Six Intersecting Squares

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This model is a structure composed of six linked squares, and belongs to the set of Dr. Robert J. Lang’s polypolyhedra (see http://www.langorigami.com/science/polypolyhedra/polypolyhedra.php). The same structure has already been implemented in a model by Michael J. Naughton, with tubular frames. The present version represents a different origami solution, using 120° modular units.

Its construction requires 24 sheets of rectangular paper, with dimensions in the relation 5:11 (or 1 : $2\frac{1}{5}$). In the example shown in the above figure, I used 10cm×22cm rectangles of wrapping paper. Each unit is folded as follows:

1. Fold in half and unfold.
2. Fold to centerline and unfold.
3. Fold corners to centerline.
4. Fold on existing creases. Execute the indicated folds at the same time.
5. Repeat step (4) on the right side.
6. Fold in half.
1. Unfold to step (6).
2. Turn over.
3. Completed unit.
4. Join the units as shown in the picture. Use four units to complete a square.

The following sequence of pictures shows the assembly of the squares.
(3)

(4)

(5)

(6) Final model.