

Bowed Strip Pumpkin

strip-pumpkin / 1.0.0 / Letter / Template page 1

R01 | cut 1
10.00 x 173.08 mm

R02 | cut 1
10.00 x 173.08 mm

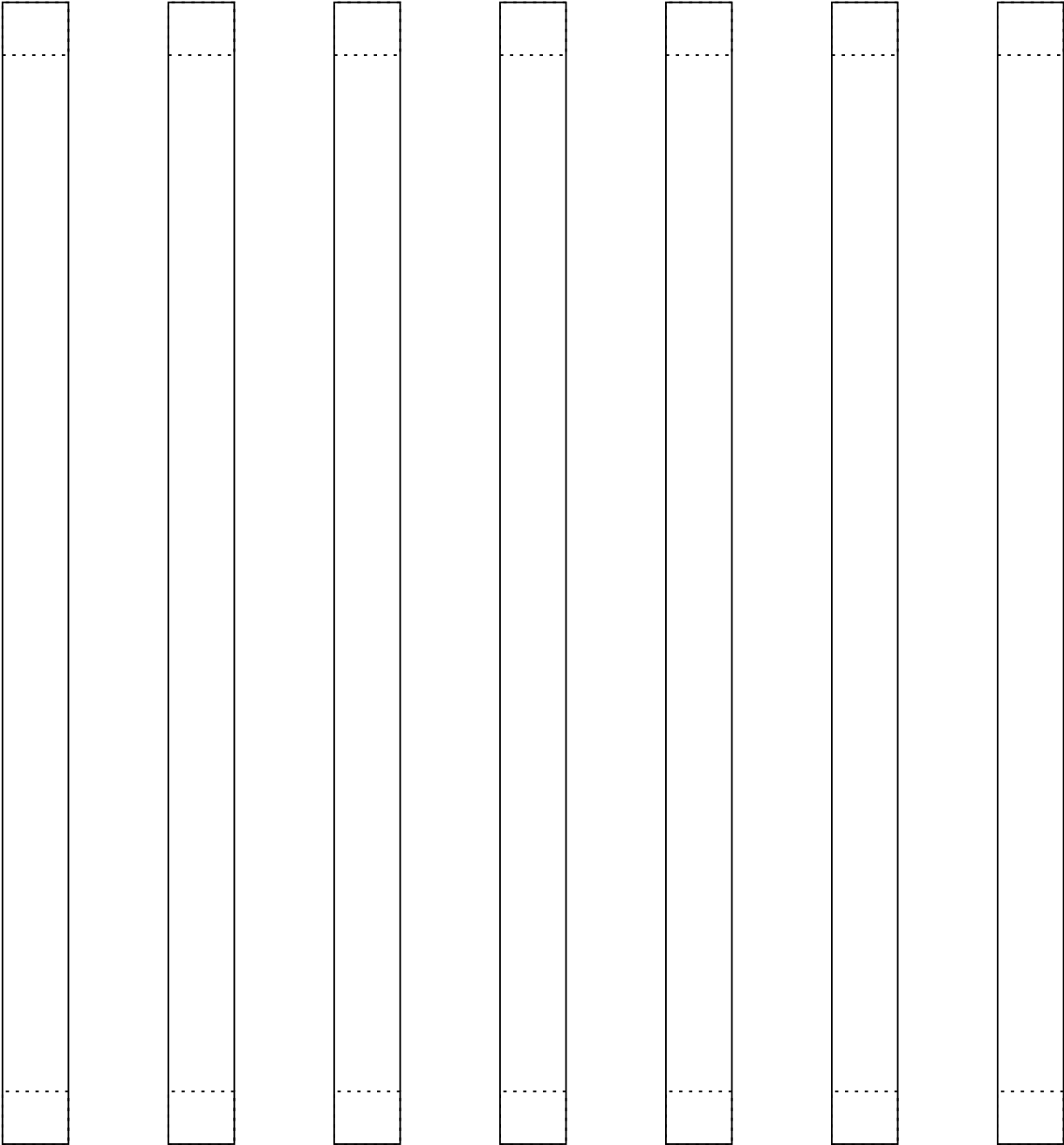
R03 | cut 1
10.00 x 173.08 mm

R04 | cut 1
10.00 x 173.08 mm

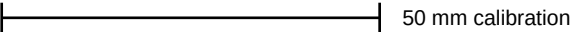
R05 | cut 1
10.00 x 173.08 mm

R06 | cut 1
10.00 x 173.08 mm

R07 | cut 1
10.00 x 173.08 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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R08 | cut 1

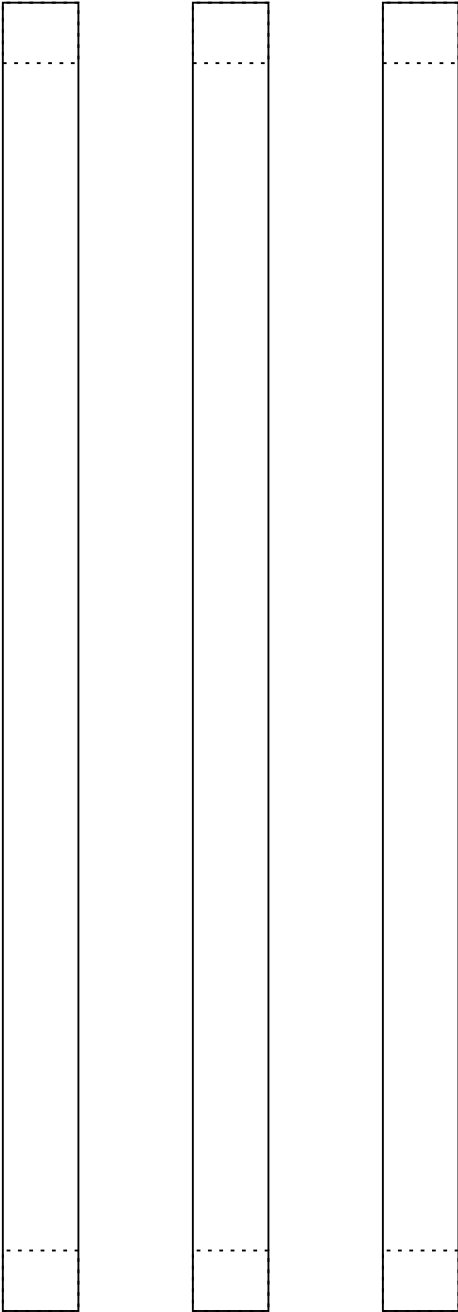
10.00 x 173.08 mm

R09 | cut 1

10.00 x 173.08 mm

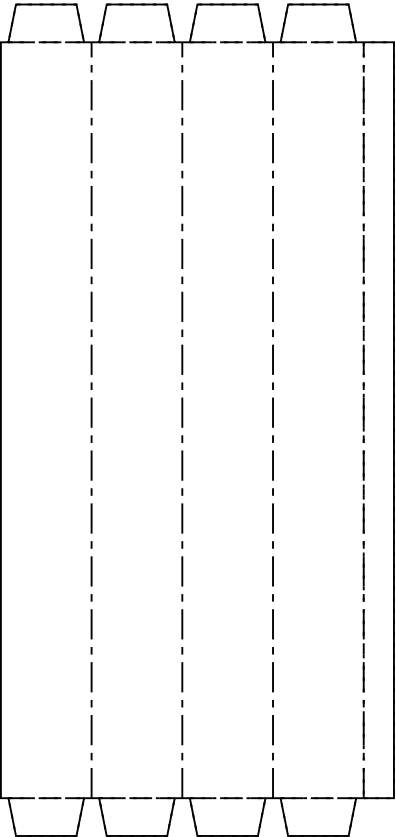
R10 | cut 1

10.00 x 173.08 mm



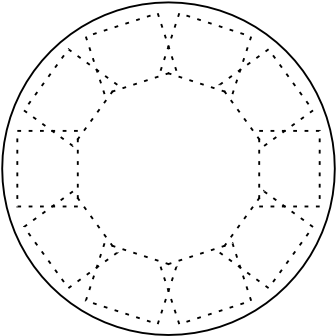
C1 | cut 1

52.00 x 110.00 mm

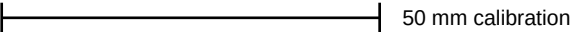


D1 | cut 1

44.00 x 44.00 mm



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

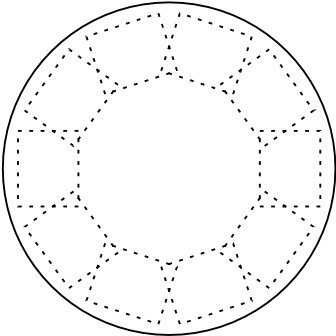


Print at 100% / Actual size. Do not fit to page. Original paper craft template.

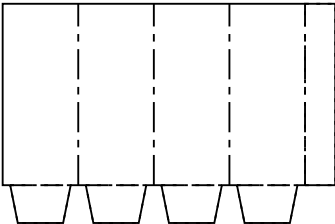
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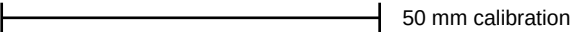
D2 | cut 1
44.00 x 44.00 mm



S1 | cut 1
44.00 x 29.00 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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Finished size: Approximately 140 x 136 x 124 mm; body height 100 mm; maximum radial envelope 140.4 mm

Materials: 160-180 gsm orange paper for ten ribs; 200-220 gsm card for two disks, core and green stem; Scissors or craft knife with cutting mat; PVA paper glue; Millimetre ruler, pencil and blunt scoring tool; Smooth round marker for pre-curling; small clips for temporary holding

Original template. Physical printing, cutting and assembly are pending; automated checks are not a buildability proof.

14 paper pieces: ten 10 x 173.079633 mm ribs, two diameter-44 mm disks, one 12 x 12 x 100 mm core column and one open 10 x 10 x 24 mm stem. No wire or hidden support.

Each rib has 8 mm flat glue tabs and a $50 \times \pi = 157.079633$ mm developed bend length. The rib width stays 10 mm everywhere. The bow starts at radius 20 mm and reaches radius 70 mm.

The exact smooth reference surface is developable. Its 96-segment mesh has about 0.0045 percent longitudinal chord shortening (0.00701 mm over the bow), not paper stretching. Hand-curved paper may follow an elastic curve instead of a perfect semicircle.

Paper thickness and adhesive are omitted; intended lap contacts coincide in the preview. The ribs form an open cage, not a continuous sphere; gaps are intentional. No folds are scored across the rib bow or its tangent transition to the end tabs.

Top and bottom disks have identical ten pad locations at 36-degree intervals. All structural paper, including the spacer and glue flanges, is included. The square stem is intentionally open at its top. Screen review and physical verification remain pending.

Part inventory (cut each instance once):

D1: Bottom connection disk

C1: Core column

D2: Top connection disk

R01: Bowed rib 1

R02: Bowed rib 2

R03: Bowed rib 3

R04: Bowed rib 4

R05: Bowed rib 5

R06: Bowed rib 6

R07: Bowed rib 7

R08: Bowed rib 8

R09: Bowed rib 9

R10: Bowed rib 10

S1: Open square stem

1. Print, measure and cut [D1]: Print every part page once at 100 percent actual size. Check the 50 mm ruler. Cut all 14 separate pieces, including the notches between column and stem flanges. Verify a rib is 10 x 173.08 mm and each disk is 44 mm across. Place D1 flat with its pad markings upward; this is the bottom inside surface.

2. Make the 100 mm spacer column [C1, D1]: Score C1 at x=12,24,36,48 mm between y=0 and 100 mm. With the printed face outside,

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mountain-fold these vertical lines 90 degrees to form four 12 mm walls. Glue the final 4 mm lap beneath the first wall. Fold each 5 mm end flange outward 90 degrees (valley on printed outside), keeping both sets horizontal. Glue the lower flange undersides centrally onto D1. Center the 12 mm square on the disk; hold square until set, then allow at least 15 minutes or glue-label time.

3. Fit the top disk [D2, C1]: Glue D2 onto the upper C1 flanges with its ten pad markings facing DOWN into the cage. Align its ten pad directions with those of D1: no rotational offset. Keep the disks parallel and their centers directly above each other. Check 100 mm between their facing reference planes, allowing real paper thickness. Hold level and allow the column joints to dry before loading them with bowed strips.

4. Pre-curl the first opposing ribs [R01, R06]: On R01 and R06 leave both dotted 8 mm end rectangles flat. Gently curl only the 157.08 mm between them over a smooth marker, in many light passes; do not score, stretch or twist. Aim for a broad semicircular bow, not the marker diameter. Glue the bottom tab onto D1 pad 1, spanning radial distance 12 to 20 mm, with the bend beginning at the outer pad edge. Bow the rib outward and glue its upper tab beneath the aligned D2 pad. The upper tab points inward. Fit R06 on the opposite pad (180 degrees) to balance pressure. Hold until set.

5. Add the next opposing pair [R02, R07]: Repeat the same 8 mm bonds for R02 and R07 on pads 2 and 7. Count pads counterclockwise viewed from above; each advances 36 degrees. Keep the 10 mm strip width tangential to each disk, not twisted. Check the bow midpoint is about 50 mm above D1 and 70 mm from the center axis.

6. Complete the open pumpkin cage [R03, R08, R04, R09, R05, R10]: Pre-curl and attach opposing pairs R03/R08, then R04/R09, then R05/R10 on the remaining corresponding pads. Use the open spaces to press both tab bonds. Apply only a thin layer of glue to each 10 x 8 mm tab; do not glue the curved spans together. Maintain aligned disks and approximately 140 mm widest body span. Allow all joints to dry before fitting the stem.

7. Fold and attach the green stem [S1, D2]: Score S1 at x=10,20,30,40 mm for its 24 mm wall height. Mountain-fold 90 degrees with printed face outside and glue the final 4 mm lap under the first wall to make a 10 mm square tube. Valley-fold the four 5 mm bottom flanges outward 90 degrees. Glue their undersides to the center of D2 on its exposed top face; align the stem walls with the core walls below. Keep vertical, leave the top open, and let the glue cure fully.

8. Final shape and stability check [R01, R02, R03, R04, R05, R06, R07, R08, R09, R10, D1, D2, C1, S1]: Stand on D1. Check body height about 100 mm and overall height about 124 mm. All 20 rib tabs, eight core flanges, four stem flanges and two tube seams must be bonded. Gently even the bows without creasing or pulling tabs loose. Lift by the base, not the stem. Record any springback, disk warping or failing joints during the first physical trial; this design has not yet passed a hands-on build.