60368 Arctic Explorer Ship

Set adapted by Alex Charbonneau and tested by Natalie Charbonneau.

Fun adventures lie on the horizon with the mighty LEGO® City Arctic Explorer Ship (60368). This huge floatable toy boat is loaded with realistic detailing for imaginative exploration adventures. This premium playset also includes a helicopter, dinghy, underwater ROV sub and a Viking shipwreck, plus a treasure chest, 7 minifigures and an orca figure.

Adventures without limits

- Kids grow up surrounded by amazing vehicles and machines, and with LEGO City building sets they get to explore them up close with realistic models and fun characters that inspire open-ended, imaginative play. Combine this set with others from the LEGO City range for even more fun.

What's in the box?

- Everything kids need to build a toy exploration ship, helicopter, dinghy, ROV submarine and Viking shipwreck, plus 7 minifigures and an orca figure

Features and functions

- Kids can float the ship on water and deploy the ROV submarine with the ship's telescopic crane arm

A LEGO® gift for budding explorers

- This toy ship makes a fun birthday, holiday or any-other-day gift for kids aged 7+ who love cool action toys

Dimensions

- The Arctic Explorer Ship measures over 7.5 in. (19 cm) high, 28 in. (71 cm) long and 6.5 in. (17 cm) wide

Minifigure accessories

- The LEGO® toy accessories in this set include a laptop, walkie-talkie, camera, wrench, binoculars, syringe, 2 cups and a Viking axe, shield and helmet

The front of the box shows the Arctic Explorer Ship sailing through an icy sea, with icebergs behind it! Green meteors streak through the night sky. A blue and orange helicopter flies overhead. A white and black orca lifts its flukes as it dives under the water. Researchers in a small inflatable dinghy take pictures of the whale! Underwater, a diver examines a shipwreck shaped like a dragon's head! The ship itself is massive, with a dark blue hull, light blue decks, and an orange and white superstructure. The superstructure is two decks tall. A massive crane extends from the middle of the ship, lowering a small underwater remotely operated vehicle (ROV) into the churning water. Towards the back of the ship, large cargo hatches are open! Researchers can be seen at work on the ship.

The top of the box shows all of the minifigures included in various poses. From left to right: a researcher in orange and blue with a beanie, taking pictures with a camera, a researcher with red hair and a wrench poses with a viking treasure chest, a researcher with a diving suit and swim fins poses with a helmet and axe, a researcher with black hair and a beard discusses something over a laptop with a researcher with green glasses and big brown hair, a researcher with a life preserver on holds a syringe, and a researcher with a fur lined jacket and binoculars runs away from a crab.

The back of the box has one main image and six inset images. The main image shows a view of the boat from above and behind. It reveals that the cargo hatches open directly to the water, allowing the ROV to be dropped into the water through the boat! There is also a recessed area on the stern of the ship to stow the ROV.

The largest inset shows the side view of the ship, with a dimension along the bottom showing that it is 28 inches (71 cm) long! It shows that the helicopter can land on the bow of the ship, the bridge can lift off, as can the bridge roof, the crane can swivel, raise and lower, and the dinghy can be stowed at the back of the boat.

The first small inset shows the helicopter landed at the bow with its canopy open. The second shows researchers on the bridge of the ship. The third shows three researchers inside the ship, one working at a computer, one drinking coffee at a table, and another looking through a microscope. The fourth inset shows the crane being used to raise or lower the dinghy. The final small inset shows the viking shipwreck with the orca swimming past. A diver lifts a treasure chest!

The build is 815 pieces, and 244 building steps.

Welcome to text-based instructions from LEGO for the Blind. Before you start building, here are some terms we'll 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: going from front to behind.
- Horizontally: going from left to right.
- Upright: pointing up towards the ceiling.
- That one/ppp: previously placed piece.
- Plate: piece with studs.
- Tile: smooth piece without studs (unless otherwise specified)
- 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 to the left and right of piece.
- Row: studs lined up from left to right.
- Column: studs lined up from top to bottom.

For builders with low vision, or a sighted building partner may want to follow along with the printed visual instructions that come with each kit or PDF versions are always online at LEGO.com: (https://www.lego.com/en-us/service/buildinginstructions/60368) As 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 friend or family member do this in advance following the instructions below. You will see that the pieces should be sorted according to the building steps in the kit. Doing this in advance makes locating the pieces for each step 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 sorted into one or 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.

This LEGO set comes with nine bags labeled 1-9, a sticker sheet, and four instruction booklets. Some larger pieces are loose in the box. There are stickers to put onto pieces in steps 2, 4, 40, 49, 129. If you want to use the stickers, they should be put on as you or your friend sort the pieces! Sort the pieces into groups as described below. 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! LEGO includes a few spare parts in case you lose something. Set these into their own group away from the rest, in case you need them later.

Bag 1 (3 groups)

Minifigure Group 1 contains the pieces to build the dinghy driver and the clear 1x1 circular plate from the camera on page 8.

Minifigure Group 2 contains the pieces to build the first researcher, his camera, and the orca! (Pages 6-10 in Book 1)

Side Build 1 - Inflatable Dinghy & Orca

Group 1 contains the pieces for steps 1-7 of the inflatable dinghy. Stack the two circular plates from step 7, with red on the top.

Bag 2 (4 groups)

Minifigure Group 3 contains the pieces to build the diver minifigure.

Side Build 2 - Viking Shipwreck

Group 2 contains the pieces for steps 1-6 of the Viking shipwreck.

Group 3 contains the pieces for steps 7-23 of the Viking shipwreck.

Side Build 3 - ROV

Group 4 contains the pieces for steps 1-15 of the ROV.

Bag 3 (6 groups)

Minifigure Group 4 contains the pieces to build the helicopter pilot.

Minifigure Group 5 contains the pieces to build a researcher carrying a laptop.

Side Build 4 - Helicopter

Group 5 contains the pieces for steps 1-11 of the helicopter, as well as the 1x2 slope tile with instrument panel print from step 12, and one transparent red 1x1 circular plate from step 16.

Group 6 contains the pieces for steps 12-17 of the helicopter.

Group 7 contains the pieces for steps 18-25 of the helicopter.

Group 8 contains the pieces for steps 26-27.6 of the helicopter

Bag 4 (5 groups)

Minifigure Group 6 contains the pieces to build a male researcher with binoculars.

Minifigure Group 7 contains the pieces to build a female researcher holding a radio.

Main Build - Arctic Exploration Ship

Group 9 contains the pieces for steps 1-12 of the ship.

Group 10 contains the pieces for steps 13-20.

Group 11 contains the pieces for steps 21-33.

Bags 5&6 (8 groups)

Group 12 contains the pieces for steps 34-38. Attach the 1x1 circular tile with a specimen pattern to the 2x4 brick. Add a clear 1x1 brick from step 43 and two black 1x2 plates from step 43.

Group 13 contains the pieces for steps 39-54.

Group 14 contains the pieces for steps 55-58, and the 2x2 slope with a radar screen from step 59.

Group 15 contains the pieces for steps 59-69.

Group 16 contains the pieces for steps 70-70.4.

Group 17 contains the pieces for steps 71-80.

Group 18 contains the pieces for steps 81-85.

Group 19 contains the pieces for steps 86-95.3.

Bag 7 (3 groups)

Group 20 contains the pieces for steps 96-101, and two dark gray 2x2 tiles from step 102.

Group 21 contains the pieces for steps 102-114.

Group 22 contains the pieces for steps 115-119.2.

Bag 8 (4 groups)

Group 23 contains the pieces for steps 120-131, including two transparent green 1x1 slope tiles from step 137. Also, make two stacks of orange 1x2x2 tall bricks by stacking a brick with a sticker on top of a brick without a sticker, don't do anything with the black 1x2x2 tall bricks.

Group 24 contains the pieces for steps 132-140, including two white triangle tiles from steps 141 and 143.

Group 25 contains the light blue triangle tiles from steps 141 and 143.

Group 26 contains the pieces for steps 141-144.

Bag 9 (5 groups)

Group 27 contains the pieces for steps 145-147.

Group 28 contains the pieces for steps 148-156.

Group 29 contains the pieces for steps 157-157.5.

Group 30 contains the pieces for steps 158-168.

Group 31 contains the pieces for steps 169-173.

Building Instructions:

Build 1 - Inflatable Dinghy & Orca

Minifigure group 1

1. Assemble the first minifigure by attaching the legs to the torso, slipping the lift preserver over the neck hole and attaching the head. This minifigure wears blue pants, a white shirt, a blue vest and an orange life preserver. He has a black goatee and long black hair. This is the driver of the small boat!

Minifigure group 2

2. Assemble the second minifigure by attaching the legs to the torso, slipping the lift preserver over the neck hole and attaching the head. The minifigure can wear either a dark blue fur hat, or a hair piece! This minifigure wears an orange and blue survival suit with dark blue gloves, and an orange life preserver. He has a beard, glasses, and curly short black hair. This is a researcher!

Now we'll build his camera!

- 3. Find a black camera base with a handle on one side, a black 1x1 short cone, a clear 1x1 round plate with a hole in the stud, and a light gray 1x1 round tile with a bar pointing upwards.
- 3.1 Place the camera in front of you with the stud at the front and the handle on the left.
- 3.2 Place the tile with a bar onto the stud with the bar facing forward. Place the black 1x1 round plate onto the bar of the tile, with the stud facing the back.
- 3.3 Place the short cone on the previous piece with the stud at the back.
- 3.4 Place the clear plate onto the previous piece with the stud at the back.

The camera is complete! Place the handle into the researcher's hand to have him hold the camera.

Now, build the orca by snapping its lower jaw into its upper jaw.

It's time to build the dinghy, so set the orca and the minifigures aside for now.

Open group 1. There are two 1x1 circular plates in this group that are stacked together. Leave these two together for now.

- 1. Place the dark blue dingy base horizontally long in front of you, with the pointy end at the left and the end with two cones at the right.
- 2. Find two light gray 2x2 tiles with two studs on top, and an orange 1x2 grille tile. All of these pieces will be centered vertically. Place a tile with two studs on top at the right edge of the recessed portion of the boat, with the two studs in a column at the right. Place the grille tile vertically long directly to the left of this piece. Place the other tile with two studs to the left of the grille tile, with the studs in a column at the right.
- 3. Find a light gray 1x2 steering wheel tile. Place this vertically long, centered vertically to the left of the previous piece, with the steering wheel at the right.
- 4. Find a black 1x2 curved slope tile, a black 1x2 plate with rounded ends and light gray 1x2 plate with a 2x2 square of studs hanging down from one side. Place the 1x2 plate with side studs vertically long in front of you with the side studs at the right. Place the curved slope tile onto the top row of side studs, with the flat side facing down. Place the plate with rounded ends on the bottom row of side studs. Keeping the side studs on the right, place this assembly on the far right studs on the dinghy, centered vertically.
- 5. Find two light gray 1x1 plates with up and down clips and place one in front of the previous piece and one behind the previous piece, with the clips oriented vertically away from the previous piece.
- 6. Find two black 1x4x2 tube fence pieces. Place one vertically long on the previous two pieces. Skip two studs to the left and place the other into the dinghy in the same orientation. The second fence piece should be in the lower recessed portion of the boat, and over a grille tile.
- 7. Find a white 1x4 plate, a transparent red 1x1 round plate, and a transparent green 1x1 round plate. The red round plate is stacked on top of the green one. Place the 1x4 plate vertically long on top of the right hand fence from the last step. Place the red transparent plate on the front stud of the 1x4, and the green transparent plate on the back stud. Now you can place the driver minifigure in the front seat of the boat. The research can ride in the back taking pictures!

Now we're on to build the viking shipwreck!

Open Bag 2

Minifigure group 3

- 1-2. Assemble the diver minifigure by placing the torso on the legs, the orange oxygen tank over the neck stud with the tank at the diver's back, and then the head onto the neck.
- 3. Attach an orange flipper onto the bottom of each foot, facing the diver's front. The diver can hold a round 1x1 tile with a gauge pattern, which can be a depth gauge or a compass! He can either wear a helmet, or blonde hair.

- 1. Find a light blue 8x8 plate with a rounded end, and a brown 2x2 plate. Place the 8x8 plate in front of you, with the rounded end at the back. Place the 2x2 plate centered horizontally, on the back two rows of studs.
- 2. Find a brown 1x1 brick with a recessed stud on one side and a square opening on the other side. I'll call this a "headlight brick" from now on. Find a brown 1x2 short inverted half-arch, and a light blue 1x1 round tile with vertical ribs. Place the headlight brick in front of the right column of the previous piece, with the side stud pointing right. Place the arch piece to the left of the headlight piece sloping down to the left. Place the round tile to the left of the arch piece. The round tile represents some coral, or an anemone!
- 3. Find a light brown 2x4 tile with two studs on top, and two brown 1x1 headlight bricks. Place the 2x4 tile vertically long, centered horizontally, directly in front of the pieces from the previous step. Place the two headlight bricks in front of the previous piece, with their studs facing outwards, left and right. The headlight bricks should be even with the front of the 8x8 plate with a rounded end.
- 4. Place a dark gray 1x2 slope tile horizontally long on the back row of the build, centered horizontally, sloping up towards the front.
- 5. Find a sand green 1x2 hinge base brick and a brown 2x2 hinge plate. The hinge base has two long sides: one smooth and one open. The hinge plate will slope down towards the open side. With the hinge plate overhanging the open side of the base, clip the hinge plate into the hinge base by placing the round pegs under the studs of the plate into the half-circular holes in the base. Attach the hinge assembly to the shipwreck model in front of the previous piece, with the hinge plate overhanging to the back. When attached, hinge the plate down towards the back so that it's parallel to the slope of the previous piece.
- 6. Find a brown 1x2 brick with a horizontal clip on the long side. Place this vertically long to the right of the 2x4 tile from step 3, centered vertically on the tile, with the clip pointing to the right.

Set the shipwreck base aside for now. We're going to build the viking ship's serpent neck!

- 7. Place a light brown 2x4 plate horizontally long in front of you.
- 8. Find four 1x2 tiles with a single stud. Place these, each vertically long, on top of the previous piece in a horizontal row.
- 9. Find a light brown 1x2 brick with two studs on each long side, and a brown 1x2 short inverted half-arch. Place the brick with side studs horizontally long on the right two previous pieces. Place the half-arch horizontally long on the left two previous pieces, sloping up to the right.
- 10. Find a brown 1x2 plate and a green 1x1 thick plate (this is two plates tall. Place the thick plate on the stud of the previous piece. Place the 1x2 plate horizontally long to the right of the previous piece.
- 11. Find a sand green 1x1 brick with studs on two opposite sides. Place this onto the thick plate from the previous step, with the side studs facing front and back.
- 12. Find two teal 3x3 curved corner plates. Place one onto the side studs at the front of the build, sideways so that its studs face you, and it curves up to the left. Its right end should be even with the right end of the build, and its top end should be even with the top of the previous piece. The plate attaches to the two lower and one upper side studs. Place the other curved corner plate symmetrically at the back with its studs pointing to the back.
- 13. Find a brown 1x1x3 tall brick. Place this on the right side of the build with its stud upward, skipping a stud so there is one exposed stud to the right.

- 14. Find a green 1x1 thick plate and a sand green 1x1 brick with studs on two opposite sides. Place the brick onto the plate and place this assembly to the left of the previous piece, with the side studs facing front and back. Its top should be even with the previous piece.
- 15. Find a light brown 1x4 plate, a brown 1x2 short inverted half arch, two brown 1x1 slope tiles, and a brown 1x1 headlight piece. Place the plate in front of you horizontally long. Place the two 1x1 slope tiles on the two left studs of the previous piece, both sloping down to the right. Place the headlight brick to the right of the slope tiles, with the side stud on the left. Place the half arch to the right, sloping up to the left. Place the right two studs of the 1x4 plate onto the pieces from the previous two steps, so that the 1x4 overhangs two studs to the left and the tail of the half arch overhangs one stud to the right. The slope tiles are the teeth of the dragon figurehead!
- 16. Find two teal 3x3 curved corner plates. Place one onto the side stud from step 14, oriented so that its studs face you, it is horizontal at the top and vertical at the right. Align the left end with the left end of the teeth from the previous step. The right side should be in line with the 3x3 curved corner plate from step 12 so that it looks kind of like a letter S. Place the other curved corner plate symmetrically at the back with its studs pointing to the back.
- 17. Find a light brown 1x4 plate, a brown 1x2 plate with a Technic[™] pin-hole instead of one stud, a silver 1x1 round plate, and a brown 1x3 curved slope with a plate cutout at one end. Place the 1x4 plate horizontally long in front of you. Place the 1x2 plate with the pin-hole at the left end of the previous piece, with the pin-hole at the left. Place the round plate to the right of the previous piece. Place the cutout of the curved slope onto the previous piece, and the slope curving down to the right. The slope should overhang the plate by one stud. Place this assembly on top of the pieces from step 15, with the left and right sides even, and the pin-hole at the left. The pin-hole is the nose, and the silver round plate is the eye of the dragon figurehead!

Now, we'll place the neck onto the rest of the shipwreck!

- 18. Place the shipwreck base in front of you with the curved end at your left. Attach the right two columns of the 2x4 plate at the base of the neck horizontally long, onto the 2x2 hinge plate at the left end of the base.
- 19. Find three brown 1x3x2 half arches. These form the ribs of the shipwreck. We'll attach one to each of the three headlight bricks on the shipwreck base. To do this, turn the half arch so it is vertically long, and the stud is at the top and pointing in the same direction as the side stud of the headlight brick you will attach it to. This stud should point forwards for the front rib, and backwards for the two back ribs. Attach the bottom of the arch to the side stud of the headlight brick. If the ribs at the right of the build form a wide U, you did it correctly!
- 20. Find a green piece of seaweed with four fronds. Find the brick with the horizontal clip between the two back ribs and clip the seaweed in with the fronds pointing upwards.
- 21. Find a gray treasure chest and lid. With the treasure chest horizontally long in front of you, put the lower edge at the back. This is the hinge for the chest, the tall, long edge of the lid clips in to allow the chest to open and close. Attach the lid. Place the chest between the left and right ribs of the shipwreck, centered vertically.
- 22. Find a brown 3L bar, a silver shield, and a silver ax blade. Attach the ax blade onto one end of the brown bar to make a battle ax! Open the treasure chest and place the battle ax and shield inside.
- 23. Find a red crab, a silver viking helmet, and a gray 1x1 round brick. Place the brick onto the stud on the crab's back and place the helmet onto the brick. Now that's one armored crab!! Place him in front of the treasure chest on whichever stud you prefer.

- 1. Place an orange 2x2 plate in front of you.
- 2. Find a dark gray 1x2 plate with rounded ends, and a dark gray 1x2 plate with offset studs at the long ends. Place the plate with rounded ends vertically long on the right column of the previous piece. Place the plate with offset studs vertically long on the left column, with the offset studs extending to the left.
- 3. Find a white 1x2 brick and a light blue 1x2 brick with a row of 2 studs on one long side. Place the brick with studs on the side on the previous piece with the side studs at the left. Place the 1x2 brick vertically long to the right, even with the edges.
- 4. Find a black 2x2 plate with two studs on one side. Place this on top of the two previous pieces with the side studs at the left.
- 5. Find a black 1x2 plate with a 2x2 of anti-stud on the side. "Anti-stud" is a term for the portion of a LEGO piece which accepts studs, like the bottom of a plate. This piece is shaped like a capital T when viewed from the side. Place the 1x2 plate portion vertically long on top of the right column of the previous piece, with the 2x2 anti-stud on the right.
- 6. Find a white 1x2 brick and a light blue 1x2 brick with a row of 2 studs on one long side. Place the 1x2 brick vertically long on the studs of the previous piece. Place the brick with studs on the side to the left of the previous piece, with the studs on the left.
- 7. Find four orange 1x1 round bricks. Make two stacks of two round bricks. Place one each on the offset studs at the front and back left sides of the build (on the 1x2 plate with offset studs from step 2 of the ROV build).
- 8. Find two dark gray 1x2 plates with rounded ends and two transparent yellow 1x1 circular tiles. Attach the plates with rounded ends to the previous pieces, horizontally long and extending one stud to the left. Place a circular tile on the left stud of each of the plates with rounded ends.
- 9. Find a white 1x2 plate with a small bar on each long end, and a dark gray 1x2 plate with offset studs at the long ends. Place the offset studs from the plate with offset studs onto the right stud of the rounded plates from the previous steps, with the studs on the right so they attach to the left brick from step 6. Place the white plate with bars vertically long to the right of this piece, centered vertically.
- 10. Find a transparent blue 2x2 dome and two transparent yellow 1x1 circular tiles. Place the dome on the 2x2 square of studs formed by the previous two pieces. Place the circular tiles on top of the offset studs from the previous step.
- 11. Rotate the model 90 degrees clockwise so that the right side now rests on the table, and the dome from the previous step is on the right. There should be a 2x3 horizontally long pattern set of studs on the top of the model. Find a light gray 2x2 plate with a pin on the bottom, and a black 3L diameter propeller. Place the 2x2 plate on the left end of the submarine, with its studs pointing to the right. Place the propellor onto the pin on the left.
- 12. Place a light blue 2x4 plate horizontally long on top of the top of the submersible, with the right column of studs on the right column on the submersible.
- 13. Find a dark gray 1x2 grille tile and a black 2x2 circular tile with a hole on top. Place the grille tile vertically long at the left end of the previous piece. Place the round tile to the right of the previous piece, with the top hole horizontally long.
- 14. Find an orange 2x2 curved tile with an explorer logo on it. The logo shows a picture of a planet with a compass ring around it. Place this to the right of the previous piece, sloping down and to the right. Rotate the submersible 90 degrees counterclockwise so the dome is at the front.

15. Find two black thick robot arms with clips, and two orange bars with clips. Find the bars on the left and right sides of the dome and clip the thick robot arms onto the bars so that the point of the elbow is at the outside and the square part of the arm is at the front. Slide the orange bars with clips into the square hole at the front of the arms, and rotate the clips until they are parallel with the ground.

Now the submersible is complete!

Open Bag 3

Minifigure group 4

Assemble the helicopter pilot by placing the torso on the legs, and the head on the torso. Assemble her helmet by clipping the clear visor onto the helmet piece. The pilot can either wear red hair, or a flight helmet with a visor! She also has a wrench.

Minifigure group 5

Assemble another researcher minifigure by placing the torso on the legs, and the head on the torso. This researcher has voluminous brown hair, blue pants, a white long-sleeved shirt, and a blue vest. She also carries a laptop!

Open group 5

Now let's build the helicopter!

- 1. Find a dark gray 2x6 plate and place it horizontally long in front of you.
- 2. Find a black 2x2 circular plate and two light gray 2x4 plates with horizontal pins at each long end. Place one of the plates with pins at the right end of the previous piece, vertically long and centered vertically. Place the circular plate to the left of the previous piece. And place the other plate with pins to the left of the previous piece, vertically long and centered vertically.
- 3. Find a light blue 4x4 plate. Place this on top of the pieces from the previous step, centered horizontally and even with the front and back edges.
- 4. Find a light blue 1x2 plate and two light blue 2x2 angled corner plates. Place a corner plate to the left of the previous piece, even with the front of the build and with the studs arranged in the shape of a Braille letter D. Place the other symmetrically behind the previous piece. The left studs of these two pieces should overhang by one stud. Place the 1x2 plate vertically long at the right end of the build, vertically centered.
- 5. Find a tan 2x3 plate and a dark blue 2x2 inverted slope. Place the inverted slope on the previous piece, sloping up to the right. Place the 2x3 plate to the left of the previous piece, horizontally long and centered vertically.
- 6. Find two dark blue 1x2 inverted slopes and two dark blue 1x4 slopes. Place a 1x4 slope horizontally long in the front row, sloping up to the right, with the left edge on the far left stud in the front row. Place an inverted slope to the right so there is a row of three studs on top of these two slopes. Repeat these two pieces on the back row.
- 7. Find two light blue 1x2 plates. Place one plate horizontally long on the left two studs of both sets of slopes from the previous step. There should be a column of four exposed studs to the right of these pieces, with another column of two exposed studs at the right end.

- 8. Find two light blue 2x2 angled corner plates. Place these next to each other, front to back, so they cover the exposed studs from the previous step. The studs of the back piece should form a Braille letter H, and the studs of the front piece should form a Braille letter F.
- 9. Find a tan 1x2 brick with an up and down log pattern. Place this one stud from the right end of the build, vertically long and centered vertically. It should be on the left studs of the previous pieces.
- 10. Find a light gray 2x2x2 tall slope. Place this to the left of the previous piece, centered vertically, sloping up to the right. Its top studs should be even with the studs from the previous piece.
- 11. Find a black 1x2 tile with a sloping handlebar, and a dark blue 1x2 plate with two side studs hanging down. Place the tile with a handle to the left of the previous piece, sloping up to the right. Place the plate with side studs all the way at the left end, vertically long and centered vertically, and with the side studs pointing to the left. You should have one transparent red 1x1 circular plate, and a light gray 1x2 slope tile with an instrument panel printed on it left over.

- 12. Find a dark blue 1x2 slope tile and the light gray 1x2 slope tile with an instrument panel left over from the previous step.. Place the dark blue slope tile onto the side studs on the previous piece, sloping up to the left. Place the instrument panel tile on the upwards facing studs on the previous piece, sloping down to the right.
- 13. Find two dark gray 2x2 angled corner bricks. Place these on the right end of the build, angling in towards the right. They should fit evenly with the angled corner plates from step 8.
- 14. Find two dark gray 1x2 bricks with a row of 2 studs on one long side. Place one horizontally long, with the side studs at the front, to the left of the previous piece at the front of the build. Place the other symmetrically at the back with the side studs at the back.
- 15. Find a tan 2x3 plate and two light blue 1x3 tiles. Place the 2x3 plate horizontally long, centered vertically, at the right of the build without overhanging. Place the tiles to the front and back of the previous piece, offset one stud to the left so they cover the top studs from the piece from the previous step.
- 16. Find a transparent red 1x1 plate and a transparent green 1x1 plate. Place the transparent red plate on the left side stud on the front of the helicopter, and the green one symmetrically at the back.
- 17. Find a white 1x2 plate with rounded ends and place it on the third column of studs from the right. vertically long, centered vertically. This should be on top of the tan plate from step 15, and there should be a 2x2 set of exposed studs to the right.

Open group 7

Now we're going to build the tail of the helicopter! So set the main body aside for now.

- 18. Find a white 1x2 tile with an upwards pointing triangular tail fin, a white 1x2 plate with rounded ends, a white Technic 2L axle with a pin combo, two light gray 1x2 plates with an attached 12L bar, two black straight bar connectors with a perpendicular axle hole, and a black 5L diameter three bladed propeller.
- 18.1. Place a 1x2 plate with a 12L bar horizontally long in front of you. Connect the white 1x2 rounded plate to the bottom of the single stud at the right of the bar, vertically long and underhanging one stud to the back.
- 18.2. Place the other 1x2 plate with a 12L bar onto the previous piece, in the same orientation as the 1x2 plate with a 12L bar from the previous step, so there is a 2x2 square of study at the left.

- 18.3. Hold the axle/pin combo in front of you so the axle extends to the back. Place the axle hole of a bar connector on the axle, and slide the axle next to the pin. Place the other bar connector next to the first in the same configuration. Connect the two bar connectors to the right ends of the two 1x2 plates with 12L bars, with the pin from the axle/pin combo at the front.
- 18.4. Place the 1x2 tail fin tile onto the 1x2 column of studs at the right of the bars, with the fin at the right and sloping up to the right.
- 18.5. Place the black 3-bladed propeller onto the pin at the front of the tail.

Place the main helicopter assembly in front of you, with the taller end at the right, and the bottom pins at the front and back. With the propeller at the far right, attach the far left 2x2 of studs of the tail assembly to the top right 2x2 of studs of the helicopter body.

- 19. Find two black 1x2 plates with a small jet engine. Find the 2x3 of studs on the top middle of the helicopter, just to the left of the two long bars for the tail. Place one engine, horizontally long, on the left two studs in the front row with the engine at the front. Place the other engine symmetrically behind the first.
- 20. Find a black 2L pin, a light gray wheel without a tire, and a 1x2 brick with a pin-hole and an overhanging 1x2 plate. Place the pin into the pin-hole, and place the wheel onto the pin. With the wheel at the right, place the overhanging plate onto the right column of studs on the previous two pieces. The top of the helicopter should now look like a staircase, with three columns of 2 studs, each column stepping up by one plate from left to right.
- 21. Find a white 1x2 plate with rounded corners, and place it vertically to the left of the previous piece so that at the top there is now a 2x2 square of studs on the left, and a 1x2 column one plate higher to the right of it.
- 22. Find two light gray 1x2 plates with a vertical clip on the long end. Place these next to each other in the 2x2 square at the top, with the clips pointing to the left. The top of the helicopter should be a horizontally long 2x3 again.
- 23. Find a light gray 2x2 tile with an upwards pin. Place this on top of the previous pieces.
- 24. Find two light blue triangular flags with clips. Clip one on the front bar of the tail assembly, sloping back to the right, centered horizontally on the bar and making sure there is enough space for the tail propeller to spin freely. Align them parallel to the ground. Place the other flag symmetrically behind it on the back tail bar.
- 25. Find a transparent blue canopy piece with a handlebar. Clip the handlebar into the two left facing clips from step 22, with the canopy concave down. It can pivot open and closed! Close it by hinging it all the way down to the left.

Open group 8

Now it's time to finish the helicopter by building the rotor so it can get off the ground!

26. Find two black 1x8 tiles and a black 5x5 rotor base, which is shaped like an x and has an up and down pin hole in the middle. Clip the rotor base onto the pin on the very top of the helicopter. Place one 1x8 tile on one of the 4 legs of the rotor base so that it overhangs by six studs. Place the other tile on the opposite side of the rotor base so it also overhangs by six studs.

Since we're on a ship, the helicopter will need floats to land in the water!

- 27. Find four orange 2x2 circular bricks with holes on the side, two orange 2x2 dome bottoms, four light gray 1L pins, two orange 2x2 cones, four 2x2 circular bricks, and two black 2x2 circular plates.
- 27.1. Place one 2x2 circular brick with holes on the side in front of you with a hole at the left. Place a pin in the hole, with the stud side at the left. The rest of the pin should go all the way into the hole.
- 27.2. Place a 2x2 circular brick on top of the previous brick.
- 27.3. Place a 2x2 circular plate on top of the previous piece, and place a 2x2 circular brick on top of the plate.
- 27.4. Place a 2x2 circular brick with holes on the previous piece, with a hole at the left. Place a pin in the hole, with the stud side at the left. The rest of the pin should go all the way into the hole.
- 27.5. Place a 2x2 cone on top of the previous piece.
- 27.6. Place a 2x2 dome bottom on the bottom of the first piece of the float. The float should now be round at one end, and come to a point at the other.

Repeat steps 27.1-27.6 to make the other float!

Put one float on the front of the helicopter, attaching the holes from the circular bricks with holes to the pins at the bottom of the helicopter body. With the canopy on the left and the tail on the right, the domed portion of the float should be at the left. Repeat this for the back float.

Now the helicopter is complete! We can start on the ship!

Open Bag 4

Minifigure group 6

1. Assemble the researcher by placing the torso on the legs, a fur collar on the torso, the head on the torso, and the hair on top. The male researcher has a brown beard, brown spikey hair, and holds binoculars.

Minifigure group 7

2. Assemble the researcher by placing the torso on the legs, the head on the torso, and the hair on top. The female researcher has long brown hair spilling out of a beanie, and holds a radio.

- 1. Place the 50x20x7 ship bow piece in front of you, with the pointed end at the left. The hull of the ship is dark blue, and the decks are light gray. The far left of the ship is a raised triangle which forms the forecastle of the ship. The forecastle has a recessed 8x8 section at the right, this is the crew quarters on the ship!
- 2. There is a sticker on the front side of the hull, at the top right of the forecastle. It has the number 60368, which is the LEGO set number. Now find a tan 1x6 brick, and place it horizontally long on the back row of studs in the crew quarters.
- 3. Find a tan 2x8 brick, a black 1x1 brick, and a transparent yellow 1x1 round brick. Place the 2x8 brick horizontally long in front of the previous piece, all the way against the left wall of the crew quarters. Place the 1x1 brick on top of the 1x6 from the previous step, all the way at the left. Place the round brick on top of the previous piece.

- 4-5. Repeat the previous two steps symmetrically on the front side of the crew quarters. Rotate the ship 90 degrees so the forecastle is on the right, there is a sticker with the set number on this side of the forecastle too!
- 6. Rotate the ship 90 degrees so the forecastle is at the back. Find a black 2x6 plate and place it horizontally long across the back two columns on the two 2x8 bricks. It should leave a 2x2 gap under the middle of the 2x6 plate. The 2x8 plates should each have 6 rows of exposed studs. Next we're going to make those exposed studs into two beds for the crew!
- 7. Find two red 1x2 slope tiles, two red 2x2 tiles with only two studs, and two red 2x3 tiles. Place a tile slope on the back row of the right bed, sloping up towards the back. Place a 2x3 tile vertically long in front of the previous piece. Place the tile with two studs in front of the previous piece, with the row of two tiles at the front. The last piece should be even with the front end of the bed. Repeat these three pieces for the other bed.
- 8. Find a silver coffee mug and place it on the back row of the 2x6 plate at the back of the crew quarters, on the second stud from the right.
- 9. Rotate the ship 90 degrees so the forecastle is at the right. Find two light gray 1x8 plates. Place one horizontally long on the studs at the back corners of the crew quarters. When placed, this should be even with the top of the forecastle's deck. Place the other plate symmetrically over the front corners.
- 10. Find two white 1x4 panels with two window cut outs each, and four transparent window glasses. Place a window glass in each window cut out. Place one window panel on the four left studs of the front 1x8 plate from the previous step, with the flat part of the panel at the front. Place the other panel symmetrically on the back plate.
- 11. Find a white 5x8x2 angled windscreen. Place this to the right of the previous two pieces, centered vertically on the ship, and sloping down to the right. The studs at the top left should be in line with the studs on top of the previous pieces and form a 1x5 row of studs.
- 12. Find two light blue 1x1 tiles and three light blue 1x4 tiles with a stud at each end. Place a 1x1 tile on the left stud of each window panel from step 10. Place a 1x4 tile with two studs horizontally long to the right of each 1x1 tile. Find the vertical row of studs on the top right of the windscreen piece from the previous step, and place the last 1x4 tiles with two studs vertically long on top of it.

Group 10

To the left of the forecastle, there is a 32x12 rectangular deck, recessed by 3 brick heights. We'll start building there now! This will house things like the bathroom, workstations, and the galley where the crew eat!

- 13. We'll start by building the ship's bathroom. Find a dark gray 2x4 brick and a white 1x2x3 tall brick. Place the tall brick vertically long in the back right corner of the recessed deck. Place the 2x4 brick to the left of it, horizontally long.
- 14. Find a light gray 1x2 semi-circular tile, a light gray 1x2 plate, and a white 1x1 round brick. Place the round brick on the back right stud of the previous piece. This is a roll of toilet paper! Place the 1x2 plate horizontally long, directly to the left of the previous piece. Place the semi-circular tile horizontally long, in front of the previous piece with the rounded end at the front. The last two pieces make the rounded lid of the toilet!

- 15. Find two white 1x4x3 tall bricks, a white 1x10 brick, and a white 1x1 brick. Place a tall brick, vertically long on top of the tall brick from the previous step so that the front edges align. The back two studs on this brick should be attached to the deck of the ship. Place the other tall brick horizontally long, directly to the left of the back stud of the previous piece. Place the 1x10 brick horizontally long, directly to the left of the previous piece. Place the 1x1 brick directly in front of the right stud of the previous piece. The 1x1 should be on the row of studs right behind the recessed area, and there should be four exposed studs to the right of it.
- 16. Find two white 2x2 corner bricks. Stack them on top of each other and place them, oriented like a Braille letter D, on top of the last two pieces from the previous step, all the way at the right against the second 1x4x3 tall brick from the previous step.
- 17. Find two white 1x2x3 tall bricks. Stack these and place them vertically long in front of the previous piece. This means they should be placed into the recessed deck, directly to the left of the 2x4 which forms the toilet. Their top studs should be even with the tallest studs from the previous two steps.
- 18. Now we'll add a bit of privacy! Find a white 1x6x6 door frame, two white doors, and two dark gray 1x1 round plates. Place the door frame in front of you, horizontally long, with the studs on top. The far left and right studs on top of the door aren't perfectly circular: they have a small hole cut out of them at the front or the back. These doors attach into the frame directly below these holes, rotate the door so they are at the front. Attach the doors into the frame and attach a round plate to the stud at the front of each door. Now place the door in front of the toilet, all the way against the right edge of the recessed deck. The left edge of the door frame should be aligned with the walls of the bathroom. Check to make sure the doors open to the front.
- 19. Find a light blue 1x6 tile, a dark gray 1x2 tile, and a dark gray 1x2 plate with a ladder hanging off one side. Place the 1x2 tile vertically long, on the far right stud of the door frame, overhanging to the back so it attaches to the right wall of the bathroom. Place the 1x2 plate with a ladder vertically long, behind the previous piece, with the ladder overhanging to the right. Place the 1x6 tile horizontally long behind the previous piece, aligned with the right edge. There should be one exposed stud on the wall to the left of the 1x6 tile.
- 20. Find two dark gray 1x4 tiles. Place one vertically long, in front of the far left of the previous piece, on top of the left bathroom wall. Place the other 1x4 tile horizontally long on the four exposed studs on top of the bathroom door. Now the bathroom is complete! Well, except for a roof, but we'll get to that later.

- 21. Rotate the ship 90 degrees so the forecastle is at the back. Find a white 1x1x3 tall brick, and a white 1x2x3 tall brick. Place the 1x2 tall brick horizontally long in the back right corner of the recessed deck. Place the 1x1 tall brick directly to the left of the previous piece.
- 22. Find a white 1x1x3 tall brick and a white 1x4x3 tall brick. Place the 1x1 tall brick on top of the previous piece. Place a 1x4 tall brick horizontally long to the right of the previous piece. The right two studs on this brick should be attached to the deck of the ship.
- 23. Find a dark gray 1x2 grille tile and two dark gray 1x4 bricks. Place a 1x4 brick horizontally long, in front of the tall bricks from the previous two steps, all the way up against the right edge of the recessed deck. There should be 5 exposed studs to the left of this stud until you find the bathroom door. Place the grille tile vertically long, directly in front of the left stud of the previous piece. Place the second 1x4 brick horizontally long, in front of the previous piece, all the way up against the right edge of the recessed deck.
- 24. Now we're going to build a research tank! Set the ship aside for now. Find a light brown 2x2 tile with a single stud on top, and a light blue 4x4 plate. Place the 4x4 plate in front of you and place the tile on the previous piece, centered vertically and horizontally.

- 25. Find a clear 2x4x2 vertical windscreen. Place this horizontally long, on the back of the plate from the previous step so that it the smooth side is at the back, and extends halfway down the left and right side.
- 26. Find two clear 1x2x2 panels. Place one directly in front of the left side of the previous piece, vertically long, and concave right. Place the other symmetrically on the right side. There should be two exposed studs left at the front of the plate from step 24, between these two panels.
- 27. Find a red crab, and place it onto the tile with a single stud in the center of the research tank.
- 28. Find a brown 1x2 slope brick, and a light blue 1x1 round tile with vertical ribs. Place the round tile (which represents an anemone, or coral, or perhaps some other sea life), onto the slope. Place the slope horizontally long, sloping up to the right, onto the two remaining studs from the plate in step 24.
- 29. Find a black 4x4 plate with a 2x2 cut-out of the middle. Place this on top of the research tank!
- 30. Place the ship back in front of you, with the forecastle to the left. Place the research tank onto the two 1x4 bricks at the back left of the recessed deck, with the open part of the tank at the back so it is covered by the wall.
- 31. Find a white 1x4x3 tall brick, a white 1x10 brick, and a white 1x2 brick with a horizontal clip on one side. Place the tall brick horizontally long, behind the tank, skipping one stud. The back of this piece should align with the back of the tall brick to its left. Place the 1x10 brick horizontally long, directly to the right of the previous piece. Place the brick with a clip horizontally long, with the clip at the front, directly in front of the left two studs of the previous piece. The clip should overhang the recessed deck just to the right of the tank.
- 32. Find a white 1x2x2 tall slope. Place this over the previous two pieces, sloping up to the back.
- 33. Find a dark gray 1x2 tile, a dark gray 1x2 plate with a ladder hanging off one side, and a light blue 1x6 tile. Place the 1x6 tile horizontally long, with its right stud on the left stud of the previous piece. Its left end should align with the left end of a tall brick at the back of the ship. Place the ladder plate directly in front of the previous piece, with the ladder hanging off to the left. Place the 1x2 tile vertically long, directly in front of the previous piece.

Open Bags 5 and 6, get out a light blue 10x10 octagon plate, and two light blue 8x16 bases.

Open group 12. The 1x1 circular tile with a specimen pattern is attached to one of the 2x4 bricks so you can tell it apart from the orange 1x1 circular tiles we'll use later.

- 34. We're going to build a microscope desk! Find two transparent orange 1x1 circular tiles, a clear 1x1 circular tile with a specimen print, two teal 1x1 plates with a single stud, two transparent blue 1x1 round bricks, and a dark gray 2x4 brick. Place the brick horizontally long in front of you. Place a 1x2 plate with a single stud in the back row, horizontally long, and centered horizontally. Place the other directly in front of the previous piece, also horizontally long, and centered horizontally. These two plates form the base of the microscope! Place the circular tile with a specimen pattern onto the previous piece. Place a transparent orange circular tile onto each of the round bricks, and place one of these assemblies onto each of the studs in the left column of the 2x4 brick. Place the desk horizontally long, to the right of the research tank, all the way against the back wall of the recessed deck, with the round bricks at the left.
- 35. Find a dark blue 2x4 chair, and a light gray syringe. Place the syringe into the overhanging clip from step 31. Place the chair directly in front of the microscope desk, centered horizontally on the desk, with the chair facing the desk.

- 36. Now we'll build the microscope itself! Find a light gray 1x1 circular tile with an upwards bar, a light gray pair of binoculars, a teal 1x1 brick with one side stud, and a 1x2 curved slope with a recessed top stud. Place the brick with a side stud in front of you with the side stud at the right. Place the round tile with a bar onto the side stud of the previous piece. Place the curved slope on top, with the plate at the front, overhanging one stud to the front. Place the binoculars onto the recessed stud, with the thicker cylinders at the front. Now, place this onto the back middle stud on the microscope desk, with the binoculars at the front. This should be even with the back wall, just to the right of the syringe.
- 37. Find four white 1x4 panels with two window cut outs each, and eight transparent window glasses. Place a window glass in each window cut out. Locate the 1x10 brick (from step 15) that is in front of the recessed deck, it should have eight exposed studs on it. Place two window panels horizontally long onto the exposed studs, with the flat side of the panel at the front. Place the other two window panels symmetrically on the back 1x10 brick.
- 38. Find two light blue 1x6 tiles. Place one horizontally long, on top of the front window panels, leaving three exposed studs on the right end. It should be up against another 1x6 tile to the left. Place the other 1x6 tile symmetrically on the back windows. You should have a clear 1x1 brick and two black 1x2 plates left over after this group.

Open group 13.

- 39. Now we'll build the controls for the ROV! First, rotate the ship 90 degrees so that the bow is pointed to the right. Find a dark gray 2x4 brick, a black 1x2 tile with keyboard pattern, and two red 1x1 round tiles with an upward bar. Place the 2x4 brick horizontally long, directly to the left of the bathroom door, against the back wall of the recessed deck. Place the 1x2 keyboard tile horizontally long, centered horizontally, on the front row of the previous piece. Place a round tile on each side of the keyboard piece, left and right. The upwards bars on these tiles are the controls for the ROV, so the pilot can operate it from inside the boat!
- 40. Find a light gray 1x4 brick with a row of studs on one side, and a black 2x4 tile. The 2x4 tile is the viewing display, and it has a sticker showing a view out the front of the ROV, with one grabbing arm on each side of the view, and a treasure chest in the middle! Place the tile horizontally long onto the side studs of the brick. Place this assembly on the back wall of the recessed deck, directly behind the pieces from the previous step. The screen should hang about 1 brick height above the controls.
- 41. Find a black 1x2x2 tall brick, a black 1x12 brick, and a white 1x3 brick. Place the 1x3 brick horizontally long, directly to the left of the computer from step 39, against the back wall. Place the 1x2x2 tall brick horizontally long, directly to the left of the previous piece. Place the 1x12 brick vertically long directly to the left of the previous piece. It should go completely across the recessed deck. This brick will be the back wall of the ship's interior.
- 42. Find a dark blue 2x2 chair and a silver coffee cup. Place the chair directly in front of the keyboard tile on the ROV controls, with the back of the chair at the front of the build. Place the coffee cup onto the right stud of the tall brick from the previous step. The tall brick is going to be the coffee maker for the ship!
- 43. Find two silver 1x1 plates with a horizontal triangle on one side, two black 1x2 plates, a brown 1x1 brick, and a clear 1x1 brick.
- 43.1. Place a 1x2 plate in front of you horizontally long.
- 43.2. Place two 1x1 plates with triangles onto the previous piece, with the triangles at the front.
- 43.3. Place a brown brick onto the left previous piece, and the clear brick on the other.

- 43.4. Place a 1x2 plate on top of both bricks. Place this assembly horizontally long, on the back wall of the recessed area, so the triangles are at the front and the right triangle is over the coffee cup from the previous step.
- 44. Rotate the ship 180 degrees, so the bow points towards the back. Find a dark blue 2x4 brick and two dark blue 2x2 chairs. Place the 2x4 brick vertically long, centered horizontally, directly behind the 1x12 brick going across the recessed deck. Place a chair on either side of the previous piece, with the backs away from the previous piece, and centered vertically on the previous piece.
- 45. Find two white 2x3 bricks. Place one vertically long, on the left wall of the recessed deck, directly in front of the coffee machine. Place the other symmetrically on the right side of the ship.
- 46. Find two 1x1x3 tall bricks. Place one on top of the 1x12 brick going across the recessed deck, all the way at the left next to the wall of the recessed deck. Place the other all the way at the right end.
- 47. Find two white 1x2 plates and two white 1x3 bricks. Place one brick horizontally long, on top of the left brick from the previous step, and aligned with the right side. Its left end should be on the left 2x3 brick from step 45. Place a 1x2 plate vertically long in front of the left stud of the previous piece. Repeat these two pieces symmetrically on the right side of the ship.
- 48. Find two white 1x3x4 doors, one left and one right. The front of the doors is flat, with a door handle protruding from one end. With the front facing you and the stud on top, the left door has the handle at the right. Place the left door to the right of the previous piece on the 1x12 brick going across the recessed deck, with the stud on the left so that it opens towards the front. Place the right door symmetrically on the right side of the 1x12 brick. With the doors closed, there should be four exposed studs between the two doors.
- 49. Find a white 1x4x3 tall brick and two white 2x2 inverted slopes. The tall brick has a sticker on one side, showing a globe with orange dots near the north pole, and a map showing a view of an ice sheet with an orange polygon around a section of the map.
- 49.1. Place the tall brick in front of you, horizontally long, with the sticker at the front.
- 49.2. This step tells you to place the sticker and can be skipped.
- 49.3. Place an inverted slope on the two left studs on the previous piece, with the flat end aligned with the front of the previous piece. Place the other inverted slope to the right so all studs on the tall brick are covered.
- 49.4. Rotate the assembly 180 degrees so the flat side and the sticker are on the back. Keeping this orientation, place it on the ship, between the two doors on the 1x12 brick. The triangular portion of the slope should point to the front.
- 50. Find a white 1x16 brick. Place this horizontally long, centered horizontally, on the back row of the previous piece. It should also attach to the doors and the 1x3 bricks from step 47.
- 51. Find two light blue 1x6 tiles and two 1x4 tiles with a stud at each end. Place a 1x4 tile with studs at the ends vertically long, onto the left stud of the previous piece, extending back by three studs. It should be aligned with the existing 1x6 tile. Place a 1x6 tile to the right of the front stud of the previous piece, horizontally long. Repeat these two pieces symmetrically on the right side of the ship. There should be a two stud gap between the tiles.
- 52. Find a light gray 1x2 brick with a horizontal handlebar, and two light gray 1x1 bricks with vertical bars. Place the 1x2 brick horizontally long, in front of the gap between the previous pieces, with the handlebar at the front. It should be placed onto the triangular portion of the slopes from step 49.4. Place the 1x1 bricks to the left and right of the previous piece, with their vertical bars at the front.

- 53. Find two light gray 2x2 corner tiles shaped like Ls. Place these next to each other, on the pieces from the previous steps, Place the right tile oriented like a Braille letter H, and the left one mirrored directly to the left. The studs on the pieces from the previous step, and the studs on the gap from step 51 should be completely covered.
- 54. Find a light gray 7x3 ladder with clips at the end. Attach the clips to the horizontal handlebar from step 52. Rotate the ladder down at the front so it touches the recessed deck. The top of the ship should now be mostly tiles making two rectangles: a 16x16 square at the front where the bridge will sit, and a 8x7 rectangle with angled corners where the helicopter landing pad will go! The platform for the helicopter pad is raised by one plate thickness.

Now we are going to make the removable bridge of the ship! This is where the crew control the ship from. Set the ship aside for now.

- 55. Find a light blue 8x16 base and a black 2x2 short brick with horizontal grooves all around. Place the base horizontally long, in front of you. Place the 2x2 brick with grooves centered horizontally and aligned with the back end. There should be a 1x4 recessed row one stud to the left and right of the back row of the brick with grooves.
- 56. Find a white 2x6 brick, and two white 3x3 angled corner bricks. Place the 2x6 brick horizontally long, centered horizontally on the base, directly in front of the previous piece. Place an angled corner brick to the left of the previous piece, with the corner in the back right and the front of the corner brick is aligned with the previous piece. It should slope back to the left, and the back should be even with the recessed row mentioned in the previous step. Place the other angled corner brick symmetrically on the right side of the base.
- 57. Find a white 1x2 brick and two white 3x3 angled corner bricks. Place an angled corner brick in front of the 2x6 brick from the previous step, with the corner in the back right, and offset one stud to the left. Symmetrically place the other angled corner brick on the right side of the base. There should be two exposed studs between these angled pieces. Place the 1x2 brick horizontally long between the front studs of the two previous pieces. There should be one exposed row of studs at the front of this piece on the base, and a 2x2 of exposed studs behind it.
- 58. Find two dark gray 1x2 grille tiles, and two light blue 2x2 angled corner plates. Find the two 1x4 recessed rows at the front of the base. Place a grill tile horizontally long on the left two studs of the left recessed row. Place an angled corner plate to the right of the previous piece in the recessed row, with its studs oriented like a Braille letter F. It should overhang one stud to the front. Repeat these steps symmetrically on the right front recessed row. When you are done with this group you should have a 2x2 slope with a radar screen print left over.

Group 15

- 59. Rotate the base 90 degrees so the overhanging studs from the previous pieces are at the right. Find a white 1x2 brick, a white 2x2 slope brick with a radar print, and a white 2x2 slope brick with a computer print. Place the radar slope on the back two rows of the 2x6 brick from step 56, sloping down to the left. Place the 1x2 brick vertically long, directly in front of the right column of the previous piece. Place the computer slope directly in front of the previous piece, sloping down to the left. The studs on all three of these pieces should form a vertical 1x6 row.
- 60. Find a black 1x6 plate and a gold 1x1 circular tile with a compass pattern. Place the plate vertically long, on the studs of the previous step. Place the compass on the previous piece, on the third stud from the front, so there are two exposed studs at the front.

- 61. Find a dark blue 2x2 chair and a white 1x2 tile with a steering wheel. Place the steering wheel in the recessed area between the left ends of the two slopes from step 59, with the wheel pointing towards the left. Place the chair to the left of the previous piece, with the back at the left.
- 62. Find a white 5x8x2 angled windscreen. The front of the windscreen has an explorer's logo on it! This logo is the earth, surrounded by a circle with the four points of the compass on it! Place the windscreen centered vertically, sloping down to the right, with the right end one stud from the end of the base. It should be on top of, and aligned with, the angled corner plates from step 57. The left side of the windscreen should be even with the left end of the computer slopes and the base of the windscreen.
- 63. The assembly you've created so far is the front of the bridge. Now we'll start on the back! Find a light blue 8x16 base, two light blue 2x4 plates, and two light blue 1x4 tiles with a stud at each end.
- 63.1. Place the base horizontally long in front of you. Place a 1x4 tile with studs at the ends horizontally long, into each of the recessed rows at the back of the base.
- 63.2. Place a 2x4 plate horizontally long into each of the recessed rows at the front of the base, so they overhang one stud to the front. Rotate the base so that the 2x4 plates are at the right. Connect this to the bridge by attaching the overhanging 2x4 plates to the recessed rows at the left of the 8x16 base we worked on in steps 55-62.
- 64. Find four black 1x2 tiles with a sloping handlebar on top. Place one horizontally long in each corner of the bridge. The ones on the front row should slope down to the back, and the ones on the back row should slope down to the front.
- 65. Find a tan 1x6 brick, a white 2x6 brick, and a 3x3 angled corner brick. Place the 2x6 brick horizontally long, in the third and fourth rows from the front, with its left end on the fourth column. Its right end should be even with an angled corner brick. Place the 1x6 brick horizontally long, directly behind the previous piece. Place the 3x3 angled corner brick to the left of the two previous pieces, with its front and back aligned with the previous pieces, and its corner in the back right so it slopes back to the left.
- 66. Find a black 2x2 triangle tile, and a black 2x2 tile with a single stud on top. Place the 2x2 tile with a single stud on the right column of studs of the 2x6 from the previous steps, so it extends by one column of studs onto an angled corner brick. Place the triangle brick to the right of the previous piece, sloping back to the right, so that it's aligned with the angled corner brick it's on.
- 67. Find a white ring with a single stud, a black 3x3 plate, a black 3x3 angled corner plate, and a black 1x2 plate. Place the stud of the ring onto the tile with a single stud from the previous step, with the ring extending to the front right. This is a flotation ring, to throw to people who have fallen overboard! Place the 3x3 plate directly to the left of the tile with a single stud from the previous step. Place the 1x2 plate horizontally long, directly to the left of the front row of studs of the previous piece. Place the angled corner plate directly to the left of the previous piece. It should be on top of an angled corner brick, align it with this brick.
- 68. Find two white 1x2 angled corner tiles, a white 1x4 tile, and a 1x2x2 tall brick. Place an angled corner tile on the previous piece, all the way at the back left, sloping back to the left. Its angle should match that of the plate below it. Place the tile horizontally long, in front, and to the right of the previous piece. Its back left corner should touch the front right corner of the previous piece. Place the other angled corner tile behind, and to the right of the previous piece, sloping back to the right. Its front left corner should touch the back right corner of the previous piece. Place the tall brick horizontally long to the right of the back row of the previous piece. It should be directly behind the tile holding flotation ring, and it should be up against the windscreen.

69. Rotate the model 180 degrees so the windscreen is now at the left. Find a white 2x2 slope brick with a computer print and two transparent blue 1x2 slope bricks. There is a 2x2 recessed square directly in front of the 1x4 tile from the previous step. Place the computer slope in the recess, sloping down to the front. Place the transparent slopes to the left and right of the computer, sloping down to the front.

Open group 16

- 70. Now we're going to start on the bridge windows! The starboard window will be the first we make. In nautical terms, the starboard is right, and the port is left! Set the bridge aside for right now. Find two light gray 1x2 slopes with a square cutout and a tile on top, two white 2x2 angled corner tiles, two white 1x1 bricks with a horizontal clip on one side, one 1x4 tile, two 3x3 angled corner bricks with a stepped cutout, one transparent blue 5x8x2 angled windscreen, and one dark gray 1x2 brick with rounded ends, and upwards bars in the middle. The last piece looks like two 1x2 plates with rounded ends stacked one above the other, with bars in between where the studs from the bottom piece would be.
- 70.1. Place the angled windscreen in front of you, sloping down towards the back. Place an angled corner brick on top of the windscreen, sloping back to the right, placing it on the front left stud and the back left stud of the windscreen. Place the other corner plate symmetrically on the right side. There should be two exposed studs between the back studs of the angled corners, and the angles of the corner pieces should match the angles of the windscreen.
- 70.2. Place the two bricks with clips on the studs between the previous two pieces, with the clips pointing towards the front.
- 70.3. Place the 1x4 tile horizontally long, on top of the previous pieces, centered horizontally. It should use all four studs in the back row of the windscreen. Place a corner tile to the left, and in front of the previous piece, with its angle matching that of the angled corner brick below it. Place the other corner tile symmetrically on the right side. There should be no exposed studs now.
- 70.4. Keeping the windshield at the back, rotate the assembly you just created 180 degrees, so that the tiles you just placed are at the bottom. Place 1x2 brick with rounded ends horizontally long in front of you. Place a 1x2 slope with a cut out on the left stud, sloping down to the left, and another one on the right stud, sloping down to the right. Using the bars in the middle of the 1x2 brick with rounded ends, attach this piece to the forward facing clips from step 70.2, with the slopes on top. Now the studs on this piece are inverted from the studs on the rest of the assembly! That's important because we're going to put the window on "upside down" so it hangs OUT from the ship. Keeping the tiles from step 70.3 down, rotate the assembly 90 degrees so that the windscreen is on the right. Put the bridge in front of you, with the windscreen at the back. Attach the bridge window by placing the brick with rounded edges on top of the computer slope from step 69. The slopes next to the brick with rounded edges should connect onto the transparent slopes next to the computer!

- 71. Find a black 2x6 plate. Place it horizontally long, centered horizontally, on the front two rows of studs on the bridge base. It should touch the bridge wall on the right, and there should be four exposed studs to the left of it.
- 72. Rotate the bridge 90 degrees so the bridge window is at the back. Find a tan 1x6 brick, a white 2x6 brick, and a 3x3 angled corner brick. Place the 2x6 brick horizontally long, in the third and fourth rows from the front, with its right end on the fourth column from the right. Its left end should be even with an angled corner brick. Place the 1x6 brick horizontally long, directly behind the previous piece. Place the 3x3 angled corner brick to the right of the two previous pieces, with its front and back aligned with the previous pieces, and its corner in the back left so it slopes back to the right.

- 73. Find a black 2x2 triangle tile, and a black 2x2 tile with a single stud on top. Place the 2x2 tile with a single stud on the front two columns of studs of the 2x6 from the previous steps, so it extends by one column of studs onto an angled corner brick. Place the triangle brick to the left of the previous piece, sloping back to the left, so that it's aligned with the angled corner brick it's on.
- 74. Find a white ring with a single stud, a black 3x3 plate, a black 3x3 angled corner plate, and a black 1x2 plate. Place the stud of the ring onto the tile with a single stud from the previous step, with the ring extending to the front left. This is a flotation ring, to throw to people who have fallen overboard! Place the 3x3 plate directly to the right of the tile with a single stud from the previous step. Place the 1x2 plate horizontally long, directly to the right of the front row of studs of the previous piece. Place the angled corner plate directly to the right of the previous piece. It should be on top of an angled corner brick, align it with this brick.

Note: To simplify the building process, step #77 in the instructions will be performed before steps 75 and 76. I'll renumber the steps, but I'll put the original step numbers in parentheses for any helpers following along.

75(77). Find two white 1x2 angled corner tiles, a white 1x4 tile, and a 1x2x2 tall brick. Place an angled corner tile on the previous piece, all the way at the back right, sloping back to the right. Its angle should match that of the plate below it. Place the tile horizontally long, in front, and to the left of the previous piece. Its back right corner should touch the front left corner of the previous piece. Place the other angled corner tile behind, and to the left of the previous piece, sloping back to the left. Its front right corner should touch the back left corner of the previous piece. Place the tall brick horizontally long to the left of the back row of the previous piece. It should be directly behind the tile holding flotation ring, and it should be up against the windscreen.

- 76(75). Find two light gray 1x1 bricks. Place one on the front left stud of the 2x6 plate at the right of the bridge. Place the other on the back left stud of the same 2x6 plate.
- 77(76). Find a light gray 1x2x3 slope. Place this on the previous piece, vertically long, with the slope at the back. The sloped portion should connect just to the right of the transparent slopes next to the computer slope.
- 78. Find a transparent blue 5x8x2 angled windscreen. Place this on top of the white angled windscreen at the left of the bridge. The right end of the transparent windscreen should touch the inverted bridge window at the back of the build.
- 79. Find two black 2x2 short bricks with horizontal grooves all around and two dark blue 2x2 chairs. Place a chair onto each grooved brick. Place one chair directly in front of the computer slope at the back of the build, centered in the back bridge window, with its back to the front of the build. Place the other chair in front of the first, leaving two exposed studs between them, with its back to the back of the build.
- 80. Rotate the bridge 180 degrees to the right, so the inverted bridge window is at the front. Find two transparent blue 1x2 slopes, one red megaphone, and one white 2x2 slope with a radar print. Place the radar slope behind the back left chair, sloping down to the front. There should be a horizontally long 1x4 tile directly behind the slope. Place a 1x2 slope to the left and right of the previous piece, also sloping down to the front. Place the cone bottom of the megaphone onto the stud directly to the right previous piece, with the handle sticking out at the front.

Open group 18

81. Repeat steps 70.1-70.4 to create another bridge window and attach it to the radar slope from the previous step. This is the bridge on the port side of the ship!

- 82. Rotate the bridge 90 degrees to the left so the port window you just made is at the back. Find a light gray 1x2x3 tall slope. Place the slope two studs to the left of the back chair, sloping down towards the back. The back stud should be on a 1x1 brick and the top stud should be horizontally in line with the front studs of the back chair.
- 83. Now it's time to close up the bridge! Find two white 1x3x4 doors, one left and one right. The front of the doors is flat, with a door handle protruding from one end. With the front of the door facing you and the stud on top, the left door has the handle at the right. Place the left door to the left of the previous piece, with the handle on your left, and the stud at the back, horizontally even with the top stud of the previous piece. Place the other door symmetrically in front of the first door. The two doors should be even with the left end of the bridge, and should swing out to the left.
- 84. Find two dark gray 1x2 grille tiles, a black 2x6 plate, and a light blue 1x4 tile with studs at the ends
- 84.1. Place the 2x6 plate vertically long in front of you. Place a grille tile horizontally long on the back row of studs on the previous piece.
- 84.2. Place the other grille horizontally long in the front row of the 2x6 plate. Place the 1x4 tile with studs on the ends vertically long between the last two pieces, in the left column of studs. Place this entire assembly vertically long, on top of the doors, with the 1x4 tile on the left, even with the left edge of the bridge. Its back and front rows should attach to the studs on top of the doors.
- 85. Now place the bow of the ship in front of you, with the forecastle on the right. Identify the 16x16 square on top of the ship identified in step 54. Place the bridge on top of this square, with the bridge doors at the left. The bridge should fit perfectly over top of the ship, and be easily removable! There should be two studs at the right of the bridge which extend onto the helicopter pad.

- 86. Set the bow of the ship aside for now; we're going to build the roof now!. Find a black 4x8 plate with two angled corners. Place it horizontally long in front of you, with the wide side at the back.
- 87. Find two orange 6x6 angled corner plates. Place them symmetrically on top of the previous piece, with the angles and fronts of all three pieces aligned. The back row should be twelve studs wide and the front should be four studs wide.
- 88. Keeping the roof horizontally long, rotate it 180 degrees, so the studs point down and the narrow portion is now at the back. Find a black 8x8 plate. Centered horizontally, place it directly in front of the piece from step 86.
- 89. Find two black 4x8 plates with two angled corners. Place them vertically long, symmetrically to the left and right of the previous piece, with their wide sides touching the previous piece, and the fronts of all three pieces aligned.
- 90. Flip the roof over 180 degrees, so the orange pieces from step 87 are at the back. There should only be one exposed stud to the left and right of these two large orange pieces. Find two orange 2x2 triangular tiles. Place one on the left, back stud of the left previous piece as described above, angling back to the right, so that it matches the angle of the roof. Place the other symmetrically on the right side of the roof.
- 91. Find two orange 2x6 tiles and two orange 2x2 triangular tiles. Place a 2x6 tile vertically long in front of each of the previous pieces. Place a triangular tile to the right of the left 2x6 tile, aligned with the back of the tile, with the corner at the back left. Place the other triangular tile symmetrically on the right side of the roof.

- 92. Find two orange 2x6 tiles. Place these horizontally long on the front two rows of the roof so they extend all the way across. There should be a 4x8 rectangle with its back corners angled, of exposed studs between the tiles from steps 91-92.
- 93. Find a white 2x2 slope and a 1x4 half cylinder tile. Place the slope directly behind the recessed rectangle described in the previous step, centered horizontally, with the studs in a horizontal row at the back. Place the half cylinder tile on the previous piece, horizontally long and centered horizontally. Rotate the roof 90 degrees to the right so the widest side is at the left.
- 94. Place the bow of the ship in front of you, with the forecastle on the right. Place the bridge roof on top of the bridge, centered vertically, and with the left edges aligned.
- 95. Now we'll build the helicopter pad! Find a light blue 10x10 octagonal plate, eight transparent orange 1x1 circular tiles, an orange 2x2 circular tile, and a black 1x2 tile with a sloping handlebar.
- 95.1. Place the octagonal plate in front of you. There are four sides that have a straight 1x4 row of studs on it, pick one and put that at the front. Place the 2x2 circular tile on the octagonal plate, centered vertically and horizontally.
- 95.2. Place one handlebar tile directly to the left of the circular tile, sloping down to the right. Place the other symmetrically to the right of the circular tile.
- 95.3. Place an orange circular tile on the left and right studs of the front and back rows of the octagonal plate, and on the back and front studs of the left and right columns. The round tiles should be on the eight corners of the octagon. Now put the bow of the ship in front of you, with the forecastle at the front. Place the helicopter pad on top of the helicopter pad platform, with the back row aligned with the bridge roof. It should fit neatly into the studs at the front of the bridge roof.

Open bag 7

Group 20

- 96. Rotate the ship 90 degrees to the left, so the forecastle is on the right. Find two black 1x4x2 bar fence. Place these on the far left column of the recessed deck, against the front and back walls.
- 97. Find a black 4x4 turntable base, and an orange 4x4 circular plate. Place the turntable base in between the previous two pieces, against the left wall of the recessed deck. Place the circular plate onto the previous piece. This assembly will form the base of the ship's crane, used for lifting the ROV and rubber boat in and out!
- 98. Find two white 2x8 bricks. Place one horizontally long, on the third and fourth rows of studs from the front of the ship, leaving eight exposed studs to the left. The right end should touch and be aligned with the wall of the crew quarters. Place the other 2x8 brick symmetrically at the back of the ship.
- 99. Find four white 1x16 Technic[™] bricks, and four black 2L pins.
- 99.1. Place a Technic[™] brick horizontally long in front of you. Place pins in the far left and right holes from the front.
- 99.2. Place another Technic[™] brick onto the pins to make a 2x16 brick. Repeat steps 99.1 and 99.2 to make another. Place these 2x16 bricks to the left of the 2x8 bricks from step 98. They should overhang the bow section of the ship by 8 studs to the left, and there should be 2 studs exposed in front of and behind them and the edges of the ship.

- 100. Find two light blue 2x12 plates and two light blue 2x4 plates. Place a 2x12 plate horizontally long, on each of the previous pieces, leaving eight exposed studs at the left. Place a 2x4 plate horizontally long, to the right of the previous piece.
- 101. Find two light blue 1x2 slopes, and two black 1x2 plates with a vertical clip on the short side. Place a plate with clip vertically long, in the second column from the left, at the front side of the ship, with the clip hanging over the front. Place a slope vertically long on top of the previous piece, sloping down to the front. Place the other two pieces symmetrically at the back of the ship. You should have two dark gray 2x2 tiles when you are done with this group.

Find the stern piece of the ship.

- 102. Set the bow of the ship aside for now. Find the stern of the ship, two dark gray 2x2 tiles, and a red 2x2 tile with a single stud. Place the stern section of the ship in front of you, with the curved section at the left, and the opening at the right. The opening will be a feature called a moon pool. A moon pool can be used to lower divers, ROVs or other equipment into the water, even when the water is rough! The stern also has a 8x16 recessed deck to the left of the moon pool, which has tall bricks in the corners and centered vertically. This recessed deck will be used for storing the rubber boat! Place a 2x2 tile in the recessed deck, centered vertically, against the left tall brick. Place the 2x2 tile with a stud to the right of the previous piece. Place the last 2x2 tile to the right of the previous piece.
- 103. Find two light gray 1x1 circular tiles, two yellow 2x2 dome tops, four yellow 2x2 circular bricks. Place a 2x2 circular brick against the back wall of the recessed deck, centered horizontally. Place another 2x2 circular brick on the last one, place the dome top on that piece, then top it with a circular tile. This is a tank used for filling the rubber boat with air! Make another air tank against the front wall of the recessed deck.
- 104. Find two white 2x8 bricks. Place one horizontally long, on the tall bricks at the back of the recessed deck, above the air tanks from the previous step. Place the other symmetrically at the front of the recessed deck.
- 105. Find two light blue 2x2 plates and two light blue 2x2 slopes. Place the slopes to the left of the previous pieces, sloping down to the left. Place the plates directly to the right of the slopes, on top of the 2x8 bricks from the previous step.
- 106. Find two white 2x8 bricks, and four black 2x2 short bricks with horizontal grooves all around. Place a grooved brick to the right of each of the 2x8s from step 104. Place another grooved brick to the right of each of the previous pieces. Place a 2x8 brick horizontally long, to the right of each of the previous pieces. There should be 8 exposed studs between the 2x8 bricks and the end of the ship.
- 107. Find two light blue 2x12 plates. Place one on each of the previous pieces, horizontally long, with only the right two columns attached to the previous pieces. The left end of the plate should align with the 2x2 plate from step 105.
- 108. Find two red 1x2 plates with an upward facing clip at one end. Place one vertically long, to the right of the front previous piece, with the clip next to the moon pool. Place the other symmetrically on the back of the ship.

- 109. Find four black 1x2 plates with an upwards bar on one long side, two black 2x2 plates with a 1x4 wing on one end, and four orange 2x2 tiles. Find the low walls made from two wide bricks and plates at the front of the ship. Place a 1x2 plate with a bar horizontally long, on the left studs of the low wall, with the bar hanging over the recessed deck. Place a 2x2 tile to the right of the previous piece, aligned with the wall. Place a 1x2 wing plate to the right of the previous piece, with the wing overhanging into the recessed deck. Place a 2x2 tile to the right of the previous piece, aligned with the wall. Place a 1x2 plate with a bar horizontally long, to the right of the previous piece, with the bar hanging over the recessed deck. There should be five exposed studs between this piece and the clip from the previous step. Repeat the last five pieces symmetrically on the back low wall.
- 110. Find two orange 1x2 tiles and four orange 2x2 tiles. Place a 2x2 tile to the right of the previous piece on the front wall, aligned with the wall. Place another 2x2 tile to the right of the previous piece. Place a 1x2 tile, horizontally long, to the right of the previous piece, in the front row of the low wall. Its right edge should be aligned with the clip plate from step 108. Repeat the last 3 pieces symmetrically on the back low wall. The left half of each low wall should now have three 2x2 squares of exposed studs which step up towards the centerline of the ship, with 2x2 tiles in between them.
- 111. Find six orange 2x2 curved slope tiles. Place one slope onto each of the squares of exposed studs described in the previous step, sloping down towards the outside (front & back) of the ship. The curved slopes have a stepped cut out at their high side, which should fit over the stepped portion of the 2x2 plates.
- 112. Find four red 1x1 cone bricks, four white bars with a dome on top, and four black 1x1 circular plates. Place a cone onto a circular plate, and place a bar with a dome through the top of the cone. Place this onto one of the four upward facing bars from step 109. Repeat this three more times until all the bars have a cone on them.
- 113. Now get the bow of the ship, and put it in front of you with the forecastle at the right. Find the bricks overhanging the left edge of the bow section and attach them to the right of the low wall on the stern section. They should be even with the moon pool, and they should meet right up with the low wall. The studs on the two sections of the ship should touch, though there will be a small gap between the two halves lower down.
- 114. Find two light blue 2x12 plates, and two red 1x2 plates with an upward facing clip at one end. Place the 2x12 plates onto the front and back low walls, to the right of the tiled portion at the stern. There should be a gap to the right of these plates on the low wall right where the ship halves meet. Place the clip plates into this gap, symmetrically with the clip next to the moon pool.

- 115. Find two dark gray 1x2 grille tiles and two orange 2x3 step plates. These are essentially two 2x2 plates connected by a 1x2 brick so they look kind of like a letter Z if it only had right angles. Place a step plate, vertically long, with the upper plate at the back, on the front clip plate from the previous step. Place it so the lower plate is on the main deck, with its right edge touching a 1x2 slope. It should attach to both halves of the ship and be even with the front. Place a grille plate, horizontally long, on the front two studs of the previous piece. Repeat these two pieces symmetrically over the joint at the back of the ship.
- 116. Find two light blue 1x2 slope bricks and two black 1x2 plates with a vertical clip on the short side. Place a plate with clip on the left side of the front step plate from the previous step, vertically long with the clips hanging over the side of the ship. Place a slope on the previous piece, sloping down to the front. Repeat the last two pieces on the back side of the ship.
- 117. Find two light blue 1x4 tiles with a stud at each end. Place these on the previous pieces, horizontally long, with the left edges aligned so they extend to the right.

- 118. Find two orange 1x2 tiles and six orange 2x6 tiles. Place a 2x6 tile horizontally long on the front low wall, to the right of the furthest right tile (nearly even with the left edge of the moon pool). Place another 2x6 tile horizontally long to the right of the previous piece. Its right end should touch a clip and a 1x2 plate. Skip over the plate to the right, and place another 2x6 tile, horizontally long, on the low wall. Place a 1x2 tile vertically long, to the right of the previous piece. There should be 10 exposed studs in the front row of the low wall between the tiles and the left wall of the bridge. Repeat the last five pieces on the back low wall.
- 119. Now we'll cover up the joint between the two parts of the hull! Find two dark gray 4x6 plates with two bars at one end, four dark blue 1x4 tiles, and four transparent orange 1x1 circular tiles.
- 119.1. Place a 4x6 plate in front of you, vertically long, with the bars at the front.
- 119.2. Place a 1x4 tile vertically long in the far left column, aligned with the back edge. Place a circular tile in front of the previous piece. Repeat the previous two pieces on the right side of the plate. Attach the bars of the plate to the clips extending behind the ship on either side of the joint between the two hull sections. Use the bars to hinge this down so it touches the hull of the ship. Make another assembly, and attach it symmetrically to the clips on the front side.

Open Bag 8

Open group 23. This group has two stacks of two orange 1x2x2 tall bricks. Each stack has a brick with a sticker on top of a brick without a sticker. Leave these together for now.

- 120. Find four black 1x2 tiles with a sloping handlebar and six light blue 1x6 tiles. Place a 1x6 tile horizontally long, on the front row of the ship, directly to the left of the left clip holding the assembly from the previous step. Place a tile with a handlebar to the left of the previous piece, with the flat side at the front. Place another 1x6 tile to the left of the previous piece, followed by a handlebar tile, followed by another 1x6 tile, all horizontally long. These pieces should go all the way across the front row of studs until it touches a raised wall that goes around the stern of the ship. Repeat these five pieces symmetrically at the back of the ship.
- 121. Find two black 1x2x2 tall bricks and two orange 1x8 plates. Place a tall brick horizontally long, at the right end of the front low wall, in the back row. Place a plate horizontally long to the left of the previous piece. Its left end should be touching a 1x2 tile. Repeat these two pieces symmetrically on the back low wall.
- 122. Find four light gray 1x2x2 tall bricks with four studs on one side. Place one horizontally long, with the studs at the front, on the low wall directly in front of the front tall brick from the previous step. Place another directly to the left of the previous piece in the same orientation. Place the other two pieces symmetrically on the back low wall.
- 123. Find two light gray 3L TechnicTM pins with a bushing at one end and two black 2x2x13 very tall support with side pin holes. This piece looks like a very tall letter C.
- 123.1. Place a support in front of you with the studs on the top. Find the smooth side which has five holes in it, and place that at the back. The recessed side should be at the front.
- 123.2. Find the group of three holes in the front side and place the pin with a bushing into the top of these three holes from the front. Only push it in until it is flush with the backside of the support. The pin should stick out to the front by 2L. Place this assembly into the recessed deck directly to the left of the bridge, with its back against the back wall of the recessed deck. If you put it in correctly, you should still be able to open the door to the crew quarters below the bridge. Make another support assembly, and attach it symmetrically at the front side of the ship.

- 124. Find two black 1x2 bricks with one pin hole and two light blue 2x2 bricks. Place a 2x2 brick in front of the front previous piece. The brick should be on top of the tall bricks just to the left of the bridge on the low wall. Place a brick with a hole on top of the previous piece, horizontally long in the back row. Repeat the previous two pieces symmetrically on the back low wall.
- 125. Push the pins with bushings completely through the support. They should continue through the bricks with pins from the previous step.
- 126. Find two orange 1x2 bricks. Place these horizontally long, to the left of the 2x2 bricks from the previous step, on top of the tall bricks with side studs on the low wall.
- 127. Find two black 1x2x5 tall bricks. Place these on top of the brick with pin holes from step 124. Their tops should be even with the top of the very tall supports.
- 128. Find two orange 1x4 plates and two 1x2x2 tall bricks. Place a plate horizontally long, onto the four studs in front of and below the front previous piece. Take the tall bricks without stickers off of the tall bricks with stickers. We'll use the ones without stickers first. Place a tall brick horizontally long, onto the right two studs on the previous piece. Repeat these two pieces on the back of the ship.
- 129. Find two orange 1x2x2 tall bricks with an Explorers logo sticker on one side. Place these horizontally long, directly to the left of the previous piece.
- 130. Find two orange 1x6x5 very tall slopes. Place these horizontally long, directly to the left of the previous pieces, sloping up to the right. The low wall isn't very low right here anymore! It should slope up to the right, and have a horizontal row of six studs on its outside rows, ending right at the left end of the bridge.
- 131. Find two red 1x2 plates. The very top of the ship, to the left of the bridge, should have two vertically oriented 2x3 sets of studs formed by the supports and tall bricks from steps 123 and 127. Place a red 1x2 plate horizontally long, on the back row of the front 2x3 of studs at the top of the ship. Place the other plate horizontally long, on the front row of the back 2x3 of studs at the top of the ship. When you are done with the group, you should have two transparent green 1x1 slope tiles.

- 132. Find four light gray 1x2 plates with a hinge finger on one short side, and four light gray axle connectors with two hinge fingers on one side.
- 132.1. Place a plate in front of you, horizontally long, with the finger at the left. Attach the hinge fingers of an axle connector to the finger of a plate.
- 132.2. The axle connectors can now "click" to different angles. Starting with the two pieces in a straight line and the studs up, click the axle connector up about two clicks. Attach this horizontally long, with the axle connector extending to the left, behind the previous piece at the top of the ship (on top of the back support). Repeat the axle connector, hinge plate combo and place it behind the previous piece. Repeat this again for the top of the front support. There should once again be two vertically oriented 2x3 sets of studs at the very top of the ship. Now there should be four axle connectors extending to the left, and angle upwards.
- 133. Find two black 2x3 bricks. Place these vertically long, over top of the 2x3 studs at the top of the ship.
- 134. Find two orange 1x6x5 very tall slopes. Place these horizontally long, on top of the 1x6 row on the low walls. The tops should be even with the previous pieces.

- 135. Now we're going to build the mast assembly, which contains the ship's lights, more communications equipment and radar! Place the ship aside for now. Find a white 2x16 plate and a white 2x2 tile with a T-shaped boat mast. Place the plate horizontally long in front of you. Place the mast, centered horizontally, on the previous piece. The arms of the mast should extend left and right, and the mast should slope gently back towards the front. The back of the mast should be smooth and the front should be hollow.
- 136. Find a clear 1x1 circular plate, a silver 1x1 swirl cone tile, and a white and black 1x1 antenna. Place the circular plate on top of the middle stud of the mast. Place the cone on the right stud, and the antenna on the left stud. Place the antenna so it can hinge forward and back, not side to side.
- 137. Find two transparent red 1x1 slope tiles and two transparent green 1x1 slope tiles. Place a red slope tile on the front left stud, sloping up to the back. Place the other red slope tile behind it, sloping up to the front so that the two pieces make a peak in the middle. Repeat this at the right side of the plate with the transparent green slope tiles. These represent the ship's sidelights, red is always on a ship's port side and green on starboard! At night, these indicate to other vessels which way the ship is moving to help prevent collisions!
- 138. Find two white 2x2 tiles with a single stud on top. Place one to the left of the green slopes from the previous step. Place the other symmetrically to the right of the red slopes.
- 139. Find two white 2x2 domes. Place these onto the studs of the previous pieces. Rotate the assembly 90 degrees to the right so the mast now slopes to the left. The green sidelight should be at the front.
- 140. Now put the ship back in front of you, with the forecastle at the right. Keeping the same orientation from the previous step, place the mast assembly on the very top of the ship, so that it aligns with the supports and slopes at the top of the ship. When you are done with the group, you should have two white 2x2 triangular tiles left over.

Open group 25 and group 26. Don't mix the parts together.

For the next step, let's talk about the ship's color scheme. The hull is dark gray, the main deck,and the recessed decks are light gray. Viewed from the starboard side, with the forecastle at the right the ship has three main colors in stripes. Starting at the stern the low wall is white at the bottom, with a light blue stripe above the white, and an orange stripe on top. After the moon pool, the low wall slopes sharply upwards in orange to make the mast of the ship. The orange only continues on the very roof of the bridge. Where the mast meets the bridge, the white wall and blue stripe step up to meet the level of the deck over the crew quarters. Where this step occurs, there are gray bricks with side studs! We're going to make that into a smooth transition using some triangular tiles!

- 141. Find the 2x4 set of side studs on the front of the mast. Find a white 2x2 triangular tile which we had left over from the previous group, an orange 2x2 triangular tile from group 26, and two light blue 2x2 triangular tiles from group 25. Place the white triangular tile in the bottom right corner of the side studs so that it slopes up to the right. Place a light blue triangular tile above and to the left of this piece, rotated 180 degrees. These two should make a 2x2 square. Place another light blue triangular tile to the left of the previous piece, in the same orientation as the white triangular tile. Place an orange triangular tile above and to the left of the previous piece, in the same orientation as the first light blue tile. These four tiles should make a 2x4 rectangle! The strip from the low wall now angles up and to the right to continue above the crew quarters!
- 142. Find three black 1x2 tiles with a sloping handlebar and four light blue 1x6 tiles. Place a 1x6 tile horizontally long, on the front row of the ship, directly to the left of the left edge of the forecastle wall. It should be just to the left of the sticker on the side of the ship. Place a tile with a handlebar to the left of the previous piece, with the flat side at the front. Repeat this two more times moving left along the front row of the ship. When you are done, there should be six exposed studs to the left of the leftmost handlebar tile. Place a 1x6 tile on these six studs.

143. Rotate the ship 180 degrees so the forecastle is at the left. Now we're going to symmetrically repeat step 141 to make the stripe on this side of the ship! Find the 2x4 set of side studs on the front of the mast. Find a white 2x2 triangular tile which we had left over from the previous group, an orange 2x2 triangular tile from group 26, and two light blue 2x2 triangular tiles from group 25. Place the white triangular tile in the bottom left corner of the side studs so that it slopes up to the left. Place a light blue triangular tile above and to the right of this piece, rotated 180 degrees. These two should make a 2x2 square. Place another light blue triangular tile to the right of the previous piece, in the same orientation as the white triangular tile. Place an orange triangular tile above and to the right of the previous piece, in the same orientation as the first light blue tile. These four tiles should make a 2x4 rectangle.

144. Find three black 1x2 tiles with a sloping handlebar and four light blue 1x6 tiles. Place a 1x6 tile horizontally long, on the front row of the ship, directly to the right of the right edge of the forecastle wall and to the right of the sticker. Place a tile with a handlebar to the right of the previous piece, with the flat side at the front. Repeat this two more times moving right along the front row of the ship. When you are done, there should be six exposed studs to the right of the rightmost handlebar tile. Place a 1x6 tile on these six studs.

Open Bag 9. This is the LAST BAG!!

Open group 27

145. Now we'll build the crane base! Find two white 4x4 circular bricks with holes on all four sides, a red 2x2 circular tile with a hole in the middle, and four black 2x2 curved corner tiles. These last pieces look like macaroni noodles, so I'll call them macaroni tiles from now on!

145.1. Place a 4x4 circular brick in front of you. Attach another 4x4 circular brick on top of the first.

145.2. Place the 2x2 circular tile on the previous piece, centered. Place the macaroni tiles around the tile so they make a circle on top of the circular plates. Now, place this assembly on the turntable at the right end of the recessed deck in the ship.

146. Find two black 1x5 plates with rounded ends and an axle hole in the middle, and a dark gray 2x2 curved slope with two studs and curved sides. The last piece is square, and kind of looks like a duck-bill. Place the curved slope on the right wall of the recessed deck, centered vertically, directly to the right of the crane base, with the studs in a column at the right. Place a plate with rounded ends horizontally long in front of the previous piece, overhanging three studs to the left. Place the other behind the curved slope, also overhanging three studs to the left.

147. Find two light gray 1x2 plates and a light gray 4x4 circular plate with a circular cutout, so it looks like a ring. Place the ring plate on the previous two pieces, in line with the crane base below it. It should overhang the rounded plates by one stud to the left and be touching the curved plate from the previous step on the right. Place a 1x2 plate on the exposed studs from the rounded plates from the previous step.

Open group 28

148. Find a light gray 1x2 plate with a 1x4 horizontal row of studs hanging down on one side, two light blue 1x4 tiles with a stud at each end, and two light blue macaroni tiles. Place the 1x4 tiles with end studs horizontally long on the previous pieces, even with the right end and extending left so they connect to the ring plate from the previous step. Only the studs on the left half of the ring plate should be exposed now. Place the macaroni tiles on these studs. Place the 1x2 plate with side studs between the two 1x4 tiles with end studs, vertically long, with the side studs overhanging right into the moon pool.

149. Find two white 2x4 wide slopes. Place one vertically long, on the right wall of the recessed deck, in front of the crane base, with the studs on the right column. Place the other slope behind the crane base in the same orientation.

- 150. Find a dark gray 1x12 plate. Place this vertically long over the previous pieces, centered vertically.
- 151. Find an orange 1x2 tile and two orange 1x6 tiles. Place the 1x2 tile vertically long, centered vertically on the previous piece. Place a 1x6 tile in front of, and one behind, the previous piece, vertically long. It should extend into the low wall on the front and back by one stud.
- 152. Find a yellow 5L axle. Place this oriented up and down, into the hole at the center of the crane base, and push it all the way through. You should be able to spin it, and the circular bricks at the bottom of the crane base should spin with it!
- 153. Find two white 2x4 wide slopes, two light blue 1x2 slopes, and a dark gray 2x2 curved slope with two studs and curved sides. Place a wide slope vertically long, on the right wall of the moon pool, against the low wall at the front, with the studs on the left column. Place a 1x2 slope horizontally long, behind the previous piece, also with its stud at the left. Repeat the last two pieces symmetrically at the back of the moon pool. Place the 2x2 curved slope between the columns of slopes, with its studs on the left. This should mirror the arrangement on the left end of the moon pool.
- 154. Find a light gray 1x2 plate with a 1x4 horizontal row of studs hanging down on one side. Place this on the previous piece, vertically long, with the side studs overhanging left into the moon pool.
- 155. Find a dark gray 1x12 plate. Place this vertically long over the pieces from the previous step, centered vertically.
- 156. Find an orange 1x2 tile and two orange 1x6 tiles. Place the 1x2 tile vertically long, centered vertically on the previous piece. Place a 1x6 tile in front of, and one behind, the previous piece, vertically long. It should extend into the low wall on the front and back by one stud.

- 157. Now we will build hatches to cover the moon pool! Find two dark gray 6x12 plates, four light gray 1x2 plates, eight transparent orange 1x1 circular tiles, four light gray 1x4 tiles with a diagonal stripe pattern, four black 1x5 plates with rounded ends and an axle hole in the middle, two black 1x2 tiles with a sloping handlebar, and four black 1x2 plates with a horizontal bar on one short side.
- 157.1. Place the 6x12 plate horizontally long in front of you.
- 157.2. Place a circular tile in each corner. Place a 1x4 tile vertically long in the far left and far right columns, between the circular tiles.
- 157.3. Keeping it horizontally long, flip the assembly over 180 degrees so the studs point down. Place a 1x2 plate with a bar vertically long in the front left corner, with the bar overhanging the front. Skip a stud, and place a 1x2 plate vertically long behind it. Repeat these two pieces on the right side of the assembly.
- 157.4. Place two 1x5 plates with rounded ends, vertically long, on the pieces from the previous steps, one on the left, and one on the right, aligned with the back of the 1x2 plate from the previous step.
- 157.5. Keeping it horizontally long, flip the assembly over 180 degrees so the studs point up, and the plates with a bar are at the back. Place a handlebar tile horizontally long, in the front row of the 6x12 plate, centered horizontally, and sloping down to the front. Clip the bars into the clips at the back left and right corners of the moon pool. Repeat the last 5 steps for the front hatch and clip it into the clips at the front left and right corners of the moon pool.

- 158. We're going to build the crane now, so set the ship aside. Find a light gray 15L thick lift-arm, and a tan 1L pin. Place the lift-arm horizontally long in front of you, with the smooth side up. Place the pin into the previous piece from the front, all the way at the right, so the stud is sticking out to the front.
- 159. Find two red 2L axles, a light gray 5L lift-arm, and a red axle connector with a wire guide. The last piece looks like a bushing with two flat, parallel rectangles extending from it, which form a guide for a wire or string.
- 159.1. Place the 5L lift-arm horizontally long in front of you with the smooth side up.
- 159.2. Place a 2L axle into the left and right axle holes from the back. Only push them through until they are flush with the front side.
- 159.3. Place the axle connector with a wire guide onto the right axle from the back, with the parallel rectangles pointing to the right. Now we'll connect it to the 15L lift-arm from step 158. Push the left axle on the thin liftarm into the second axle hole from the right on the 15L liftarm, so that the wire guide is at the right. The stud from the pin in the far right hole of the 15L lift-arm should click into the second hole from the left on the thin liftarm.
- 160. Place a light gray 5L thin lift-arm onto the ends of the 2L lift-arms from the previous step which extend beyond the 15L thick liftarm and wire guide.
- 161. Find a black 2x2 brick with a 14L crane arm. The arm of the crane is hollow, and can fit a lift-arm inside. With the 2x2 brick at the left and the crane arm at the right, slide it over the 15L lift-arm from the previous steps from left to right.
- 162. Find a transparent orange 1x1 circular tile, a red 1x1 tile with an upwards clip on top, and three light blue 1x4 tiles with a diagonal stripe pattern. Place the circular tile on the third stud from the left on the previous piece. Place the three tiles with diagonal stripes horizontally long, in a horizontal row to the right of the previous piece. Place the tile with the clip to the right of the far right previous piece with the arms of the clip aligned vertically.
- 163. Find a 2x2 plate with a pin-hole on two opposite sides, a black 2x2 short brick with horizontal grooves all around, and two black 2L pins. Place the grooved brick under the 2x2 brick at the left of the crane arm. Place the 2x2 plate with pin-holes under the previous piece, with the holes at the front and back. Place a pin in each of the holes on the previous piece.
- 164. Find two blue axle/pin combo pieces. Place the axle portion of each into the axle-holes on the front and back sides of the 2x2 brick on the crane arm.
- 165. Find a white 3L thick lift-arm with a circular joint at one end. Attach the lift-arm onto the pins extending from the back side of the crane arm, with the circular joint at the bottom, and the smooth side of the joint at the back.
- 166. Find two dark gray 1x2 plates with an upright 2L thick liftarm, one 2x2x2 cylinder with side holes, and two dark gray disks with two pins on one side and a center hole.
- 166.1. Place a cylinder in front of you, with the side holes on the left and right.
- 166.2. Place a lift-arm plate vertically long, on the left column of the previous piece, with the lift-arm holes inline with the side hole on the previous piece. Place the other liftarm plate to the right of the first. There should be an upwards row of three pin holes on each side.

- 166.3. Attach one disk onto each side of the assembly from the previous two steps by lining the pins in a line upwards and putting them into the row of holes described in the previous step. Keeping the 2x2 cylinder at the bottom, rotate the assembly 90 degrees so one of the disks is at the back. Click the hole in the center of the disk into the circular joint at the bottom of the lift-arm from step 165. It should audibly click into place.
- 167. Find a white 3L thick lift-arm with a circular joint at one end. Attach the lift-arm onto the pins extending from the front side of the crane arm, with the circular joint at the bottom, attaching to the assembly from the previous three steps. It should audibly click into place.
- 168. Place the ship back in front of you, with the forecastle at your left. Locate the upwards pointing axle on the crane base. Slide the 2x2 cylinder on the bottom of the crane onto this axle, rotating it until it slides down.

- 169. Now we'll build the winch for the crane! Locate a black string, a black 2x2 plate with reel holder, two black 20 tooth gears, a red 4L axle, a light gray reel, and a light gray 1x1 round plate with a ball and hook.
- 169.1. Place the reel holder in front of you, with the holes for the reel aligned vertically.
- 169.2. Push the reel into the reel holder.
- 169.3. Push the axle through the hole in the reel, centering it on the reel.
- 169.4. Place a gear on both ends of the axle.
- 169.5. Feed the string through the hole in the reel and tie a knot. Feed the other end through the hole in the ball of the hook plate, and tie it off as well. Now, when you turn the gears, the winch will reel in the hook! With the crane arm pointing towards the right, attach the winch onto the 2x2 of studs at the left end of the crane, with the gears at the front and back of the winch. Pull the hook all the way out, guide it through the upright clip and the wire guide on the crane arm, then let the hook dangle downwards. You can now turn the gears to raise and lower the hook!

If stringing isn't working by touch, you can try winding the end of the string around a toothpick or sewing needle to help guide it through or use a split-eye sewing needle. When doing this on the reel, the axle will impede your ability to pull it through. So you may want to remove the axle, feed the string through, tie a very loose knot (to leave space for the axle to feed back through), then replace the axle and gears.

- 170. We're going to work on the stern of the ship now! Find two white 2x2 bricks. Stack them on top of each other, and place them centered vertically, on the fifth and sixth columns from the right end of the ship.
- 171. Find two dark blue 2x2 tiles with two studs, four black 1x2 tiles with a sloping handlebar, and two white 2x2x2 tall bricks with four studs on one side.
- 171.1. Place a 2x2 tile with two studs in front of you, with the row of studs horizontal at the back. Place a tall brick with side studs on top with the side studs at the front.
- 171.2. Place a handlebar tile horizontally long on the bottom row of front facing studs. Place it so the flat side is down. Place the other above it in the same orientation. Place this assembly directly in front of the 2x2 bricks from step 170, with the handlebar bricks at the front. Repeat the last two steps one more time and place it directly behind the 2x2 bricks from step 170.

172. The pieces from the previous steps should form a vertically long 2x4 set of studs. Find four black 1x2 plates with an upwards bar on one long side. Place one vertically long on the front two studs of the right column of studs, with the bar on the right. Place another directly behind the previous piece in the same orientation. Repeat these two pieces symmetrically directly to the left.

173. Place a light blue 2x4 tile vertically long on top of the previous pieces. You can use the pegs on this structure to store your explorers' diving gear and other equipment!

Now your Arctic Explorer Ship is complete!

Thank you so much for building this set!

There is one page of ads after the instructions end.

There is one main image, with three inset images. The main image is of this set, and is the box art from the front of the box.

The top left inset image is for set number 60377, the Explorer Diving Boat! In the image, a large boat with a dark blue, inflatable hull floats above two divers and an ROV. The boat has a large clear blue windshield and orange and white trim. A crane hangs over the back! The two divers explore parts of a shipwreck, including a treasure chest! Nearby, sealife swims by. There is a hammerhead shark, a ray, and two turtles!

The lower left inset image is for set number 60378, the Arctic Explorer Truck and Mobile Lab. In the image, a large orange tracked vehicle moves snow in an icy wilderness! The tracked vehicle has a large snow plow attachment for moving snowdrifts, and a crane for lifting cargo! Green and blue meteors streak overhead. A small building stands on stilts above the snow. Solar panels and a wind turbine provide power for the explorers! A family of polar bears watch the explorers from atop an icy cliff. Four explorers dressed for winter examine a rocky meteor, hoping to unlock the secrets within!!

The bottom right inset image is for set number 60379, the Deep-Sea Explorer Submarine. In the image a group of explorers approach a sunken wooden ship. Leading the group is a large submarine, complete with two large grabbing arms, multiple thrusters, and numerous lights. An explorer can be seen at the controls through the clear, bubble shaped windshield. Four other explorers swim nearby, one observing a small ROV, another takes pictures of a transparent jellyfish, while another wears a mechanized diving suit! Three sharks guard the wreck! Including one very large great white just poking out between the decks!

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