goes into the bottom-facing axle hole of the ppp, pushing it up from the bottom.

Now, vertically place a red technic half-pin in the front-facing pinhole of the ppp, pushing it in from the front.

Step 215

Vertically place a red technic half-pin in the front-facing pinhole on the leftmost column of the part on the second row from the top (not counting the whole part), pushing it in from the front. Then, vertically place another in the same row on the third column from the left on the front-facing pinhole, pushing it in from the front.

Group 20

Finishing the last engine, making the solar panels and attaching the ship to the stand.

Step 215

Vertically place a dark gray technic half-pin on the pinhole below the ppp, pushing it in from the back.

Step 216

Flip the part 180 degrees so the ppp is on the second column from the left. Attach it to the engine: Place the rightmost column's right-facing axle hole on the left-facing yellow axle of the engine's leftmost column.

Step 217

Place horizontally in front of you a dark gray 1x1 plate with a 1x1 stud sticking up so the stud faces right. Then, horizontally place a dark gray 1x2 curved slope so its cutout is on the plate of the ppp.

Now, place the part on the center row on the fourth and fifth columns from the left so its right-facing stud goes into the bottom of the leftmost 2x3x3 round brick.

Step 218

Let's make a part.

Place in front of you a light gray 2x2 plate. Now, horizontally place the cutout of a white 2x5 right wedge plate on the back row of the ppp so the rest overhangs to the right.

Next, horizontally place a white 1x6 slope in front of the ppp so its cutout is on the 2x2 plate and the rest overhangs to the right.

Place the part on the engine: Flip the part and rotate it 180 degrees so the bottom faces front and the 2x2 is on the right. Then, attach it to the back-facing pins on the first four columns from the left on the top three rows of the engine so the leftmost column of the 1x6 slope overhangs to the left.

Step 219

Let's make a part.

Place upright in front of you a bright green 1x1x2 brick with studs on three sides so the studs face left, front and right.

Now, place vertically upright a white 1x2 jumper plate on the front-facing studs of the ppp. Place a white 1x1 slope tile on the upward-facing stud of the 1x1x2 brick so it slopes to the front.

Next, rotate the part so the two ppp face left. Attach it to the engine's leftmost column on the second and third rows from the bottom (counting the whole build) so the top back-facing stud attaches to the leftmost column of the 1x6 slope.

Step 220

Place in front of you a light gray 2x2 plate. Now, horizontally place the cutout of a white 2x5 left wedge plate on the back row of the ppp so the rest overhangs to the left.

Next, horizontally place a white 1x6 slope in front of the ppp so its cutout is on the 2x2 plate and the rest overhangs to the left.

Place the part on the engine: Flip the part upright so the bottom faces back and the 2x2 is on the right. Then, attach it to the first four studs of the engine on the top three rows so the leftmost column of the 1x6 slope attaches to the top stud of the 1x1x2 brick.

Step 221

Let's make a part.

Place horizontally in front of you a dark tan 1x2 plate with a rail so the rail faces front. Now, horizontally place a white 1x3 curved slope so its cutout is on the right column of the ppp and the rest extends to the right. Next, place a white 1x1 tile to the left of the ppp.

Flip and rotate this part 180 degrees so the rail is on the right and faces down and the bottom of the parts face front. Attach it to the engine: Place it on the back-facing pin and stud on the four leftmost columns of the engine on the second row from the bottom.

Let's make another part.

Place horizontally in front of you a dark tan 1x2 plate with a rail so the rail faces back. Now, horizontally place a white 1x3 curved slope so its cutout is on the right column of the ppp and the rest extends to the right. Next, place a white 1x1 tile to the left of the ppp.

Rotate this part 180 degrees so the rail is on the right and faces down and the bottom of the parts face back. Attach it to the engine: Place it on the front-facing pin and stud on the four leftmost columns of the engine on the second row from the bottom.

Step 222

Let's attach this engine to the previous two. Place the previous build horizontally in front of you so the two engines face and extend to the left and the red pin on the second column from the right (not counting the whole build) faces up. Flip the new engine upside down and rotate it 180 degrees so the two pins on the second and fourth columns from the right face up. Place the two upward-facing pins of the new engine into the axle holes on the second and fourth columns from the right (not counting the whole build) on the existing engines.

Step 223

Place vertically upright in front of you a light gray technic driving ring extension with teeth on one extended side; the teeth should face right. Now, attach it to the engine's right-facing jumper plate stud on the fourth row from the bottom (counting the whole build) on the rightmost column.

Place another in the same orientation on the jumper stud on the third and fourth rows from the front on the rightmost column, then repeat this placement to the back.

Step 224

Let's start to make the solar panels.

Place horizontally in front of you a black 2x12 plate. Then, horizontally place on the back row on the two leftmost columns a black 1x2 plate with a pinhole on top so the pinhole is on the left.

Step 225

Horizontally place in front of the ppp another black 1x2 plate with a pinhole on top so the pinhole is on the left. Next, horizontally place a black 1x3 plate to the right of the ppp. Then, horizontally place a black 1x4 plate behind the ppp so one column extends to the right.

Step 226

Vertically place a black 1x2 plate with a pinhole on top in front of the rightmost column of the ppp so the pinhole overhangs to the front. Then, horizontally place a black 2x4 plate on the third through sixth columns from the right.

Now, place a black 1x1 plate to the right of the front row of the ppp. Then, behind the ppp, horizontally place the left column of a black 1x2 plate with a pinhole on top so the pinhole is on the right.

Step 227

Horizontally place a metallic silver 1x2 grill slope on the back row of the part on the second and third columns from the left so it slopes to the left, then repeat this placement to the front.

Now, place another horizontally to the right of the ppp so it slopes to the right, and repeat this placement to the back.

Next, place another horizontally to the right of the ppp so it slopes to the left, then repeat this placement to the front.

Then, place another horizontally to the right of the ppp so it slopes to the right, and repeat this placement to the back.

Finally, place another horizontally to the right of the ppp so it slopes to the left, then repeat this placement to the front.

Step 228

Vertically place a dark gray 1L technic axle with a 2L pin with friction ridges so the pin end goes into the two front-facing pinholes on the leftmost column of the part, pushing it all the way through.

Now, horizontally place a black technic axle connector with axle hole so the connector is placed on the axle end of the ppp and the axle hole extends to the right.

Step 229

Let's make a part.

Place horizontally in front of you a black technic axle and pin connector angled #2 180 degrees so its pinhole faces up. Then, horizontally place in each axle hole of the ppp the axle end of a blue 1L technic axle with a 1L pin with friction ridges.

Rotate the part 90 degrees so it is vertical and the center pinhole faces left and right. Place it on the front-facing pinhole on the rightmost column of the part.

Step 230

Let's make a part.

Horizontally place in front of you a black 2x4 plate. Then, horizontally place a black 1x4 plate on the back row of the ppp.

Now, horizontally place a black 1x2 plate with a pinhole on top in front of the rightmost column of the ppp so the pinhole overhangs to the right. Horizontally place another black 1x4 plate to the left of the ppp so one column overhangs to the left.

Next, place a black 1x2x2 inverted curved slope so its cutout is on the right and is placed under the leftmost column of the ppp; the left column of the slope will extend to the left.

Now, vertically place another black 1x2 plate with a pinhole on top on the back row on the right column of the ppp so the pinhole overhangs to the back.

Then, horizontally place a metallic silver 1x2 grill slope on the back row on the two leftmost columns so it slopes to the left, then repeat this placement to the front.

Next, place another horizontally to the right of the ppp so it slopes to the right, and repeat this placement to the back.

Place another horizontally to the right of the ppp so it slopes to the left, then repeat this placement to the front.

Finally, place a black 1x1 plate on the rightmost column (counting the whole part) under the front row's pinhole.

Place the part on the previous build: Push the pinhole on the rightmost column onto the front-facing blue pin on the previous build's rightmost column.

Step 231

Horizontally place a black 12L technic axle from the right side of the part's third row from the front so it goes through the right-facing pinhole, two center pinholes, and the right-facing axle hole on the second column from the left. 1L of the axle should extend to the right.

Step 232

Bring back the engines of the ship. Hold them so the engines extend to the left and the black axle hole on the third column from the right faces down. Flip and rotate the new part so the ppp faces up and the solar panels face front. Push the upward-facing axle into the downward-facing axle hole.

Step 233

Let's make more solar panels.

Place horizontally in front of you a black 2x12 plate. Then, horizontally place on the back row on the two rightmost columns a black 1x2 plate with a pinhole on top so the pinhole is on the right.

Step 234

Horizontally place in front of the ppp another black 1x2 plate with a pinhole on top so the pinhole is on the right. Next, horizontally place a black 1x3 plate to the left of the ppp. Then, horizontally place a black 1x4 plate behind the ppp so one column extends to the left.

Step 235

Vertically place a black 1x2 plate with a pinhole on top in front of the leftmost column of the ppp so the pinhole overhangs to the front. Then, horizontally place a black 2x4 plate on the third through sixth columns from the left.

Now, place a black 1x1 plate to the left of the front row of the ppp. Then, behind the ppp, horizontally place the left column of a black 1x2 plate with a pinhole on top so the pinhole is on the left.

Step 236

Horizontally place a metallic silver 1x1x2 slope with grill pattern on the back row of the part on the second and third columns from the left so it slopes to the right, then repeat this placement to the front.

Now, place another horizontally to the right of the ppp so it slopes to the left, and repeat this placement to the back.

Next, place another horizontally to the right of the ppp so it slopes to the right, then repeat this placement to the front.

Then, place another horizontally to the right of the ppp so it slopes to the left, and repeat this placement to the back.

Finally, place another horizontally to the right of the ppp so it slopes to the right, then repeat this placement to the front.

Step 237

Vertically place a dark gray 1L technic axle with a 2L pin with friction ridges so the pin end goes into the two front-facing pinholes on the rightmost column of the part, pushing it all the way through.

Now, horizontally place a black technic axle connector with axle hole so the connector is placed on the axle end of the ppp and the axle hole extends to the left.

Step 238

Let's make a part.

Place horizontally in front of you a black technic axle and pin connector angled #2 180 degrees so its pinhole faces up. Then, horizontally place in each axle hole of the ppp the axle end of a blue 1L technic axle with a 1L pin with friction ridges.

Rotate the part 90 degrees so it is vertical and the center pinhole faces left and right. Place it on the front-facing pinhole on the leftmost column of the part.

Step 239

Let's make a part.

Horizontally place in front of you a black 2x4 plate. Then, horizontally place a black 1x4 plate on the back row of the ppp.

Now, horizontally place a black 1x2 plate with a pinhole on top in front of the leftmost column of the ppp so the pinhole overhangs to the left. Horizontally place another black 1x4 plate to the right of the ppp so one column overhangs to the right.

Next, place a black 1x2x2 inverted curved slope so its cutout is on the left and is placed under the rightmost column of the ppp; the right column of the slope will extend to the right.

Now, vertically place another black 1x2 plate with a pinhole on top on the back row on the left column of the ppp so the pinhole overhangs to the back.

Then, horizontally place a metallic silver 1x1x2 slope with grill pattern on the back row on the two leftmost columns so it slopes to the right, then repeat this placement to the front.

Next, place another horizontally to the right of the ppp so it slopes to the left, and repeat this placement to the back.

Place another horizontally to the right of the ppp so it slopes to the right, then repeat this placement to the front.

Finally, place a black 1x1 plate on the leftmost column (counting the whole part) under the front row's pinhole.

Place the part on the previous build: Push the pinhole on the leftmost column onto the front-facing blue pin on the previous build's leftmost column.

Step 240

Horizontally place a black 12L technic axle from the left side of the part's third row from the front so it goes through the left-facing pinhole, two center pinholes, and the left-facing axle hole on the second column from the right. 1L of the axle should extend to the left.

Now, horizontally place a black 2L technic smooth axle connector on the ppp, pushing it on from the left.

Step 241

Bring back the engines of the ship. Hold them so the engines extend to the left and the red axle hole on the third column from the right faces up. Flip and rotate the new part so the ppp faces down and the solar panels face front. Push the upward-facing axle into the downward-facing axle connector hole.

Step 242

Bring back the stand to place the ship's engines on it. Hold the engines so they are on the right and the solar panels are on the left facing front.

Ensure the stand's horizontal arm is perfectly horizontal and the crew compartment is on the right. Locate the front-facing axle on the third column from the left (counting the whole arm) on the third row from the back and the front-facing pin on the fourth row from the front on the eighth column from the left.

On the engines, locate two back-facing pinholes, one on the fifth column from the left on the center row and one on the next row down on the 11th column from the left.

Attach the engines: Place the axle on the leftmost pinhole and the pin on the rightmost pinhole. Make sure the top engine goes above the microscale crew compartment that's already present and the other two engines go beneath it.

On the next two pages, there are several diagrams of how to use the crank at the bottom of the stand to rotate the ship.

By turning the crank to the right (clockwise), the diagram shows you can separate the crew module from the engines so the module moves to the right. When you turn it to the right, it will continue in that direction until it hits a pin connector (unfortunately there's no tactile feedback for this), then continuing to turn the crank will rotate the module vertically. Then, continuing to turn it to the right after the crew module is separated will rotate the entire display (engines and module) counterclockwise.

Turning the crank to the left (counterclockwise) will return the module to the engines and continuing to turn the crank in that direction will rotate the entire ship with the module attached.

A note from the Icons designers reads: "By separating from the main ship and orbiting around it, the crew compartment can generate artificial gravity, which Grace requires to live comfortably, and for his instruments to work."

On the two pages after that, there are diagrams showing how to attach the minifigure dioramas to the stand for storage.

First, detach Rocky's diorama and Grace's diorama from the central section with the panel separating them. Then, you can store the panel on the bottom of the stand in a recessed area of the base three rows from the back (not counting the whole build). Holding the panel section so it is horizontal, place it in the recessed area on the second through eighth columns from the left (it will just float as it does not attach to anything here).

Next, let's place Grace's diorama on the left front side of the build. Make sure Grace is facing front and the side of the base with the back-facing bars faces back. Attach the base in this orientation to the two front-facing clips between the second and third columns and fourth and fifth columns from the left.

Finally, let's place Rocky's diorama on the right front side of the build. Make sure Rocky is facing front and the side of the base with the back-facing bars faces back. Attach the base in this orientation to the two front-facing clips between the second and third columns and fourth and fifth columns from the left.

There are no ads at the back of the instruction booklet.

Thank you so much for building this set!

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