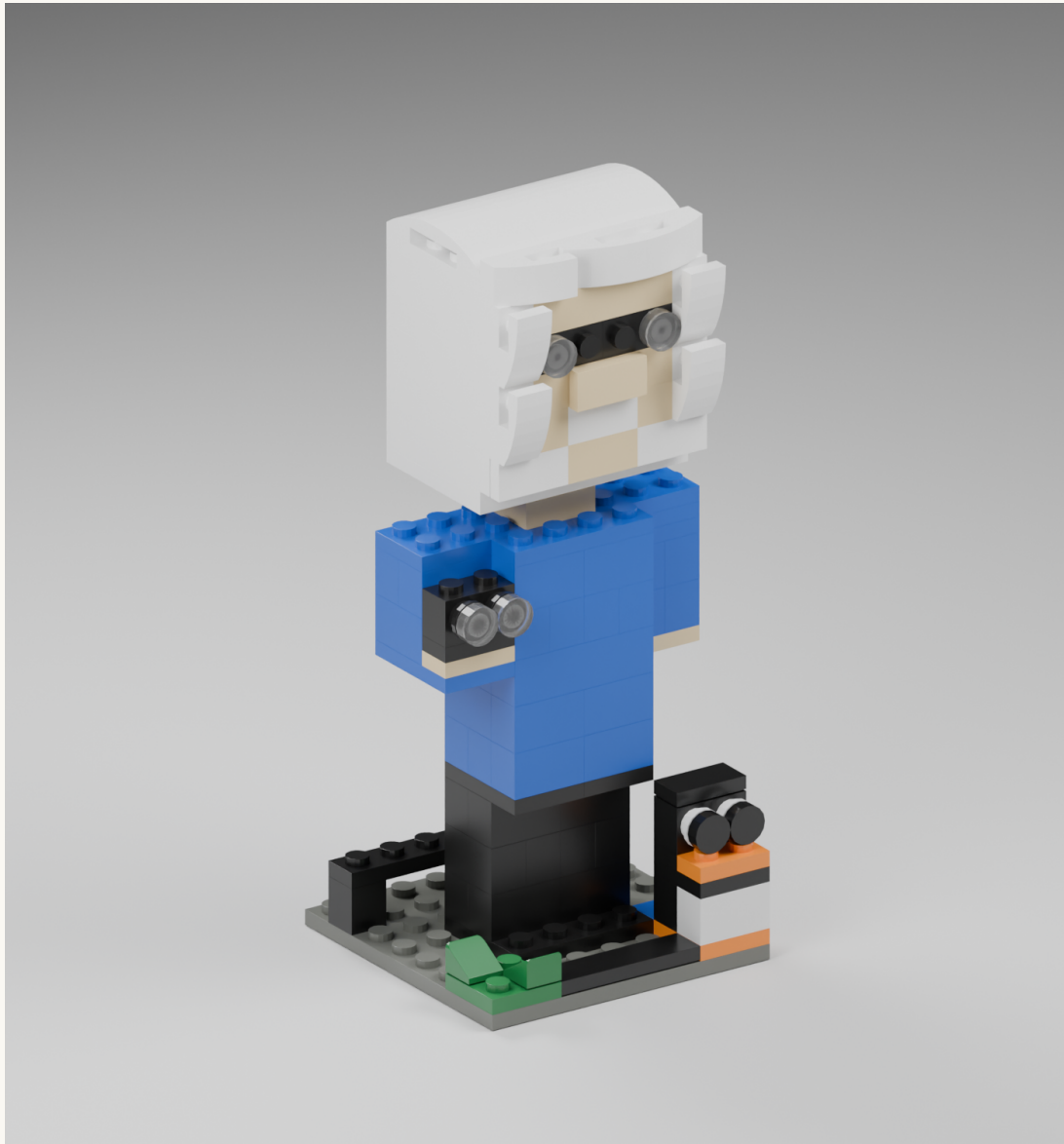


Sandy at the Zoo

182 pieces / 64 × 64 × 153.6 mm / Intermediate



Sandy is a 15.36 cm brick-built desk figure with a silver-white curled bob, dark glasses, a blue top and black trousers. A sideways 6×6 face panel carries a plate-and-tile smile, nose and glasses, with SNOT-mounted curved hair. The arms are separate builds locked under overlapping shoulder plates; the bent arm carries brick-built binoculars. A small penguin, water tile, greenery and rail make the 8×8 base a zoo vignette.

Digital model and connection checks completed. Not physically test-built; clutch strength has not been measured. All construction pieces are genuine LEGO catalog elements. The studio background is not part of the build.

Parts list

LEGO color names. Element IDs specify both shape and color; quantities include the zoo scene. No spare parts are included.

Element ID	Part name	Color	Qty
300526	Brick 1×1	Black	2
4558954	Brick 1×1 with one side stud	Black	4
300426	Brick 1×2	Black	13
302326	Plate 1×2	Black	4
366626	Plate 1×6	Black	1
302226	Plate 2×2	Black	1
302126	Plate 2×3	Black	4
614126	Round plate 1×1	Black	2
6284070	Round tile 1×1	Black	2
306926	Tile 1×2	Black	1
243126	Tile 1×4	Black	1
4114306	Brick 2×2	Brick Yellow	1
4113917	Plate 1×2	Brick Yellow	2
4114084	Plate 2×2	Brick Yellow	1
4125253	Tile 1×1	Brick Yellow	4
4114026	Tile 1×2	Brick Yellow	2
4550324	Tile 1×4	Brick Yellow	1
300423	Brick 1×2	Bright Blue	32
301023	Brick 1×4	Bright Blue	3
371023	Plate 1×4	Bright Blue	1

Total: 182 pieces · 40 element/color entries

Parts list / continued

LEGO color names. Element IDs specify both shape and color; quantities include the zoo scene. No spare parts are included.

Element ID	Part name	Color	Qty
302223	Plate 2×2	Bright Blue	2
302123	Plate 2×3	Bright Blue	1
302023	Plate 2×4	Bright Blue	2
306923	Tile 1×2	Bright Blue	1
4177932	Plate 1×2	Bright Orange	3
302228	Plate 2×2	Dark Green	1
4546705	Slope 1×1×2/3	Dark Green	2
4210802	Plate 8×8	Dark Stone Grey	1
6514191	Round tile 1×1	Transparent	4
300501	Brick 1×1	White	12
4558952	Brick 1×1 with one side stud	White	6
300401	Brick 1×2	White	28
6034044	Curved slope 1×2×2/3	White	7
6047220	Curved slope 2×2×2/3	White	6
302301	Plate 1×2	White	4
302001	Plate 2×4	White	6
379501	Plate 2×6	White	8
4144012	Plate 6×6	White	1
614101	Round plate 1×1	White	2
306901	Tile 1×2	White	3

Total: 182 pieces · 40 element/color entries

Each entry was looked up in the US LEGO Pick a Brick catalog during preparation. LEGO may change stock or element numbers later. Import pick-a-brick.csv on LEGO.com; review any rejected lines before buying.

Coordinate key

Keep the numbered coordinate plan beside the build. Coordinates always describe the final installed position, even while an arm, head, face or prop is built separately.

Base plan: $x=0-7$ left to right in the plan; $y=0-7$ from back to front. Origin (0,0) is the back-left cell. z is height in plates above the underside of the base: 1 plate=3.2 mm; 1 brick=3 plates; 1 stud=8 mm. The base occupies $z=0-1$.

Upright parts: (x,y,z) gives the lowest-index stud cell and bottom height. "4×2" means 4 studs along x and 2 along y . All ordinary studs point $+z$. There are no inverted parts.

Sideways parts: $F(x,y,z; d)$ gives the first, lowest- x / lowest- z stud center on the mounting face. y is the reference face plane in stud units; d is its outward offset in plates. Physical anchor: $(8x+4, 8y+3.2d, 3.2z)$ mm. Studs point $+y$; additional rows rise by 2.5 plate heights. F sizes are width along $x \times$ rows upward.

For the face, $y=6$. Build its 6×6 backing flat with row 0 nearest you, then turn it upright. In the front-view diagrams x increases toward the left; use the printed column labels. Thin orange borders identify added parts; circles indicate stud positions, not printed decoration.

Curves: the thick/high end and thin/low end are stated explicitly. Side-stud bricks stay upright, with their extra stud pointing $+y$. A bracketed "d" describes depth, not a loose spacer you should add.

Build order: base and body → separate arms → shoulder lock → separate binoculars → separate head and face → head attachment → penguin scene.

01 Base

TOP / coordinate plan

0 1 2 3 4 5 6 7

0

1

2

3

4

5

6

7

BACK = y0 / FRONT = y7

1 × Plate 8×8 · Dark Stone Grey

(0,0,0)

8×8; studs +z.

02 Feet

TOP / coordinate plan

0 1 2 3 4 5 6 7

0

1

2

3

4

5

6

7

BACK = y0 / FRONT = y7

2 × Plate 2×3 · Black

(2,3,1); (4,3,1)

2×3; studs +z.

03 Trouser layer 1

TOP / coordinate plan

01234567

0

1

2

3

4

5

6

7

0

1

2

3

4

5

6

7

4 × Brick 1×2 · Black

(2,3,2); (2,4,2); (4,3,2); (4,4,2)

2×1; studs +z.

04 Trouser layer 2

TOP / coordinate plan

01234567

0

1

2

3

4

5

6

7

0

1

2

3

4

5

6

7

4 × Brick 1×2 · Black

(2,3,5); (3,3,5); (4,3,5); (5,3,5)

1×2; studs +z.

05 Trouser layer 3

TOP / coordinate plan

	0	1	2	3	4	5	6	7
0								
1								
2								
3			○	○	○	○		
4			○	○	○	○		
5								
6								
7								

BACK = y0 / FRONT = y7

4 × Brick 1×2 · Black
(2,3,8); (2,4,8); (4,3,8); (4,4,8)
2×1; studs +z.

06 Waist tie

These 2×3 plates bridge each leg to the forward shirt row. Four studs grip each leg; one row overhangs.

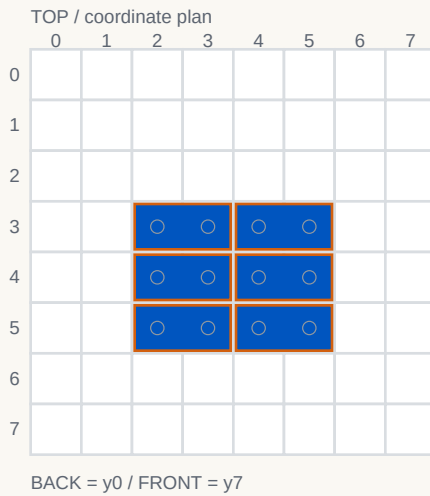
TOP / coordinate plan

	0	1	2	3	4	5	6	7
0								
1								
2								
3			○	○	○	○		
4			○	○	○	○		
5			○	○	○	○		
6								
7								

BACK = y0 / FRONT = y7

2 × Plate 2×3 · Black
(2,3,11); (4,3,11)
2×3; studs +z.

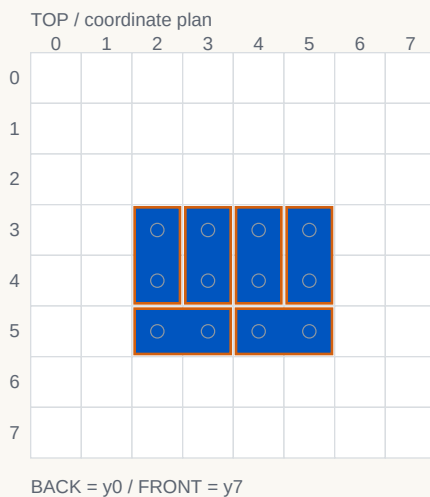
07 Blue shirt layer 1



6 × Brick 1×2 · Bright Blue

(2,3,12); (4,3,12); (2,4,12); (4,4,12); (2,5,12); (4,5,12)
2×1; studs +z.

08 Blue shirt layer 2



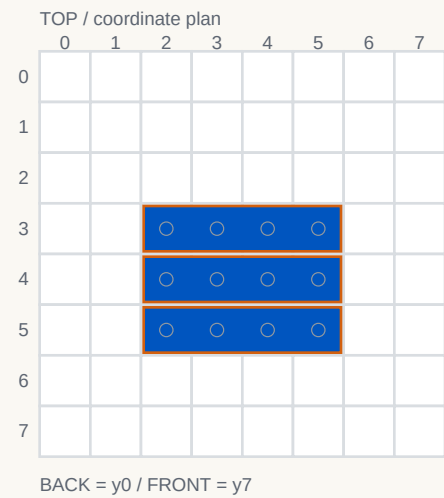
4 × Brick 1×2 · Bright Blue

(2,3,15); (3,3,15); (4,3,15); (5,3,15)
1×2; studs +z.

2 × Brick 1×2 · Bright Blue

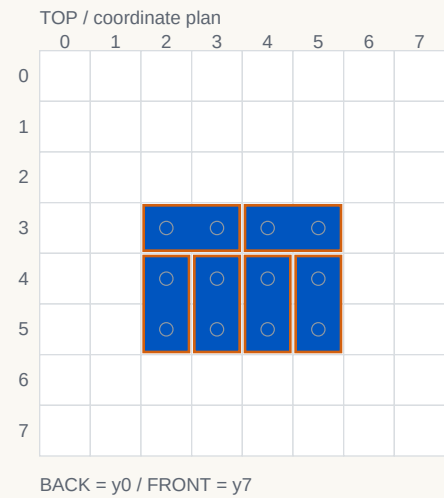
(2,5,15); (4,5,15)
2×1; studs +z.

09 Blue shirt layer 3



3 × Brick 1×4 · Bright Blue
(2,3,18); (2,4,18); (2,5,18)
4×1; studs +z.

10 Blue shirt layer 4



4 × Brick 1×2 · Bright Blue
(2,4,21); (3,4,21); (4,4,21); (5,4,21)
1×2; studs +z.

2 × Brick 1×2 · Bright Blue
(2,3,21); (4,3,21)
2×1; studs +z.

11 Blue shirt layer 5

TOP / coordinate plan

01234567

0

1

2

3

4

5

6

7

BACK = y0 / FRONT = y7

6 × Brick 1×2 · Bright Blue

(2,3,24); (4,3,24); (2,4,24); (4,4,24); (2,5,24); (4,5,24)

2×1; studs +z.

12 Arm at side: hand

Build separately; coordinates show its final installed position.

TOP / coordinate plan

01234567

0

1

2

3

4

5

6

7

BACK = y0 / FRONT = y7

1 × Plate 2×2 · Brick Yellow

(0,3,18)

2×2; studs +z.

Original fan design • Genuine LEGO parts • Blank, unmodified name tile

10

13 Arm at side: sleeve

TOP / coordinate plan

01234567

0

1

2

3

4

5

6

7

0

1

2

3

4

5

6

7

2 × Brick 1×2 · Bright Blue

(0,3,19); (1,3,19)

1×2; studs +z.

BACK = y0 / FRONT = y7

14 Arm at side: sleeve

TOP / coordinate plan

01234567

0

1

2

3

4

5

6

7

0

1

2

3

4

5

6

7

2 × Brick 1×2 · Bright Blue

(0,3,22); (1,3,22)

1×2; studs +z.

BACK = y0 / FRONT = y7

15 Arm at side: sleeve tie

TOP / coordinate plan

01234567

0

1

2

3

4

5

6

7

BACK = y0 / FRONT = y7

1 × Plate 2×2 · Bright Blue

(0,3,25)

2×2; studs +z.

16 Arm at side: sleeve tie

TOP / coordinate plan

01234567

0

1

2

3

4

5

6

7

BACK = y0 / FRONT = y7

1 × Plate 2×2 · Bright Blue

(0,3,26)

2×2; studs +z.

Original fan design • Genuine LEGO parts • Blank, unmodified name tile

12

17 Bent arm: elbow

Build separately; front overhang supports the hand.

TOP / coordinate plan

01234567

0

1

2

3

4

5

6

7

BACK = y0 / FRONT = y7

1 × Plate 2×3 · Bright Blue
(6,3,20)
2×3; studs +z.

18 Bent arm: lower sleeve and hand

TOP / coordinate plan

01234567

0

1

2

3

4

5

6

7

BACK = y0 / FRONT = y7

2 × Brick 1×2 · Bright Blue
(6,3,21); (7,3,21)
1×2; studs +z.

1 × Plate 1×2 · Brick Yellow
(6,5,21)
2×1; studs +z.

19 Bent arm: upper sleeve

TOP / coordinate plan

	0	1	2	3	4	5	6	7
0								
1								
2								
3							○	○
4							○	○
5								
6								
7								

BACK = y0 / FRONT = y7

2 × Brick 1×2 · Bright Blue

(6,3,24); (6,4,24)

2×1; studs +z.

20 Attach arms and lock shoulders

Hold both arms in their listed positions. Their upper studs are at z=27. Press the two long plates down across each arm and the torso; each plate has four studs on the arm and four on the torso. No hinges or glue.

TOP / coordinate plan

	0	1	2	3	4	5	6	7
0								
1								
2								
3	○	○	○	○	○	○	○	○
4	○	○	○	○	○	○	○	○
5			○	○	○	○		
6								
7								

BACK = y0 / FRONT = y7

2 × Plate 2×4 · Bright Blue

(0,3,27); (4,3,27)

4×2; studs +z.

1 × Plate 1×4 · Bright Blue

(2,5,27)

4×1; studs +z.

21 Neck

TOP / coordinate plan

01234567

0

1

2

3

4

5

6

7

0

1

2

3

4

5

6

7

1 × Brick 2×2 · Brick Yellow

(3,3,28)

2×2; studs +z.

BACK = y0 / FRONT = y7

22 Binoculars: bridge

Build separately.

TOP / coordinate plan

01234567

0

1

2

3

4

5

6

7

0

1

2

3

4

5

6

7

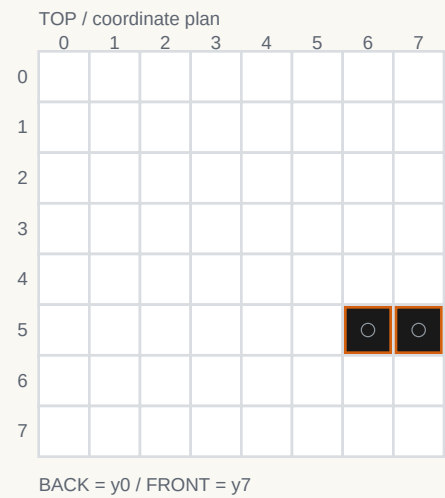
1 × Plate 1×2 · Black

(6,5,22)

2×1; studs +z.

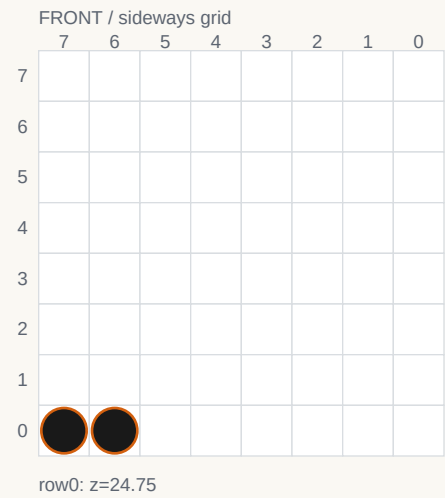
BACK = y0 / FRONT = y7

23 Binoculars: barrels



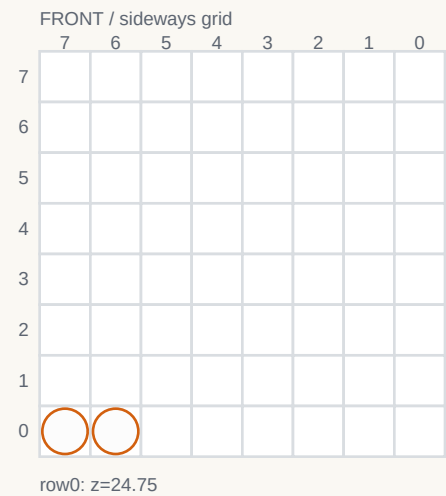
2 × Brick 1×1 with one side stud · Black
(6,5,23); (7,5,23)
1×1; upright; extra stud +y.

24 Binoculars: lens rims



2 × Round plate 1×1 · Black
F(6,6,24.75; 0); F(7,6,24.75; 0)
1×1; studs +y.

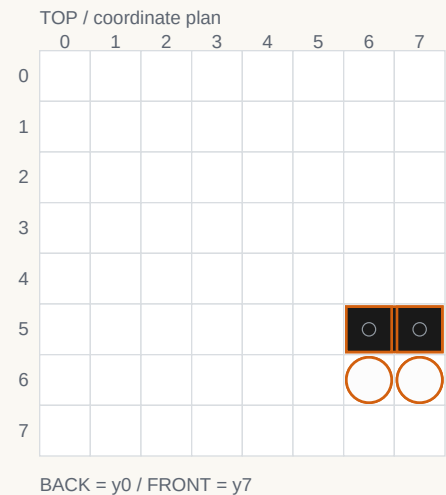
25 Binoculars: lenses



2 × Round tile 1×1 · Transparent
F(6,6,24.75; 1); F(7,6,24.75; 1)
1×1; smooth face +y.

26 Attach binoculars

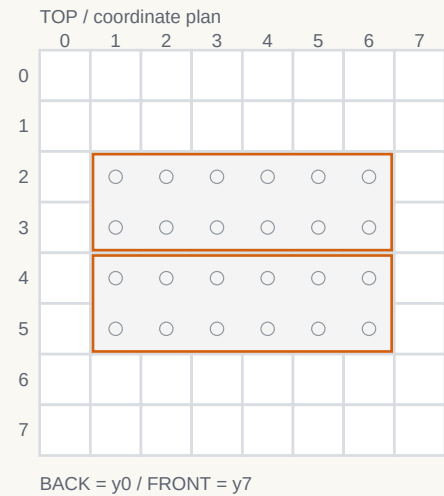
Press the bridge underside onto both hand studs at (6,5,22) and (7,5,22). Lenses point forward (+y). No new loose parts.



Add: no new loose parts.
Attach the completed subassembly as described above.

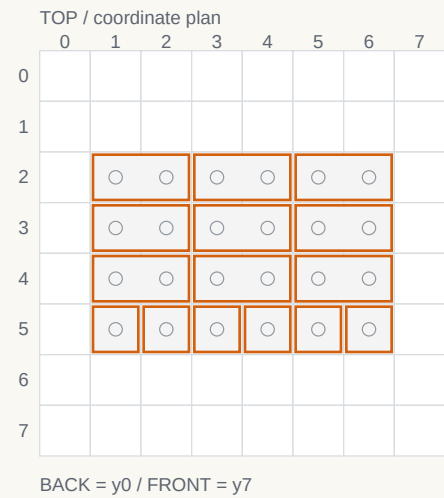
27 Head: foundation

Build separately. Final coordinates are used throughout. Keep the two plates aligned on the table until the crosswise ties in step 30 connect both halves.



2 × Plate 2×6 · White
(1,2,31); (1,4,31)
6×2; studs +z.

28 Head: hair/core band 1

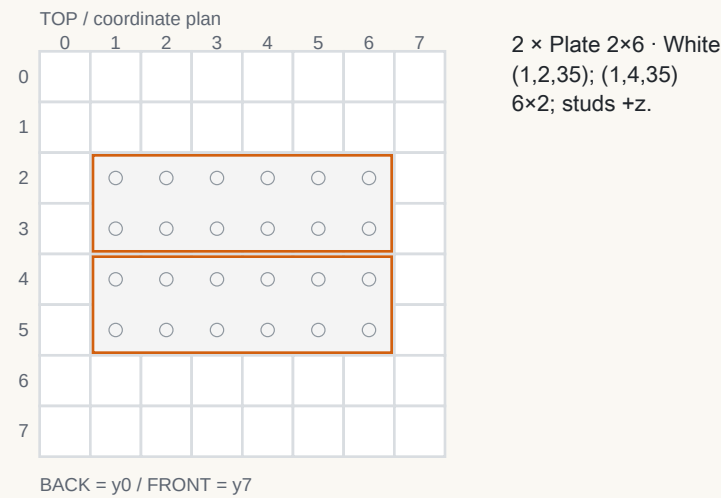


9 × Brick 1×2 · White
(1,2,32); (3,2,32); (5,2,32); (1,3,32); (3,3,32); (5,3,32); (1,4,32); (3,4,32); (5,4,32)
2×1; studs +z.

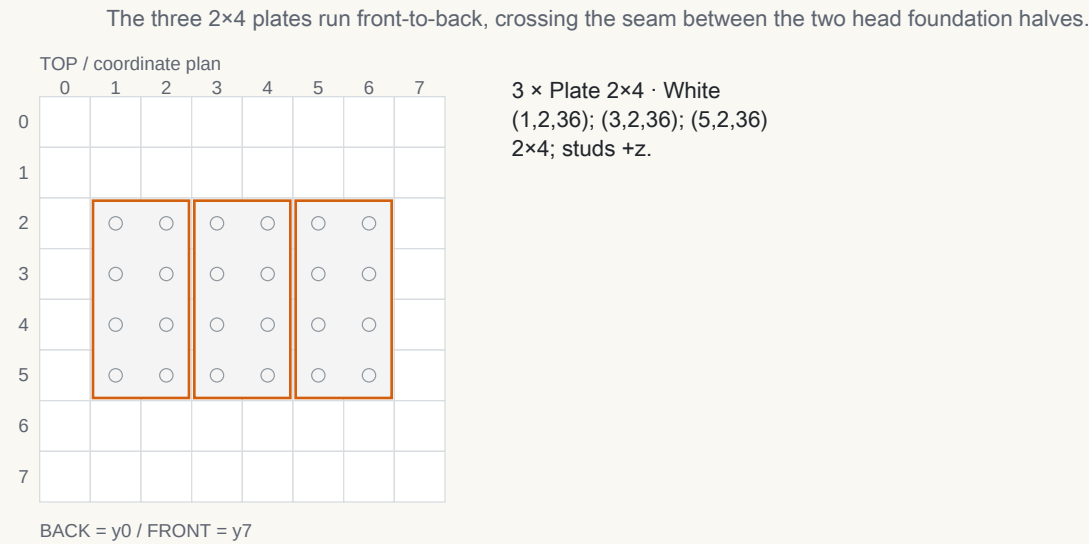
4 × Brick 1×1 · White
(1,5,32); (3,5,32); (4,5,32); (6,5,32)
1×1; studs +z.

2 × Brick 1×1 with one side stud · White
(2,5,32); (5,5,32)
1×1; upright; extra stud +y.

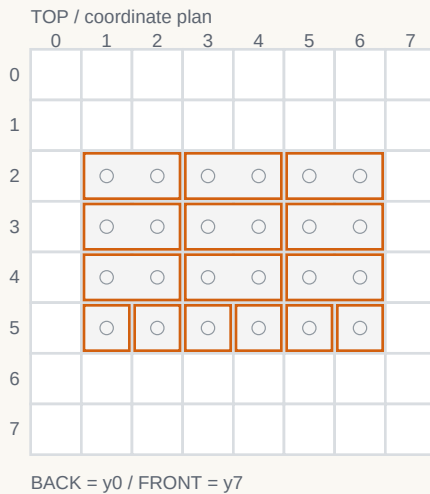
29 Head: cross-tie 1



30 Head: five-plate stud spacing 1



31 Head: hair/core band 2



9 × Brick 1×2 · White

(1,2,37); (3,2,37); (5,2,37); (1,3,37); (3,3,37); (5,3,37); (1,4,37); (3,4,37); (5,4,37)
2×1; studs +z.

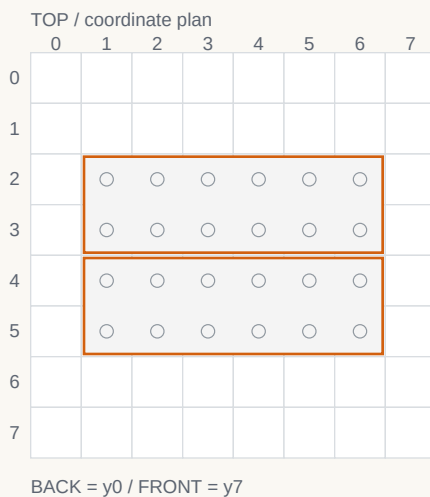
4 × Brick 1×1 · White

(1,5,37); (3,5,37); (4,5,37); (6,5,37)
1×1; studs +z.

2 × Brick 1×1 with one side stud · White

(2,5,37); (5,5,37)
1×1; upright; extra stud +y.

32 Head: cross-tie 2

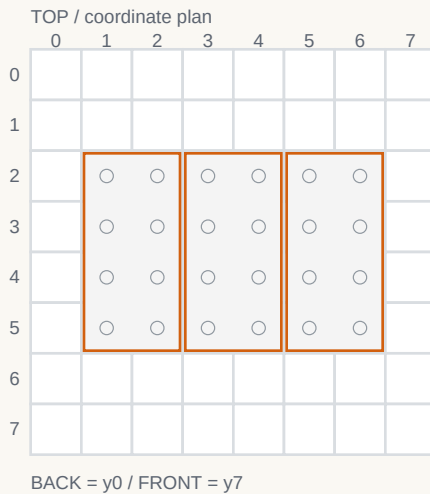


2 × Plate 2×6 · White

(1,2,40); (1,4,40)
6×2; studs +z.

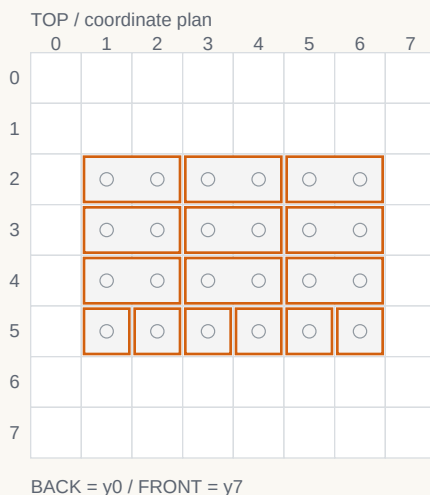
33 Head: five-plate stud spacing 2

The three 2×4 plates run front-to-back, crossing the seam between the two head foundation halves.



3 × Plate 2×4 · White
 (1,2,41); (3,2,41); (5,2,41)
 2×4; studs +z.

34 Head: hair/core band 3

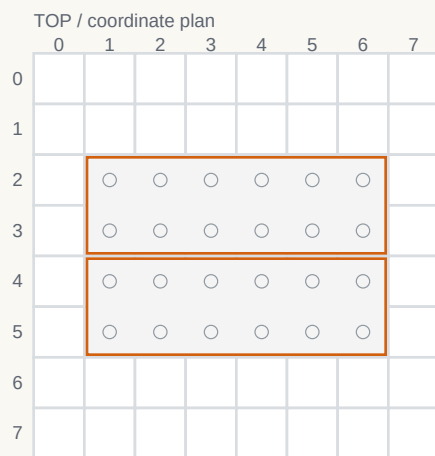


9 × Brick 1×2 · White
 (1,2,42); (3,2,42); (5,2,42); (1,3,42); (3,3,42); (5,3,42); (1,4,42); (3,4,42); (5,4,42)
 2×1; studs +z.

4 × Brick 1×1 · White
 (1,5,42); (3,5,42); (4,5,42); (6,5,42)
 1×1; studs +z.

2 × Brick 1×1 with one side stud · White
 (2,5,42); (5,5,42)
 1×1; upright; extra stud +y.

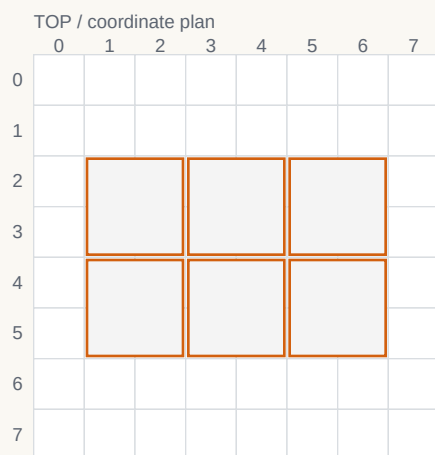
35 Head: cross-tie 3



2 × Plate 2×6 · White
 (1,2,45); (1,4,45)
 6×2; studs +z.

BACK = y0 / FRONT = y7

36 Head: curved crown



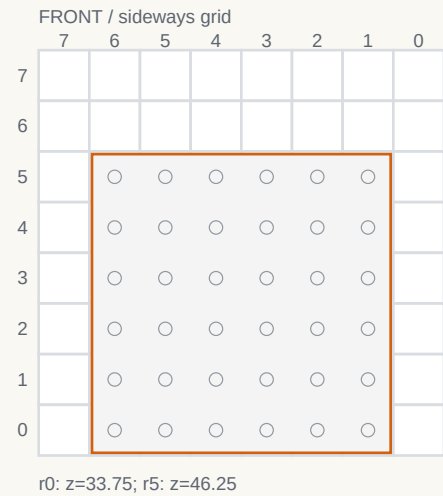
3 × Curved slope 2×2×2/3 · White
 (1,2,46); (3,2,46); (5,2,46)
 2×2; thick end +y.

3 × Curved slope 2×2×2/3 · White
 (1,4,46); (3,4,46); (5,4,46)
 2×2; thick end -y.

BACK = y0 / FRONT = y7

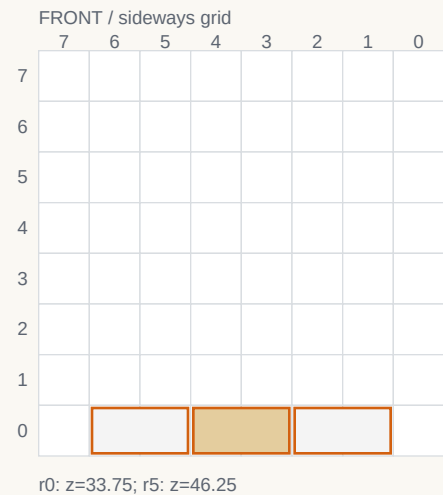
37 Face: backing plate

Build flat on the table, then turn upright for attachment. Listed z values are stud-center heights, not lower edges. All face parts point forward (+y).



1 × Plate 6×6 · White
F(1,6,33.75; 0)
6×6; studs +y.

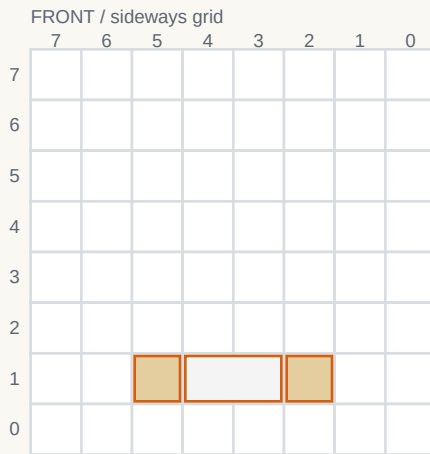
38 Face: chin row



2 × Tile 1×2 · White
F(1,6,33.75; 1); F(5,6,33.75; 1)
2×1; smooth face +y.

1 × Tile 1×2 · Brick Yellow
F(3,6,33.75; 1)
2×1; smooth face +y.

39 Face: smile row



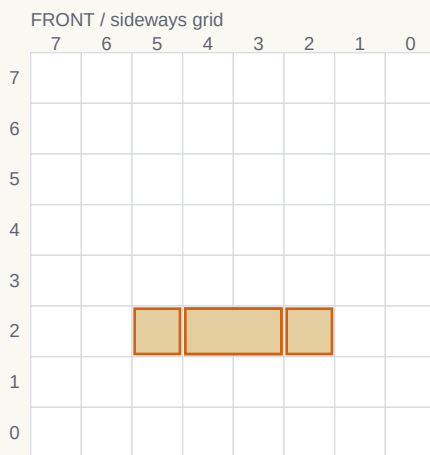
r0: z=33.75; r5: z=46.25

2 × Tile 1×1 · Brick Yellow
F(2,6,36.25; 1); F(5,6,36.25; 1)
1×1; smooth face +y.

1 × Tile 1×2 · White
F(3,6,36.25; 1)
2×1; smooth face +y.

40 Face: cheeks and nose

Add the plate first; press the nose tile onto its two outward studs.



r0: z=33.75; r5: z=46.25

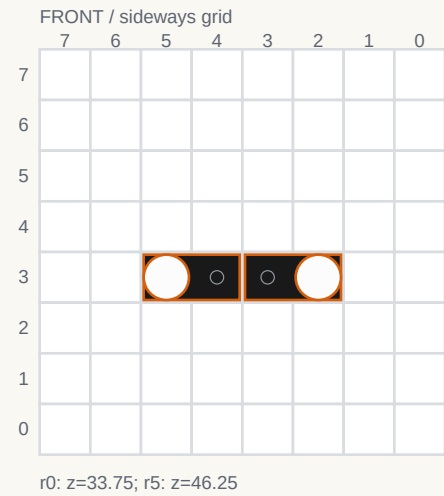
2 × Tile 1×1 · Brick Yellow
F(2,6,38.75; 1); F(5,6,38.75; 1)
1×1; smooth face +y.

1 × Plate 1×2 · Brick Yellow
F(3,6,38.75; 1)
2×1; studs +y.

1 × Tile 1×2 · Brick Yellow
F(3,6,38.75; 2)
2×1; smooth face +y.

41 Face: glasses row

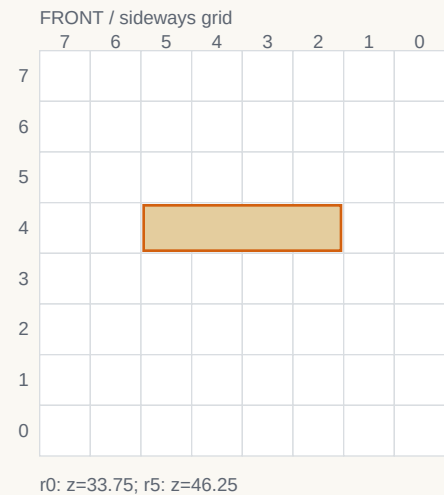
Add both black plates first; attach the clear lenses to the two outer studs. The two middle studs form the bridge.



2 × Plate 1×2 · Black
F(2,6,41.25; 1); F(4,6,41.25; 1)
2×1; studs +y.

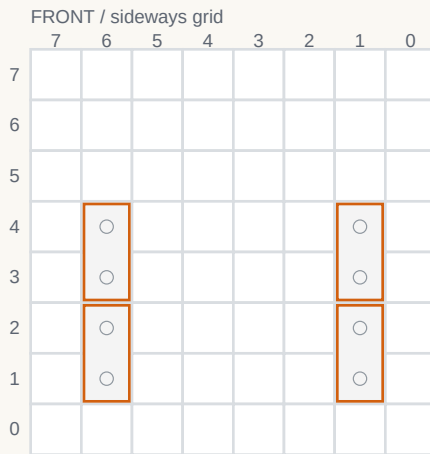
2 × Round tile 1×1 · Transparent
F(2,6,41.25; 2); F(5,6,41.25; 2)
1×1; smooth face +y.

42 Face: forehead row



1 × Tile 1×4 · Brick Yellow
F(2,6,43.75; 1)
4×1; smooth face +y.

43 Face: bob supports

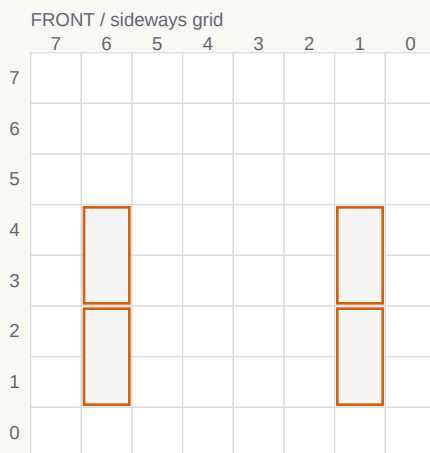


r0: z=33.75; r5: z=46.25

2 × Plate 1×2 · White
F(1,6,36.25; 1); F(6,6,36.25; 1)
1×2; studs +y.

2 × Plate 1×2 · White
F(1,6,41.25; 1); F(6,6,41.25; 1)
1×2; studs +y.

44 Face: curled bob edges

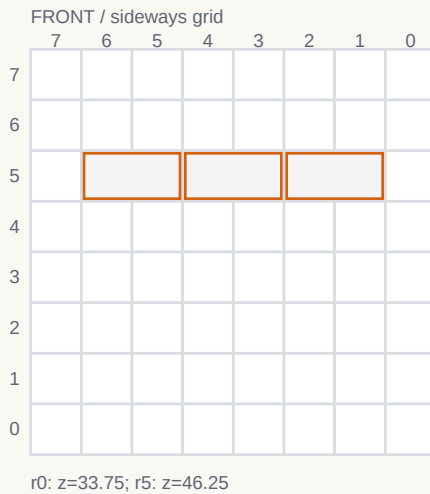


r0: z=33.75; r5: z=46.25

2 × Curved slope 1×2×2/3 · White
F(1,6,36.25; 2); F(6,6,36.25; 2)
1×2; sideways; thick end UP.

2 × Curved slope 1×2×2/3 · White
F(1,6,41.25; 2); F(6,6,41.25; 2)
1×2; sideways; thick end UP.

45 Face: side-swept fringe

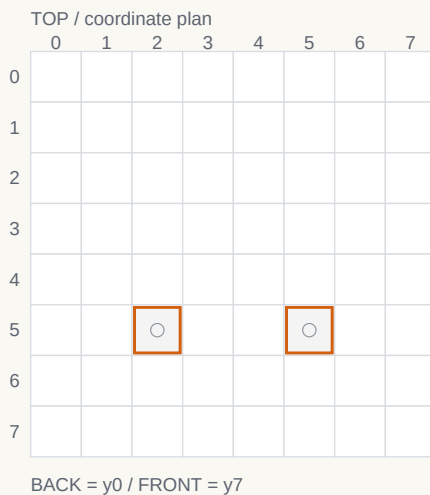


1 × Curved slope 1×2×2/3 · White
 F(1,6,46.25; 1)
 2×1; sideways; thick end +x.

2 × Curved slope 1×2×2/3 · White
 F(3,6,46.25; 1); F(5,6,46.25; 1)
 2×1; sideways; thick end -x.

46 Attach face to head

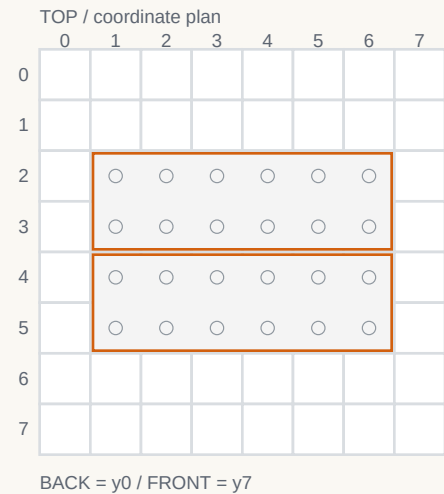
Press the 6×6 backing onto the six forward studs: x=2 and 5 at z=33.75, 38.75, 43.75. The backing rows are 2.5 plate-heights apart. Its bottom edge is z=32.5; no forced offsets.



Add: no new loose parts.
 Attach the completed subassembly as described above.

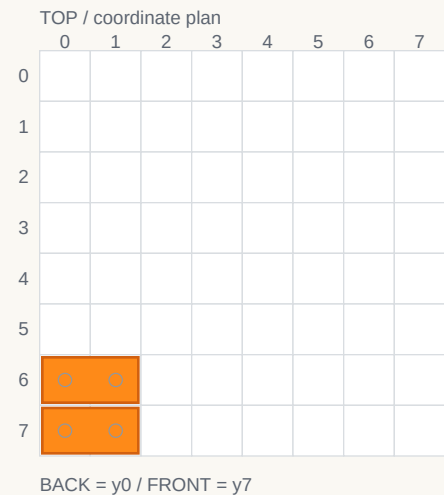
47 Attach completed head

Press the foundation onto all four neck studs: x=3–4, y=3–4 at z=31. Center the 6×4 core at x=1–6, y=2–5. No new loose parts.



Add: no new loose parts.
Attach the completed subassembly as described above.

48 Penguin: feet



2 × Plate 1×2 · Bright Orange
(0,6,1); (0,7,1)
2×1; studs +z.

49 Penguin: body

TOP / coordinate plan

01234567

0

1

2

3

4

5

6

7

0

1

2

3

4

5

6

7

0

1

2

3

4

5

6

7

1 × Brick 1×2 · Black

(0,6,2)

2×1; studs +z.

1 × Brick 1×2 · White

(0,7,2)

2×1; studs +z.

BACK = y0 / FRONT = y7

50 Penguin: body tie

TOP / coordinate plan

01234567

0

1

2

3

4

5

6

7

0

1

2

3

4

5

6

7

1 × Plate 2×2 · Black

(0,6,5)

2×2; studs +z.

BACK = y0 / FRONT = y7

51 Penguin: beak and head spacer

TOP / coordinate plan

01234567

0

1

2

3

4

5

6

7

0

1

2

3

4

5

6

7

1 × Plate 1×2 · Bright Orange

(0,7,6)

2×1; studs +z.

1 × Plate 1×2 · Black

(0,6,6)

2×1; studs +z.

BACK = y0 / FRONT = y7

52 Penguin: head

TOP / coordinate plan

01234567

0

1

2

3

4

5

6

7

0

1

2

3

4

5

6

7

2 × Brick 1×1 with one side stud · Black

(0,6,7); (1,6,7)

1×1; upright; extra stud +y.

BACK = y0 / FRONT = y7

53 Penguin: cap

TOP / coordinate plan

01234567

0

1

2

3

4

5

6

7

0

1

2

3

4

5

6

7

1 × Tile 1×2 · Black

(0,6,10)

2×1; smooth top +z.

BACK = y0 / FRONT = y7

54 Penguin: eye rims

FRONT / sideways grid

76543210

7

6

5

4

3

2

1

0

7

6

5

4

3

2

1

0

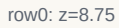
2 × Round plate 1×1 · White

F(0,7,8.75; 0); F(1,7,8.75; 0)

1×1; studs +y.

row0: z=8.75

55



2 × Round tile 1×1 · Black
F(0,7,8.75; 1); F(1,7,8.75; 1)
1×1; smooth face +y.

56

Place the green 2x2 plate before adding the two slopes on top.



1 x Tile 1x2 · Bright Blue
(0,5,1)
2x1; smooth top +z.

1 x Plate 2x2 · Dark Green
(6,6,1)
2x2; studs +z.

1 x Slope 1x1x2/3 · Dark Green
(6,7,2)
1x1; thick end +y.

1 x Slope 1x1x2/3 · Dark Green
(7,6,2)
1x1; thick end -y.

57 Habitat: rear rail posts

TOP / coordinate plan

01234567

0

1

2

3

4

5

6

7

0

1

2

3

4

5

6

7

2 × Brick 1×1 · Black

(2,1,1); (7,1,1)

1×1; studs +z.

BACK = y0 / FRONT = y7

58 Habitat: rail

TOP / coordinate plan

01234567

0

1

2

3

4

5

6

7

0

1

2

3

4

5

6

7

1 × Plate 1×6 · Black

(2,1,4)

6×1; studs +z.

BACK = y0 / FRONT = y7

59 Blank display tile

Leave unmodified, as approved. "Sandy" appears only in the booklet, not as an invented printed LEGO part.

TOP / coordinate plan

	0	1	2	3	4	5	6	7
0								
1								
2								
3								
4								
5								
6								
7								

1 × Tile 1×4 · Black

(2,7,1)

4×1; smooth top +z.

BACK = y0 / FRONT = y7

Why the joints hold

Feet and waist

Each 2×3 shoe grips six base studs. Each 2×3 waist plate grips four leg studs and carries the forward torso row. The 1×4 bricks in step 9 bridge both sides of the torso.

Torso

The 1×2 bricks in steps 8 and 10 face different directions and bond all three rows. Do not substitute five identical layers: that recreates a detachable front panel.

Shoulders

Each 2×4 shoulder plate grips four arm studs and four torso studs. Assemble the arms before fitting these plates. The raised hand is supported by the one-stud overhang of a 2×3 elbow plate.

Neck and head

The centered 2×2 neck grips four studs above and below. Crosswise 2×4 plates in steps 30 and 33 bind the front and rear head halves. The six side studs support the face at three heights.

Handling

Lift the display by the base. Support the head when removing its face; press near the six attachment studs, not on the lenses or fringe. Do not carry it by the binoculars, penguin, glasses or rail.

Verification boundary

All 182 instances form one connected grid-contact graph; there are no intersecting nominal part-body envelopes. Parts counts reconcile with the shopping file. These digital checks do not measure physical clutch force; the design has not been test-built with real bricks.

Four checkpoints

1. After step 6

Both waist plates have their tops at $z=12$. Each is 2 studs wide $\times$ 3 deep, at $x=2-3$ or $x=4-5$ and $y=3-5$. The feet remain fully attached to the base.

2. After step 11

The shirt is 15 plates tall, from $z=12$ to $z=27$. Its footprint is exactly 4×3 , $x=2-5$ and $y=3-5$. Press gently front-to-back: the front row must stay bonded to the other rows.

3. After step 21

Both arms terminate at $z=27$ beneath the shoulder plates. Shoulder tops are at $z=28$; the four neck studs are at $z=31$. Each arm is captured by four studs under a shoulder plate.

4. After step 59

The face uses six attachment studs, at $x=2$ and 5 and $z=33.75, 38.75, 43.75$. Crown height is $z=48 = 153.6$ mm. All 182 pieces are used; the name tile is blank and all details stay within the 8×8 footprint.

If the face will not seat, check the two-plate spacer courses between side-stud bands. Never bend the panel or force an offset.

Two alternate outfits

Replace only the blue clothing elements below. Black trousers and shoes stay the same. Each outfit still uses 182 pieces. These are swaps, not additions to the base shopping list.

Part / quantity	Remove: blue	Add: White	Add: Bright Red
Brick 1×2 × 32	300423	300401	300421
Brick 1×4 × 3	301023	301001	301021
Plate 2×2 × 2	302223	302201	302221
Plate 2×3 × 1	302123	302101	302121
Plate 2×4 × 2	302023	302001	302021
Plate 1×4 × 1	371023	371001	371021

Outfit A: White jacket / black trousers.

Outfit B: Bright Red top / black trousers.

Alternate prop: zoo field guide

Remove the entire 7-piece binocular assembly: Black plate 1×2 ×1; Black side-stud brick 1×1 ×2; Black round plate 1×1 ×2; Transparent round tile 1×1 ×2.

Add a 7-piece closed book: Black plate 2×3 ×2 (302126); White plate 1×2 ×2 (302301); Black tile 1×2 ×3 (306926). Same total: 182.

1. Bottom cover: Black plate 2×3 at (6,5,22), footprint 2×3.
2. Pages: White plates 1×2 at (6,5,23) and (6,6,23), each 2×1.
3. Top cover: Black plate 2×3 at (6,5,24), footprint 2×3.
4. Smooth cover: Black tiles 1×2 at (6,5,25), (6,6,25), (6,7,25).

Build separately; press the bottom cover onto the same two hand studs at z=22. All parts remain upright. Covers overhang the page block by one stud at y=7. No print or sticker.

Buying and model files

Buy from LEGO: Open LEGO.com → Pick a Brick → Upload List, then choose pick-a-brick.csv. Review the resulting parts and stock messages before checkout. The CSV contains quantities only, not extras or optional variants.

Files: sandy-zoo.blend is the editable Blender scene. sandy-zoo.ldr is a portable LDraw model with individual part instances and step breaks. parts.csv is the readable shopping table. sandy-model.json contains the exact placements used to create the model and instructions.

Model geometry: The LDraw Parts Library, mirrored by Pybricks, provides the standard LEGO part shapes used in Blender. LDraw geometry names can differ from current LEGO mold IDs; the Element ID column is the purchasing authority.

Sources

[LEGO US Pick a Brick catalog](#)

[LEGO: identifying set and piece numbers](#)

[Pybricks mirror of the LDraw Parts Library](#)

[LDraw licensing and attribution](#)

Original unofficial fan design; not a LEGO-produced set. No custom-manufactured, imitation, painted or printed parts are specified. LDraw geometry is used under its included Creative Commons licenses; see LDraw-attribution.txt.