

Shoulder-Beam Brachiosaurus

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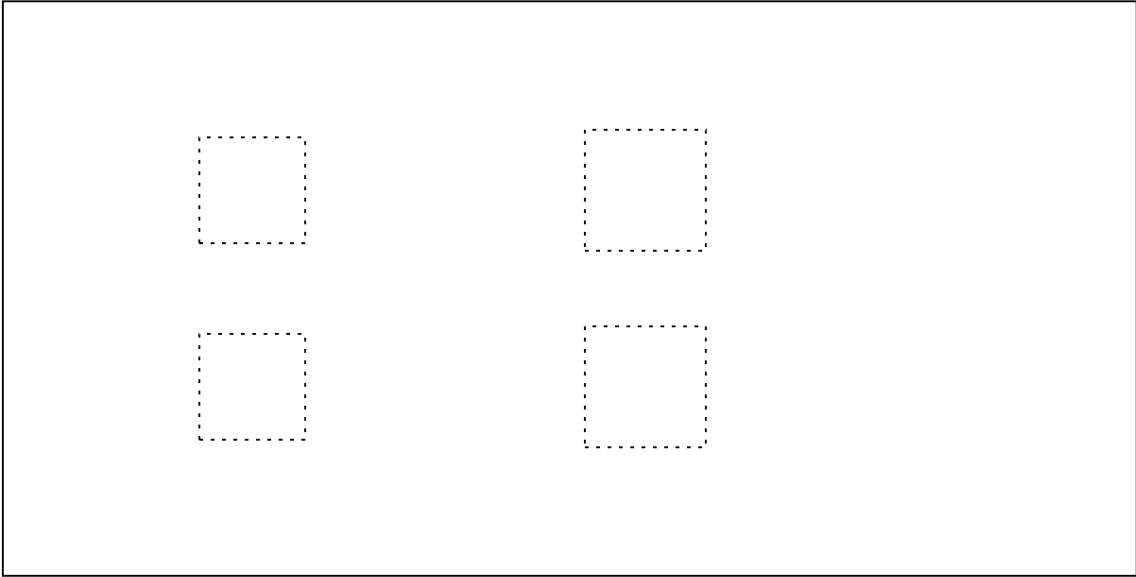
EL | cut 1
3.60 x 3.60 mm



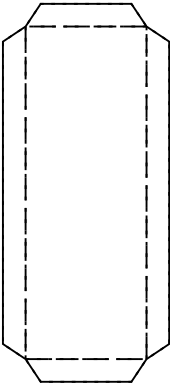
ER | cut 1
3.60 x 3.60 mm



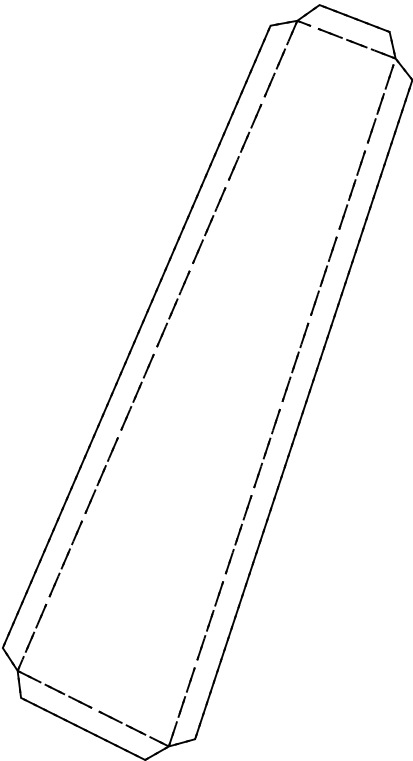
BASE | cut 1
150.00 x 76.00 mm



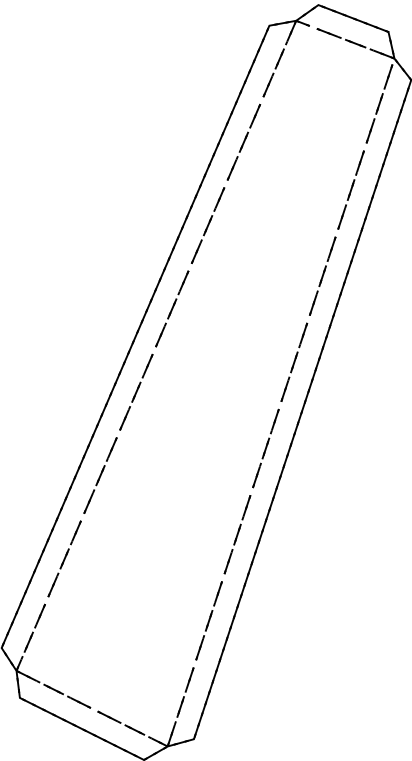
FRL | cut 1
22.00 x 50.00 mm



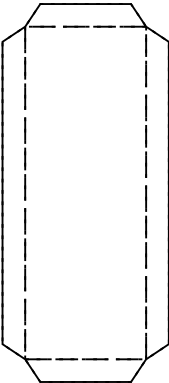
NL | cut 1
54.19 x 99.87 mm



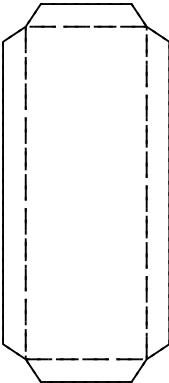
NR | cut 1
54.19 x 99.87 mm



FLL | cut 1
22.00 x 50.00 mm



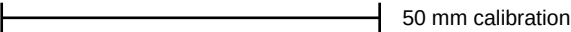
FLR | cut 1
22.00 x 50.00 mm



H5 | cut 1
8.00 x 20.00 mm



Solid: cut | Dashed: valley | Dash-dot: mountain | Dotted: glue



Print at 100% / Actual size. Do not fit to page. Original paper craft template.

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H1 | cut 1
13.93 x 20.00 mm



H2 | cut 1
15.00 x 20.00 mm



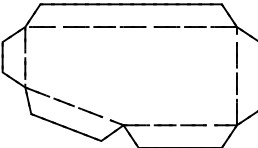
H3 | cut 1
13.00 x 20.00 mm



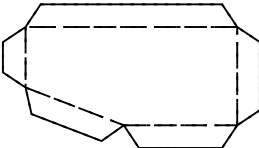
H4 | cut 1
28.00 x 20.00 mm



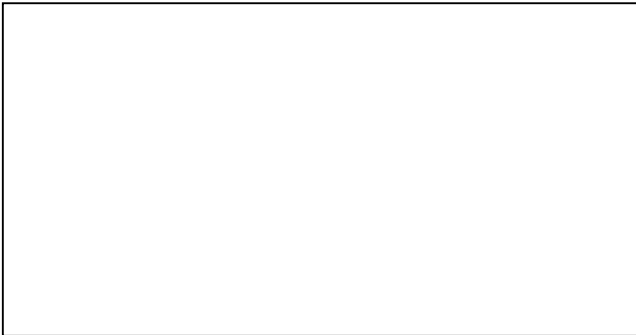
HL | cut 1
34.00 x 19.00 mm



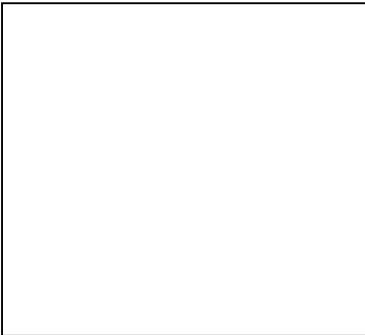
HR | cut 1
34.00 x 19.00 mm



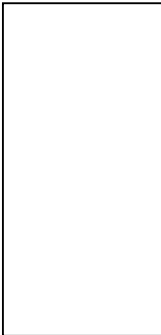
B1 | cut 1
84.00 x 44.00 mm



B4 | cut 1
48.37 x 44.00 mm



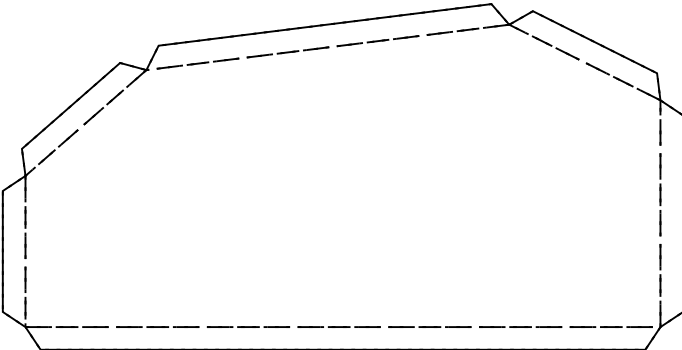
B5 | cut 1
21.26 x 44.00 mm



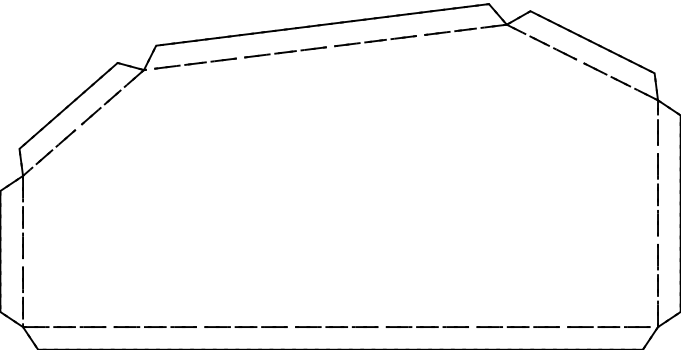
B6 | cut 1
20.00 x 44.00 mm



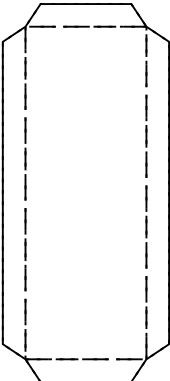
BL | cut 1
90.00 x 45.73 mm



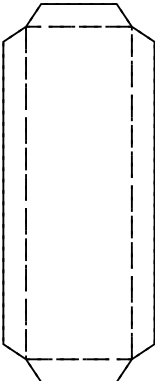
BR | cut 1
90.00 x 45.73 mm



FRR | cut 1
22.00 x 50.00 mm



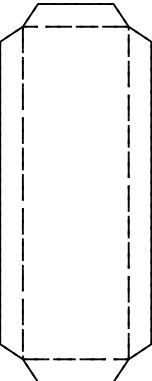
RLL | cut 1
20.00 x 50.00 mm



RLR | cut 1
20.00 x 50.00 mm



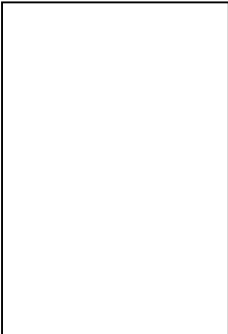
RRL | cut 1
20.00 x 50.00 mm



RRR | cut 1
20.00 x 50.00 mm



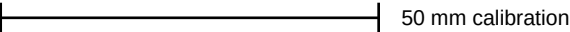
B2 | cut 1
30.00 x 44.00 mm



B3 | cut 1
22.36 x 44.00 mm



Solid: cut | Dashed: valley | Dash-dot: mountain | Dotted: glue

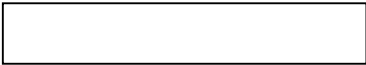


Print at 100% / Actual size. Do not fit to page. Original paper craft template.

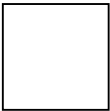
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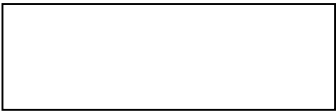
T4 | cut 1
48.10 x 8.00 mm



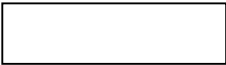
RR3 | cut 1
14.00 x 14.00 mm



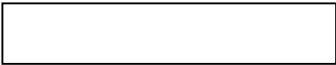
RR4 | cut 1
44.00 x 14.00 mm



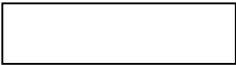
T1 | cut 1
29.61 x 8.00 mm



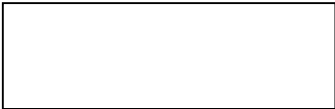
T2 | cut 1
44.15 x 8.00 mm



T5 | cut 1
30.89 x 8.00 mm



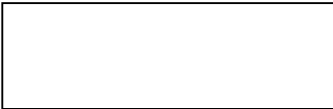
RL2 | cut 1
44.00 x 14.00 mm



RL3 | cut 1
14.00 x 14.00 mm



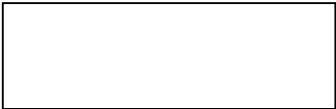
RL4 | cut 1
44.00 x 14.00 mm



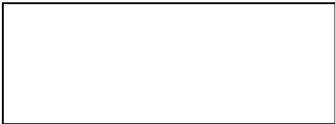
RR1 | cut 1
14.00 x 14.00 mm



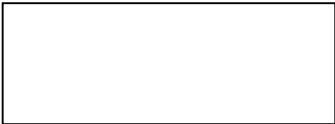
RR2 | cut 1
44.00 x 14.00 mm



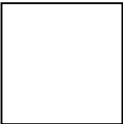
FL4 | cut 1
44.00 x 16.00 mm



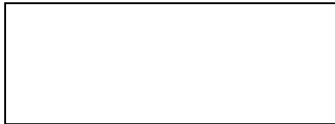
FR2 | cut 1
44.00 x 16.00 mm



FR3 | cut 1
16.00 x 16.00 mm



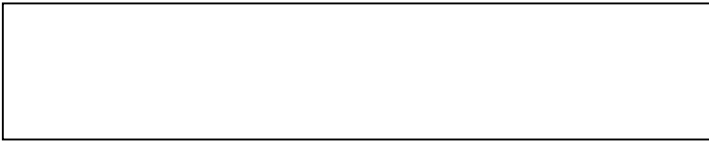
FR4 | cut 1
44.00 x 16.00 mm



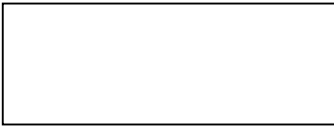
RL1 | cut 1
14.00 x 14.00 mm



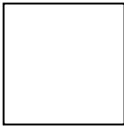
N3 | cut 1
93.62 x 18.00 mm



FL2 | cut 1
44.00 x 16.00 mm



FR1 | cut 1
16.00 x 16.00 mm



T3 | cut 1
16.00 x 8.00 mm



N1 | cut 1
95.82 x 18.00 mm



N4 | cut 1
22.36 x 18.00 mm



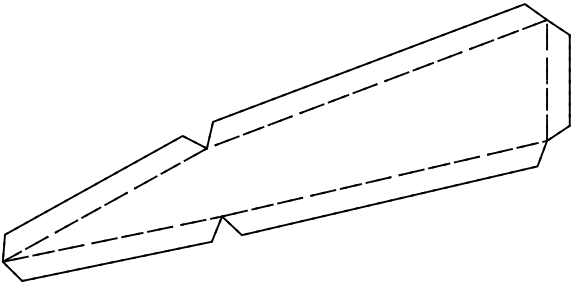
FL1 | cut 1
16.00 x 16.00 mm



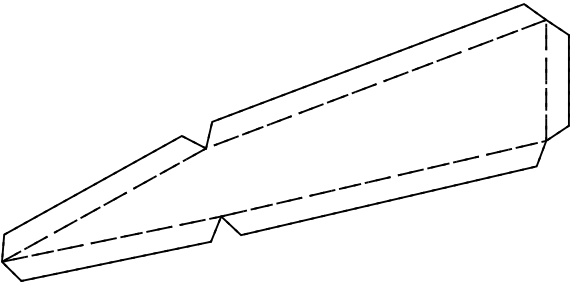
FL3 | cut 1
16.00 x 16.00 mm



TL | cut 1
75.00 x 36.63 mm



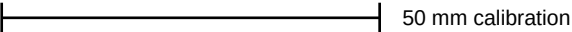
TR | cut 1
75.00 x 36.63 mm



N2 | cut 1
13.93 x 18.00 mm



Solid: cut | Dashed: valley | Dash-dot: mountain | Dotted: glue



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Finished size: 206 x 76 x 178 mm including base

Materials: 220-250 gsm cardstock; PVA glue; Scissors or craft knife; Ruler and blunt scoring tool; Book for temporary drying support

Original simplified sculpture, not an anatomical scale model. Broad shoulders, thick short legs and a long forward-inclined neck are intentional.

Every shell uses two tabbed cheek nets plus separate exact rectangular skin panels. All 3 mm glue tabs are present in both the cut outline and assembled rigid mesh.

The tail tapers in side elevation and has an intentionally constant 8 mm blade-section width. No curling or stretching is required.

Full-face glued soles, leg tops, shoulder seat, throat seat and tail root are the structural mounts. No hidden armature or permanent external prop is required by the design.

Zero-thickness paper geometry idealizes glue and card thickness. Eyes have a 0.05 mm display offset. Fold toward the shell interior, turning the right cheek over as needed.

Generation only. Physical print, cut, assembly, load-bearing and stability verification remain pending.

Part inventory (cut each instance once):

BASE: Foot mounting base

BL: Torso left

BR: Torso right

B1: Torso edge 1

B2: Torso edge 2

B3: Torso edge 3

B4: Torso edge 4

B5: Torso edge 5

B6: Torso edge 6

NL: Neck left

NR: Neck right

N1: Neck edge 1

N2: Neck edge 2

N3: Neck edge 3

N4: Neck edge 4

HL: Head left

HR: Head right

H1: Head edge 1

H2: Head edge 2

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H3: Head edge 3

H4: Head edge 4

H5: Head edge 5

TL: Tail left

TR: Tail right

T1: Tail edge 1

T2: Tail edge 2

T3: Tail edge 3

T4: Tail edge 4

T5: Tail edge 5

FLL: FL leg left

FLR: FL leg right

FL1: FL leg edge 1

FL2: FL leg edge 2

FL3: FL leg edge 3

FL4: FL leg edge 4

FRL: FR leg left

FRR: FR leg right

FR1: FR leg edge 1

FR2: FR leg edge 2

FR3: FR leg edge 3

FR4: FR leg edge 4

RLL: RL leg left

RLR: RL leg right

RL1: RL leg edge 1

RL2: RL leg edge 2

RL3: RL leg edge 3

RL4: RL leg edge 4

RRL: RR leg left

RRR: RR leg right

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RR1: RR leg edge 1

RR2: RR leg edge 2

RR3: RR leg edge 3

RR4: RR leg edge 4

EL: Eye L

ER: Eye R

1. Print and prepare the mounting base [BASE]: Print at 100 percent; check the 50 mm ruler. Use 220-250 gsm card for all parts. Cut BASE (150 x 76 mm), keeping its four printed foot glue zones. Front is the end at x=90 mm; all coordinates below use the template coordinates. Score tab roots with a blunt tool before cutting other pieces.

2. Build four load-bearing columns [FLL, FLR, FL1, FL2, FL3, FL4, FRL, FRR, FR1, FR2, FR3, FR4, RLL, RLR, RL1, RL2, RL3, RL4, RRL, RRR, RR1, RR2, RR3, RR4]: Each leg has L/R cheek panels and four edge skins, numbered around its perimeter from the bottom. Fold every 3 mm cheek tab inward 90 degrees. Glue skins 1 (sole), 2 (front wall), and 4 (rear wall) to both cheeks, matching corners edge-to-edge; then close with skin 3 (top). Tabs sit INSIDE the shell, skins on their outer faces. Front legs are 16 x 16 x 44 mm; rear legs 14 x 14 x 44 mm. Hold square and let all seams dry fully.

3. Plant all four feet [BASE, FLL, FLR, FL1, FL2, FL3, FL4, FRL, FRR, FR1, FR2, FR3, FR4, RLL, RLR, RL1, RL2, RL3, RL4, RRL, RRR, RR1, RR2, RR3, RR4]: Glue the complete sole of each leg onto its matching BASE rectangle: front feet x=17 to 33, y=-21 to -5 and 5 to 21 mm; rear feet x=-34 to -20, y=-20 to -6 and 6 to 20 mm. All four soles lie flat at z=0; all tops are at z=44 mm. Keep the base flat under a light weight while the joints cure.

4. Close the broad shoulder shell [BL, BR, B1, B2, B3, B4, B5, B6]: Fold BL/BR tabs 90 degrees inward. Space the cheeks 44 mm apart. Fit B1 (84 x 44 mm belly) first, then B2 through B6 in perimeter order. Glue each skin to the two corresponding 3 mm tabs; edges butt at the corners. B2 is the vertical chest, B3 the rising shoulder, B4 the long sloped back. Close B4 last so fingers can press the other seams. Allow to dry before loading.

5. Seat the body on four bearing pads [BL, BR, B1, B2, B3, B4, B5, B6, FLL, FLR, FL1, FL2, FL3, FL4, FRL, FRR, FR1, FR2, FR3, FR4, RLL, RLR, RL1, RL2, RL3, RL4, RRL, RRR, RR1, RR2, RR3, RR4]: Glue the four full leg-top panels to the underside of belly B1. Body extends x=-44 to 40 and y=-22 to 22 mm: hind feet sit 10 mm forward of the rear end, front feet 23 mm behind the chest, and front feet are 1 mm inside each body side. Keep the body level at z=44 mm; the shoulders rise to z=84 mm. Let all four full-face joints cure before fitting the neck.

6. Make the inclined neck beam [NL, NR, N1, N2, N3, N4]: Fold NL/NR tabs inward 90 degrees and join N1 through N4 as for the body; cheeks are 18 mm apart. N1 is the long front edge, N2 the 13.93 x 18 mm head seat, N3 the long rear edge and N4 the 22.36 x 18 mm root. This closed beam inclines forward rather than standing vertically. Close N3 last, pressing the interior seams before sealing.

7. Bond the neck to its shoulder seat [BL, BR, B1, B2, B3, B4, B5, B6, NL, NR, N1, N2, N3, N4]: Glue the ENTIRE N4 root panel flat onto B3, with their 22.36 mm edges aligned: root endpoints are x=40,z=74 and x=20,z=84. Center the 18 mm neck width on the 44 mm shoulder, leaving 13 mm visible each side. This face-to-face seat carries the neck; do not attach it by a thin edge. Prop the head end temporarily with a book while curing, then remove the prop.

8. Build and seat the little head [HL, HR, H1, H2, H3, H4, H5, NL, NR, N1, N2, N3, N4]: Fold HL/HR tabs inward 90 degrees and join H1-H5, keeping the cheek spacing 20 mm. Close the roof H4 last. Glue H1, the 13.93 x 20 mm sloping throat, onto neck seat N2; center it with 1 mm overhang on each side. Their slope endpoints match x=57,z=170 and x=70,z=165. The muzzle projects forward to x=85. Let this full-face joint dry with the neck supported.

9. Add the low tapered tail [TL, TR, T1, T2, T3, T4, T5, BL, BR, B1, B2, B3, B4, B5, B6]: Fold TL/TR tabs inward 90 degrees and fit T1-T5 with cheeks 8 mm apart; close the longest upper skin last. T3 is the 16 x 8 mm root. Glue its full face centrally onto rear body skin B6 at x=-44, spanning z=46 to 62, leaving 2 mm above and below and 18 mm on either side. The tail projects back to x=-116,z=30 and

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stays above the table. This simplified blade-section tail tapers in side elevation, with constant 8 mm width.

10. Place eyes and allow final curing [EL, ER, BASE]: Glue EL/ER to the head cheeks with centers at $x=65, z=174$ mm (8 mm ahead of the rear head edge and 4 mm below the roof). Let all joints cure overnight on a flat surface before handling by BASE. Finished envelope including base and tail is 206 x 76 x 178 mm. Physical printing, assembly and stability testing are pending.