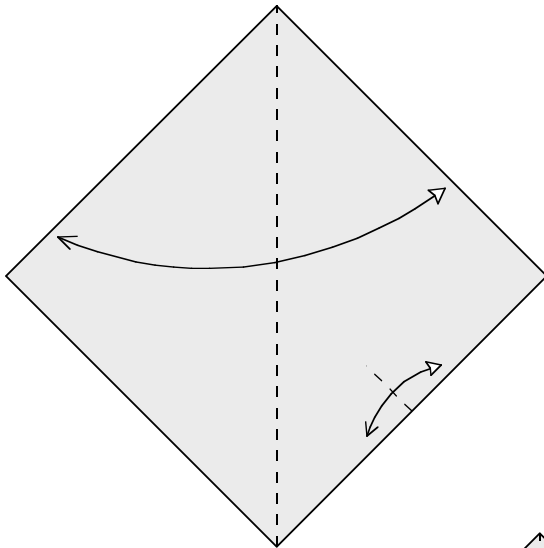


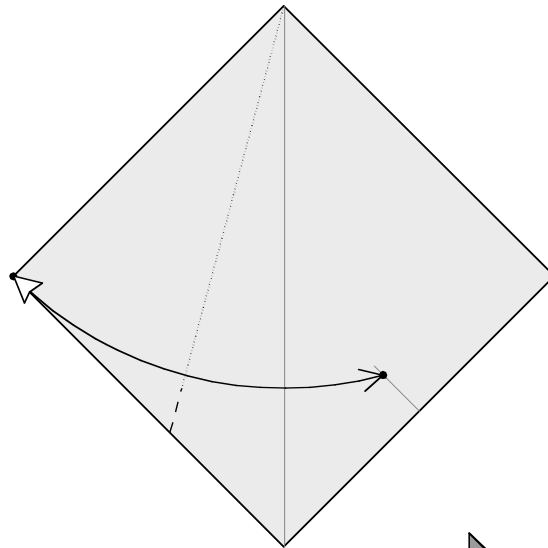
RiF-RiF Bird

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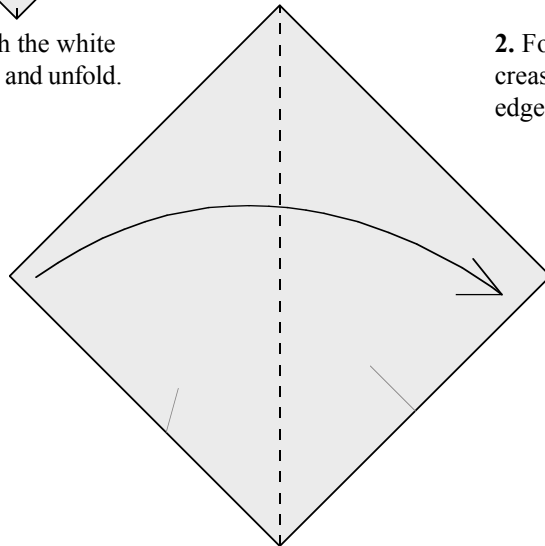
RiF-RiF stands for “Rigidly Foldable, Rigidly Flapping.” This bird (which uses a mechanism derived from that of Randlett’s “New Flapping Bird”) can be folded rigidly and flaps rigidly, i.e., with all deformations happening on creases and no bending of facets.



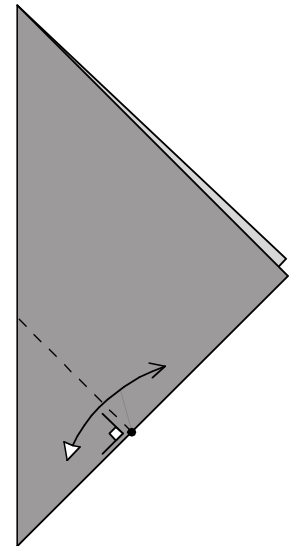
1. Begin with the white side up. Fold and unfold.



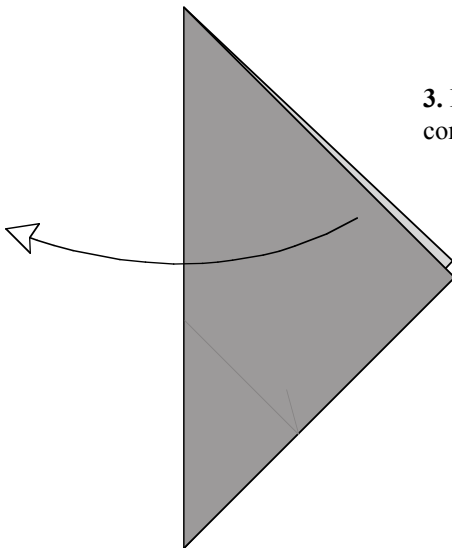
2. Fold the point to the crease, pinch along the edge, and unfold.



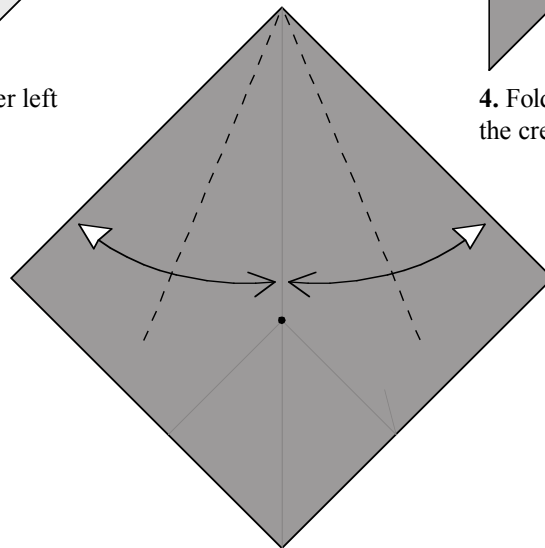
3. Fold the upper left corner down.



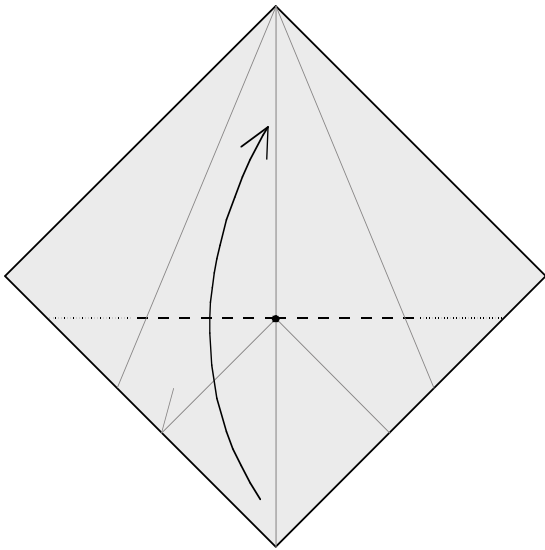
4. Fold and unfold through the crease intersection.



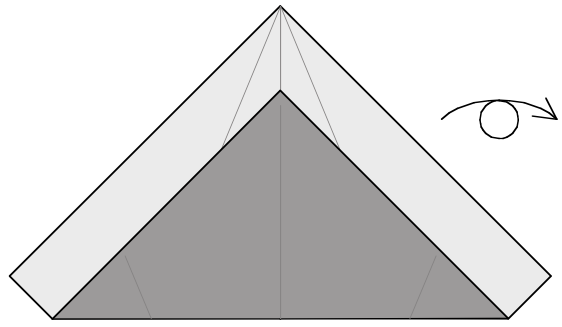
5. Unfold, then turn the paper over.



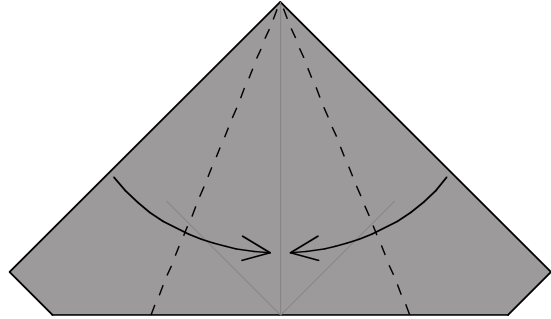
6. Fold the edges to the diagonal (they don't need to extend all the way across the paper) and unfold. Turn the paper back over.



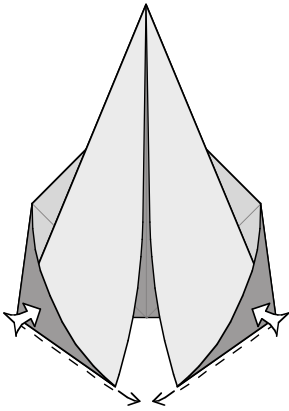
7. Fold the lower right corner up along a fold that passes through a crease intersection. You don't need to make it sharp beyond the creases you just made.



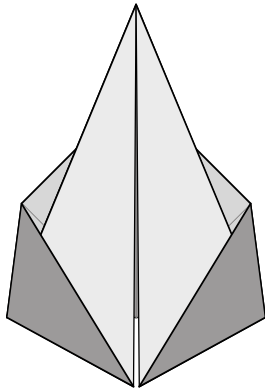
8. Turn the paper over.



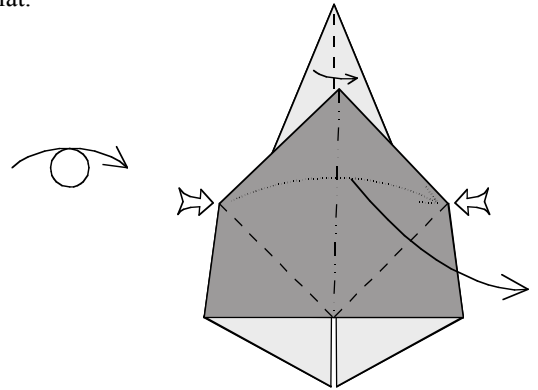
9. Fold the side edges in on the existing creases. The paper will not lie flat.



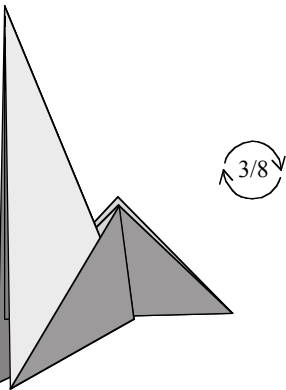
10. Flatten the paper, forming creases that run to the corners.



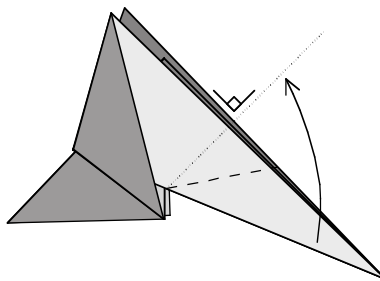
11. Like this. Turn the paper over.



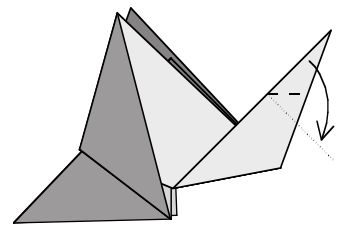
12. Squeeze the sides together and open out the pocket between the two top flaps. Flatten.



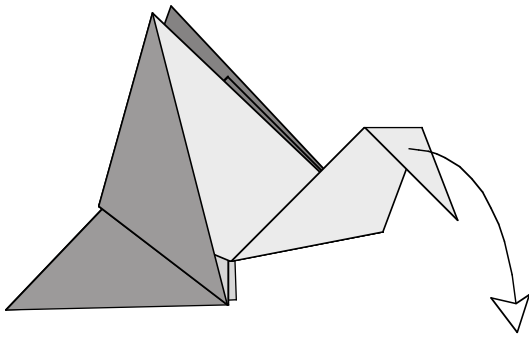
13. Rotate the paper $3/8$ turn.



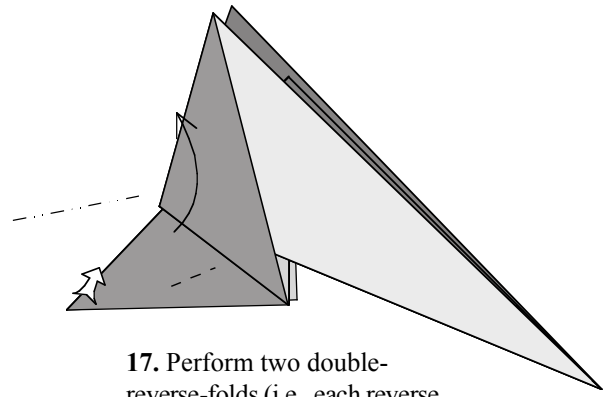
14. Fold the corner up, forming a right angle.



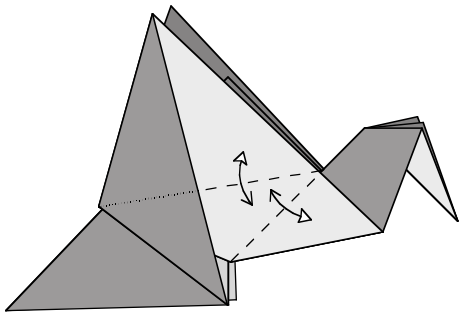
15. Fold the corner down to form a head.



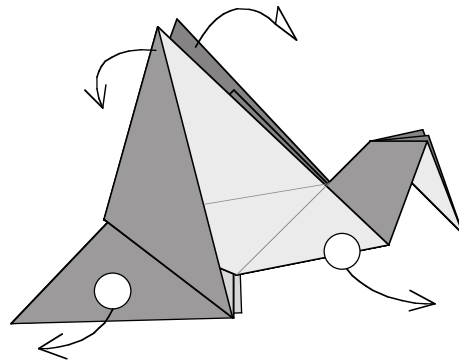
16. Unfold to step 14.



17. Perform two double-reverse-folds (i.e., each reverse fold actually consists of two side-by-side reverse folds).



18. Crease through all layers shown to form distinct hinges.



19. Hold where shown and pull; the bird will flap rigidly. Once the creases are in place, it can also be folded and unfolded rigidly in a single motion.