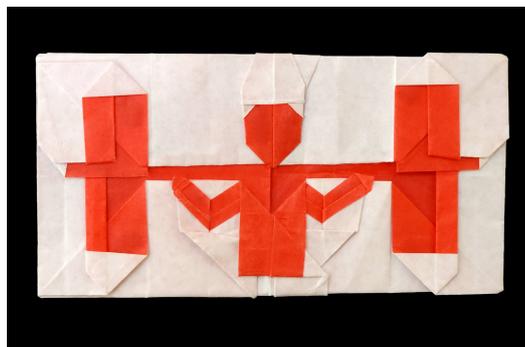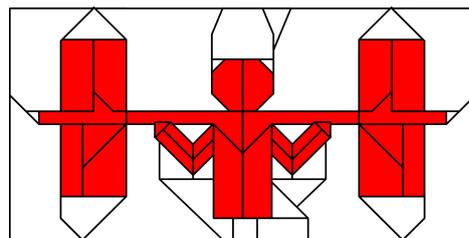# Weightlifter

Designed by M. Faraz Mangi (2025)
Diagrammed by M. Faraz Mangi (2025)

This origami model depicts a person lifting a (very) heavy set of weights. I designed this model after I was approached by someone online to help them produce origami for their gym club. What started as a quick digital sketch, turned into a fully fledged model. This was a great exercise in 2D colour change, especially with finding a solution to create the arms from unit corner flaps. I am quite happy with how the major seam is hidden into the weight bar.

This model is based on a 4x4 grid. The paper is extruded through unsinks to produce 2 half-unit flaps, producing a base with more flaps. The goal of Step 35 is to produce a colour change for the arm. Since most of the edge is hidden, accuracy is not important. Similarly, Step 44 is completed to angle the arm onto the weight bar, hence any approach to swivel the arm into that position is valid. Steps 35 and 48 are both judgement folds i.e. no references.

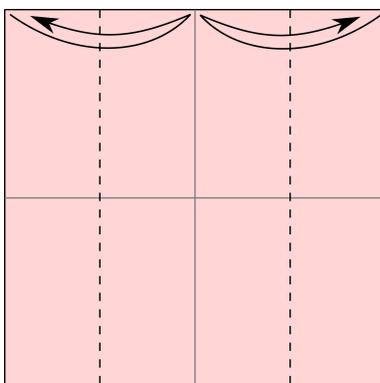Paper recommendation: Any duo coloured paper e.g. kami

Paper size: 25 cm x 25 cm
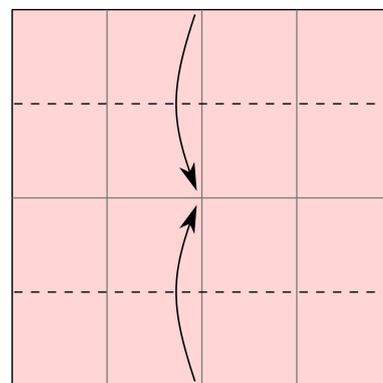
Difficulty: ★ ★ ★ ☆ ☆
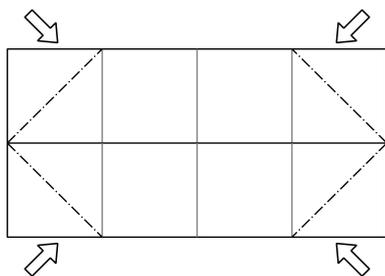
Paper colour: Red and White
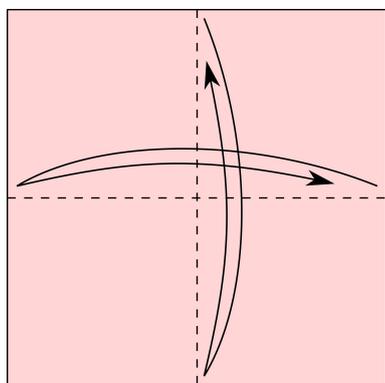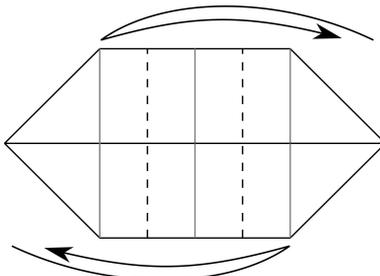
1: Crease the paper into halves.
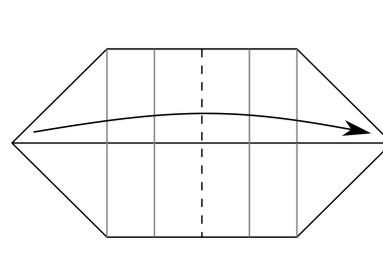
2: Crease the edges towards the middle.

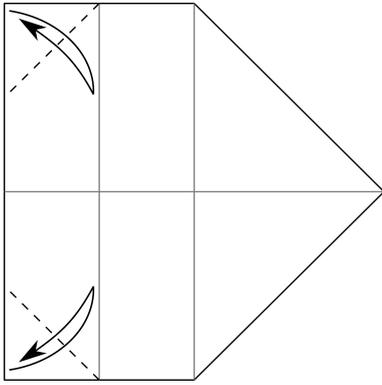3: Fold the edges towards the centre.

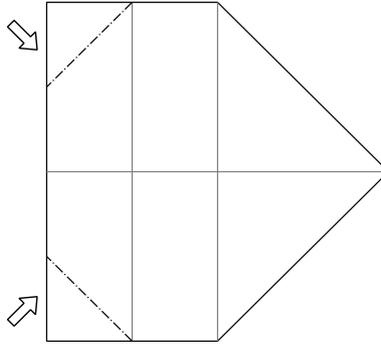4: Reverse fold the corners inside.
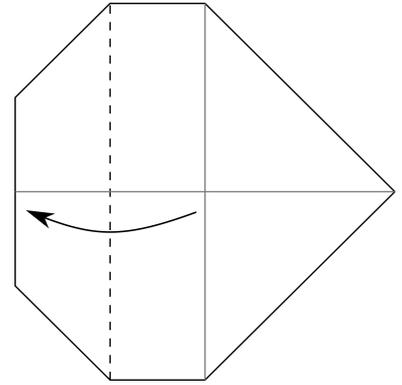
5: Crease the paper as shown.
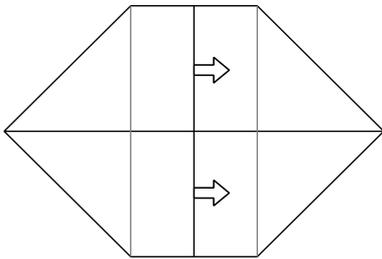
6: Fold the paper in half.
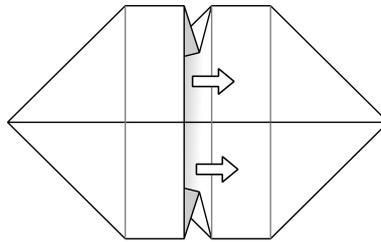
7: Pre-crease the corners towards the crease.

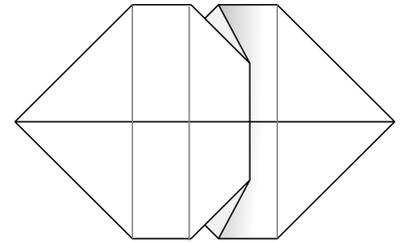8: Reverse fold the corners on the creases made.
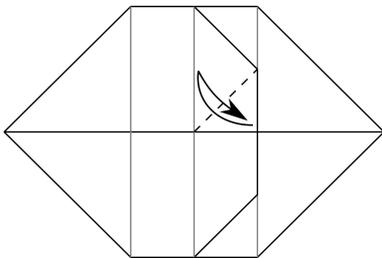
9: Fold the flap outwards.
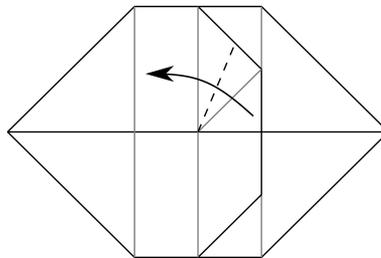
10: Unsink the paper.

11: Step 10 in more detail. Unsink by pulling out the paper from the indicated part.
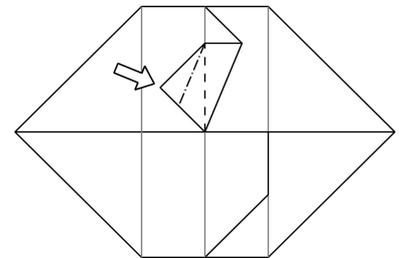
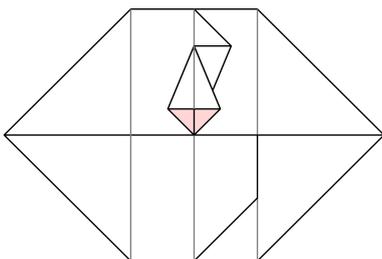12: Step 10 completed. Note that the paper has been pulled out and flattened.
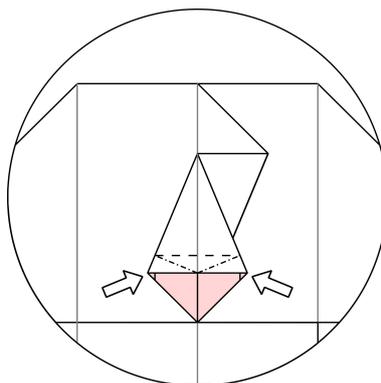
13: Crease the angle bisector.

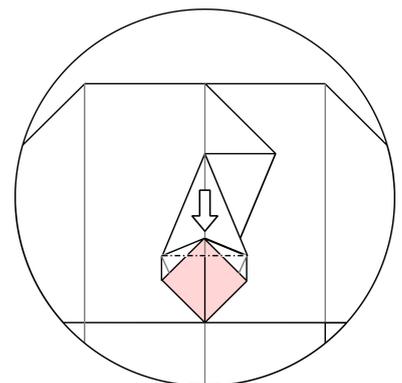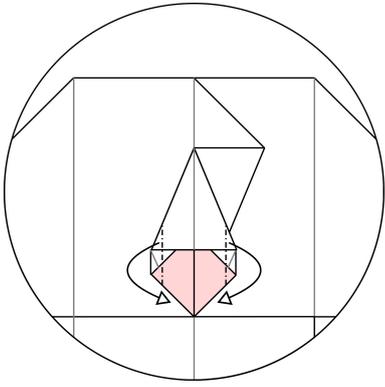14: Fold along the angle bisector.

15: Squash fold.

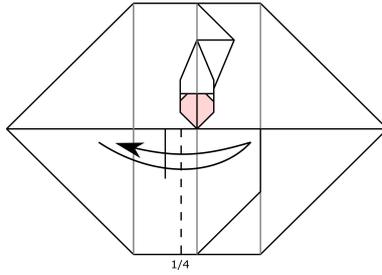16: Completed squash fold. Note magnified view in the next step.

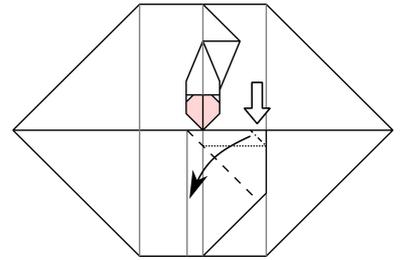17: Petal fold to form a red square.
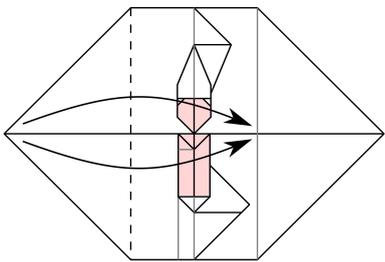
18: Reverse the tip inside.
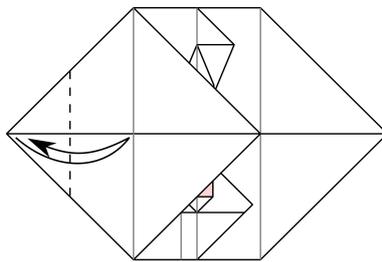
19: Mountain fold both sides to shape.
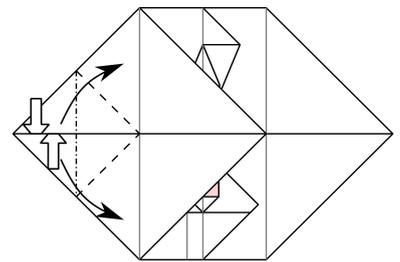
20: Crease at the 1/4 mark.

1/4

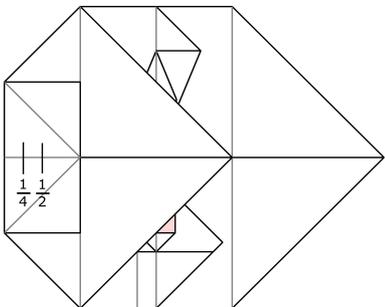21: Fold towards the crease line, squash folding at the top.
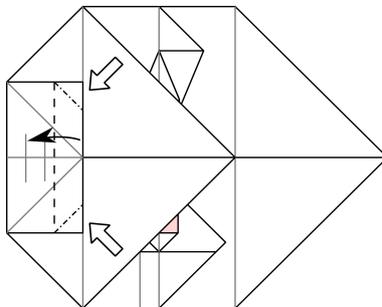
22: Fold both flaps towards the right.

23: Pre-crease towards the middle.

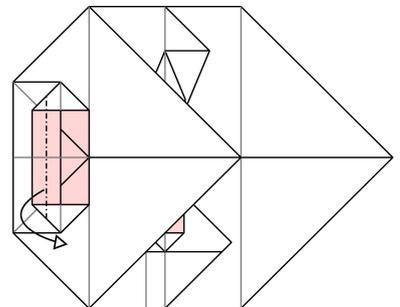24: Squash fold towards the middle.

25: Pre-crease the 1/4 mark.

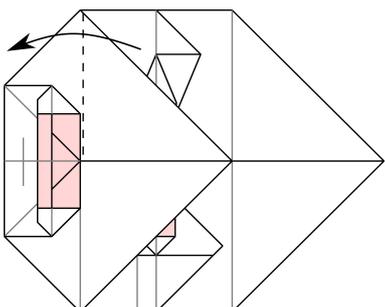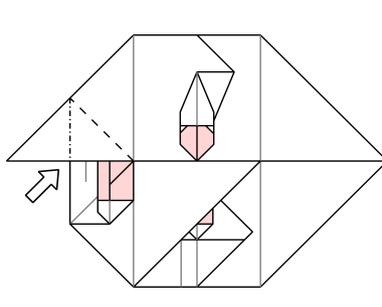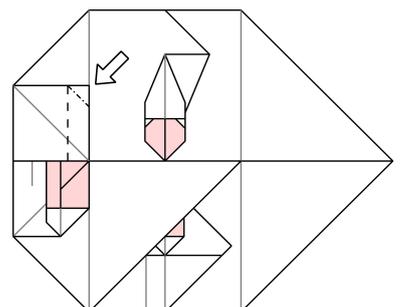$\frac{1}{4}$ $\frac{1}{2}$

26: Squash fold towards the 1/4 mark.

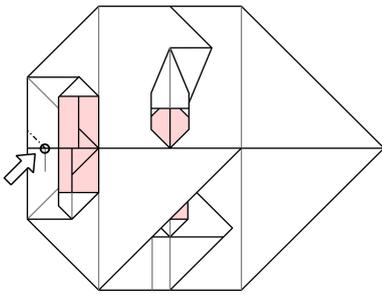27: Mountain fold the edge to shape.
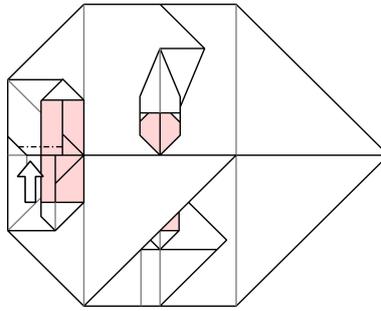
28: Fold the flap towards the left.
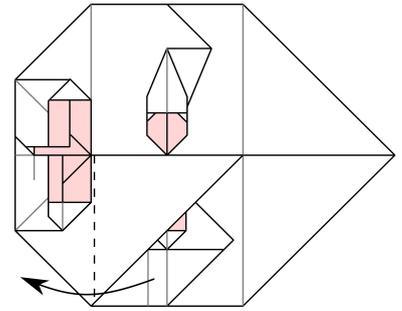
29: Squash fold.

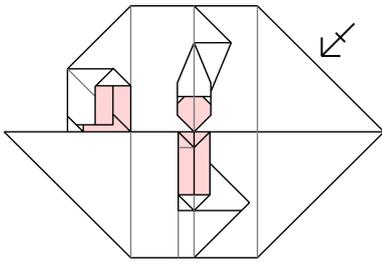30: Squash fold to match the colour change on the lower edge.

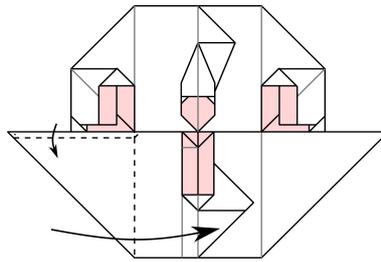31. Reverse fold the tip, using the crease mark as a reference.

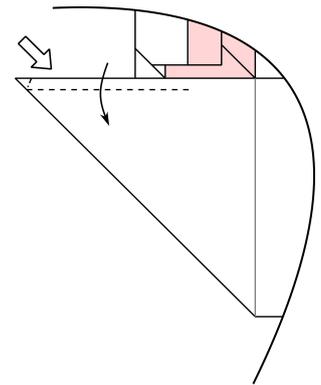32. Mountain fold inside to produce a colour change.
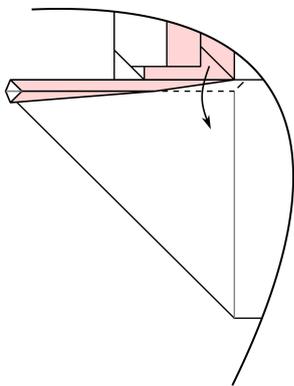
33: Fold the flap towards the left.
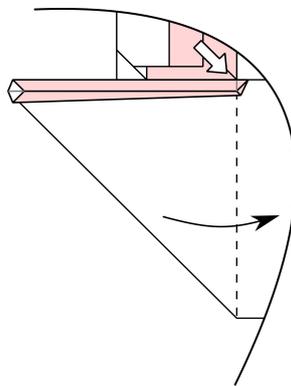
34: Repeat steps 22-33 on the other side.

35: Open up the edge at the top and squash fold it while folding the flap towards the right.
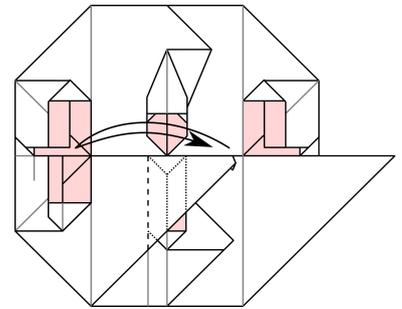
36: Step 35 in more detail. Squash fold the tip at the left while starting to open up the edge.
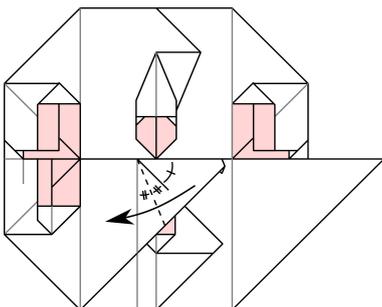
37: Step 35 in more detail. Continue to open the flap, while starting to squash fold at the right.
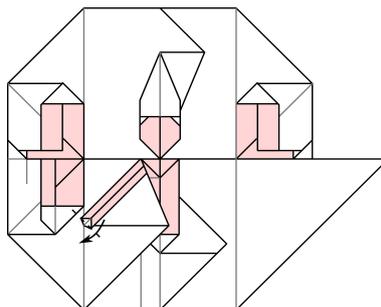
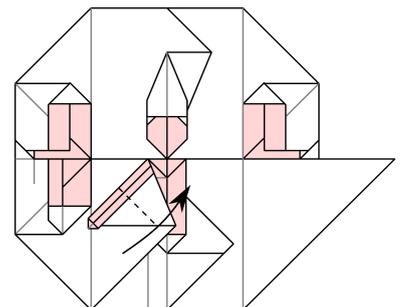38: Step 35 in more detail. Complete the squash fold, whilst folding the flap towards the right.

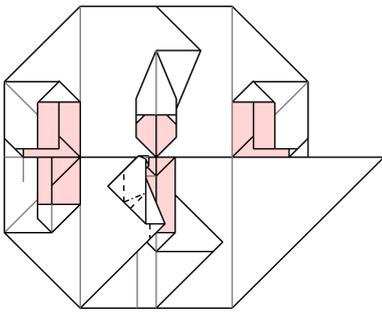39: Pre-crease as shown. Note X-ray view.
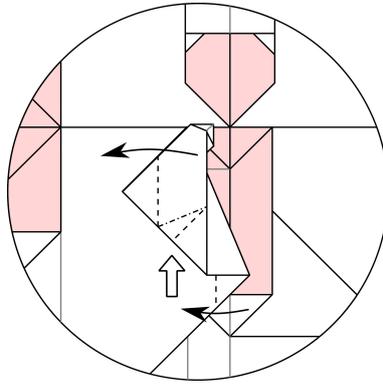
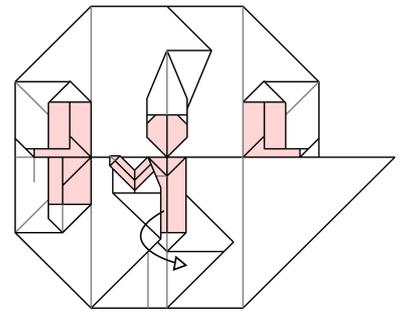40: Fold on the angle bisector as shown.

41: Fold the tip outwards.
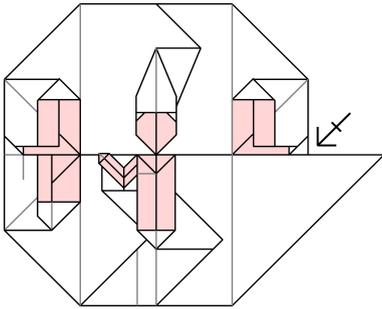
42: Fold the arm inwards.
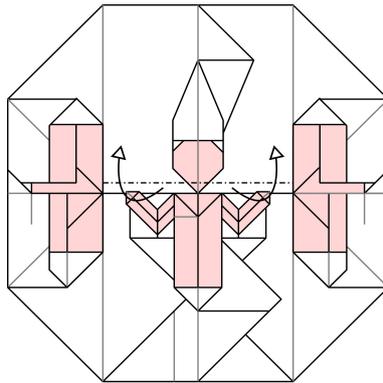
43: Note magnified view in next step.

44: Fold the arm towards the left while performing a squash fold on the bottom.
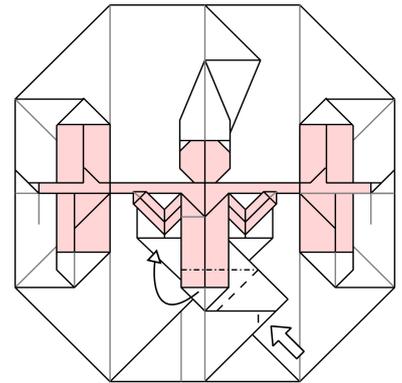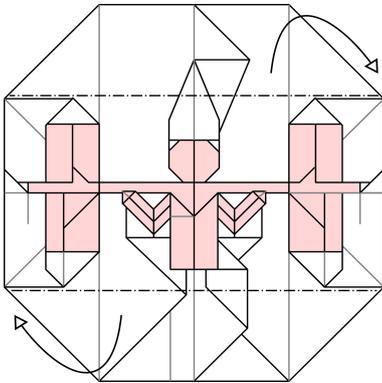
45: Tuck the arm underneath the body layer.

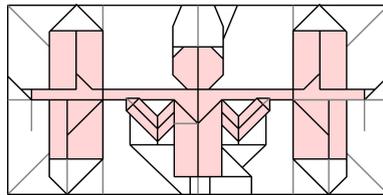46: Repeat steps 35-45 on the other side.

47: Mountain fold the edges to colour change.

48: Swivel fold to shape the body, tucking the paper underneath.

49: Mountain fold the edges to shape the model.

Completed Weightlifter