40517 Vespa
Adapted by John Le and tested by Jolene Nemeth.

Kids can pretend to zip through the streets with this brilliant model of the iconic Vespa (40517) scooter. It features many of the Vespa's distinctive details, including its handlebars and seat, and comes in a bold red color. A brilliant gift for LEGO® fans aged 9 and up who have a passion for cool vehicles.

Authentic features – Kids can play out fun scenes with the LEGO® Creator Vespa scooter and enjoy details such as its distinctive handlebars and seat.

Creative fun – LEGO® fans aged 9 and up who love vehicles can use the Vespa to play out action-packed stories or add it to other sets for more fun.

Portable Play – The Vespa measures over 3.5 in. (9 cm) high, 4.5 in. (12 cm) long and 2 in. (6 cm) wide, so it can be played with at home or taken on a playdate.

The front of the box shows a red vespa parked on a street in front of a bunch of buildings!

The back of the box shows the red vespa parked on the street! It has handle bars, a seat, a headlight, and a brake light!

The top of the box shows a real size image of 1 of the tires!

The build is 118 pieces in total and is for ages 9+.

2 bags labeled 1 include the pieces for the red vespa.

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: with the longest side going from front to back
- Horizontally: with the longest side going from left to right.
- Upright: pointing up towards the ceiling.
- Standing upright: The piece is perpendicular to the ground, like a wall.
- Lying flat: The piece is parallel to the ground, like a piece of toast which fell off the table.
- That one/ppp: previously placed piece.
- Plate: piece with studs.
- Tile: smooth piece without studs (unless otherwise specified)
- A jumper plate is a 1x2 plate with a single stud on top, or a 1x3 plate with only two studs on top.
- "Anti-stud" is a term for the portion of a LEGO piece which accepts studs, like the bottom of a plate or brick.
- Symmetrically: a mirror image. Example: If you place a 2x1 brick with technic

connector on the front wall at the right, connector to the front, and then place another such piece symmetrically on the back wall, at the right, the technic connector of the second piece should point to the back, since it will be placed symmetrically.
- Centered-vertically: even amount of space in front of and behind piece
- Centered-horizontally: even amount of space left and right of piece.
- Row: studs lined up horizontally (left to right/side to side).
- Column: studs lined up upright or vertically (top to bottom/back to front).

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 for each set: (https://www.lego.com/en-us/service/buildinginstructions/40517) 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.

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

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

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

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

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 2 bags labeled 1, 1 set of instructions, and some loose pieces. Sort the pieces into groups or piles as described below. Note that where there are multiple colors of the same brick in a step, the colors will be split into 2 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 - Red Vespa
Group 1 - Steps 1-14.
Group 2 - Steps 15-23.
Group 3 - Steps 24-32.
Group 4 - Steps 33-44.
Group 5 - Steps 45-47.

Let’s get to building!

Building Instructions (Bag 1, Book 1):

Group 1 - Red Vespa

1. Horizontally place a dark grey 2x2 plate with 2 extended rounded parts with holes in front of you so the studs are on the left and the holes are on the right and face the front and back.

2. Horizontally place a black 1x5 plate underneath the front row so 3 columns are exposed to the left. Then repeat symmetrically to the back.

3. Vertically place a red 1x2 rounded plate on the rightmost column so it is centered vertically. Then place a light grey 1x1 round plate with a bar on the front row to the left so the bar faces the front. Then repeat symmetrically to the back.

4. Place a light grey 1x1 round plate with a bar on the front left corner so the bar faces the front. Then repeat symmetrically to the back. Now place a white 2x2 plate to the right.

5. Place a red 1x2 brick with a hole and a 1x2 plate part on the 3rd and 4th columns from the left so it is centered vertically and the hole faces the left.

6. Vertically place 2 red 1x2 bricks with an axle hole, 1 to the right of the other, on the 2 leftmost columns so they are centered vertically. Then place a white 2x2 plate on the 2 rightmost columns so it is centered vertically.

7. Horizontally place a black 1x2 plate with 2x2 side studs sticking up on the front row of the 2 rightmost columns so the side studs face the front. Then repeat symmetrically to the back.

8. Vertically place a red 1x2 tile on the leftmost column. Then horizontally place 2 red 1x3 inverted half arch bricks, 1 in front of the other, to the right of the ppp so they slope to the left. Then horizontally place a light grey 2x3 inverted slope brick to the right so it is centered vertically and slopes and overhangs 2 columns to the right.

9. Place a white 2x2 plate on the 2nd and 3rd columns from the right so it is centered vertically. Then horizontally place 2 red 1x3x2 half arch bricks, 1 in front of the other, to the left of the ppp so they arch to the left.

10. Place a red 2x2 round plate on the 2nd and 3rd columns from the right. Then horizontally place a red 2x3 plate on the 2nd 3rd and 4th columns from the right

11. Vertically place a red 1x2 jumper plate on the 3rd column from the right. Then vertically place a red 1x2 brick with an axle hole to the left.

12. Horizontally place a black 1x2 plate with 2x4 side studs hanging down on the front right corner so it overhangs 1 column to the right and the side studs face the front. Then repeat symmetrically to the back. Now vertically place a black 3x4 triple sloped curved wedge brick to the left of the 1x2 jumper plate so it is centered vertically and slopes to the left.

13. Horizontally place a red 1x2 plate with a clip on the short side on the front right corner so the clip faces the right. Then repeat symmetrically to the back.

14. Horizontally place a red 2x4 sloped curved tile on the 4 rightmost columns so it is centered vertically and slopes to the right.

Group 2 - Red Vespa

15. Horizontally place a red 1x6 plate upright on the bottom row of front-facing side studs so it is centered horizontally on them.

16. Place a red 2x2 plate with a cutoff corner upright on the top left front-facing side studs so 1 row overhangs to the top and the cutoff corner faces the top left. Then horizontally place a red 2x4 wedge plate upright to the right so the angled side overhangs 1 row to the top and the short end faces the right.

17. Place a red 2x2 corner slope brick upright on the top left front-facing side studs so it sits on the 2x2 plate with a cutoff corner and it slopes to the top left. Now place another 1 upright below it so it slopes to the bottom left.

18. Place a red 4x4 triple sloped curved wedge brick upright on the front-facing side studs to the right of the 2 ppp so it is centered vertically to them and slopes to the right.

19.1. Let's make a part! Let's make the brake light and license plate! Place a black 2x2 inverted sloped curved tile in front of you so the higher studs are on the right. Then vertically place a red 1x2 jumper plate on the right column.

19.2. Vertically place a red 1x2 plate with a bar on the long side on the left column so the bar faces the left.

19.3. Place a red 2x2 sloped curved tile with a sticker on top so it slopes to the left.

19.4. Skip this step if you have already placed your sticker! Ask a helper to place sticker 3 on the red 2x2 sloped curved tile. This sticker has a white license plate with the numbers 1946. Make sure the sticker is placed on correctly and is oriented on the build correctly, ask a sighted person to check.

19.5. Attach the clip of a light grey 1x1 tile with a clip to the bar so it is centered vertically and the anti-stud faces up. Now attach a transparent 1x1 plate to the anti-stud.

19.6. Attach the bar of your part to the right-facing clips of the main build so the sticker is at the bottom and faces the right.

20. Rotate your build 180 degrees so the side studs face the front. Now horizontally place a red 1x6 plate upright on the bottom row of front-facing side studs so it is centered horizontally on them.

21. Place a red 2x2 plate with a cutoff corner upright on the top right front-facing side studs so 1 row overhangs to the top and the cutoff corner faces the top right. Then horizontally place a red 2x4 wedge plate upright to the left so the angled side overhangs 1 row to the top and the short end faces the left.

22. Place a red 2x2 corner slope brick upright on the top right front-facing side studs so it sits on the 2x2 plate with a cutoff corner and it slopes to the top right. Now place another 1 upright below it so it slopes to the bottom right.

23. Place a red 4x4 triple sloped curved wedge brick upright on the front-facing side studs to the left of the 2 ppp so it is centered vertically to them and slopes to the left. Put your build away now while we make the front of the vespa!

Group 3 - Red Vespa

24. Horizontally place a dark grey 2x8 plate with holes in front of you. Then vertically place a red 1x2 plate with bars on the short sides on the leftmost column so it is centered vertically.

25. Vertically place a red 2x6 plate with a rounded side on the 2nd and 3rd columns from the left so it is centered vertically and the rounded side faces the left. Then vertically place a red 2x6 plate to the right so it is centered vertically. Now vertically place a red 1x4 plate to the right so it is centered vertically.

26. Horizontally place a red 2x6 plate on the 6 leftmost columns so it is centered vertically.

27. Place a red 1x2 curved tile on the front 2 rows on the 2nd and 3rd columns from the left, on top of the 2x6 plate with a rounded side so the curve faces the front left. The curve should align with the curve of the plate! Then repeat symmetrically to the back.

28. Place a red 1x1 quarter circle tile behind the right column of the front ppp so the curve faces the front left. Then repeat symmetrically to the back.

29. Vertically place a red 1x2 jumper plate on the leftmost column so it is centered vertically.

30.1. Let's make a part! Vertically place a red 1x6 plate in front of you. Then vertically place a black 1x2 brick with a pinhole on top so it is centered vertically.

30.2. Insert the pin of a red 2x2 brick with a pin into the left-facing hole so the brick overhangs to the left. Then place a red 2x2 round plate underneath the overhang.

30.3. Horizontally place a red 1x1 plate with 1x1 slope tile on the 2nd row from the front so it slopes and overhangs to the right. Then place a red 1x1 brick with a side stud and a bottom lip on top so the side stud faces the left. Now repeat both parts symmetrically to the back.

30.4. Vertically place your part underneath the 3 rightmost columns so it is centered vertically and the side studs face the left.

31. Horizontally place a red 1x3x2 sloped curved brick with a 1x1 plate part on the front right corner so it overhangs to the left and slopes to the right. Then repeat symmetrically to the back.

32.1. Horizontally place a red 2x3 tile with a sticker on the front 2 rows on top of the ppp. Then repeat symmetrically to the back but with no sticker.

32.2. Skip this step if you have already placed your sticker! Ask a helper to place sticker 3 on the red 2x3 tile. This sticker says vespa on it. Make sure the sticker is placed on correctly and is oriented on the build correctly, ask a sighted person to check.

33. Let's make a part! Insert a light grey wheel into a black tire.

34. Insert a light grey 2L pin into each side of the wheel so the pins face front and back.

35.1. Let's make 2 identical parts! Place a red 1x1 brick with a side stud and bottom lip in front of you so the side stud faces the right. Now place a black 1x1 round plate upright on the right-facing side stud. Now insert the bar of a black double pin connector with a bar into the ppp so the holes are on the top right and face the front and back.

35.2. Now you should have 2 identical parts! Horizontally attach the top right hole to the front-facing pin of the wheel so the 1x1 brick with a side stud and bottom lip is on the left. Then repeat symmetrically to the back.

36. Vertically attach the side studs of a red 1x4 brick with 4 side studs to the left-facing anti-studs so it is centered vertically.

37. Vertically place your part on the 2 rightmost columns of your previous part so it is centered vertically and the tire is on the right.

38. Horizontally place the rightmost column of 2 red 1x3 inverted half arch bricks, 1 in front of the other, on the 2nd column from the right so they are centered vertically and slope to the left.

39. Place a red 1x1 quarter circle tile to the left of the front ppp so the curve faces the front left. Then repeat symmetrically to the back.

40. Stack 2 red 1x2 rounded plates so there is no overhang, then horizontally place them on the 2 rightmost columns in front of the 1x3 inverted half arch bricks so there is no overhang. Then repeat symmetrically to the back.

41. Place the front row of a red 2x2 corner sloped curved brick with a 1x1 plate part on top of the front ppp so the stud is in the back right. Then repeat symmetrically to the back. Now vertically place a red 1x2 tile on top of them.

42. Place a dark grey 2x2 round tile with a stud on the jumper plate that is on the leftmost column so it is centered on it. Then place a transparent 2x2 dish on top.

43. Attach the clip of a red bar holder with a clip to the front-facing bar on the leftmost column so the bar hole faces the front. Then insert a black 2L bar with a stop into it. Now repeat both parts symmetrically to the back. These are the handlebars! Flip your part over so it is upside down, horizontal, and the handlebars are on the right. Now insert a yellow 5L axle into the 2x2 round plate that is on the 3rd and 4th columns from the left so it is centered on it.

44. Bring back your main build and orient it so it is horizontal and the anti-stud of the 1x1 plate faces the left. Now attach the axle of your part to the right-facing axle hole of your main build so the wheel is in the bottom right!

45. Flip your build upside down so it is horizontal and the wheel is on the right. Now insert a light grey wheel into a black tire, then place it between the 2 leftmost holes that face the front and back, then insert a 3L pin with a stop into the back-facing side of it.

46.1. Let’s make a part! Horizontally place a red 2x3 plate in front of you. Then horizontally place a red 1x2 plate with a stud and a clip on the back right corner so the clip is on the right.

46.2. Horizontally place a dark grey 1x3 plate on the front row. Then place a black 1x1 plate with a clip on the back left corner so the clip faces the left. Now horizontally place a red 2x2 tile on the 2 leftmost columns. Then place a red 1x1 quarter circle tile on the front right corner so the curve faces the back left.

46.3. Flip your vespa over so it is right side up, horizontal, and the handlebars are on the right. Now horizontally attach the clips of your part to the 2 front-facing bars that are centered horizontally at the bottom of the build and the tiles face up.

47.1. Let's make a part! Horizontally place a red 2x3 plate in front of you. Then horizontally place a red 1x2 plate with a stud and a clip on the back left corner so the clip is on the left.

47.2. Horizontally place a dark grey 1x3 plate on the front row. Then place a black 1x1 plate with a clip on the back right corner so the clip faces the right. Now horizontally place a red 2x2 tile on the 2 rightmost columns. Then place a red 1x1 quarter circle tile on the front left corner so the curve faces the back right.

47.3. Rotate your main build 180 degrees so the handlebars are on the left. Now horizontally attach the clips of your part to the 2 front-facing bars that are centered horizontally at the bottom and the tiles face up.

Congratulations on finishing your build! Would you like to inspire other blind people to build LEGO sets? Let's feature your build on our Builders page. It's easy and we will do all the work! Just contact us at info@bricksfortheblind.org and together we will make it happen!

Please signup for our newsletter and follow us on Facebook and Instagram to be the first to know when new instructions are available!

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At the end of the instruction booklets are advertisements for the following 5 LEGO Creator 3 in 1 Theme kits:

31125 Fantasy Forest Creatures

31124 Super Robot

31123 Off-road Buggy

31127 Street Racer

21128 Dolphin and Turtle