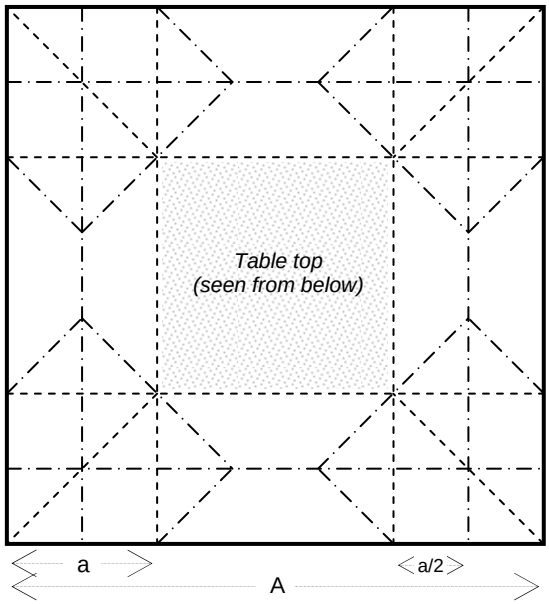
Four-legged Table

Paper: no distinction between front and back side. Edge length of final table top will be between the half and a third of the initial paper size.

Initial crease pattern: At right, you see the crease pattern to start with. There is some freedom for the ratio between leg length and table top size: the larger a is, the longer the legs will be. But you can choose a only up to A/3 (third of A) – and the larger a is, the trickier the first steps will be. Values smaller than A/4 (quarter of A) will result in a funny-locking low table.

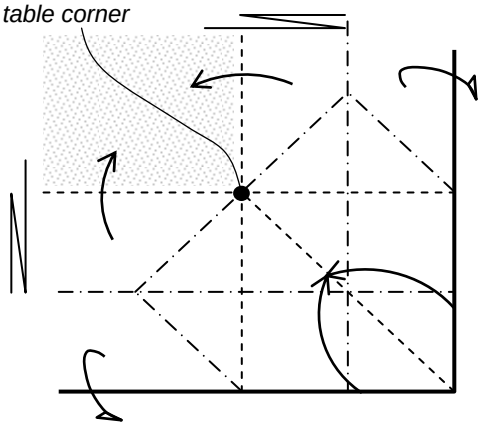
Fold the crease pattern sharply, the intended top side of the table showing away from you. Note that the inner square will become the visible table top; that's why it is free of creases. Of course, you can fold the diagonal creases and those parallel to them through the inner square, but then presumably they will be visible on the table top.

1



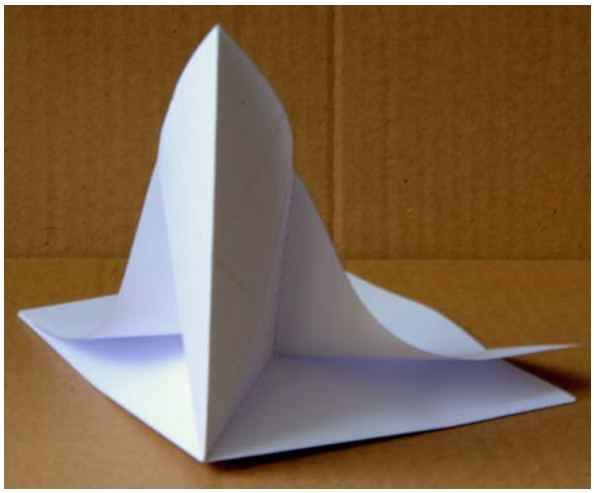
The next view is a blow-up of the bottom right corner.

2a

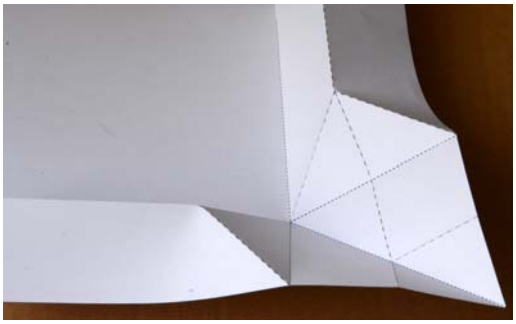


Fold the pre-folded valley and mountain creases parallel to the raw edges of the paper such that the paper corner turns upright. 2b shows an intermediate phase, 2c and 2d show the result from different views.

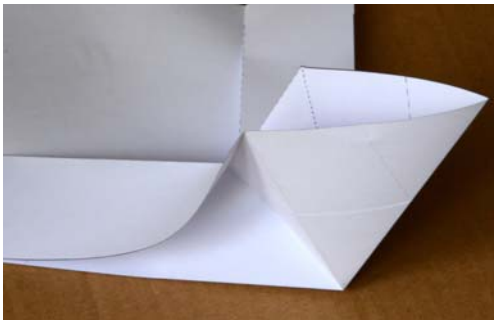
2d



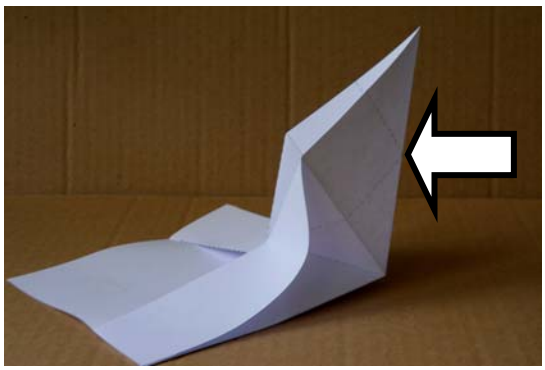
2b



2c

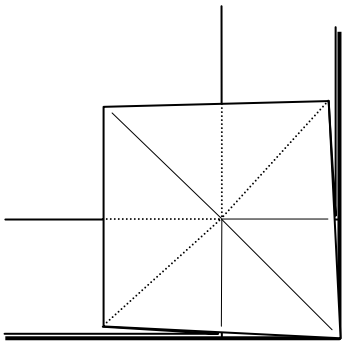


3a



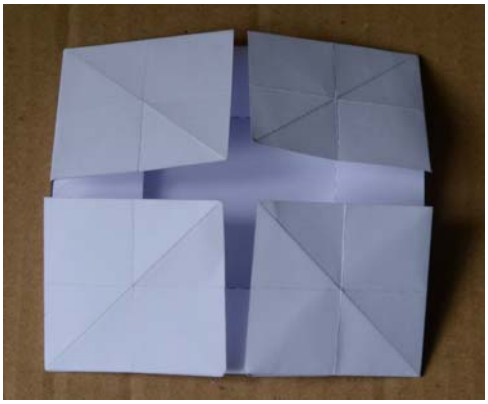
Now push the outer edge towards center (with holding the folded stripes at both sides down) until corner flap lays flat as shown in 3b.

3b



Repeat steps 2 and 3 at the other three corners. Actually, it is best to do step 2 at all four corners before doing step 3 (at all corners).

4

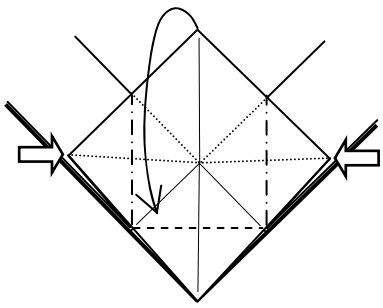


If you've chosen a = A/4 in step 1, the result should look as above. For smaller values, there will be gaps between the corner flaps. For larger values, it will not be possible to lay all corner flaps flat simultaneously, because they will collide along neighbouring edges. The picture at right shows how this would look like for the largest value a = A/3.

Figure for a = A/3 with all corner flaps folded.

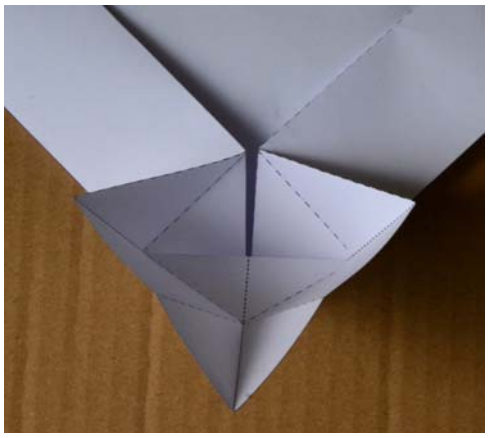
We concentrate on one corner flap again, turned 45°.

5a

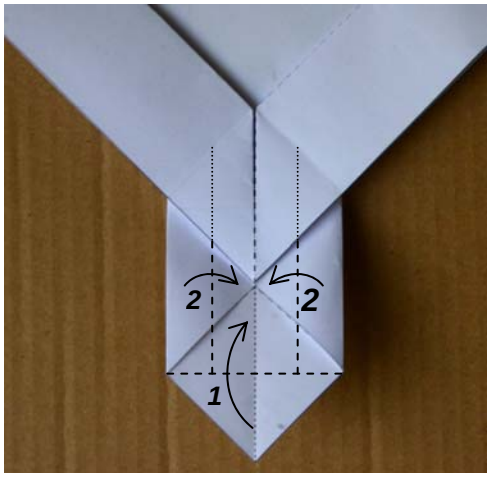


Make a valley fold as close to the outer corner as possible, and petal-fold the corner flap downwards. An intermediate phase is shown in 5b.

5b

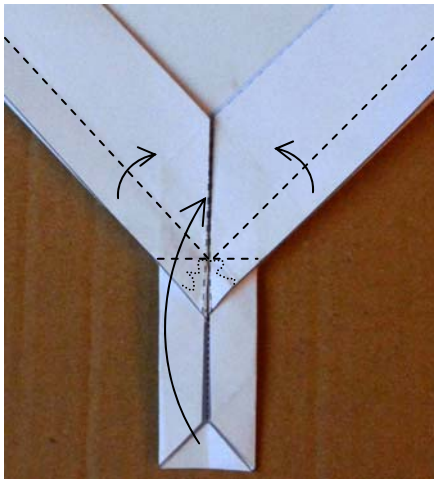


6



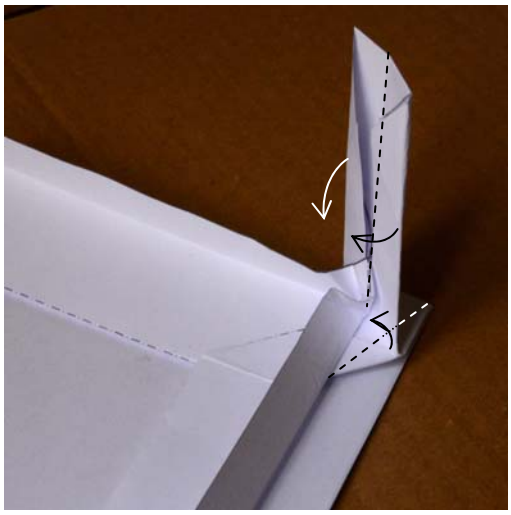
First, valley-fold the bottom tip of the flap upwards. Then valley-fold the outer stripes of the flap beneath the top layer inwards.

7



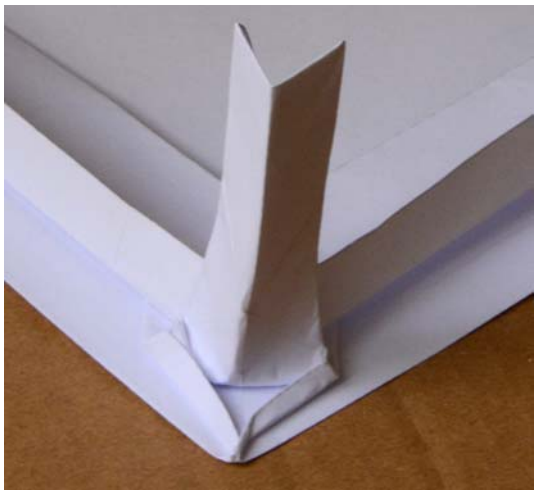
Make the shown valley folds and put the now rectangular flap vertically, as well as the edges going away from it. This will cause a bit wrinkly edges indicated by the dotted lines.

8



Squeeze the two sides of the table leg firmly together. Valley-fold both angles at the side of the leg-mount as indicated. The result is shown in step 9.

9



Repeat steps 5 to 9 for the other three corners, trying to make all legs of equal length (of course).

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