FIRST® LEGO® League Challenge SUBMERGED℠ Building Instructions

14: Sample Collection

This build is 144 pieces, and 68 building steps.

Welcome to text-based instructions from Bricks 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 the piece
- Centered-horizontally: even amount of space left and right of the piece.
- Row: studs lined up horizontally (left to right/side to side).
- Column: studs lined up upright or vertically (top to bottom/back to front).
- Standing upright: the piece is perpendicular to the ground, like a wall.
- Lying flat: the piece is parallel to the ground, like a piece of toast which fell off the table.
- Anti-stud: the portion of a piece which accepts studs, like the bottom of a plate.
- Jumper plate: a 1x2 plate with a single stud on top, or a 1x3 plate with only two studs on top.

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

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

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

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

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

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

Bushes/Bushings - LEGO Technic™ uses bushes largely as spacers, but they also can reduce friction between rotating parts, or can form useful elements such as handles. Bushes are typically light gray, generally cylindrical, and have an axle-hole running through the middle. They have a flange at the front and back to make them easier to pull on and off.

Technic™ Bricks and Plates – There are also regular bricks and plates that are adapted for use with Technic™ elements. Technic™ bricks have holes for either pins or axles on the sides and are only one brick wide. One of the most common of these is a 1x2 brick with a single pin hole. Most often, these bricks have pin holes, not axle holes. Technic™ plates have holes on the flat surface between the studs and are a minimum of two bricks wide. The holes in these plates can accept pins or can allow an axle to pass through and still spin.

For builders with low vision, or a sighted building partner who may want to follow along with the printed visual instructions that come with each set. 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:

This LEGO set comes in the bags labeled 30-32. 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 across 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.

Build 14 (12 groups of bricks)
Group A contains all of the black 2L pins from this bag. These pins have friction ridges.
Group B contains all of the blue 3L pins from this bag. These pins have friction ridges.
Group C contains all of the blue 2L axle/pin combos from this bag. These pins have friction ridges.

Sub-build 1: Multi-sample container
Group 1 contains the pieces for steps 1-4.
Group 2 contains the pieces for steps 5-9.

Sub-build 2: Trident
Group 3 contains the pieces for steps 10-14.

Sub-build 3: Grabber arm
Group 4 contains the pieces for steps 15-23.

Sub-build 4: Rectangular frame

Group 5 contains the pieces for steps 24-36.
Group 6 contains the pieces for steps 37-39.

Sub-build 5: Seaweed planter.
Group 7 contains the pieces for steps 40-52.
Group 8 contains the pieces for steps 53-61.
Group 9 contains the pieces for steps 62-68.

Building Instructions:

Open groups A, B, C and 1. You will use the pins from groups A, B and C throughout the build.

Sub-build 1: Multi-sample container

1.1. Place a light gray 2x2 round tile with a stud on top in front of you.

1.2. Find a light gray 2x2 round plate with an octagonal frame of bars around it. This looks like a 2x2 round plate which has bars in an octagon around the outside. Place this, centered vertically and horizontally, on the previous piece.

2. Place a light gray 2x2 round plate on the previous piece.

3. Find a black palm tree top. This has five bars, one pointing in one direction, and four pointing in the opposite direction. Push this, with the single bar at the bottom, from the top through the middle hole of the previous piece. Rotate it so the bars on top are directly above the studs, then push it all the way down.

4.1. Now we'll make four identical small tubes. Place a white 1x1 round plate with a hollow stud in front of you.

4.2. Find a dark gray 1x1 cone. This has a hollow stud on the narrow side, and the wide side is anti-stud. Place this, with the hollow stud on top, on the previous piece.

4.3. Find a dark gray 1x1 inverted cone with a bar. This looks like the previous piece, except it is upside down and has a bar extending from the narrow side. Place the stud of this piece into the anti-stud of the 1x1 round plate.

4.4. Repeat steps 4.1-4.3 three times.

4.5. Rotate one of these so the bar is on top and push the hollow stud of the bottom cone onto one of the four bars on the main assembly. Repeat this with the other three small tubes.

Open group 2.

5.1. Now we'll make the top of the sample container. Place a light gray 2x2 round plate with an octagonal frame in front of you.

5.2. Place a light gray 2x2 round plate on the previous piece.

5.3. Flip the top over so it's upside down. Place four black 1x1 round plates with hollow studs onto the four anti-stud on the top.

5.4. Push a black 6L bar with a stop ring, with the stop ring at the bottom, from the bottom through the middle hole of the top assembly. Push it all the way up until it stops. It should extend about 5L above the rest of the top assembly.

5.5. Rotate the top assembly so the bar points down. Place the top on the rest of the sample container, connecting the four 1x1 round plates to the four small tubes.

6.1. Find a black 7x7 ring with two 1L axle connectors. This piece is a large ring which has two axle connectors opposite each other. Place this piece in front of you, so that it is flat like a basketball hoop, with the axle connectors on the left and right.

6.2. Push a yellow 7L axle, from the right through the right axle connector of the previous piece. Push it through until it extends about halfway across the ring.

7.1. Find a yellow 2L pin connector. This piece looks like a smooth cylinder which is 2L long and has a small notch in the middle. Slide this, from the left, over the axle.

7.2. Find a black axle connector with two perpendicular bar holders. This looks like a 1L cylinder with an axle hole through it. There are two perpendicular hollow cylinders extending from either side of the axle hole which are bar holders. Push this piece, with the bar holders pointing up and down, from the left onto the 7L axle.

8. Place a yellow 2L pin connector to the left of the previous piece, then push the 7L axle all the way through until its left and right sides are even with the sides of the 7x7 ring.

9. Push the bottom bar holder onto the bar on top of the sample container.

This completes this sub-build. You can set it aside for now.

Sub-build 2: Trident

Open group 3.

10.1. Find a black axle and pin connector with two axles. This piece looks like two 1L axles connected by a cylinder with a pin hole in the middle of it. It is 3L in length. Place this piece in front of you with the hole facing forward and the axles pointing left and right.

10.2. Find a gold 3L pin with a bushing on one side. This looks like a 2L pin with no stop rings and a thick cylinder on one side. This cylinder looks identical to a bushing and has an axle hole through the center. Push this piece, with the bushing at the front, from the front through the hole on the previous piece. Push it all the way through so it extends 1L to the rear.

11. Find a yellow axle and pin connector #6. This piece has two 1L axle connectors which form a right angle, and a perpendicular pin hole between them. Push this piece, with one axle connector facing forward and one facing right, from the left onto the left axle of the axle and pin connector with two axles. Repeat this symmetrically on the right side.

12. Push three yellow 3L axles, from the front into the two previous pieces and the axle hole on the front of the bushing.

13. Push a yellow 2L pin connector, from the back onto the pin on the back side of the assembly.

14.1. Now we'll build the handle of the trident. Place a yellow 11L axle horizontally in front of you.

14.2. Push an orange sphere, from the left onto the previous piece.

14.3. Push a yellow thin bushing, from the right onto the right end of the 11L axle. Push it so the right side of the axle extends 1L past the bushing. You can stick the right side of the handle into the pin connector on the forked part of the trident to pick it up if you want to! Be careful, it's not attached.

This completes this sub-build. You can set it aside for now.

Sub-build 3: Grabber Arm

Open group 4.

15. Find a light gray 4x6 bent liftarm. This looks like a 6L liftarm and 4L liftarm connected at a 135 degree angle. It looks kind of like a hockey stick. The holes at each end are axle holes. Place this in front of you, with the 4L side vertically at the right and the 6L side at the left pointing to the back left. The holes should facing up.

16.1. Find a light gray 2x3 L-shaped quarter ellipse. This looks like a 2x3 L-shaped liftarm, where the space between the legs is filled in with a curve. Place this piece in front of you, with the short leg vertically on the right and the long leg at the front pointing horizontally to the left. The curved section should be at the back.

16.2. Push a black 2L pin from group A, from the top into the back right hole on top of the previous piece.

16.3. Push a blue 2L axle/pin combo from group C, with the pin at the top, from the top into the hole in front of the previous piece.

16.4. Push a light gray 2L pin, from the top into the leftmost hole on the 2x3 quarter ellipse. This pin does not have friction ridges so it should spin easily.

16.5. Keeping the 2L side on the right, rotate this piece 180 degrees towards you so the pins point down. Push the right two pins down into the second and third holes from the front on the 4L side of the bent liftarm.

17. Push the right hole of a 2x3 L-shaped quarter ellipse, with the short leg vertically on the left and the long leg at the back pointing horizontally to the right, from the bottom onto the pin on the bottom of the first quarter ellipse. The curved section of the second quarter ellipse should be at the front. This connection does not have friction pins so it will spin easily.

18.1. Push a black 2L pin from group A, from the top into the front left hole on top of the previous piece.

18.2. Push a blue 2L axle/pin combo from group C, with the pin at the top, from the top into the hole behind the previous piece.

19.1. Place a 4x6 bent liftarm in front of you, with the 4L side vertically at the left and the 6L side at the right pointing to the back right. Push the second and third holes from the front on the 4L side, from the top onto the previous two pieces. This liftarm should extend 1 hole to the front. The long side of this liftarm should rest on the long side of the first bent liftarm and extend to the right.

19.2. Push a tan 2L axle/pin combo, with the pin side at the top, from the top into the rightmost hole of the previous piece.

20. Push a white 3L axle/pin combo which has a 2L axle and a 1L pin, with the pin side at the bottom, from the bottom into the leftmost axle hole on the bottom bent liftarm. This is the bent liftarm that extends to the left. Push it all the way in so it extends 1L up and down.

21.1. Find a light gray 2x2x2 tall cylinder. This piece has four studs on top, but only one hole on the bottom. An axle can go through this hole. There are also two holes on the sides of the cylinder. Place this upside down in front of you, with the holes on the sides facing front and back.

21.2. Push two light gray 2L pins, from the front and back into the side holes on the previous piece. These pins do not have friction ridges so they should spin easily in the holes.

21.3. Push a yellow 3L axle, from the top into the middle axle hole on the 2x2x2 tall cylinder. Push it all the way in so it extends 2L above the cylinder.

21.4. Push the rightmost hole of a light gray 5L liftarm, horizontally with the holes facing forward, from the back onto the pin on the back side of the tall cylinder. This liftarm is connected to a pin without friction ridges, so it will hang down if you pick up the cylinder.

21.5. This step is going to blow your mind! Are you ready? Rotate the rest of the grabber assembly 90 degrees towards you so that the short legs of the bent liftarms are now pointing down at the bottom. Rest it on the table in front of you on the short legs. The long legs should be horizontal on top and should be almost flat. Locate the pin on the back side of the left long leg. Lift the cylinder assembly so the 5L liftarm hangs down. Push the bottom hole, from the back onto the pin we identified. Set the cylinder on top of the long legs of the bent liftarm. The 5L liftarm connected to the cylinder should be horizontal now. The cylinder should rest on the studs with the axle pointing up.

22. Find the two pins on the front of the combined assembly. Push a light gray 5L liftarm, diagonally with the holes facing forward, from the front onto these two pins.

23. Find a black 7x7 ring with two 1L axle connectors. This piece is a large ring which has two axle connectors opposite each other. Rotate this piece so it stands upright with the axle connectors at the top and bottom and looks like a circle when viewed from the front. Push the bottom axle connector, from the top onto the axle on top of the grabber assembly.

This completes this sub-build. You can set it aside for now.

Sub-build 4: Rectangular Frame

Open group 5.

24.1. Find a light gray 11L liftarm with perpendicular holes. This looks like a normal 11L liftarm, except that every hole is perpendicular to its neighbors. Place this piece, horizontally with the smooth side on top, in front of you. The left and rightmost holes should be facing the front.

24.2. Push a black 2L pin from group A, from the front into the rightmost hole of the previous piece.

25.1. Find a tan perpendicular axle and pin connector. This looks like a 2L liftarm, except that one of the holes is an axle hole and is perpendicular to the pin hole. Place this piece in front of you, with the axle hole at the left facing upward.

25.2. Push a dark gray 3L axle/pin combo which has a 2L pin and a 1L axle, with the pin side at the top, from the top into the axle hole of the previous piece. Push it all the way in so it extends 2L above the previous piece.

26. Push the back hole of a light gray 2L liftarm, vertically with the holes facing up, from the top onto the previous piece. Push it all the way down so the pin extends 1L above it.

27.1. Push a dark gray 3L axle/pin combo which has a 2L pin and a 1L axle, with the pin side at the top, from the bottom into the front hole of the previous piece. Push it all the way in so it extends 1L above and below the previous piece. The axle should be the side on the bottom.

27.2. Push the axle hole of a tan perpendicular axle and pin connector, with the axle hole at the left facing up, from the bottom onto the previous piece. It should extend to the right and be even with the perpendicular axle and pin connector behind it.

28. Push a black 2L pin from group A, from the front into the pin hole on the front side of the previous piece.

29. Push the pin hole on the back perpendicular axle and pin connector, from the front onto the pin on the front side of the 11L liftarm with perpendicular holes. The right side of the axle and pin connectors should be even with the right side of the liftarm.

30.1. Place a tan perpendicular axle and pin connector in front of you, with the axle hole at the right facing up.

30.1. Push a dark gray 3L axle/pin combo which has a 2L pin and a 1L axle, with the pin side at the top, from the top into the axle hole of the previous piece. Push it all the way in so it extends 2L above the previous piece.

31. Push the back hole of a light gray 2L liftarm, vertically with the holes facing up, from the top onto the previous piece. Push it all the way down so the pin extends 1L above it.

32.1. Push a dark gray 3L axle/pin combo which has a 2L pin and a 1L axle, with the pin side at the top, from the bottom into the front hole of the previous piece. Push it all the way in so it extends 1L above and below the previous piece. The axle should be the side on the bottom.

32.2. Push the axle hole of a tan perpendicular axle and pin connector, with the axle hole at the right facing up, from the bottom onto the previous piece. It should extend to the left and be even with the perpendicular axle and pin connector behind it.

33. Push a black 2L pin from group A, from the front into the pin hole on the front side of the previous piece. Repeat this symmetrically on the back side.

34. Push the pin on the back perpendicular axle and pin connector, from the front into the leftmost hole on the front side of the 11L liftarm with perpendicular holes. The left side of the axle and pin connectors should be even with the left side of the liftarm.

35. Push a light gray 11L liftarm with perpendicular holes, horizontally with the smooth side on top, from the front onto the two pins on the front of the assembly. Its left and right sides should be even with the left and right sides of the assembly.

36.1. Push a black 2L pin from group A, from the top into the middle holes on the top side of both 11L liftarms with perpendicular holes. There should be two free holes to the left and right of each of these piece.

36.2. Push a blue 3L pin from group B, with the stop ring at the bottom, from the top into the leftmost hole on the top side of the front 11L liftarm with perpendicular holes. Push another into the rightmost hole on the top side of the back 11L liftarm with perpendicular holes.

Open group 6.

37. Push two brown 11L liftarms, horizontally with the holes facing up, from the top onto the pins on the top of the front and back 11L perpendicular liftarms. The left and right sides of these should be even with the liftarms below them.

38. Push a black 2L pin from group A, from the top into the third hole from the left on the top of the front piece from the previous step. This should be to the right of another pin. Push another into the third hole from the right on the top of the back of the rear piece from the previous step. This should be to the left of another pin.

39.1. Push a light gray 2x4 L-shaped liftarm, with the short leg horizontally at the front and the long leg vertically at the left pointing to the back, from the top onto the four pins on the left side of the assembly. The front and back sides of this piece should be even with the front and back sides of the assembly.

39.2. Push a light gray 2x4 L-shaped liftarm, with the short leg horizontally at the back and the long leg vertically at the right pointing to the front, from the top onto the four pins on the right side of the assembly. The front and back sides of this piece should be even with the front and back sides of the assembly.

This completes this sub-build. You can set it aside for now.

Sub-build 5: Seaweed Planter

Open group 7.

40.1. Find a black 3L axle and pin connector with a perpendicular pin hole. This looks like a 3L liftarm where the center hole is perpendicular to the two end holes. The end holes are both axle holes. Place this in front of you, horizontally with the axle holes facing up.

40.2. Push a black 2L pin from group A, from the front into the hole on the front side of the previous piece.

41. Push two dark gray 3L axle/pin combos which have a 2L pin and a 1L axle, with the pin side at the top, from the top into the left and right axle holes on the 3L axle and pin connector. Push them all the way in so they extend 2L above the rest of the build.

42. Push a lime green 3L liftarm, horizontally with the holes facing up, from the top onto the pins from the previous step. Push it all the way down so the pins extend 1L above it.

43. Push two lime green 1L liftarms, from the top onto the two exposed pins above the previous piece.

44. Place a green 3x5 L-shaped liftarm in front of you, with the short leg upright at the right and the long leg horizontally at the bottom pointing to the left. Push the middle hole of the long leg, from the front, onto the pin on the front side of the build.

45. Push two blue 3L pins from group B, with the stop rings at the front, from the front into the leftmost and corner holes of the previous piece. Push these all the way in so they extend 1L to the front and back.

46. Push the bottom holes of two green 5L liftarms, standing upright with the holes facing forward, from the back onto the back sides of the pins from the previous step.

47. Push two black 2L pins from group A, from the front into the top holes of the previous two pieces.

48. Place a green 3x5 L-shaped liftarm in front of you, with the short leg upright at the left and the long leg horizontally at the top pointing to the right. Push the rightmost and corner holes of this piece, from the front onto the pins from the previous step.

49. Push a green 5L liftarm, horizontally with the holes facing forward, from the front onto the two pins on the front side of the bottom part of the assembly.

50.1. Place a lime green 3L liftarm in front of you, horizontally with the holes facing forward.

50.2. Push two blue 3L pins from group B, with the stop rings at the front, from the front into the leftmost and rightmost holes of the previous piece. Push them all the way in so they extend 1L to the front and back.

50.3. Push the pins from the previous step, from the front into the second holes from the left and right on the 5L liftarm at the bottom of the main assembly.

51. Push a blue 3L pin from group B, with the stop ring at the back, from the front into the hole between the two pins on the 3L liftarm at the bottom of the assembly. Push it in all the way so it extends 2L to the front.

52. Push the middle three holes of a green 5L liftarm, horizontally with the holes facing forward, from the front onto the three pins on the front side of the main assembly. Push the liftarm all the way back so the middle pin extends 1L past it to the front.

Open group 8.

53.1. Now we'll build the frames where the seaweed grows. Find a lime green axle and pin connector #2. This piece has two 1L axle connectors on opposite sides, and a perpendicular pin hole between them. Place this in front of you, with the axle connectors at the front and back and the pin hole pointing up.

53.2. Push a dark gray 3L axle/pin combo which has a 2L pin and a 1L axle, with the pin side at the front, from the front into the front axle hole of the previous piece. Push it all the way in so it extends 2L to the front. Repeat this symmetrically on the back side.

53.3. Push a dark gray 1L pin with a hollow stud on one side, with the hollow stud on top, from the top into the pin hole on the axle and pin connector.

53.4. Repeat steps 53.1-53.3 to build another seaweed frame.

53.5. Find the top L-shaped liftarm on the back wall of the main assembly. Locate the bottom left front-facing hole on this piece. There is another hole in the same location on the right side of the main assembly. Keeping the hollow studs pointing up, push one seaweed frame, from the front into each of these holes.

54.1. We'll build one more seaweed frame. Place a lime green axle and pin connector #2 in front of you, with the axle connectors at the front and back and the pin hole pointing up.

54.2. Push a blue 2L axle/pin combo from group C, with the pin side at the front, from the front into the front axle hole of the previous piece. Repeat this symmetrically on the back side.

54.3. Push a dark gray 1L pin with a hollow stud on one side, with the hollow stud on top, from the top into the pin hole on the axle and pin connector.

54.5. Push this, from the front into the middle hole on the long leg of the top L-shaped liftarm on the back wall of the main assembly.

55.1. Place a green 3x5 L-shaped liftarm in front of you, with the short leg upright at the right and the long leg horizontally at the bottom pointing to the left.

55.2. Push two black 2L pins from group A, from the front into the second holes from the left and right on the long leg of the previous piece.

55.3. Find the pin on the front of the rightmost seaweed frame, and the pin on the bottom row of the main assembly. Push the top right hole of the L-shaped liftarm onto the pin on the seaweed frame, and the middle hole on the long leg onto the bottom pin. Push the L-shaped liftarm all the way back so it touches the liftarm behind it.

56.1. Place a green 3x5 L-shaped liftarm in front of you, with the short leg upright at the left and the long leg horizontally at the top pointing to the right.

56.2. Push two black 2L pins from group A, from the front into the rightmost and corner holes of the previous piece.

56.3. Find the pins on the leftmost and top seaweed frames. Push the bottom left hole of the L-shaped liftarm onto the pin on the left seaweed frame, and the middle hole on the long leg onto the pin on the top seaweed frame. Push the L-shaped liftarm all the way back so it touches the two seaweed frames.

57. Push two blue 3L pins from group B, with the stop rings at the back, from the front into the leftmost and rightmost holes on the front side of the bottom row of the assembly. There should be one pin next to each of these pieces.

58.1. Push a lime green 3L liftarm, horizontally with the holes facing forward, from the front onto the middle two pins on the bottom row of the main assembly.

58.2. Push a green 5L liftarm, standing upright with the holes facing forward, onto the three forward facing pins on the left side of the front of the assembly. Repeat this on the right side.

59. Push a black 2L pin from group A, from the front into the second holes from the bottom on the previous two pieces.

60. Push two lime green 1L liftarms, from the front onto the previous two pieces.

61.1. Now we'll make the strands of seaweed. Find a green plant stem with a bar, bar holder, and two leaves. This looks like a cylinder that is hollow on one side and has a bar sticking out of the opposite side. There are two leaves midway down the cylinder. Place one, with the hollow side on the right and the leaves curving away from you, in front of you. Push the bar of another, with the leaves in the same orientation, from the right into the hollow side of the first.

61.2. Repeat the previous step two more times to create two more strands of seaweed.

61.3. Rotate one strand of seaweed so the short bar is at the bottom and so the leaves curve away from you. Push the short bar into the hollow stud on top of the left seaweed frame.

61.4. Rotate another strand of seaweed so the short bar is at the bottom and so the leaves curve away to the back right. Push the short bar into the hollow stud on top of the middle seaweed frame.

61.5. Rotate the last strand of seaweed so the short bar is at the bottom and so the leaves curve away to the left. Push the short bar into the hollow stud on top of the right seaweed frame.

Open group 9.

62.1. Now we'll build a cone which sits inside the planter. Set the rest of the seaweed planter aside for now. Place a white 2x2 round plate in front of you.

62.2. Find a white 3x3x2 cone. This is only a partial cone and has four studs on top. Push the four center anti-stud of this piece onto the four studs of the previous piece. It should be centered vertically and horizontally on the previous piece.

63. Place a white 2x2x2 cone on the previous piece.

64. Push a dark gray 2L bar with a stop ring in the middle, from the top into the hollow stud of the previous piece. Push it all the way down until it stops.

65. Rotate the cone assembly so the previous piece points to the left and the anti-stud of the round plate is on the right. Push a yellow 7L axle, from the right through the hollow center anti-stud of the 2x2 round plate. Push it all the way in until it stops so it extends about 3L to the right.

66. Find a black 7x7 ring with two 1L axle connectors. This piece is a large ring which has two axle connectors opposite each other. Rotate this piece, so that it is flat like a basketball hoop, with the axle connectors on the left and right. Push the left axle connector, from the right onto the previous piece. Push it all the way to the left until it touches the 2x2 round plate. The axle should extend about 2L towards the center of the ring.

67. Push a black thick bushing, from the right onto the axle. Push it all the way to the left until it touches the left axle connector on the ring.

68. Place the rest of the seaweed planter in front of you, with the seaweed in a column in the middle. The side with the two 1L liftarms at the bottom should be on the right. This side has a large hole. Slide the pointy end of the cone, from the right, through this hole. The left side of the cone should rest on the left wall of the planter and the ring should extend to the right. The cone does not actually attach to anything.

Congratulations! Now this build is complete!

Thank you so much for building this set!

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