7944 Fire Hovercraft

Welcome to text-based instructions from LEGO for the Blind. Before you start building, here are some terms we'll be using:

> **Front**: towards you.
> **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 back.
> **Horizontally**: going from left to right.
> **Upright**: pointing up towards the ceiling, and down towards the floor.
> **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.

On the box the Fire Hovercraft is on duty in the harbor of a large city. The firemen on board are at their water cannon posts, ready to extinguish any fire they find!

First, let's build the minifigures.

Our first minifigure is wearing a black suit with two white stripes on it, above the stripes is a yellow crest with a black outline of flames in it. Two of them wear white hard/fire hats, two of the hats are white, while the third one is grey. Two of our firefighters wear life vests, while our third one, presumably the captain does not wear a life vest. Our first minifig wears glasses, and has eyebrows with a smile, while the second one wears orange glasses with black pupils and is not smiling. Our third minifig does not wear glasses, with two bushy eyebrows, black eyes, and no smile.

Now, let's build the hovercraft!

Step 1: Take the large hovercraft hull and put it horizontally on the table, semicircular curve to the right. Take 6 2x2 plates with technic connector at the bottom and stick them into the three holes at the front and three holes at the back starting from the right. The leftmost front and back holes are not used.
Step 2: Find four dark grey 8x8 plates, 2 grey 8x8 plates with grille and middle 2x2, 1 dark grey 6x4 plate, and two grey 6x6 quarter circle plates. Put a grey 6x6 quarter-circle plate at the front right of your structure, curve to the front right. Put the grey 6x4 plate horizontally to the back. It won't mount to any studs and will lay flat on the hull piece, but don't worry we will connect it to other studs soon. Put the other 6x6 quarter circle plate behind the previous piece, curve to the back right. Put a grey 8x8 plate with grille to the left of your previous piece. Repeat symmetrically at the front.
Step 3: Find 4 grey 8x8 plates. Put a grey 8x8 plate to the left of the previous piece. Repeat symmetrically at the back. Put another grey 8x8 plate to the left. Repeat symmetrically at the front.
Step 4: Find a white 2x10 plate, a light gray 1x10 plate 2 white 2x1 grille tiles and a grey 2x2 turn table. The bottom part of it is white, while the top of it is grey. Create the turntable by snapping the top part (the round disk with small bottom knob) into the hole in the middle of the bottom part, which is a square plate with round indented circle in it.) Put a gray 10x1 plate vertically on the right end of your structure. Put one white 2x1 grille tile vertically in the middle to the left of the previous piece. Put the 2x2 turntable to the left. Put a white 2x1 grill tile vertically to the left. Put a white 2x10 plate horizontally to the left.
Step 5: Find 4 white 2x2 plates, and two black 2x4 plates with through-holes. (This means that there are holes between the rows of studs, allowing you to put a Technic axle into these plates. Go to the front row of the 10x2 plate. Skip two rows to the front from the first and second buttons from the left and put a 2x2 plate there. Repeat symm to the back. Repeat symm at the right end of the 10x2, skipping two rows to the front of the first and second buttons of the front row starting from the right. Put the last 4x4 plate symmetrically to the back of the previous piece,) skipping two rows to the back of the first and second buttons starting from the right of the back row of the 2x10 plate.) Put the black 2x4s horizontally in

between the previous pieces, (at the front and the back, between the 2x2 plates. Their middle columns should mount onto the 2x2 square in the middle of the 8x8 grille plates with middle 2x2.)
Step 6: Find two white 4x1 plates, two grey 2x1 plates with one stud in the middle, and two life preservers. Go to your front right 2x2 plate and put one of the 2x1 plates with middle stud horizontally in front of its right column and to the right. Repeat symmetrically at the back. Put a life preserver on each of the studs of the previous pieces. Put one 4x1 plate horizontally on the front wall, aligned with the 4x2 plate that's 2 rows behind it. Repeat symmetrically at the back.
Step 7: Find 8 red 4x1 curved (macaroni) bricks and two red 4x2 curved bricks with two studs. Put one on the second button from the left of the front 4x1 plate curve to the left and to the front. Put another behind the previous piece curve to the left and to the back. Repeat with the other two parts to create a full circle. Put a curved 2x4 with 2 studs to the right of the circle horizontally. Repeat this full circle symmetrically at the back and put the other curved 4x2 curved brick with two studs horizontally to the right.
Step 8: Take a red 3x2 brick and put it vertically on the left edge at the front. Repeat symmetrically at the back. Put a red 6x1 brick horizontally to the right of the previous piece's frontmost row. Repeat symmetrically at the back. Put a red 2x1 brick with hole (horizontally to the right of the previous piece. Repeat symmetrically at the back.
Step 9: Put a red slope curved 6x1 brick with two studs horizontally to the right of the previous piece. Repeat symmetrically at the back. Take two grey 2x1 bricks with axle holes and put them vertically next to each other on the middle and back rows of the red 3x2 brick at the front left. Repeat symmetrically at the back.
Step 10: Put a red 4x1 brick horizontally on the front row of the front red 3x2 and to the right. Repeat symmetrically at the back. Put a red 2x1 brick with horizontal clasp to the right of the previous piece, horizontally clasp to the back. Repeat symmetrically at the back. Put a red 1x1 plate with horizontal clasp to the right of the previous piece clasp to the back. Repeat symmetrically at the back.
Step 11: Put a red slope curved 3x1 brick on top of the previous piece and to the right curve to the right. Repeat symmetrically at the back. Put a white 2x1 grill tile horizontally to the right of the previous piece. Repeat symmetrically at the back. The stud to its right should remain free.
Step 12: Put a dark grey 4x1 tile horizontally to the left of the previous piece, on top of the curved 4x1 brick and to the left so that two studs to the left of it remain free. Repeat symmetrically at the back. Take a dark grey flag 2x3 with two vertical clasps on short end and put it to the left of the previous piece clasps to the front. Put a white 4x1 bar piece into the clasps horizontally 3/4 of it overhanging to the right. Repeat symmetrically at the back. Apply 2 small stickers to the 2x3 flags, and two 4x1 stickers to the 4x1 tiles just placed. These stickers each look like a metal grill.
Step 13: Go to the left end of your 10x2 plate that's in the middle of your structure. Put one white 2x1 grill tile horizontally to the left of the plate front left button, and another one behind the first grill tile horizontally as well. Make a part: Stack two white 4x1 plates and put them vertically on the table. Put a red 4x1 bench piece on top, back of the bench to the right. Put this part vertically to the left of the two grille tiles, front and back buttons protruding to the front and to the back.
Step 14: Put a red 12x1 brick horizontally in front of the part you just placed and to the left. Repeat symmetrically at the back of the bench piece. Put a red 6x1 brick vertically on the left wall to the left of the two previous pieces.
Step 15: Skip 7 studs to the right from the front button of the previous piece and put a red 4x1 brick vertically on the 7th studs from the left. Put a red 4x1 vertically on the left wall in the middle, the front and back studs of the left wall remain free. Put a red 3x1 horizontally behind the previous piece and to the right. Repeat symmetrically at the front.
Step 16: Now we will make a control panel: Find a white brick 1x2 with handle and a white flag 2x2 square with two vertical clips. Put a square sticker on this part (it features a radar screen and a second screen with two arrows on it), Put this part onto the 2x1 with bar open ends. Put this part vertically in the middle of the red 4x1 brick that's in the middle of your structure, control panel to the left, folding the control panel diagonally up the to the right. Put a yellow 2x2 seat vertically to the left of the previous piece chair back to the left.
Step 17: Put a red 6x1 brick vertically onto the left wall in the middle. Put a red 2x1 brick with horizontal clip vertically on the front two studs of the previous piece clip to the left. Repeat symmetrically at the back.

Step 18: Take two red 1x2x2 window frames and put the glass in them. Put one horizontally to the right of the previous piece's front most stud, glass to the front. Repeat symmetrically at the back.
Step 19: Make a part: Put a white 2x1 plate horizontally on the table and put a yellow 2x1 plate with handle on top, horizontally bar to the back. Put a grey 2x1-2x2 inverted slope horizontally on top, slope to the front. Put a black 2x1 hinge plate with vertical locking stub horizontally on the previous piece's front row. Put a white 2x1 plate horizontally to the back of the previous piece. Make a projector part, we'll connect it to the bar in a second. Take a white 1x1 plate with vertical clasp and a yellow 1x1 plate. Put the yellow 1x1 plate on top of the white 1x1 with vertical clasp. This is the projector. Turn this part upside-down, stud to the bottom, but keeping the clasp at the front. Connect it to the bar, and then turn it upright, so that the stud points to the back. The projector is done. Turn this part vertically so that the projector is to the left and put it vertically into the 2x1 gap in the middle of the left wall.
Step 20: Put a minifigure in the captain onto the seat. Take a red 3x2 slope brick with three studs and put it horizontally in front of the projector, and to the right, slope to the front. Repeat symmetrically at the back. Put a red 2x4 slope with 4 studs vertically to the right of the radar-screen, slope to the right. It's left row of studs should mount onto the 2x1 with bar that the screen is attached to, and to the right.
Step 21: Put a red 4x1 bench piece horizontally to the left of the vertical 4x1 bench piece at the front seatback to the back. Repeat symmetrically at the back.
Make a part: Put a red 1x1 brick with hole and put a short blue Technic half pin with stud into the pin hole. Put a small steering wheel onto the pin. Put this part to the left of the front 4x1 bench piece, steering wheel to the front.
Step 22: Take a red 1x1 brick with pinhole, and put a short blue technic pin in it, and put another steering wheel onto it. Now take a red 6x1 bar with thin stop ring and put the end of it without the stop into this part from the back, opposite the wheel. Mount this part vertically to the left of the rear horizontal 4x1 bench piece and push the end of the bar with stop forward into the back end of the front 1x1 with steering wheel that you've already mounted. The steering wheels should now open the storage compartment.
Step 23: Take a white 4x1 plate and put it horizontally on the table. Put one yellow 1x1 plate on the left end of the 4x1 plate, and another yellow 1x1 plate on the right end of the 4x1 plate. Put a white 1x1 plate with vertical clasp to the left of the previous piece, clasp to the front. Repeat to the left. Take a grey 4x4 tile with 4 studs on one edge and put it horizontally on top, smooth tile overhanging to the back. Take this part and turn it vertically clips to the left and clip it into the middle of the bar at the middle left of your structure, now you can flip the tile down to create a storage compartment. On this piece, place a 3x4 sticker that looks like a metal grill.
Step 24: Make a fire extinguisher: take a yellow 1x1 cylinder and a yellow 1x1 faucet piece, put the faucet piece on top of the cylinder. Put it to the right of the front 4x1 horizontal bench piece faucet to the left. Make another fire extinguisher and put it symmetrically at the back. Build a flashlight by putting a yellow 1x1 round stud onto a torch with grooves and put it into the storage compartment, along with a megaphone walkie-talkie, and binoculars into the container.
Step 25: Make an antenna: (this is a separate part which we'll mount a little later.) Take a white 6x2 plate and put it horizontally on the table. Put a white lantern mast, 2x2x3 horizontally in the middle on the back row bend to the back. Put a black lever on top, lever to the front and to the back. Put a yellow 1x1 round plate on the left lower stud of the mast and a red 1x1 round plate on the right lower stud. Put a white 2x1 plate horizontally to the right of the mast on the back row. Repeat symmetrically at the left. Put a transparent blue 2x1 tile horizontally on top of the previous piece. Repeat symmetrically at the left. Put two transparent blue 1x1 slope tiles to the front of the previous piece, slides to the front. Repeat at the right. Mount this part vertically on the left of your structure, above the windows, slides protruding to the left.
Step 26: Put the glass into the bridge red cockpit piece and mount it vertically onto the short stub at the inside of the left wall, glass to the right. You'll be able to move the cockpit cover up and down if you mounted it correctly.
Step 27: Take a technic corner piece (actual name is: cross block 90 degrees with 3 Pinholes and place it on the table, braille letter D, open corner to the front left. Put a black technic pin into the hole at the back left, pin to the back. Mount this part by putting the pin into the pin hole at the front middle of your structure. Repeat symmetrically at the back, orienting the technic corner like the braille letter J, open corner to the left back.

Make a part (a projector) Take a yellow 1x1 cone and a grey 7-stud-long technic axle and put the cone on the end of the axle. Take a grey 5-stud-long tube with attached axle hole and put is horizontally on the table, cross-hole to the back, right upright. Put the axle and cone from the front into this part, part of your axle will protrude to the back. Take a grey technic axle joiner (and hold it upright axle hole towards you vertically. Plate it from the back onto the back end of the axle, using the bottom axle hole. The top one remains free. Take a blue technic axle to pin connector and put it from the bottom into the axle-hole of the 5-stud-long tube, so that your pin is to the bottom. Make a separate part, the actual light of the projector: Put a trans-yellow 2x1 plate horizontally on the table. Take a white 2x1 plate with hook and put it horizontally on top, hook to the back. Hold this part upside-down horizontally hook to the bottom back and put the hook into the top axle hole of the upright 2x1 technic plate with two axle holes

Step 28: Mount the projector onto the hovercraft by turning it so that the cone is to the right and the bottom-facing pin is at the back left. Stick that pin into the upright hole of the front technic corner piece, so that your cone is to the right. This projector part is adjustable, so move it any way you like.

Step 29: Build the same part and attach it symmetrically at the back. Make a water-cannon part: take a red 2x4 plate and put it horizontally on the table and put a yellow seat on its right two columns, seat back to the right. Take a dark grey 2x1 brick with axle hole and put it horizontally to the left of the previous piece's front button. Repeat to the back. Put a light grey 2x1 plate with one stud vertically onto the rightmost column of the previous pieces. Take a yellow 2x1 plate with handle and put it vertically to the left, bar to the left. Take a black 4-stud-long technic axle and stick it into the front axle-hole, so that it protrudes evenly to the front and to the back. Make a muzzle for the cannon part: Take a light grey cannon-shaped technic through axle joiner and put a red two-stud-long technic axle with notches into the cannon's muzzle. Put a technic axle connecter onto the axle. Put a red two-stud-long technic axle with notches into the other end of the joiner and put a yellow 1x1 cone onto the axle. Turn this part so that the hole of the cannon part faces towards and away from you with the cone to the left and mount it onto the back part of the axle. Make another muzzle for the cannon the same way and attach it at the front, cone to the left. Make a light, put a white 1x1 with vertical clasp on top of a transparent yellow 1x1 plate. Turn it upright, yellow plate to the left clasp to the bottom, and mount it onto the middle of the bar in between the muzzles. Turn your part upside down but keeping the chair at the right. Put a red 2x2 hinge top vertically in the middle of your part bar to the left.

Step 30: Take a white 1x2 hinge base and put it vertically on the left column of the 2x2 turntable, back of the hinger base to the left. Turn the turntable 180 degrees so that the hinge base piece is now at the right, back of the hinge base to the right. Mount the cannon by inserting the bottom bar into the hinge base piece. If done correctly your cannon should move up and down. If it's only rotating downward, then flip the cannon part around and re-mount it into the hinge base piece.) Put a 1x1 steering wheel onto the single stud of the 2x1 plate with one stud to the right of the seat.

Step 31: Now we will build the engines/turbines/propellers. Take a dark grey 7-stud-long technic axle with end stop and put a black three-bladed propeller on it all the way in, so that it touches the end stop. Put a light grey thick technic bushing onto the axle from the right, all the way in so it touches the propeller. Now turn the part upright, propeller on the table and axle to the top. Take a hard plastic red wheel and turn it horizontally middle studs to the top. Put it on the axle studs to the top. Take a dark grey webbed 6x6 dish and put it on top, studs to the top. Take a red 2x2 round plate and put it on top, studs to the top. Turn this part upright, axle to the right, propeller to the left and put the axle into the 2x1 with axle hole at the front left of your structure, propeller to the left. Repeat to make another such turbine and put it symmetrically at the back.

Step 32: Take a red 2x2 dome with one stud and put it onto the right end of the front propeller's axle, stud to the right, Repeat symmetrically at the back.

Step 33: Build the wheels. take a yellow 2x2 tile with top technic connector and put it on top of a grey 2x2 plate with wheel holder. Put the wheels on the side shafts of the 2x2 with wheel holders and put the tires on the wheels. Repeat to make 4 such wheel parts. Mount them underneath your structure by connecting them into the 4 holes at the left and right edges.

Step 34: Take a black 2x4 plate and put it upside down horizontally on the table. Put a 2x2 with wheel holder vertically on the right end fork to the top and to the right and put the wheels on it. Put a red 2x2 round plate to the left upside-down. Turn your part right-side up and put a dark grey 5-stud-long axle 1/8 of the way through into the disk, stop end first the rest of the axle protrudes to the top. Take a 12-tooth grey bevel gear and put it on the axle teeth to the bottom, pushing it all the way down, so that it touches the 2x4 plate. Repeat to make another such part.

Step 35: Stick this part from the bottom into your structure at the front right by sticking the axle into the middle of the 2x4 plate that's there. Your wheel will be touching the table and your axle protrudes up. Put a yellow pulley on the axle, sliding it all the way down. Insert the other wheel the same way behind the previous piece and put the other yellow pulley on top. Stack two red 2x2 round red plates and put them on top. Repeat with the other part at the back.
Step 36: Make a part, Put a webbed dark grey 6x6 dish on the table. Put a grey 2x2 plate on top and put a light grey engine piece on top. Repeat to make two such parts and mount them onto the axles. As you roll the hovercraft, the engines should spin.
Step 37: Make a radar: take a black lance piece and hold it upright. Put a white 2x2 dish on top, upside-down stud to the bottom. Put another white 2x2 dish on top, stud to the top. Clip this part using the lance's handle into the horizontal clip at the left front of your structure. Put the antenna in the clip at the left back of your structure.
Step 38: Put the axes, walkie talkie and circular saw into the clips in the left middle of your structure on the inside. There are two remaining long rectangular stickers to apply to the sides of the hovercraft hull. Apply the stickers with the set number horizontally onto the front and back sides of the hull with the ends with the number 7944 towards the back of the hovercraft.

Advertisements on the back show this set and the LEGO® City Fire station (7945), the LEGO® City Fire helicopter (7238), the LEGO® City Fire Truck (7239), the LEGO® City Fire Car (7241) and the LEGO® City Off Road Fire Rescue (7942)

Enjoy!

Thank you so much for building this set!

Visit legofortheblind.com for more accessible instructions!

Abbreviation definitions:

F = flat (Plate.)
FS = flat smooth (tile)
Slide = slope.
Lip = inverted slope.
Ribbed stick = Technic axle.
Connector = Technic pin.
Stubby or Short connector = Technic pin with stud.
Long connector = elongated Technic pin.
Nail = technic axle with end stop.
Fat nut = Technic joiner.
Thin nut = Technic stop.
Elbow = technic joiner 90 dg.
1x1, 2x1, 3x1… means a 1x1, 2x1, 1x3… brick.
Ver = vertically.
Hor = horizontally.
Symm = symmetrically.
LMA = Lay Momentarily Aside.
PP = previous piece.
Sep bag = separate bag.
Braille letters (for placing corner pieces):
D = open corner to the front left.
F = open corner to the front right.
J = open corner to the back left.
H = open corner to the back right.