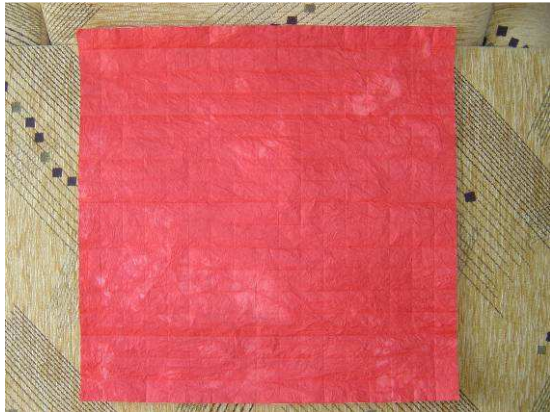


Šahovnica (Croatian chequered pattern)

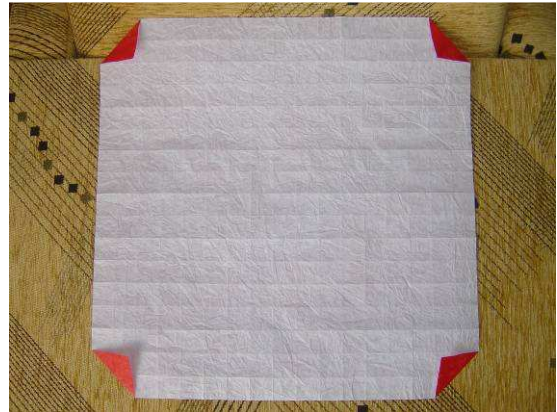
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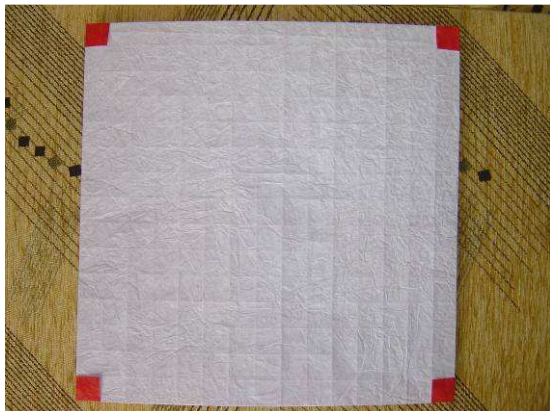
Stage 1.

Red side up. Precrease the paper to 17 by 17 grid with valley folds. Turn over.



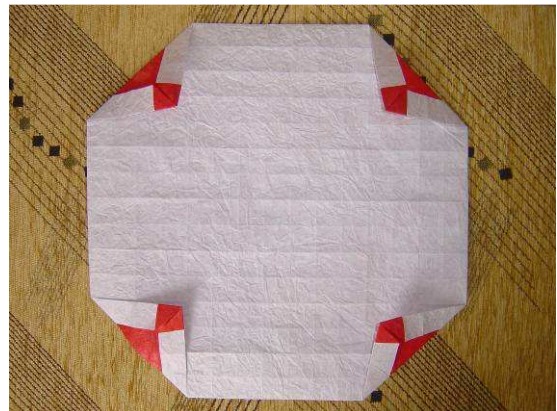
Stage 2.

Valley-fold the corners (2 units). Then mountain-fold the edges (1 unit).



Stage 3.

Valley-fold the corners again (4 units).



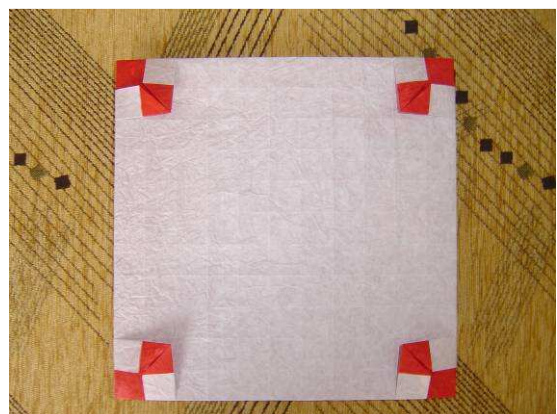
Stage 4.

Wrap the edges to the front from behind.



Stage 5.

Mountain-fold the edges (2 units).



Stage 6.

Turn over.

Šahovnica (Croatian chequered pattern)

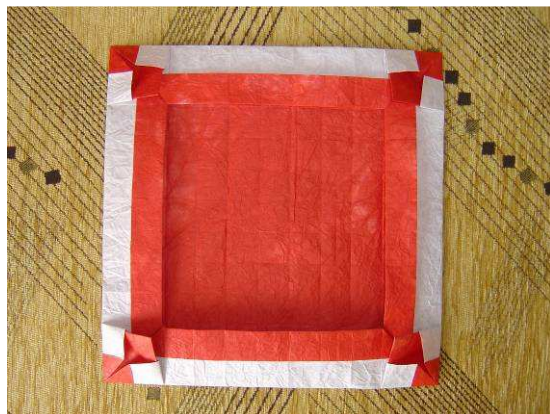
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Stage 7.

Valley-fold the corners (2 units) letting the flaps flip out from underneath.



Stage 8.

Like this.

Stage 9.

Pleat 2 units incorporating a squash fold.

Video instructions:

<http://www.youtube.com/watch?v=sB987Q1FccQ>

Stage 10.

Pleat 1 unit incorporating a swivel fold.

(<http://www.youtube.com/watch?v=UreF8zERJZU>)

Then unfold and repeat 9-10 on the remaining 3 corners following a twist-symmetry.



Stage 11.

This is how the model looks like after having prepared all four corners. Preserve the creases from stage 9 and 10 where they do not disturb each other. The model is not flat.



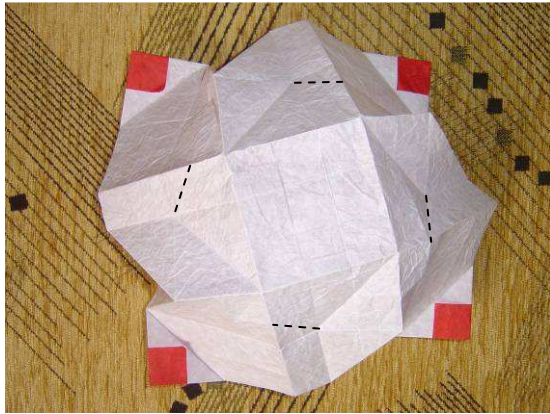
Stage 12.

The model looks like this when it is turned over. Add creases as shown. The creases are diagonal, each extending 2 units.

Šahovnica (Croatian chequered pattern)

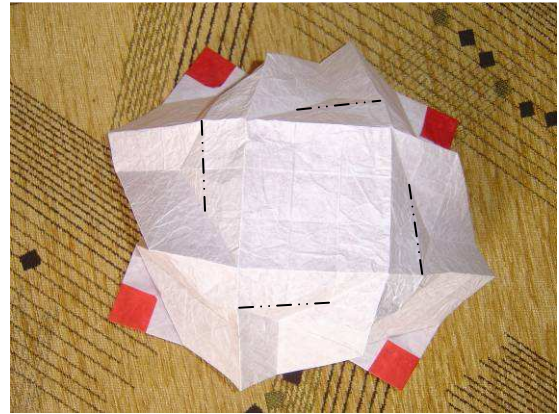
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Stage 13.

Add further creases as shown. The creases are diagonal, each extending 1 unit. They start where the previous ones end.



Stage 14.

Add the last set of creases before the „big collapse”. These shall be mountain folds that fall on the existing grid, extending 2 units.

Stage 15.

Start collapsing the model using the creases made in stages 9-14.

(<http://www.youtube.com/watch?v=gWf-KcYE0TY>).

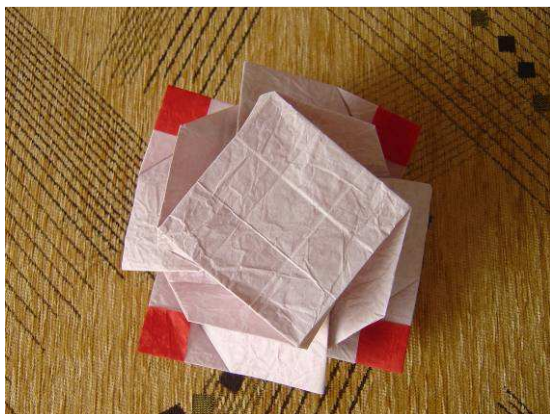
The mechanism is a complex iso-area-twist.

Stage 16.

Finish the first stage of collapsing.

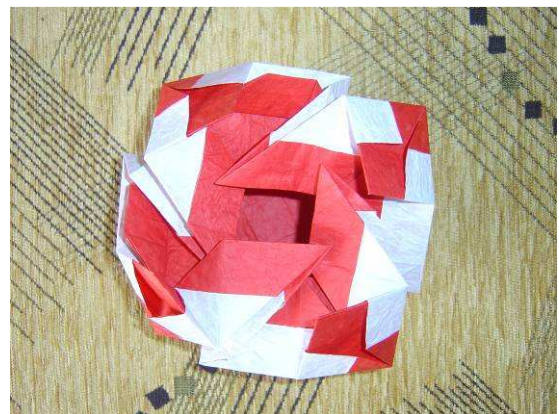
(<http://www.youtube.com/watch?v=pJrKpAo-xF4>)

This results in a 3x3 units wide, 1 unit high platform in the center (the model is still 3D).



Stage 17.

The twist in progress (bottom view).



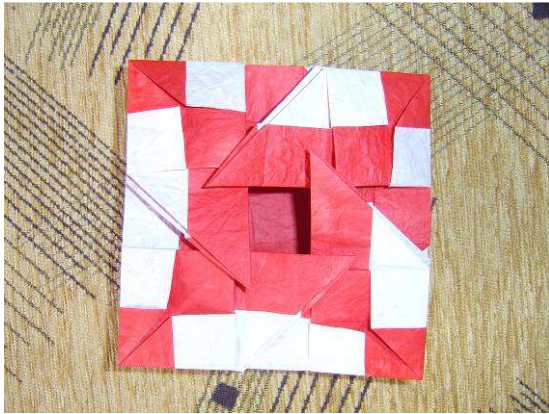
Stage 18.

The twist in progress (top view).

Šahovnica (Croatian chequered pattern)

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Stage 19.

The front side, after the twist has been done. Please note that the middle units of the left and bottom edges should look like the top and right ones. To avoid this mistake, ensure that the swivel folds of stage 10 do fall back into place during the twist.



Stage 20.

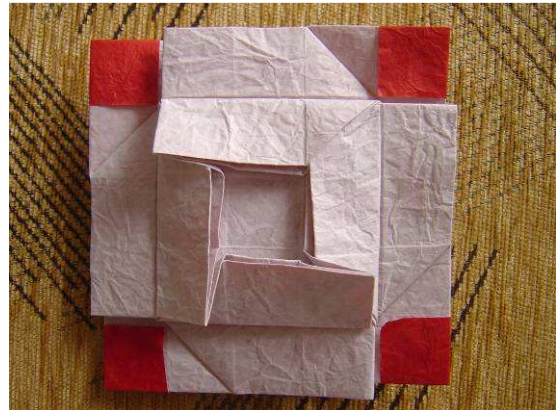
The back side, after the twist has been done. Note that the central platform is not aligned parallel with the outer edges only because tension has opened the twist a little after my hands abandoned the paper. Otherwise the edges should line up with each other.



Stage 21.

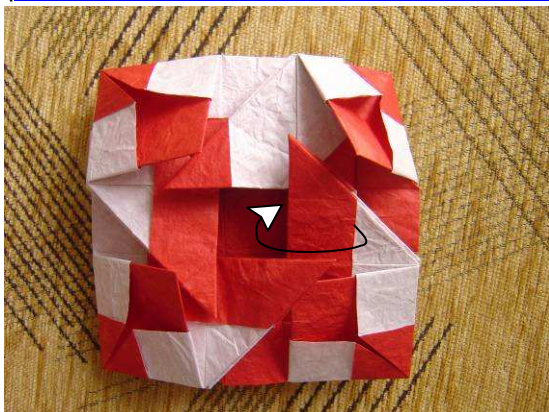
The collapse of the platform is accomplished by simultaneously swivel-folding the edges.

(http://www.youtube.com/watch?v=hTJ2wV_j7V0)



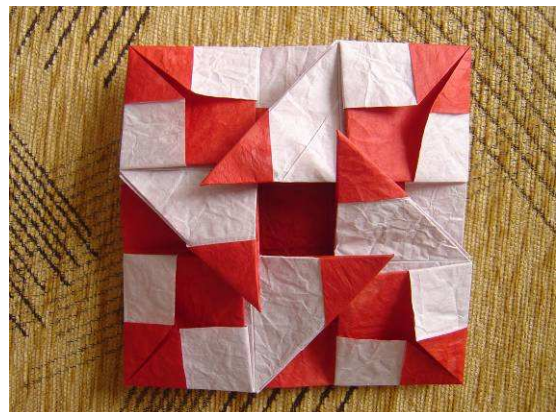
Stage 22.

After the collapse. Now the model will lie flat again.



Stage 23.

This is the front side again. Wrap one layer behind on the large flaps (changing color from red to white). The top flap is done here.



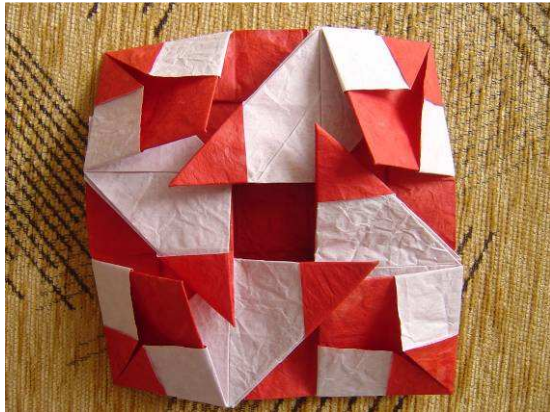
Stage 24.

After all four flaps have been done. It is advised to open up the model for the color changes in order to avoid tearing the paper)

Šahovnica (Croatian chequered pattern)

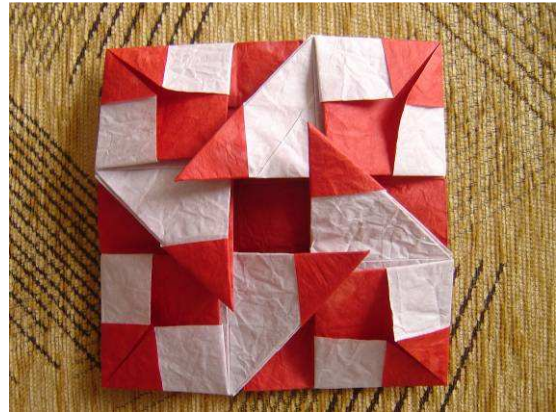
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Stage 25.

The same stage, after having restored the forgotten swivel folds at the edges.



Stage 26.

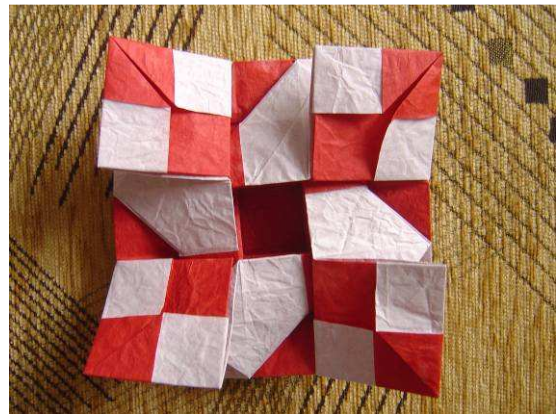
Take a rest. ☺ Now we will deal with the corners.

Stage 27.

Transform the pleat of the corners to a crimp.

(<http://www.youtube.com/watch?v=cfnuC4P0FVM>).

Note that the red tip of the large flap get inside some pockets – this is not essential, we will deal with these flaps later.



Stage 28.

After all four pleats have been transformed, the corners become loose.

Stage 29.

Spread-squash a hidden corner.

(<http://www.youtube.com/watch?v=Gsq7p6xtoGk>)

Stage 30.

Close up the model with a swivel fold.

(<http://www.youtube.com/watch?v=OrtrxOEGRws>)

Šahovnica (Croatian chequered pattern)

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Stage 31.

Swivel-fold tucking the newly made corner under to lock the flap under the edge.

(<http://www.youtube.com/watch?v=LRonWSgXiDI>)

Stage 32.

Tuck a formerly made corner in the pocket under to lock the rest of the region.

(http://www.youtube.com/watch?v=Mp9kRD_LZ-c)

There is an alternative locking procedure to stages 31-32, as shown by this video:

(http://www.youtube.com/watch?v=08m4VyR85_U)

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(http://www.youtube.com/watch?v=08m4VyR85_U)



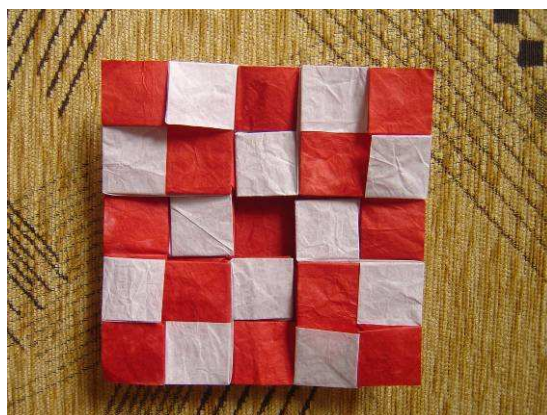
Stage 33.

Valley-fold the corners (1 unit) letting the flaps flip out from underneath.

Stage 34.

Add a swivel fold to the movement described in stage 33.

(<http://www.youtube.com/watch?v=WjrfQygGuYY>)



Stage 35.

Finished Šahovnica. Congratulations!