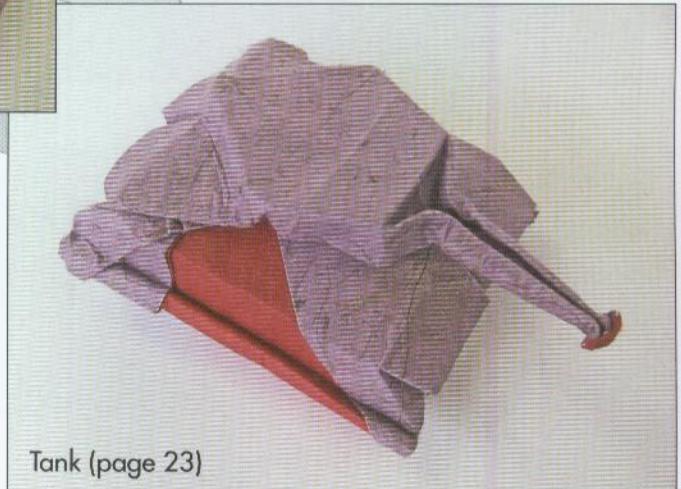
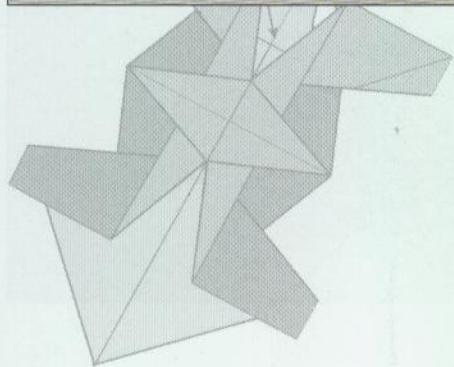
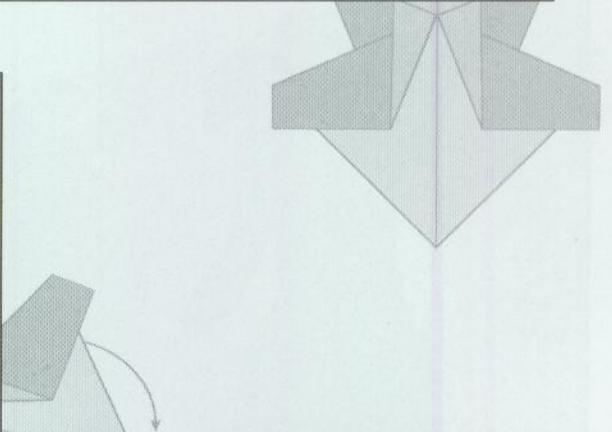
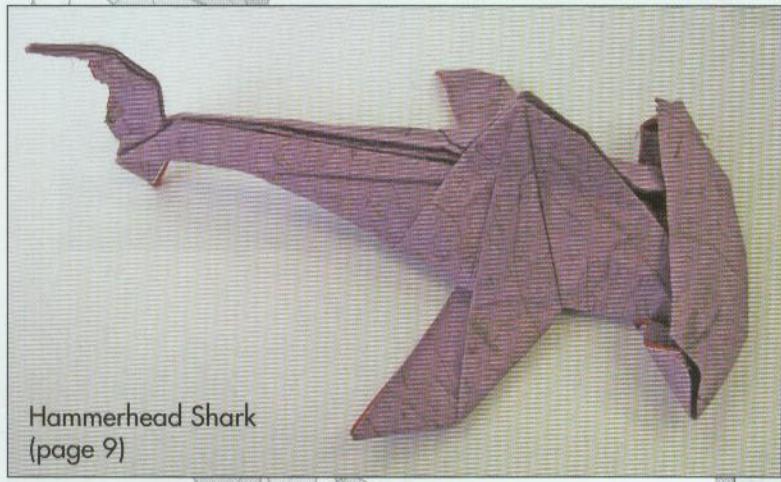
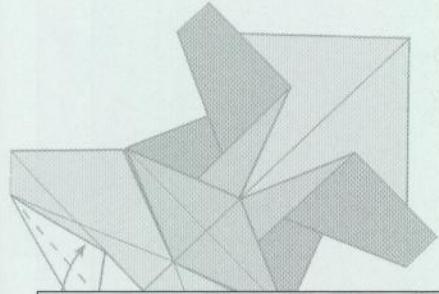
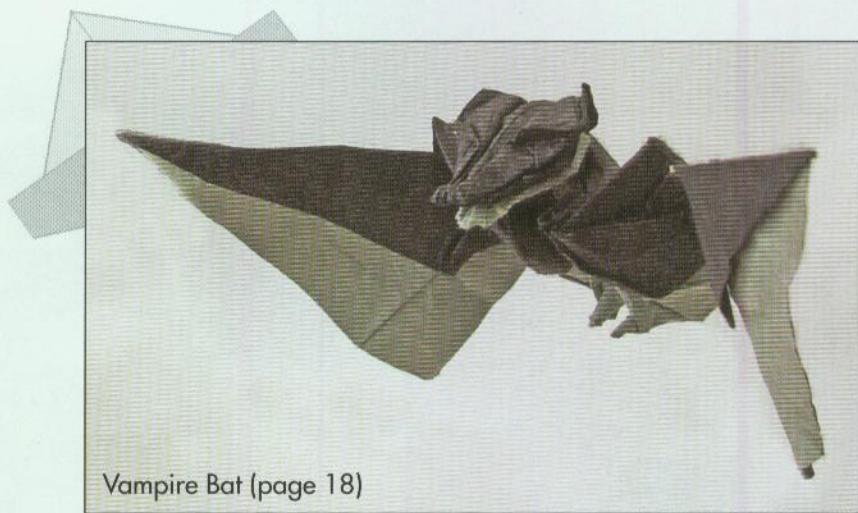
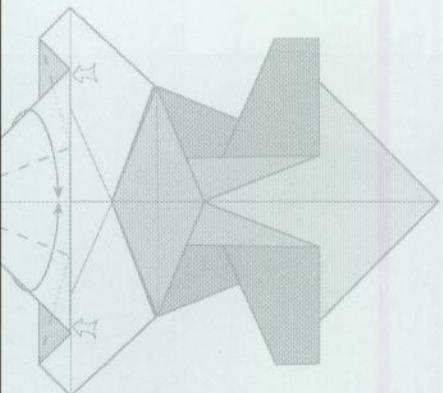
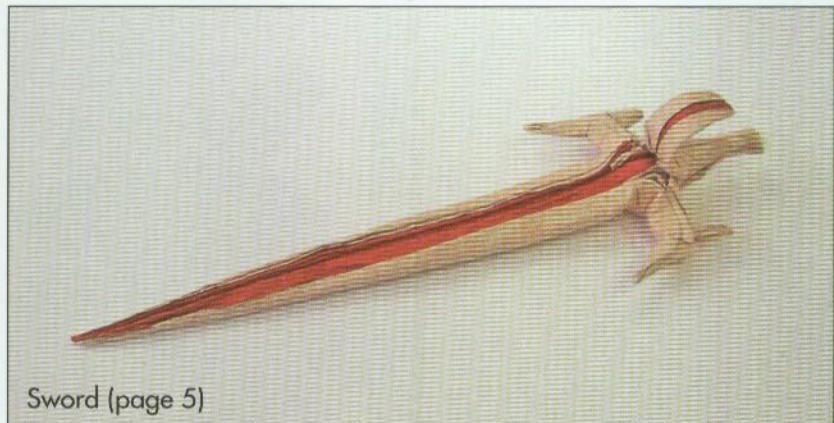


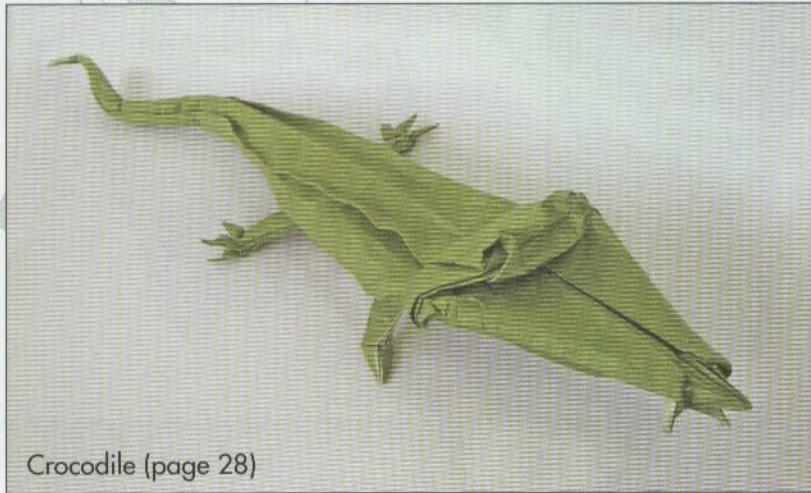


# ORIGAMI on the edge

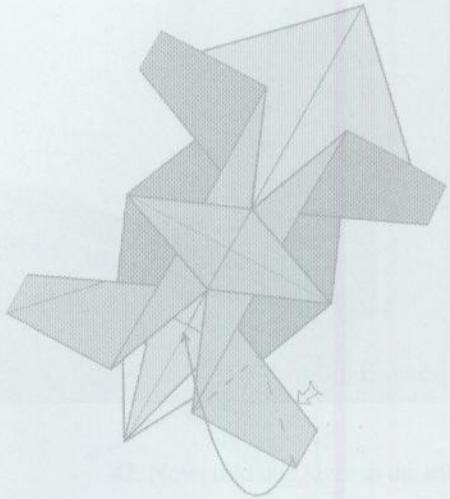
Xander Arena

B

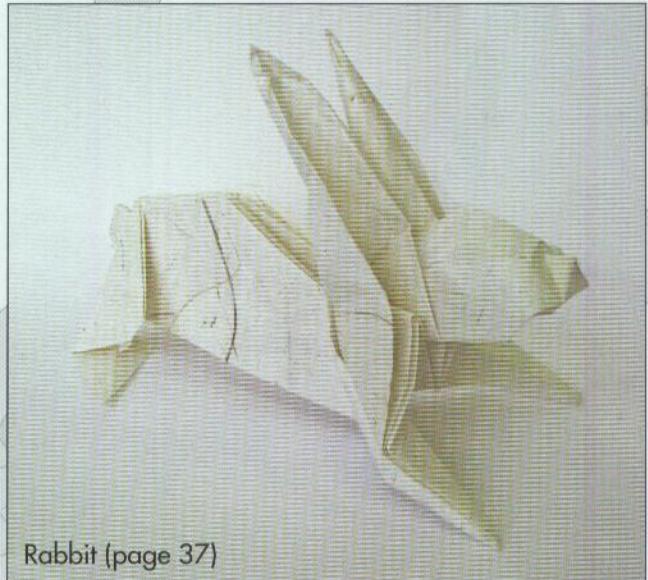




Crocodile (page 28)



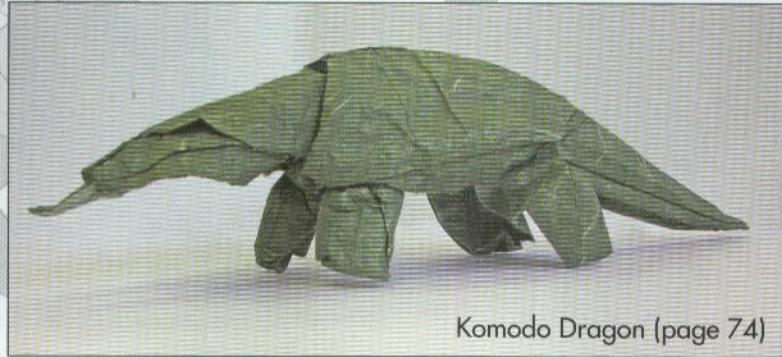
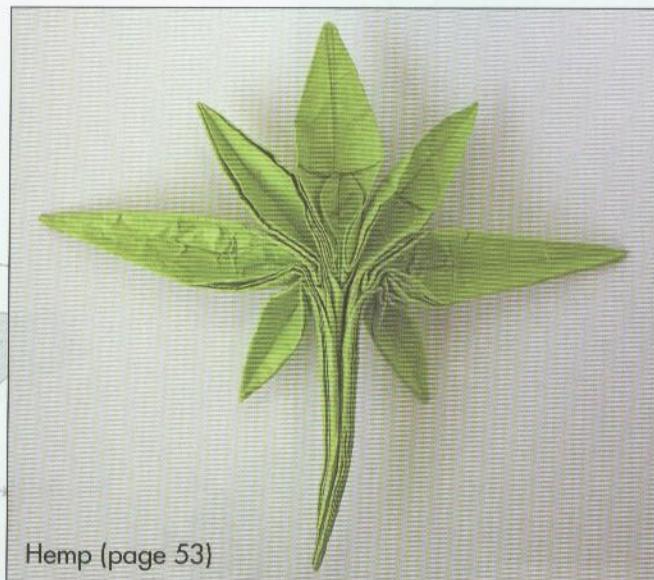
Ghost Bride  
(page 41)



Rabbit (page 37)

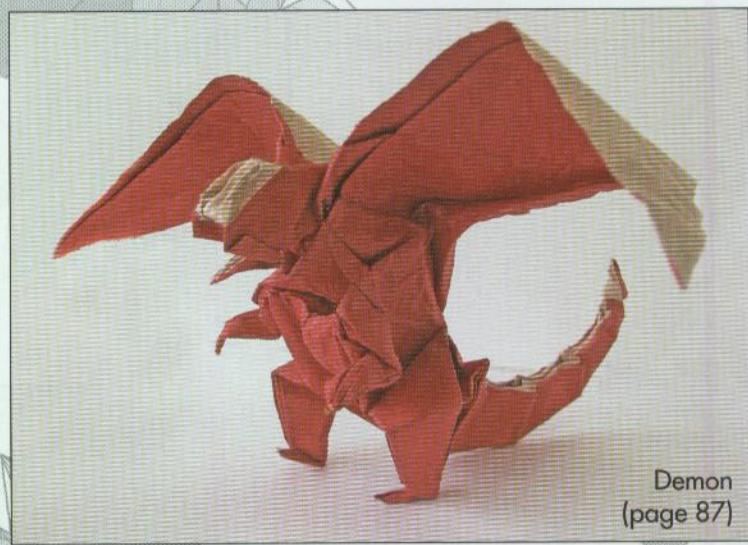
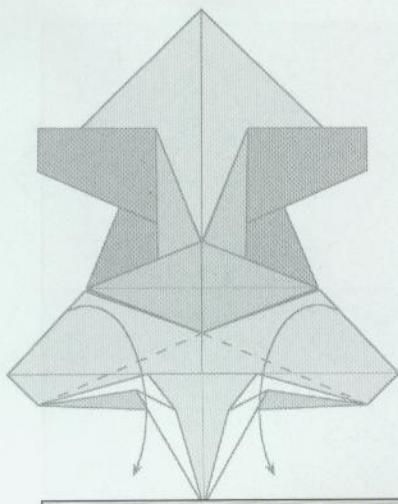
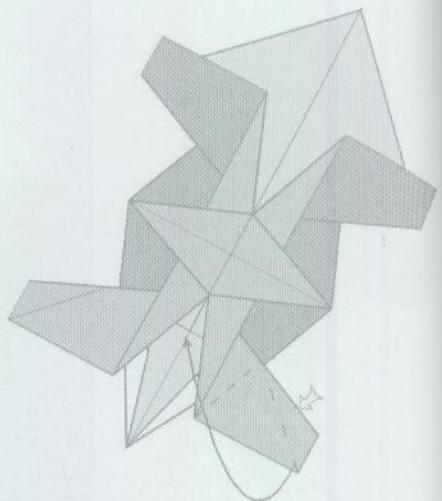


Chameleon (page 47)

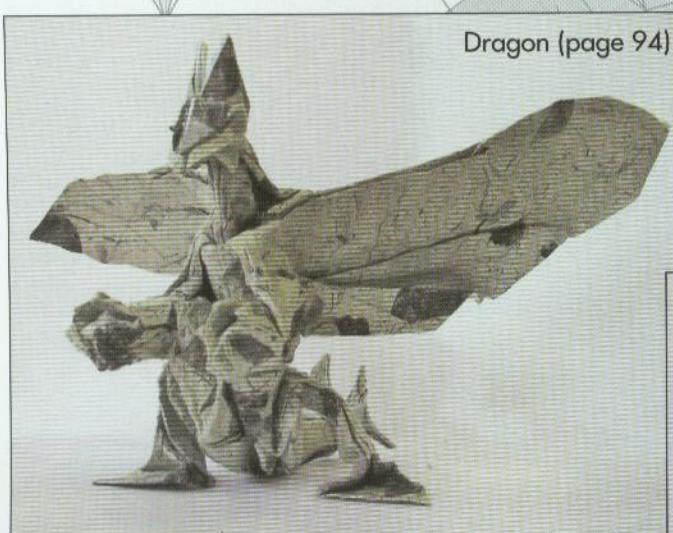




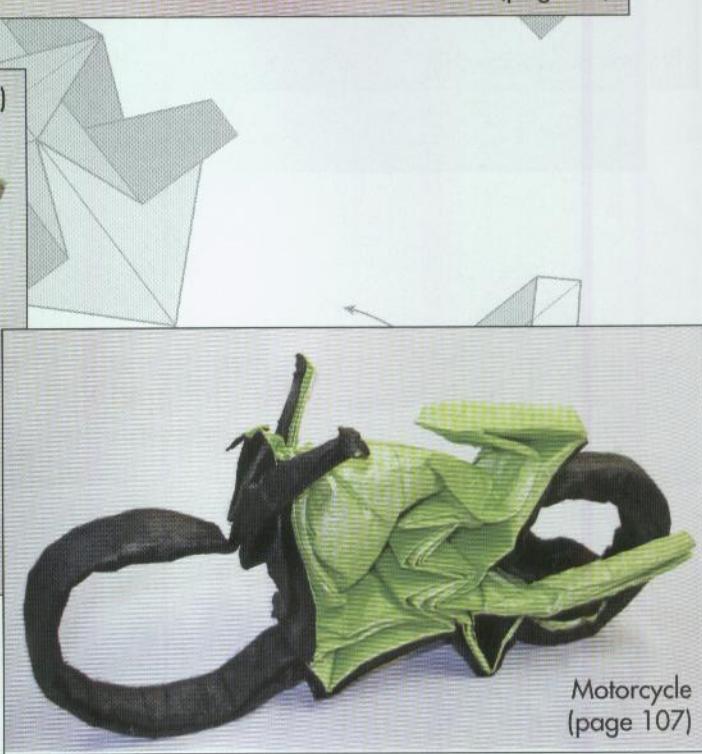
Gila Monster (page 80)



Demon  
(page 87)

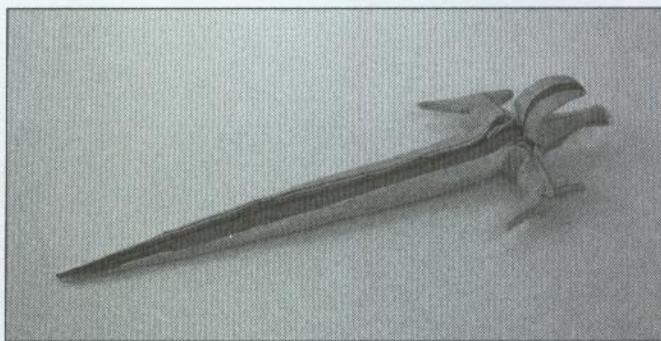


Dragon (page 94)

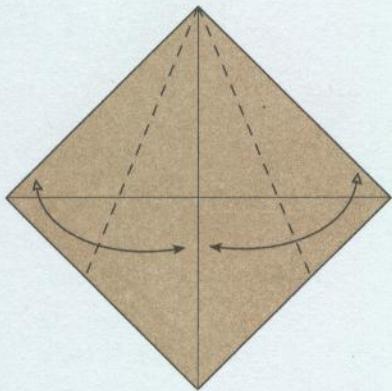


Motorcycle  
(page 107)

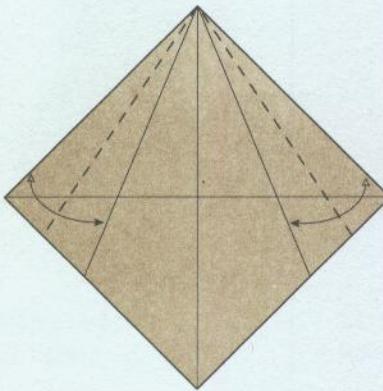
# Sword



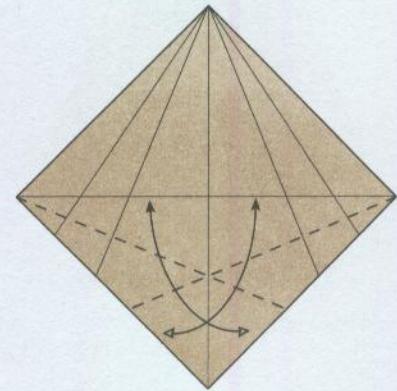
I was inspired to design a sword while folding origami with my son. He wanted a model he could play with, and being an aggressive young boy, a weapon enticed him. This sword incorporates a guard and robust handle. The two-toned effect of colored paper gives the illusion of blood on the blade. Careful!



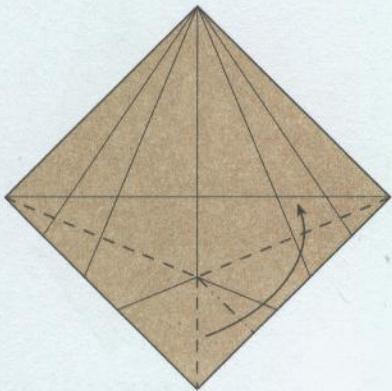
1. With square color side up, fold and unfold.



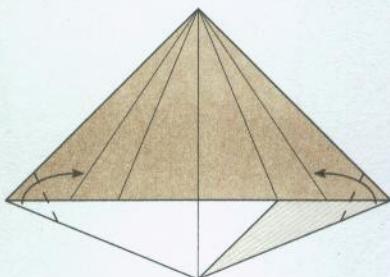
2. Fold and unfold.



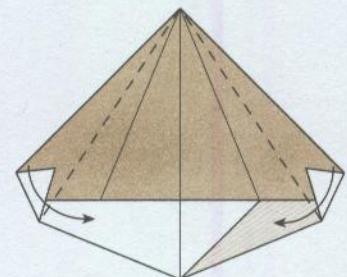
3. Fold and unfold.



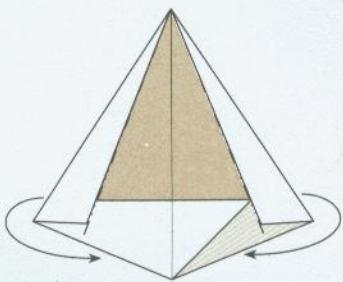
4. Rabbit ear.



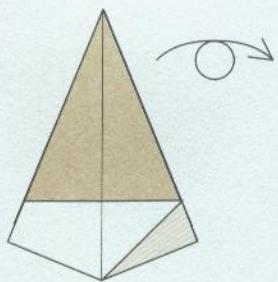
5. Valley folds.



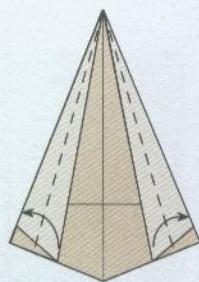
6. Valley folds.



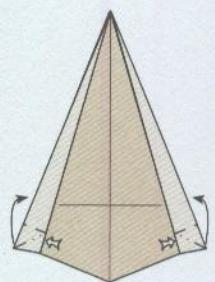
7. Mountain folds.



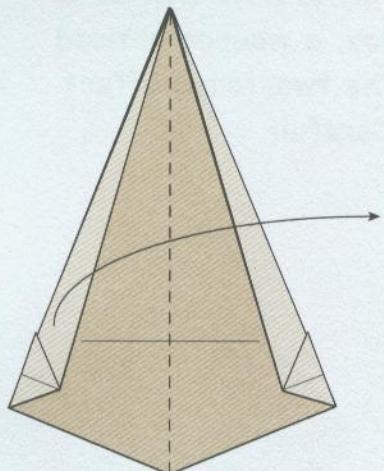
8. Turn over.



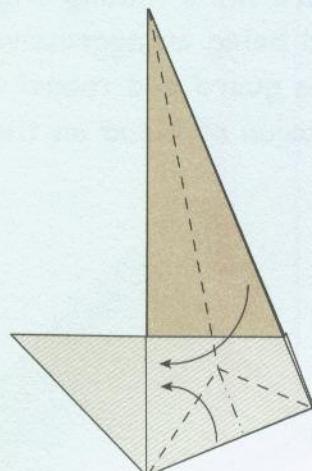
9. Valley folds.



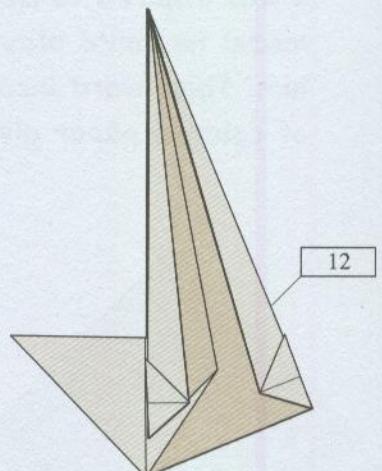
10. Squash folds.



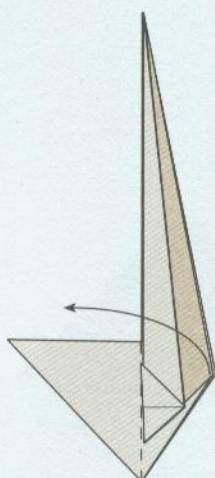
11. Valley fold large flap.



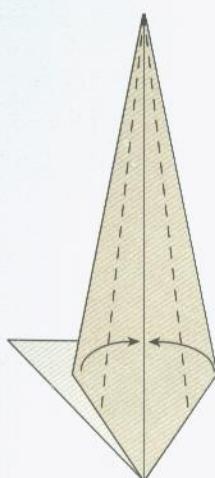
12. Rabbit ear flap.



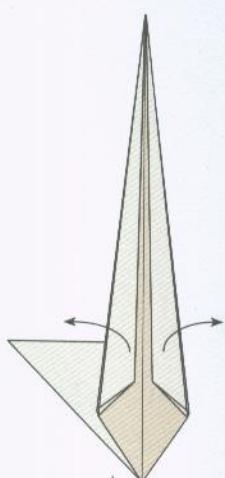
13. Repeat step 12 behind.



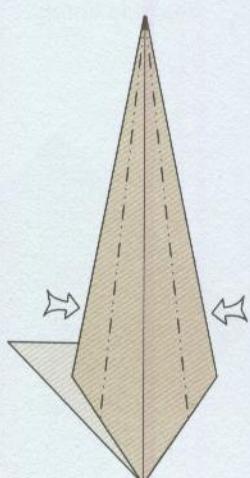
14. Fold flap over.



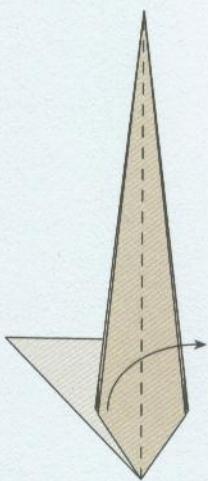
15. Valley to align with flaps beneath.



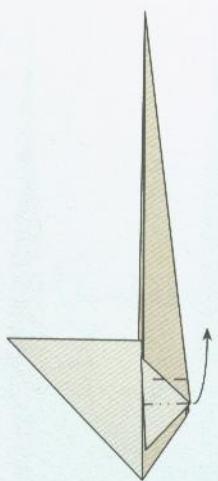
16. Unfold.



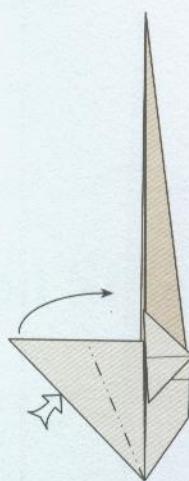
17. Sink folds.



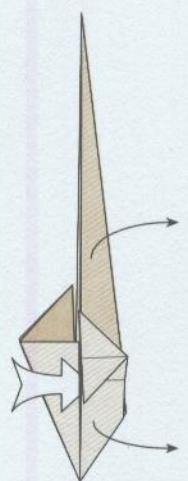
18. Valley fold.



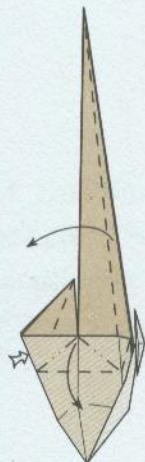
19. Swivel the crossguard upward to its limit.



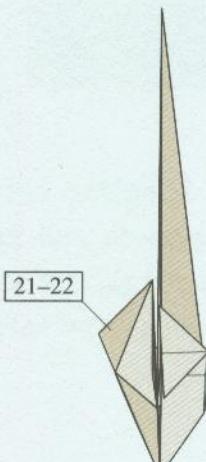
20. Reverse fold.



21. Open. Model will not lie flat.



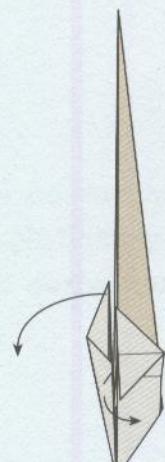
22. Petal fold, while closing model.



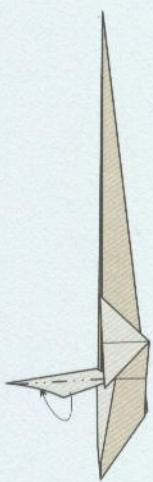
23. Repeat steps 21-22 behind.



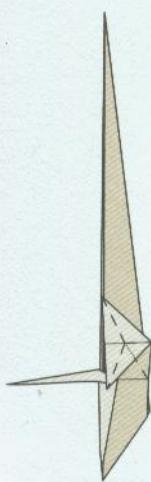
24. Valley fold. Repeat behind.



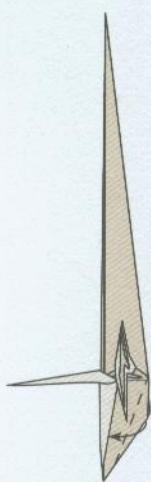
25. Outside swivel.



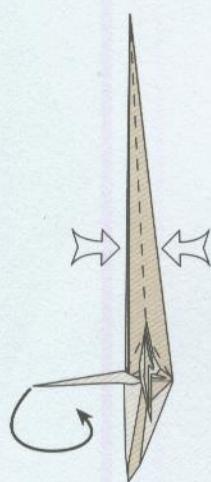
26. Mountain fold. Repeat behind.



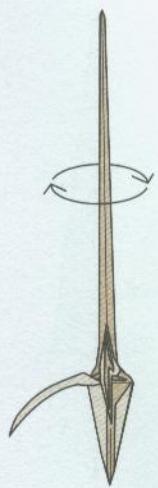
27. Rabbit ear crossguard in two places simultaneously. Repeat behind.



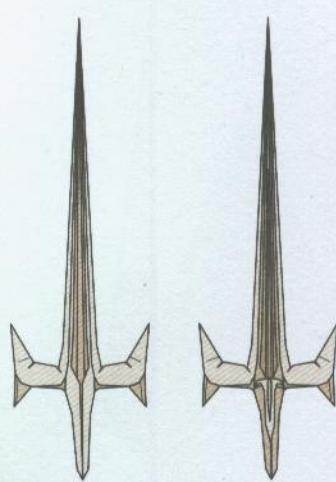
28. Valley fold flap. Repeat behind.



29. Double rabbit ear blade and handle.

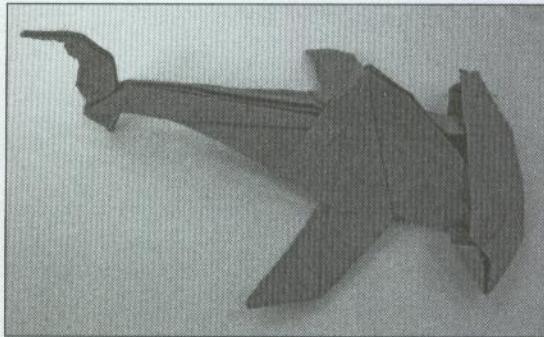


30. Rotate model.

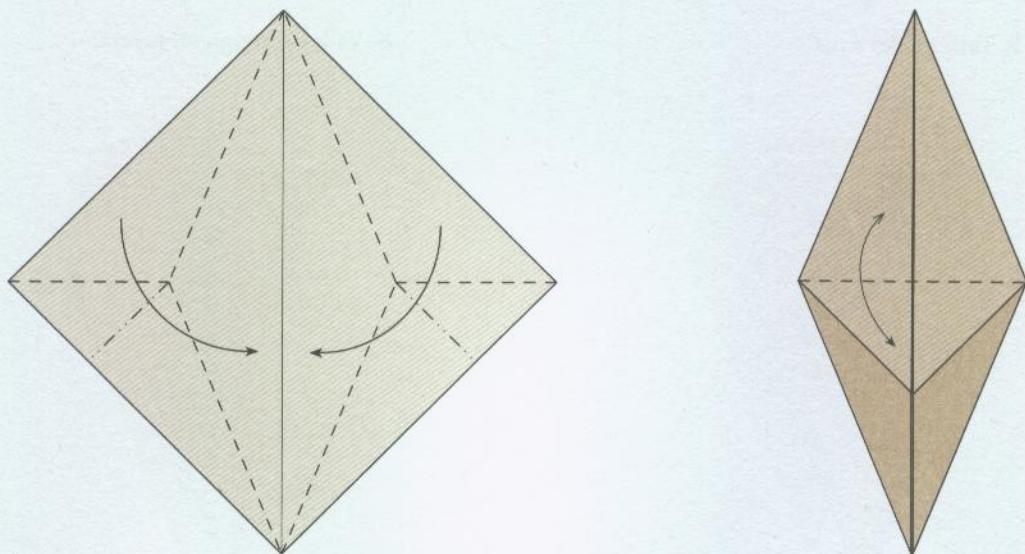


31. Like this.

# Hammerhead Shark

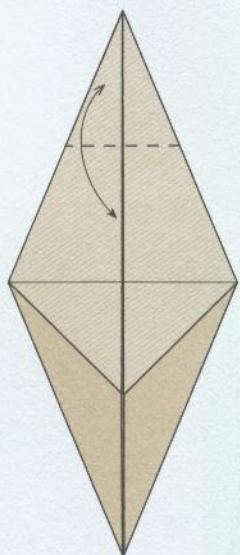


At the time I created this design, I was not aware of any other origami hammerhead models. The hammerhead has always intrigued me, and I thought its evolutionary peculiarity made for nice subject matter. Appropriately, the model is a derivative of the fish base, and relatively easy to fold.

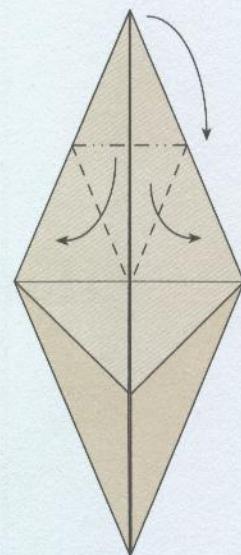


1. With square white side up, fold a fish base.

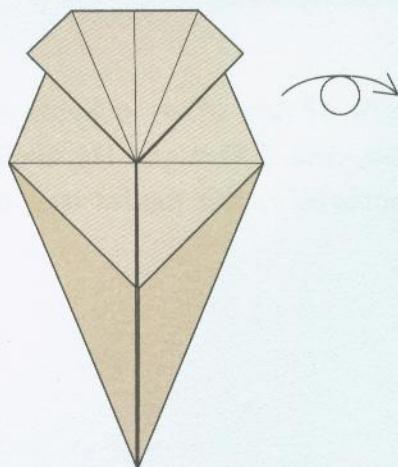
2. Fold and unfold.



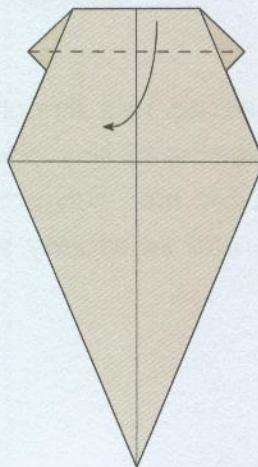
3. Fold and unfold.



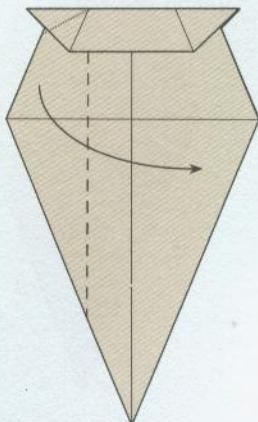
4. Refold, incorporating squash shown.



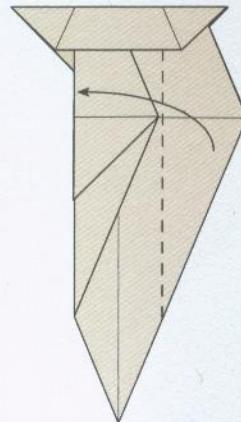
5. Turn model over.



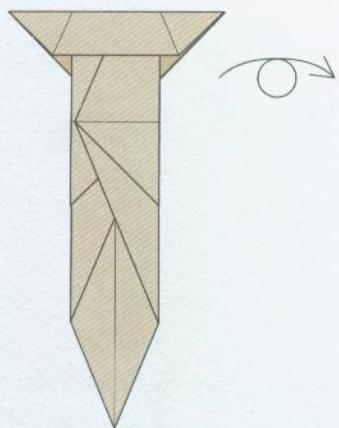
6. Valley through all layers.



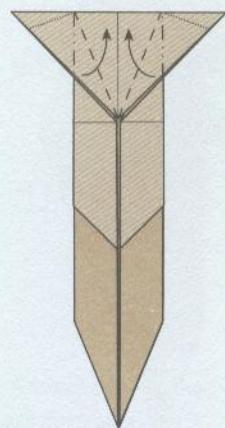
7. Valley fold, swinging some paper at the top.



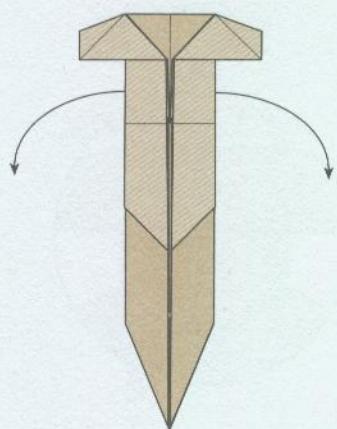
8. Repeat on right side.



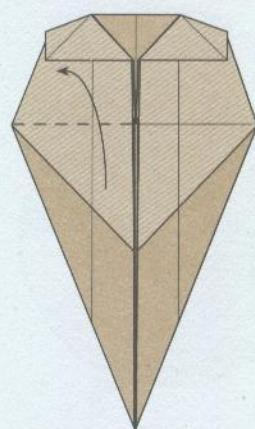
9. Turn model over.



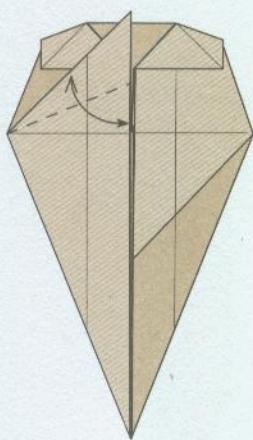
10. Swivel fold through two layers.



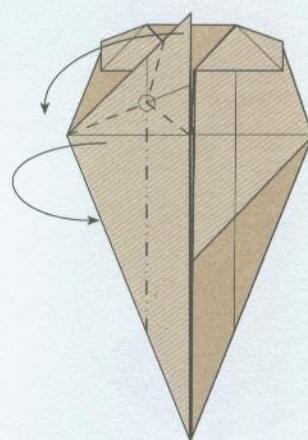
11. Unfold large flaps from behind.



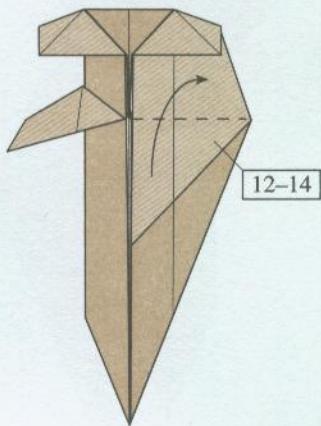
12. Fold small flap upward.



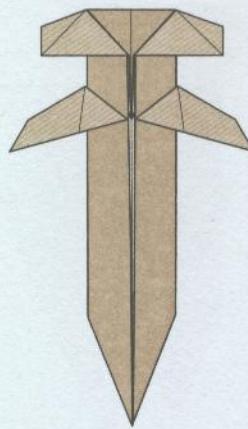
13. Make kite crease and unfold.



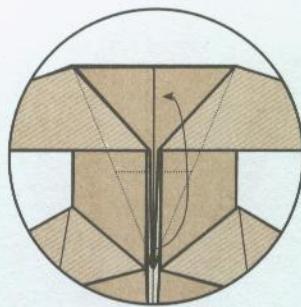
14. Rabbit ear through crease intersection, while folding large flap behind.



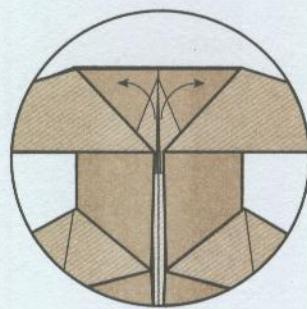
15. Repeat steps 12-14 on right side.



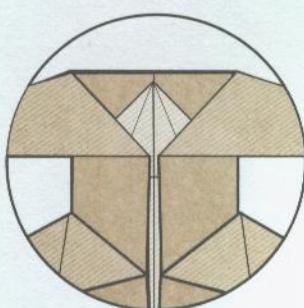
16. Like this.



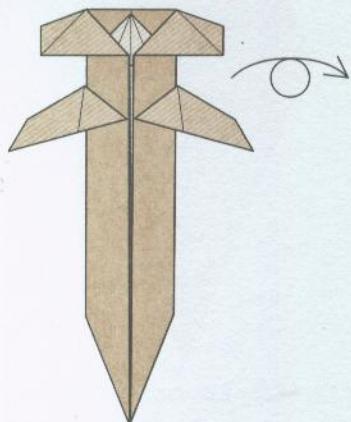
17. Reverse fold mouth.



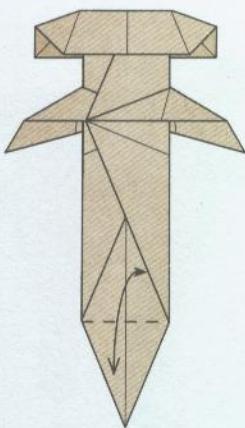
18. Open out the mouth and press flat.



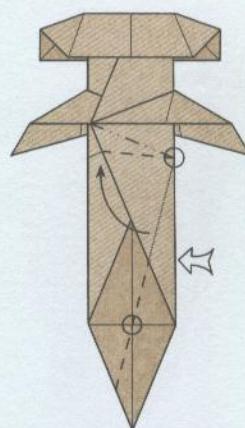
19. Like this.



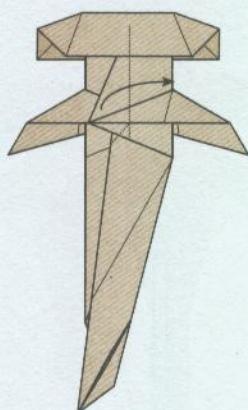
20. Turn model over.



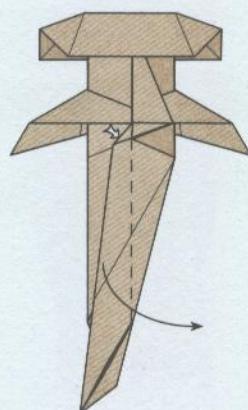
21. Fold and unfold.



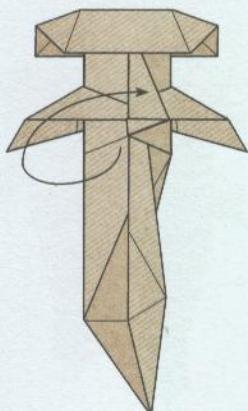
22. Swivel fold through indicated crease intersections.



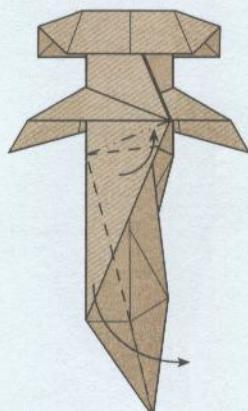
23. Valley fold flap to side, along midline. A gusset will form underneath.



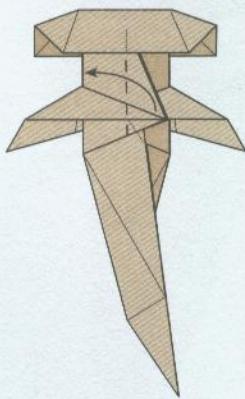
24. Valley fold flap to side, forming a small reverse at the top. The tail will not lie flat.



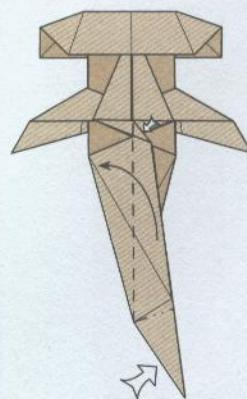
25. Bring large flap to front.



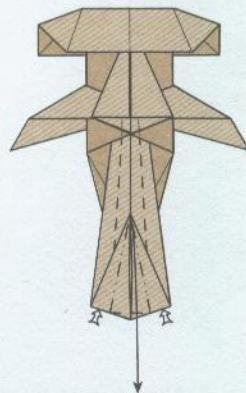
26. Close flap with another swivel fold.



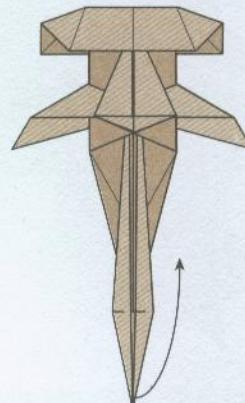
27. Valley fold flap to side, along midline. A gusset will form underneath.



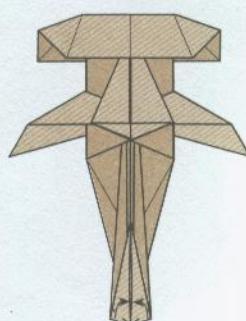
28. Squash fold tail flap along midline. A small reverse is required at the top.



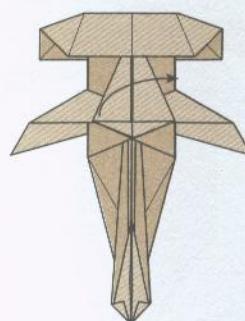
29. Petal fold, allowing some paper to shift at top.



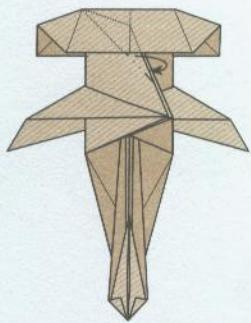
30. Valley fold.



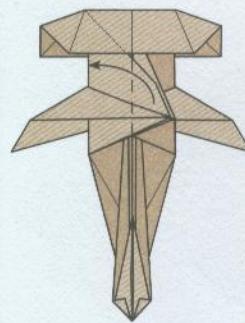
31. Valley fold corners of tail a bit.



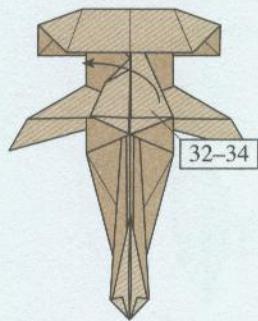
32. Fold dorsal fin to side.



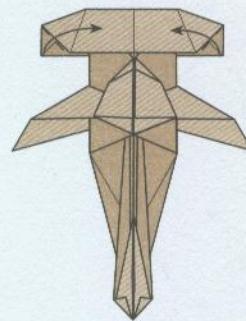
33. Mountain fold a portion of the dorsal fin underneath.



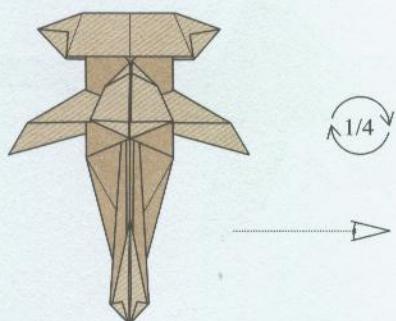
34. Valley the fin back to the left.



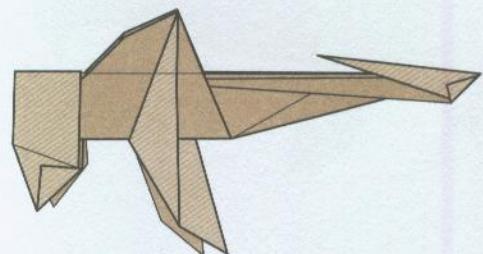
35. Repeat steps 32-34 on the right.



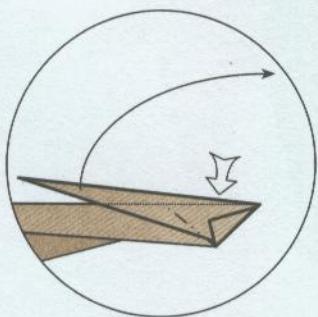
36. Valley fold corners of head to upper layer.



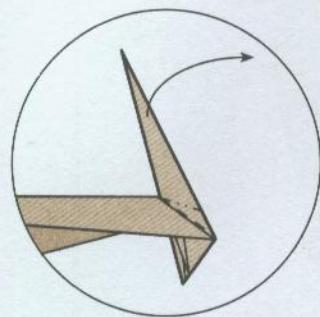
37. Mountain fold the shark in half, allowing the dorsal fins to come together as one.



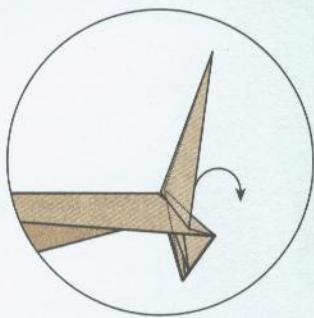
38. Now focus on the tail.



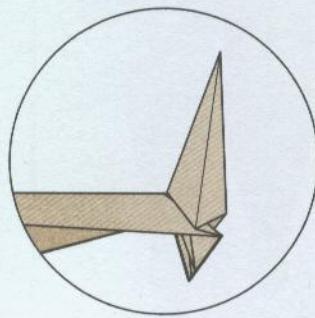
39. Reverse fold the tail.



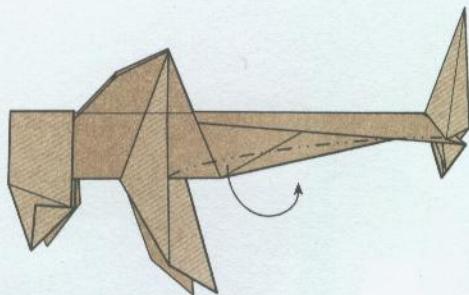
40. Outside crimp upper portion.



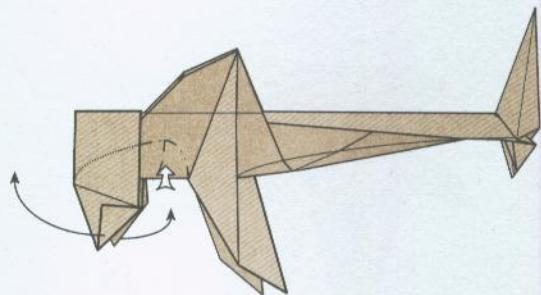
41. Unwrap a layer from within tail. Repeat behind.



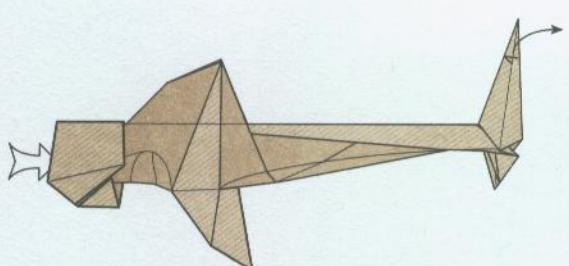
42. Like this.



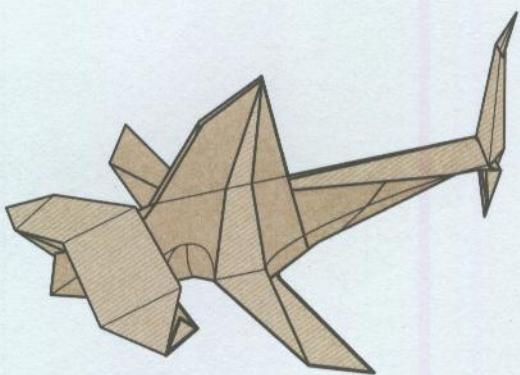
43. Shape the body with rounding folds. Repeat behind.



44. Again shape the body with rounding folds, allowing the shark's head to flatten a bit.

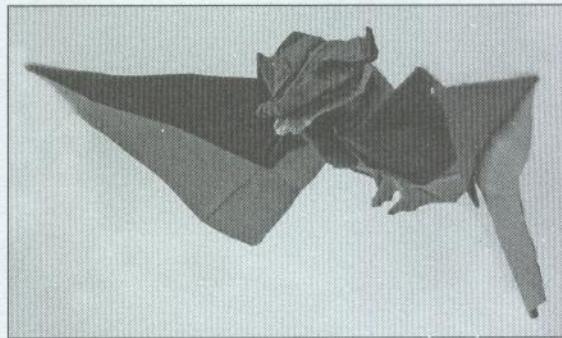


**45.** Crimp the tip of tail and open out the mouth and underbelly.

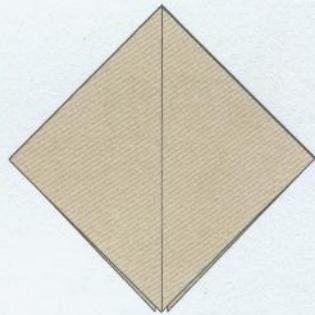


**46.** Dive with caution.

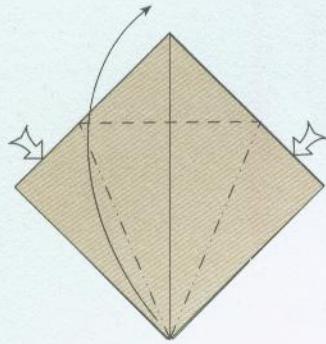
# Vampire Bat



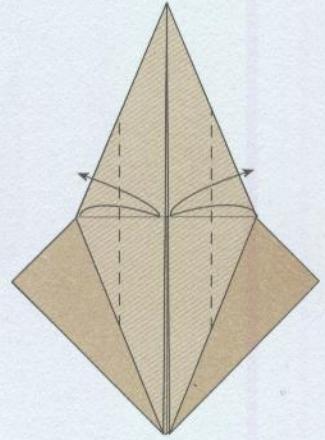
This model was somewhat accidental. I was doodling with some paper and began to see a bat take shape. The details in the face closely resembled the species *Desmodus Rotundus*, hence the model now.



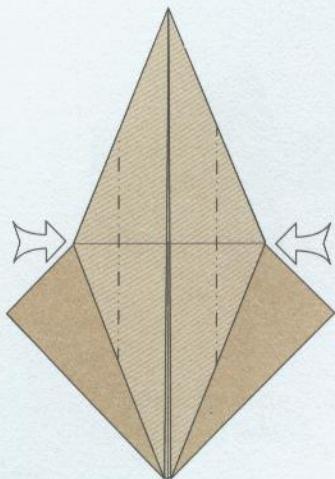
1. Begin with a preliminary base.



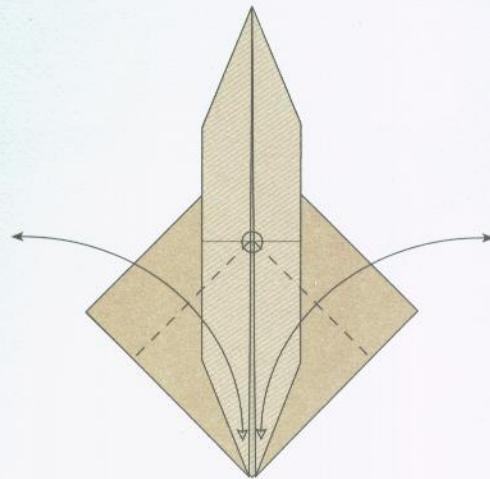
2. Petal fold front flap.



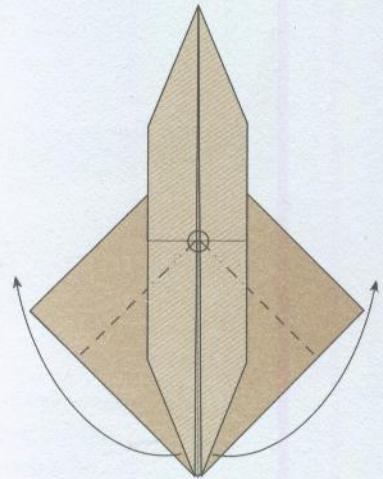
3. Fold and unfold.



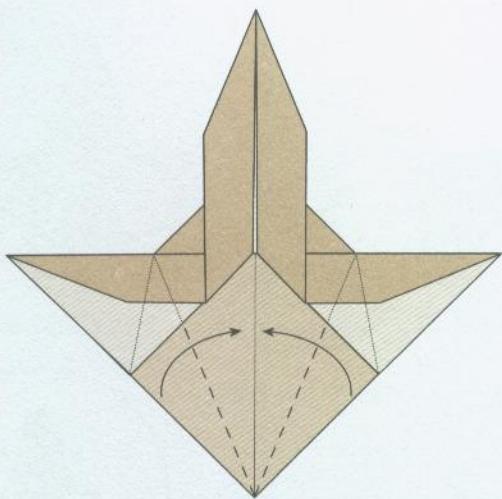
4. Sink folds.



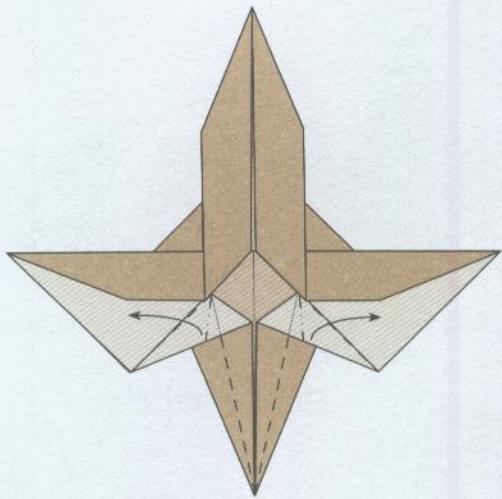
5. Valley fold and unfold.



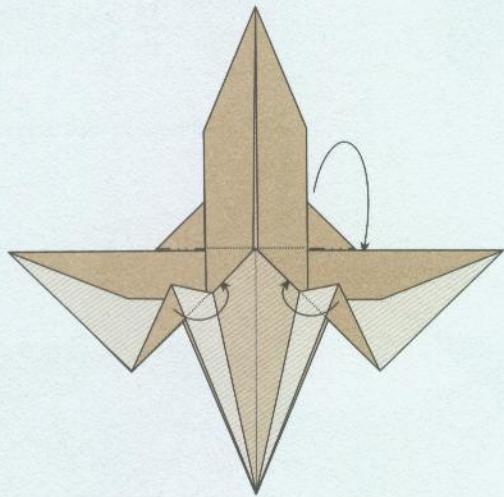
6. Reverse folds.



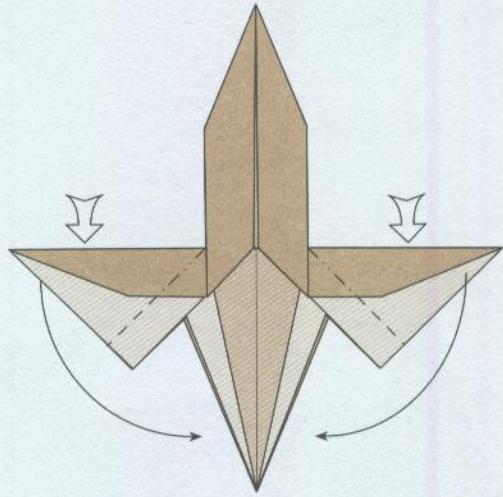
7. Kite fold lower layer,  
swiveling hidden paper.



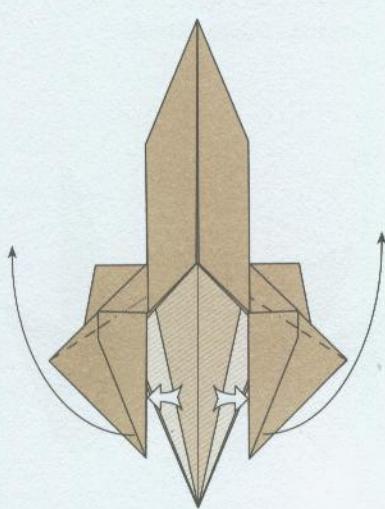
8. Swivel fold each side.



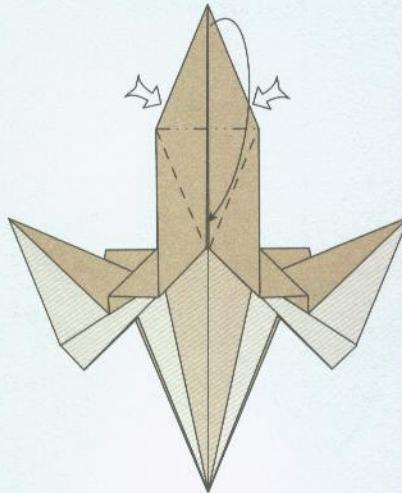
9. Tuck small flaps underneath.  
Mountain fold large flap back.



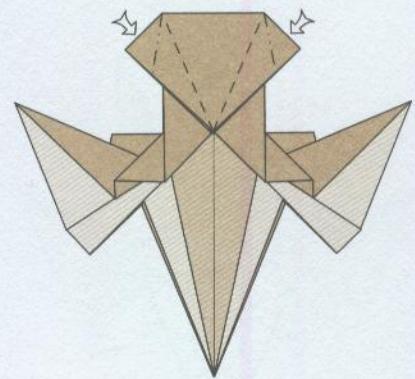
10. Reverse folds.



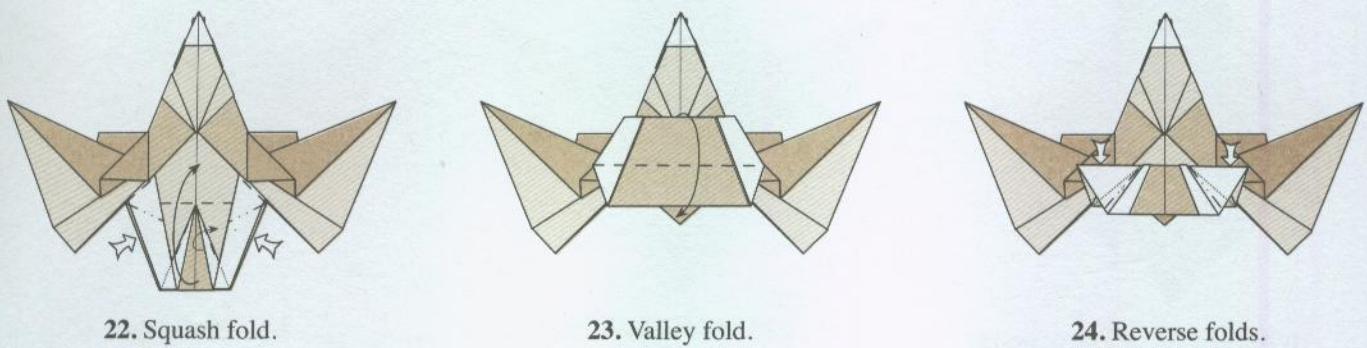
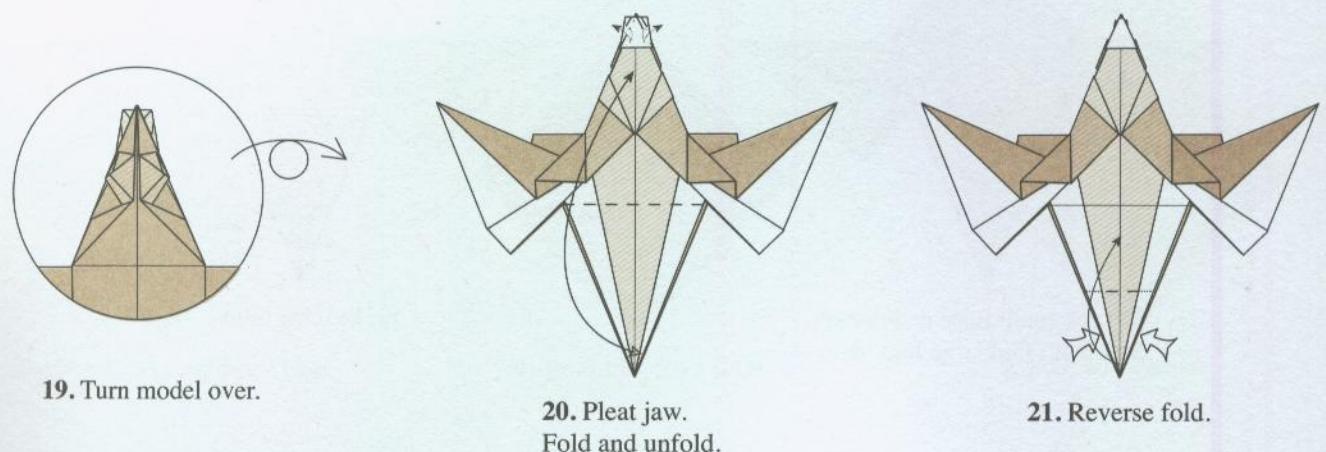
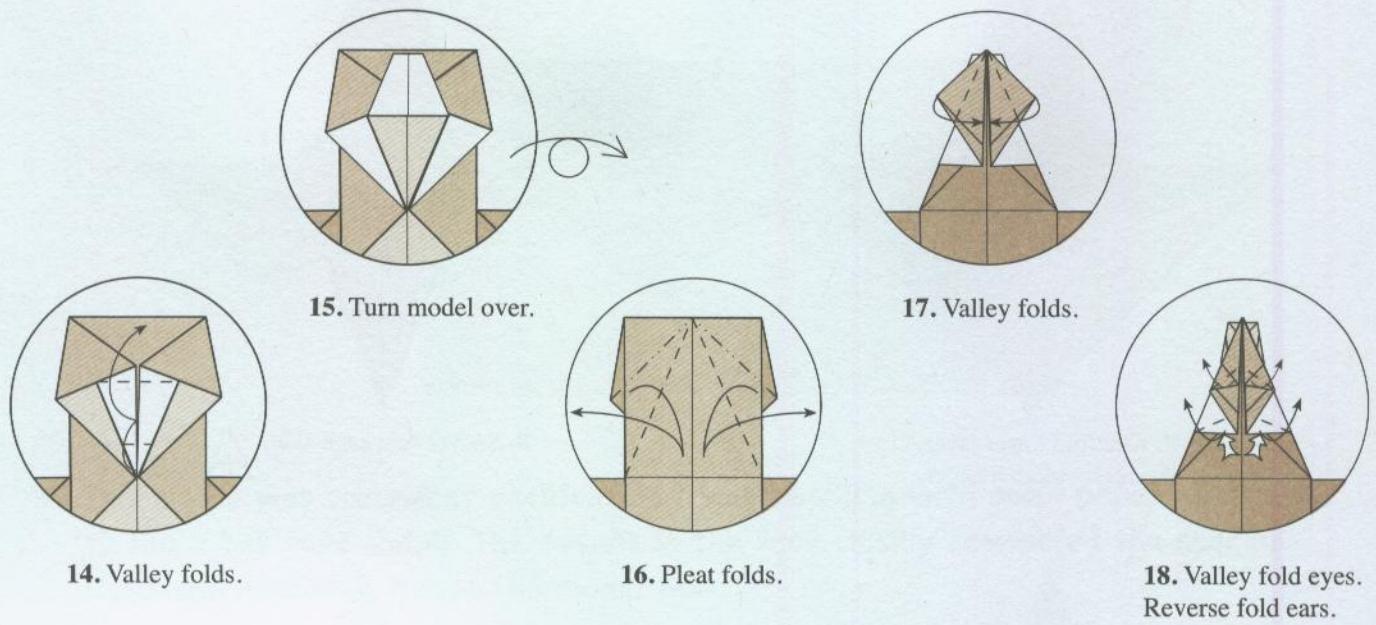
11. Reverse folds. The positions  
are approximate.

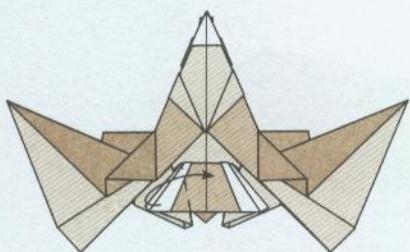


12. Squash fold.

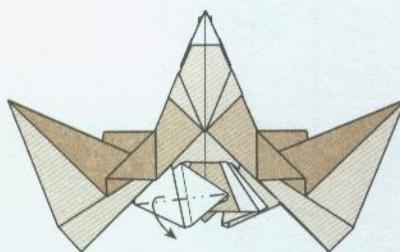


13. Squash folds.

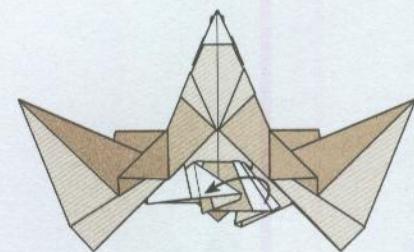




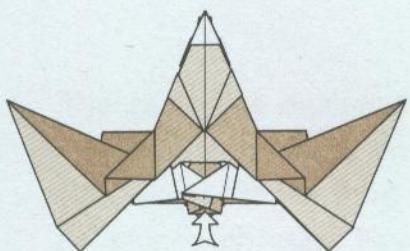
25. Valley fold.



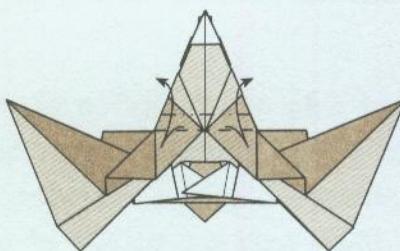
26. Mountain fold flap behind.



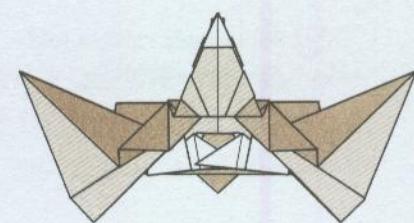
27. Repeat steps 25-26 on right side.



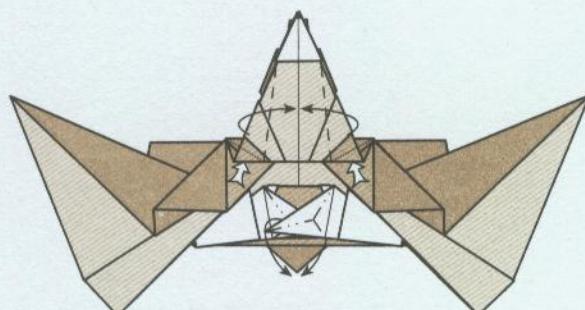
28. Reverse fold behind both legs.



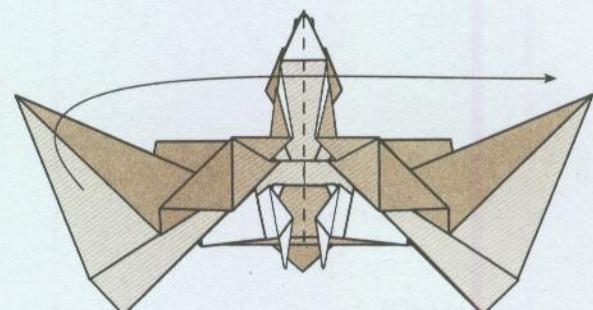
29. Pleat fold neck.



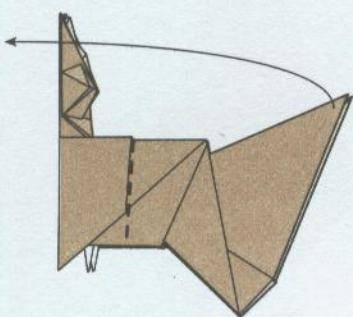
30. Like this.



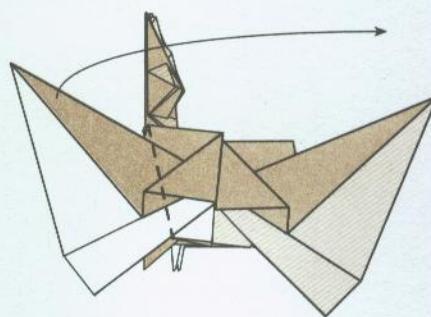
31. Swivel each side of neck.  
Double rabbit ear feet.



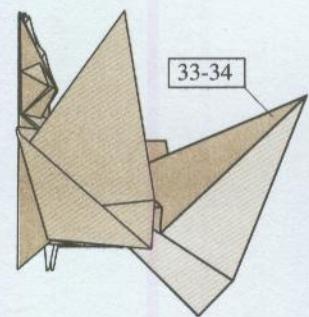
32. Valley fold model in half.



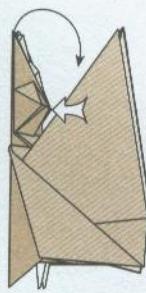
33. Valley fold wing.



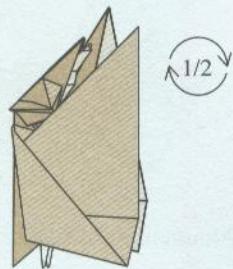
34. Valley fold wing.



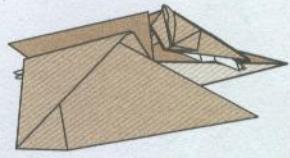
35. Repeat steps 33-34 behind.



**36.** Outside reverse fold  
the head assembly.

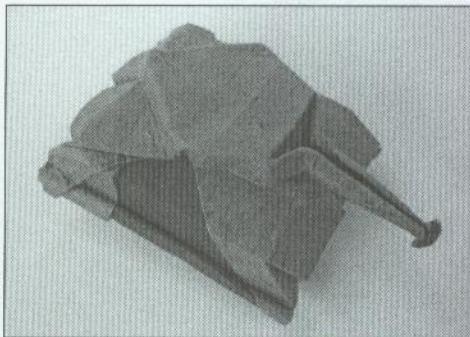


**37.** Rotate and open.

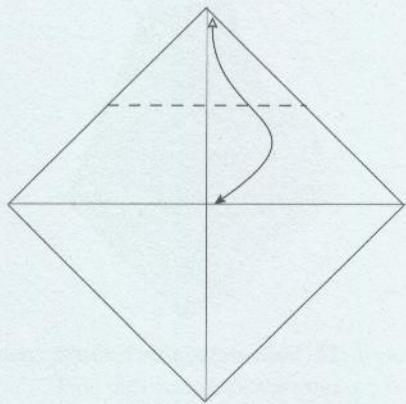


**38.** Like this.

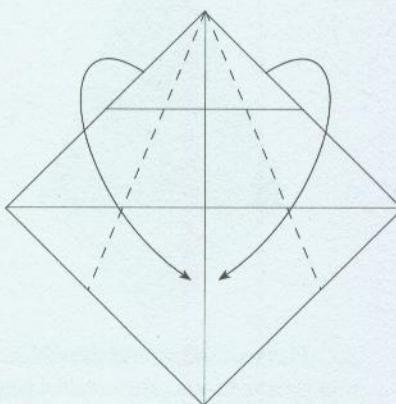
# Tank



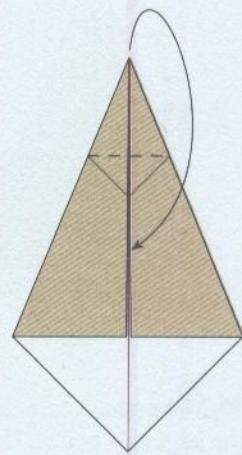
The tank was designed to make efficient use of a long corner as the barrel, with the turret, housing, and tread assembly fitting in line behind it. Variations in gun size, body length, and tread base are easily accessible by modifying the early reference creases. Feel free to customize your own!



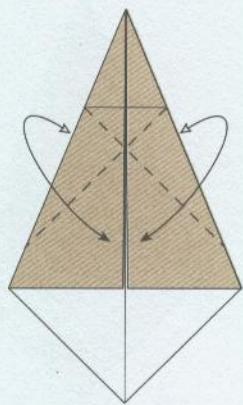
1. With square white side up, fold to center and unfold.



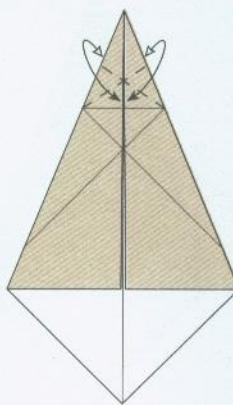
2. Kite fold.



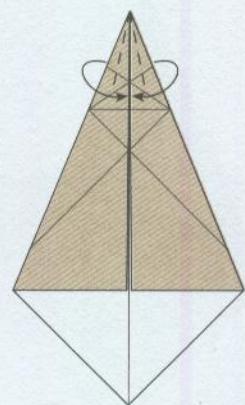
3. Fold and unfold.



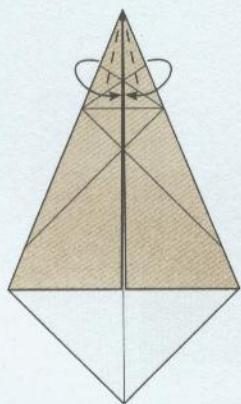
4. Fold through existing creases and unfold.



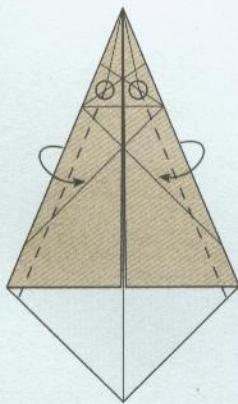
5. Fold edges to horizontal crease and unfold.



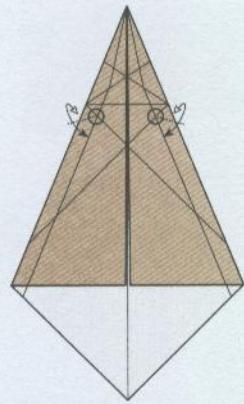
6. Pinch top edges to centerline and unfold.



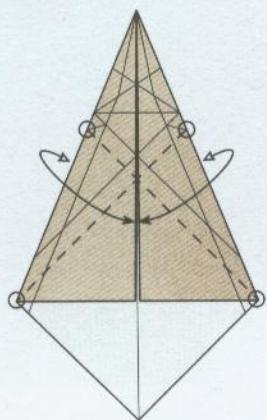
7. Pinch top edges to centerline and unfold.



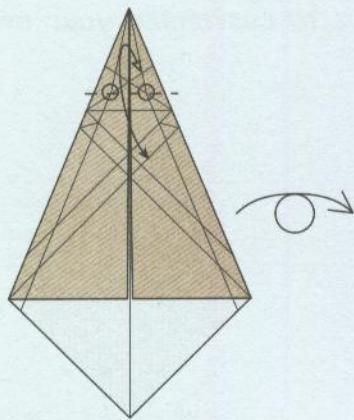
8. From crease intersections, make folds parallel to the edge.



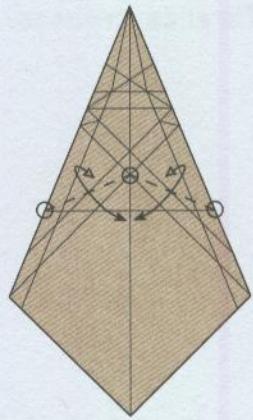
9. Bisect angles, then unfold.



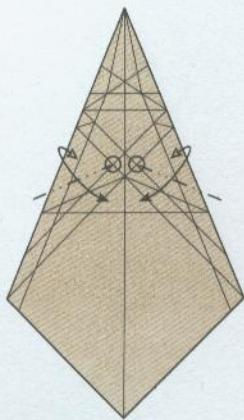
10. Make parallel creases through the indicated points. Unfold.



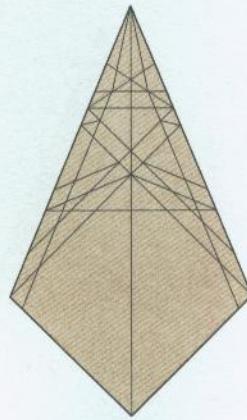
11. Fold and unfold through crease intersections. Turn model over.



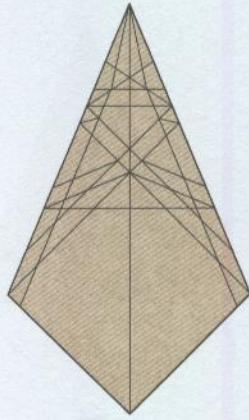
12. Fold and unfold through crease intersections.



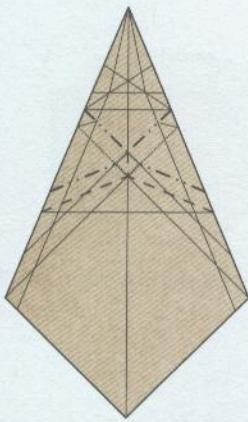
13. Make creases parallel to the ones you just made. Unfold.



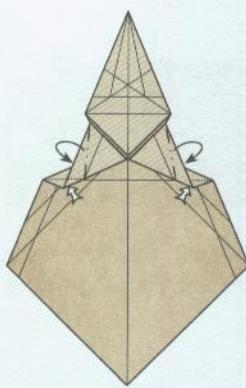
14. Like this.



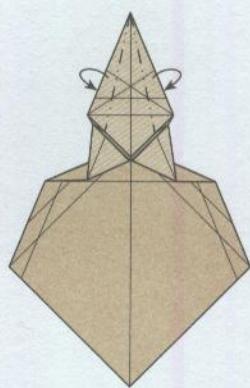
15. Notice the parallel sets of creases.



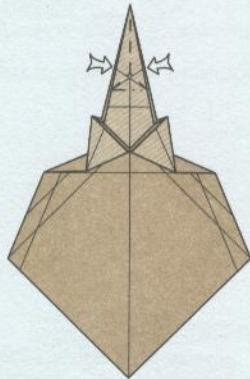
16. Begin forming turret by folding indicated creases simultaneously. The model will not lay flat.



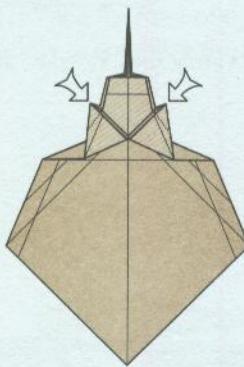
17. Swivel fold both sides.



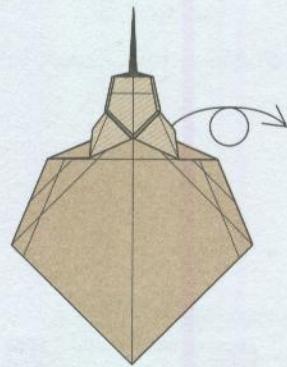
18. Mountain fold each side to a perpendicular plane.



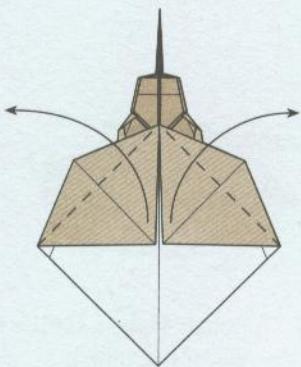
19. Collapse gun with a rabbit ear. This will complete the pentagonal turret.



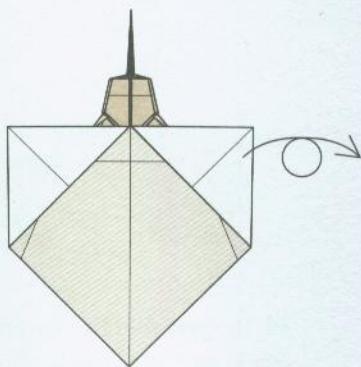
20. Optional: Mountain fold edge and reverse fold corners to neaten up the pentagon.



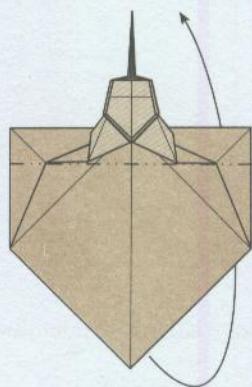
21. Turn model over.



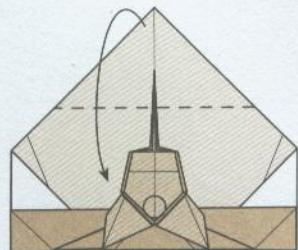
22. Valley fold both sides.



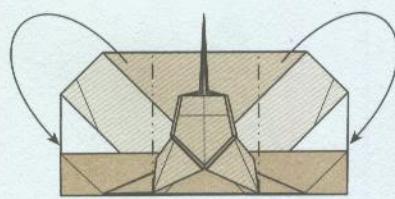
23. Turn model over.



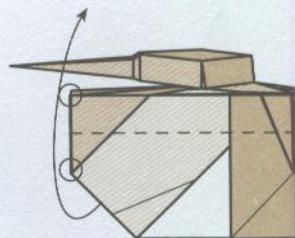
24. Mountain fold.



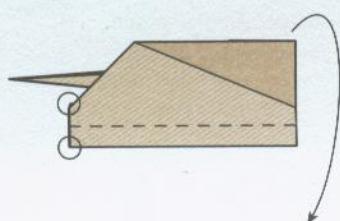
25. Valley fold under turret.



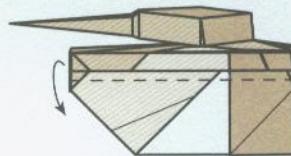
26. Mountain fold each side orthogonally. Then view from side.



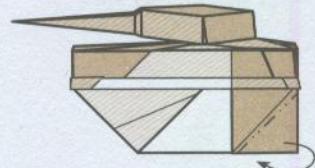
27. Valley fold. Repeat behind.



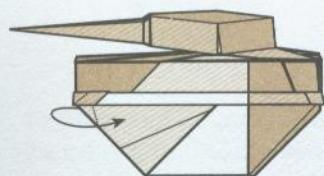
28. Valley fold. Repeat behind.



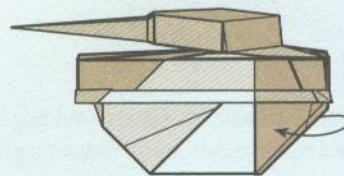
29. Valley fold. Repeat behind.



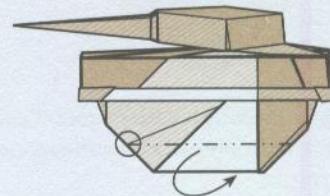
30. Mountain fold. Repeat behind.



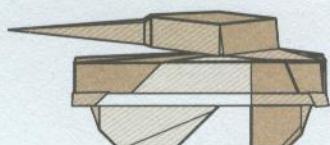
31. Swivel fold. Repeat behind.



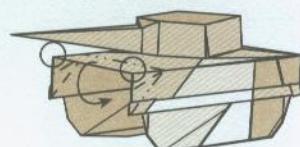
32. Swivel fold. Repeat behind.



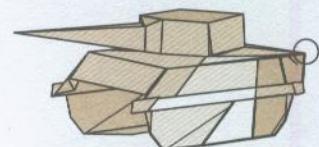
33. Mountain fold orthogonally. Repeat behind.



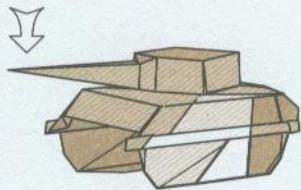
34. Rotate slightly to continue.



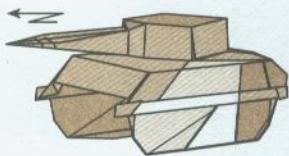
35. Reverse fold two corners to create an angled front.



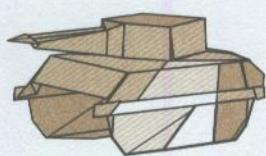
36. Optional: Make a similar fold at the rear of the vehicle.



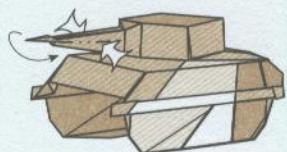
37. Spread layers of the gun.



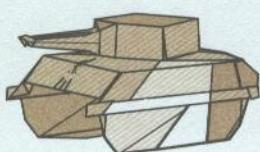
38. Crimp fold the tip of the gun.



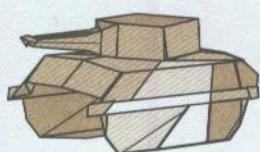
39. Close the layers again.



40. Reverse fold tip, and round the barrel.

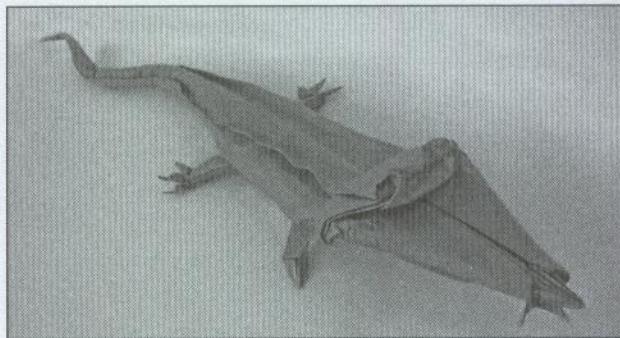


41. Crimp the front of the body slightly to complete the model.

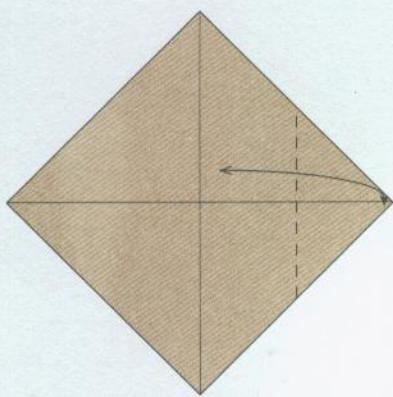


42. Like this.

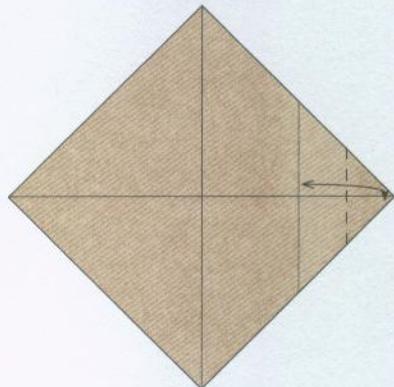
# Crocodile



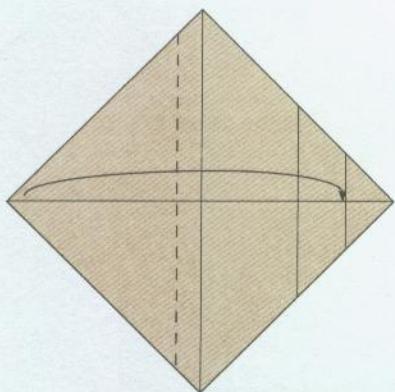
The crocodile was one of my first designs. I set out to design a crocodile, and through folding experimentation came up with this sequence. It works well because the finished model lends itself nicely to three-dimensional shaping. The model delivers a fair amount of detail considering the simplicity of design.



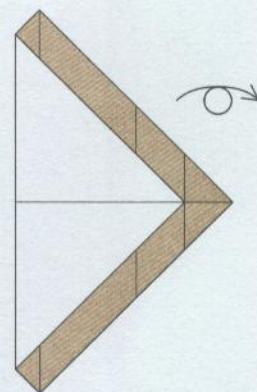
1. With square color side up, fold one corner into center and unfold.



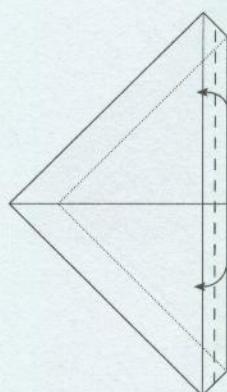
2. Fold corner to the crease you just made. Unfold.



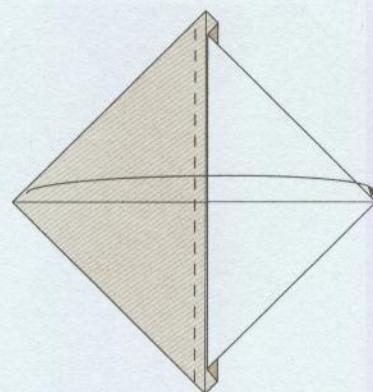
3. Valley fold opposite corner to the crease you just made.



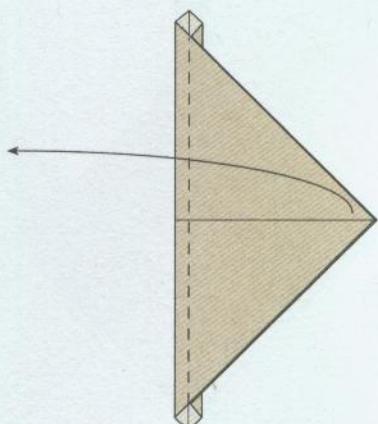
4. Turn model over.



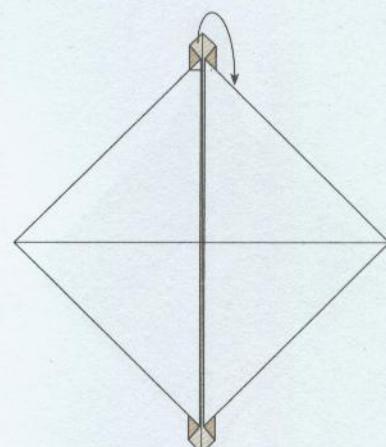
5. Fold the folded edge to the center crease.



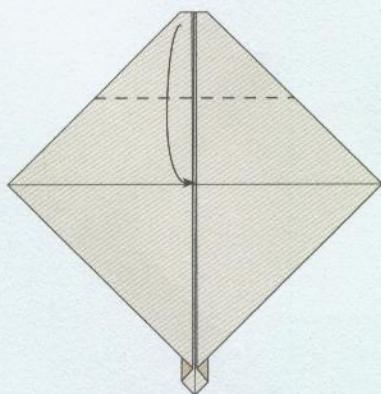
6. Fold the opposite corner to the new flap.



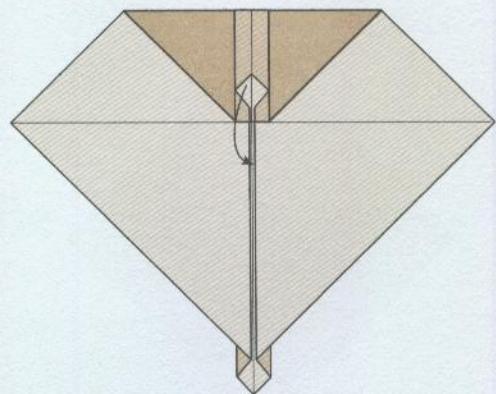
7. Fold the corner back along the midline.



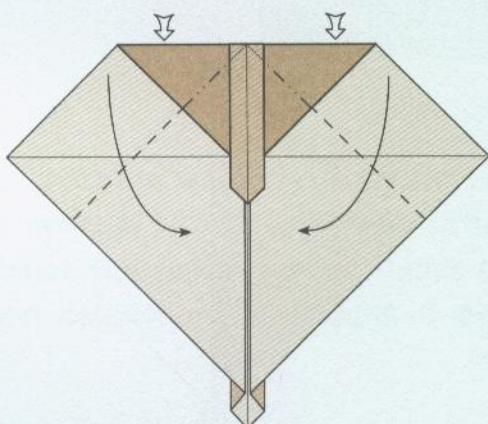
8. Mountain fold the top corner behind through intersections.



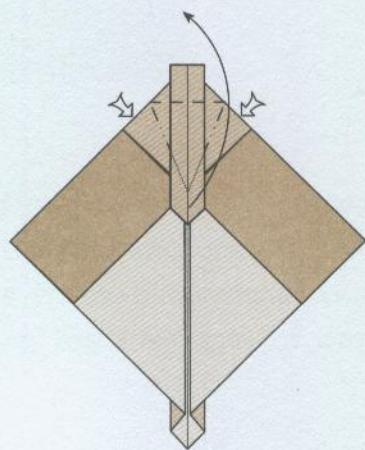
9. Valley fold the top edge to the midline.



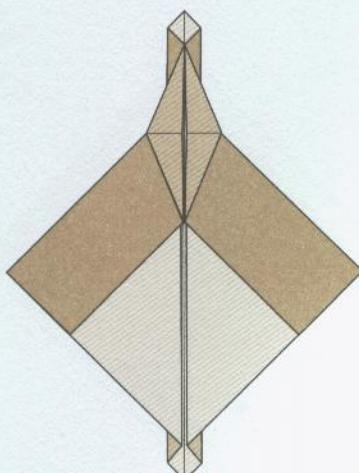
10. Fold small flap down.



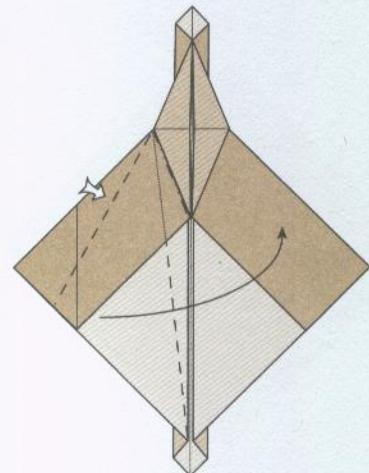
11. Reverse fold both sides.



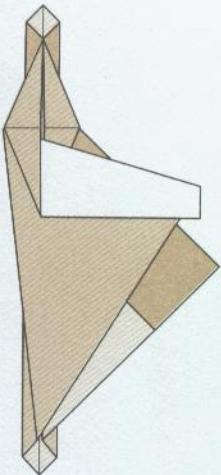
12. Petal fold upper section.



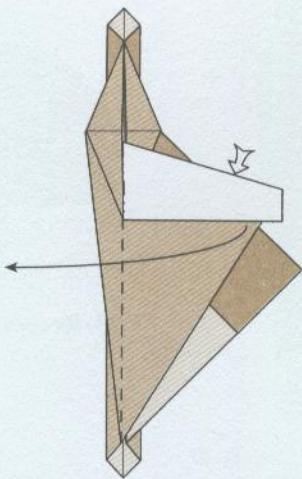
13. Like this.



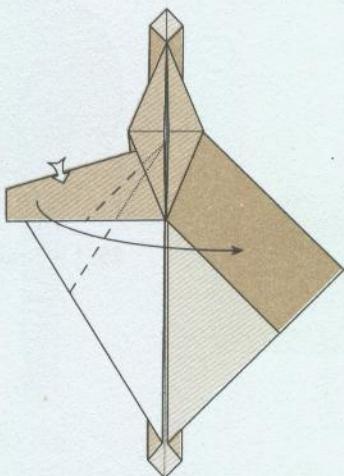
14. Reverse fold left flap. Allow the colored crease to form upon completion.



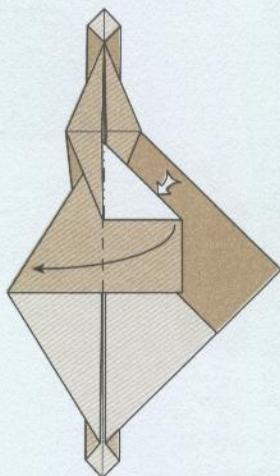
15. Like this.



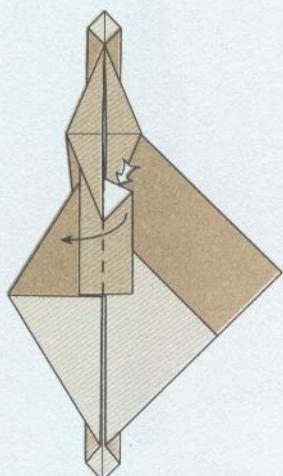
16. Reverse fold back to left along midline.



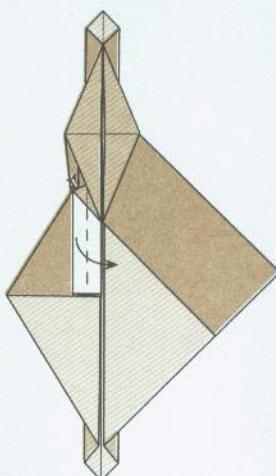
17. Reverse fold, creating a right triangle by the foreleg.



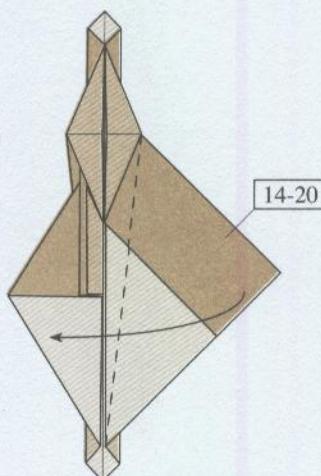
18. Reverse fold.



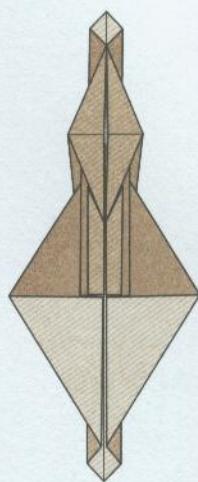
19. Reverse fold.



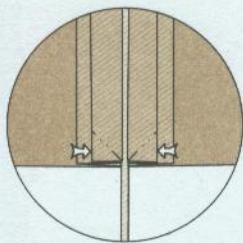
20. Reverse fold.



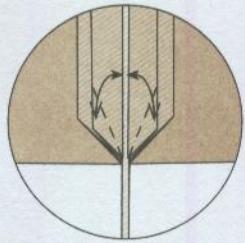
21. Repeat steps 14 - 20 on right.



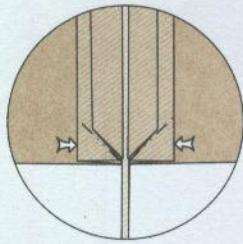
22. Like this.



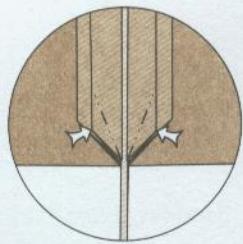
23. Reverse folds.



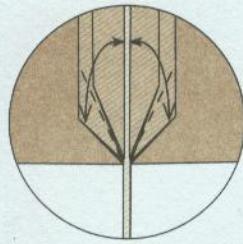
25. Fold and unfold.



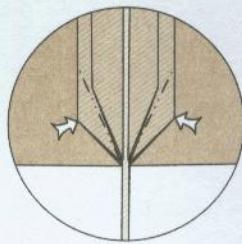
24. Reverse fold next layers.



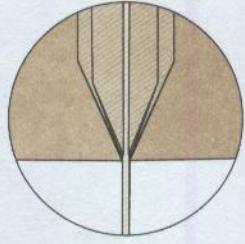
26. Open sinks.



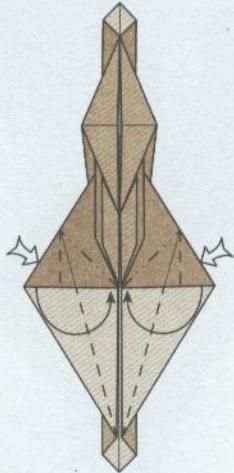
27. Fold and unfold.



28. Open sinks.



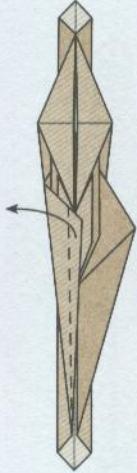
29. Like this.



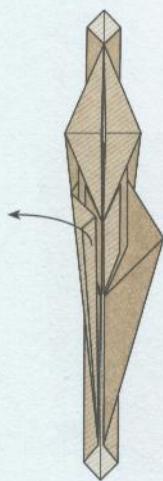
30. Reverse folds.



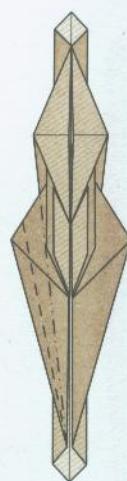
31. Valley fold to align with back edge.



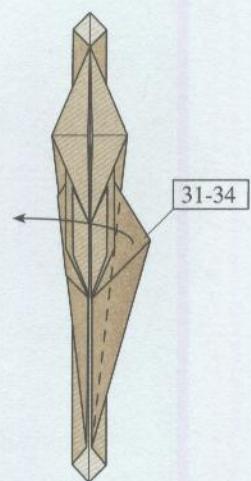
32. Valley fold again.



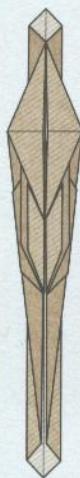
33. Unfold to step 31.



34. Open sink along precreases.



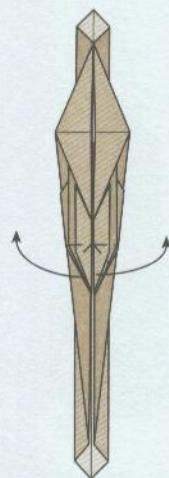
35. Repeat steps 31-34 on right side.



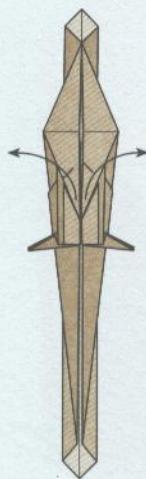
36. Like this.



37. Tuck flaps inside to narrow toes.



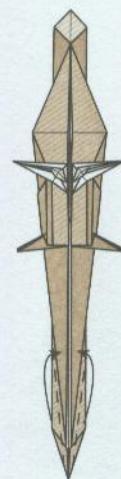
38. Swing out hind legs with interior crimps.



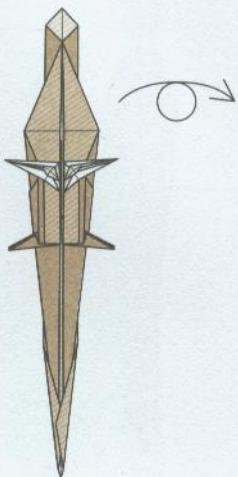
39. Valley fold forelegs, making gussets to maximize their length.



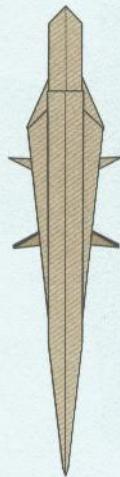
40. Narrow tail.



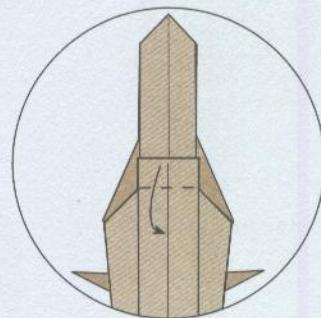
41. Narrow tail again.



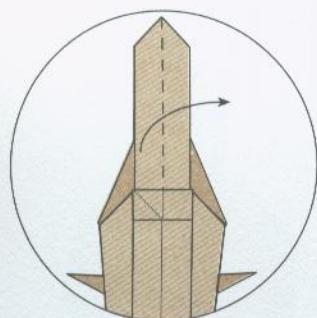
42. Turn model over.



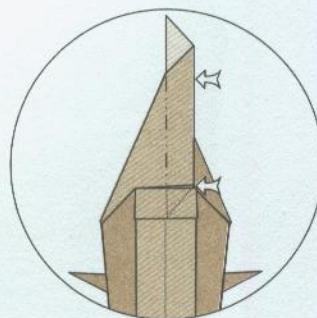
43. Like this.



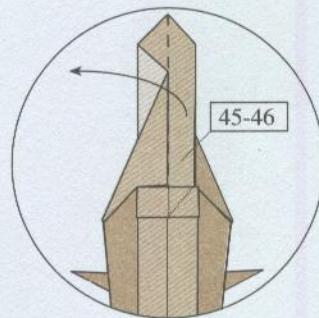
44. Valley flap down.



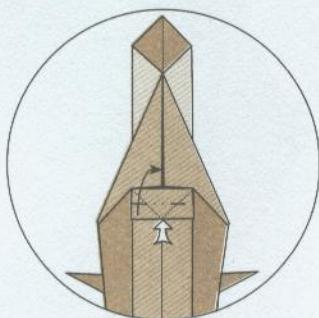
45. Fold over, shifting paper at the base.



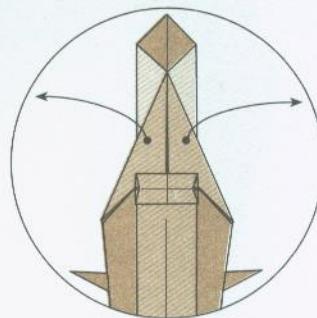
46. Sink flap beneath.



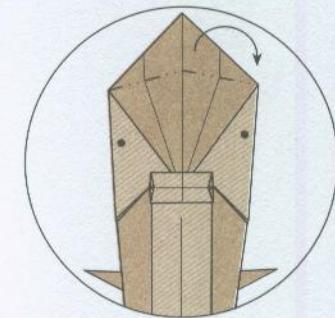
47. Repeat steps 45-46 on right.



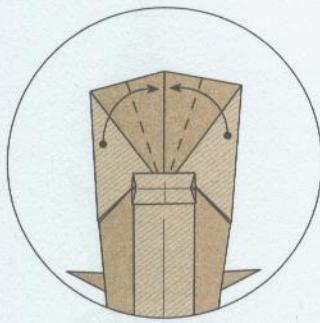
48. Squash fold eyes symmetrically.



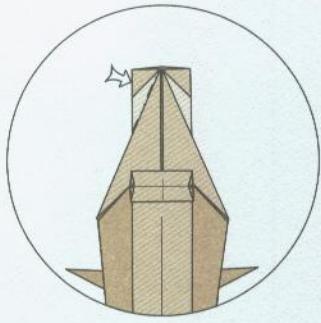
49. Pinching colored flaps, pull layers apart.



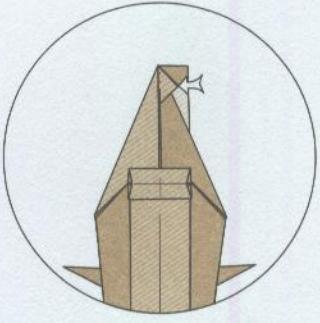
50. Mountain fold triangular flap behind.



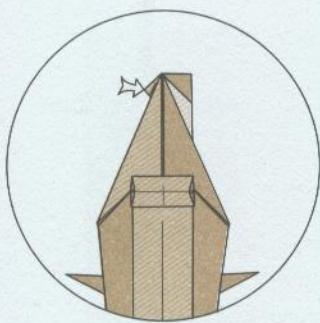
51. Close model.



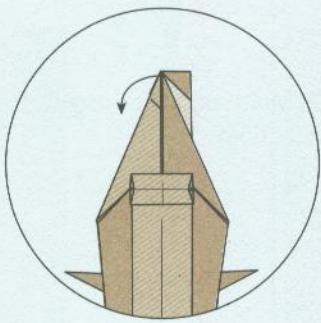
52. Reverse fold.



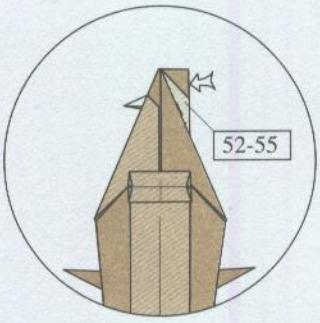
53. Reverse fold.



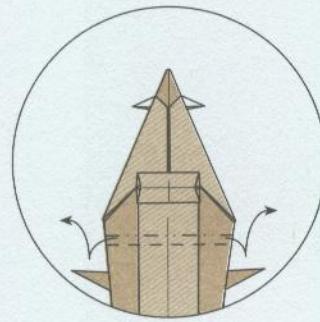
54. Reverse fold.



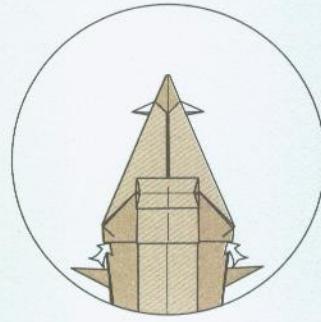
55. Reverse fold tooth, so that white layer is exposed.



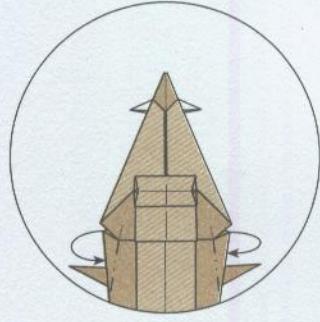
56. Repeat steps 52-55 on right.



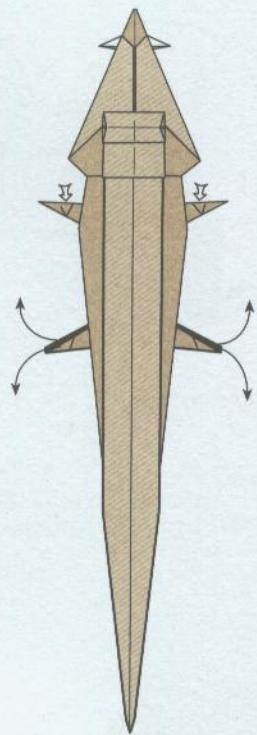
57. Pleat.



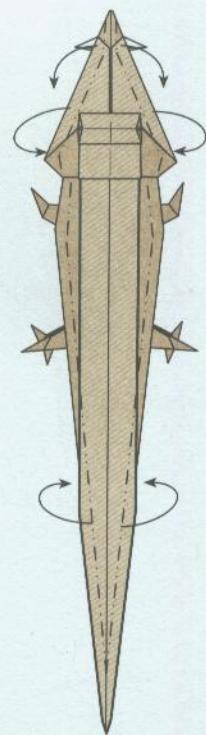
58. Reverse folds.



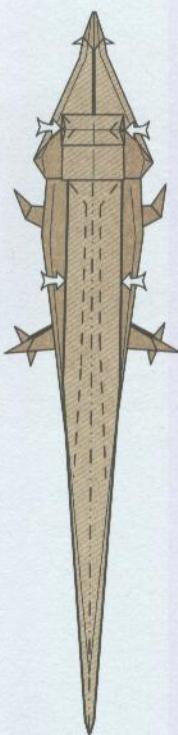
59. Mountain folds.



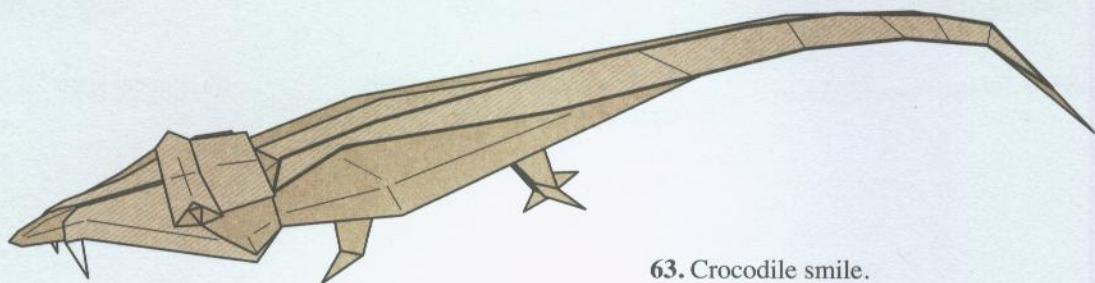
**60.** Crimp forelegs. Spread toes of hindlegs.



**61.** Mold snout with mountains.  
Taper body.

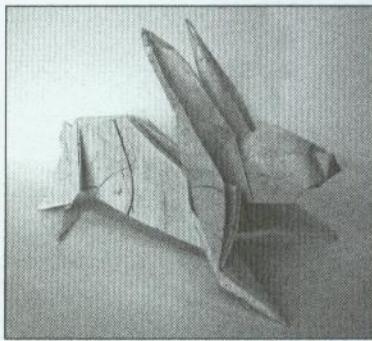


**62.** Shape eyes and spine.

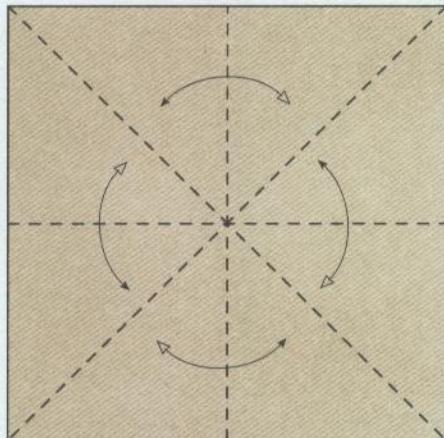


**63.** Crocodile smile.

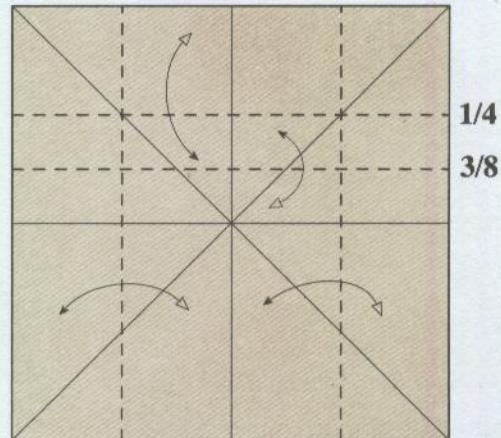
# Rabbit



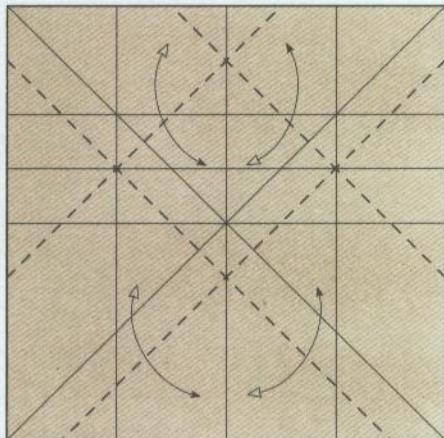
I designed this model after observing rabbits in the Sonoran Desert. Though there are a number of origami rabbits out there, I think this is an admirable interpretation. The design process was mostly intuitive.



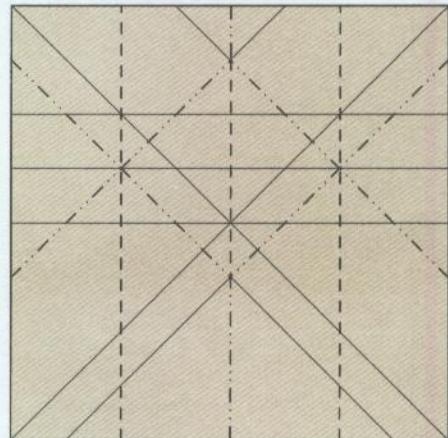
1. With square color side up, fold through diagonals & horizontals. Unfold.



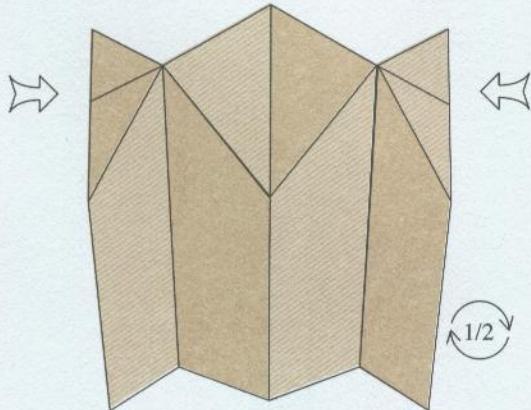
2. Delineate indicated creases and unfold.



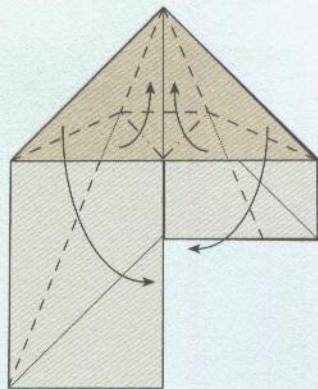
3. Delineate indicated creases and unfold.



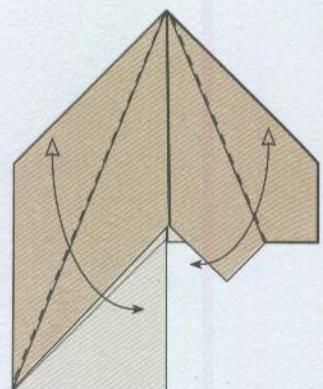
4. Collapse base along indicated creases.



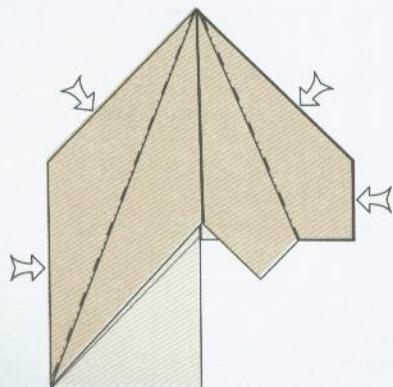
5. Collapse in progress, continue and rotate to lay flat.



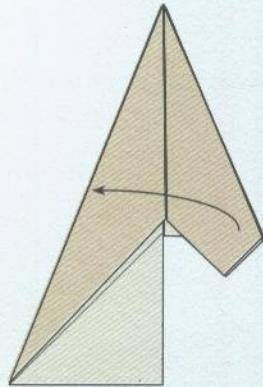
6. Fold sides in while petal folding center upwards. Repeat behind.



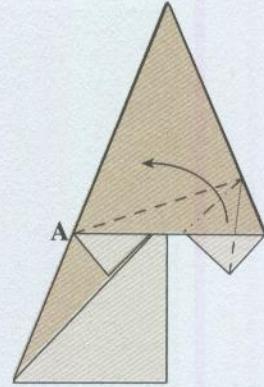
7. Valley folds, then unfold.



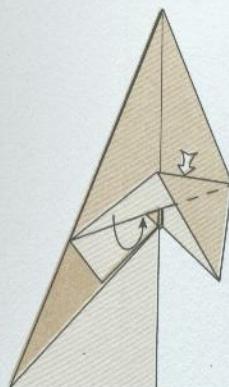
8. Open sink both sides.



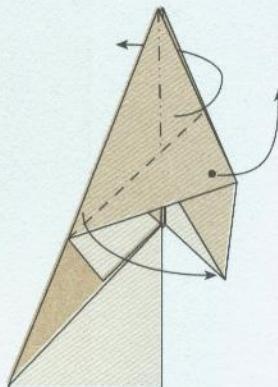
9. Fold flap to left, repeat behind.



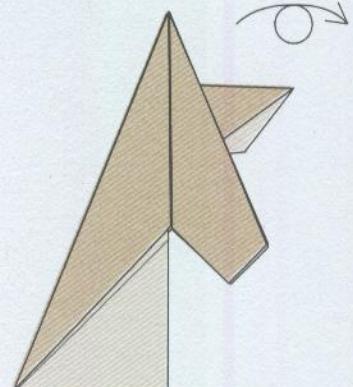
10. Swivel fold, dividing angle A by  $1/3$ , then repeat behind.



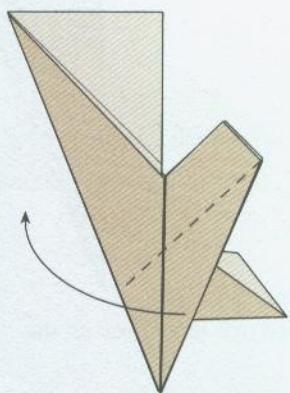
11. Fold behind.



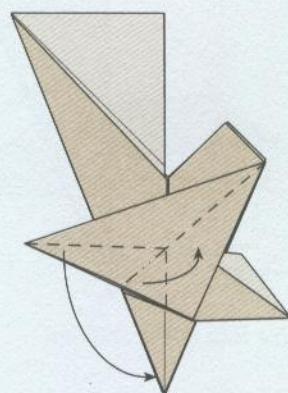
12. Crimp head assembly into body, while swinging ears forward.



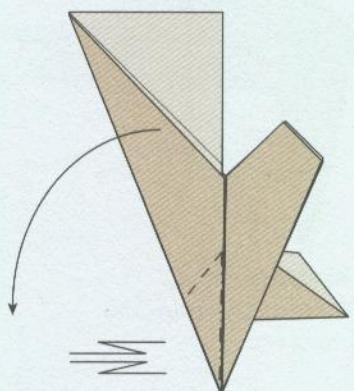
13. Flip model, top to bottom.



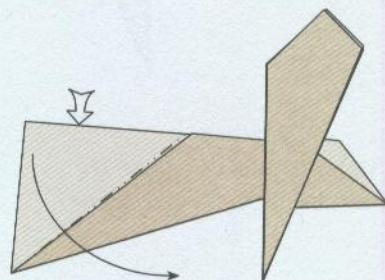
14. Lift leg assembly backward.



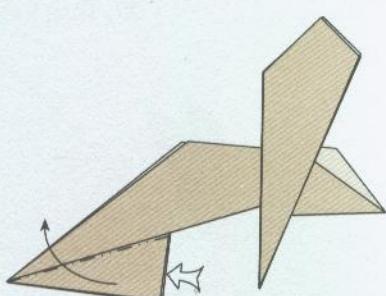
15. Close leg with indicated creases.



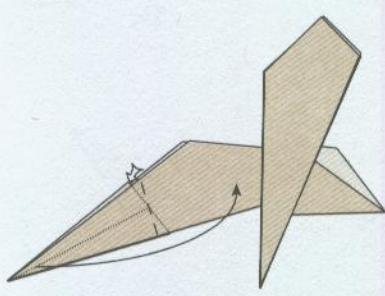
16. Swing hind leg assembly downward with an interior crimp.



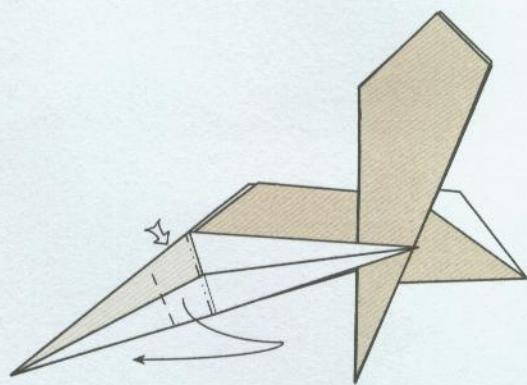
17. Reverse fold hind leg, and repeat behind.



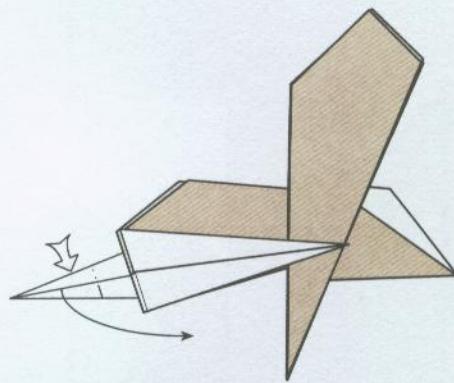
18. Reverse fold again, and repeat behind.



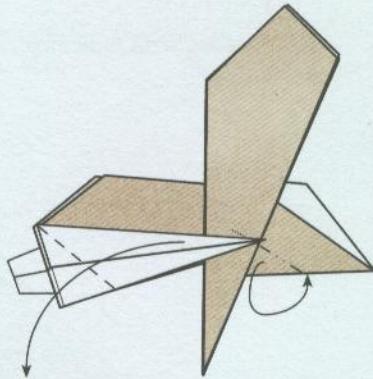
19. Fold leg to right, while performing one more reverse fold. Repeat behind.



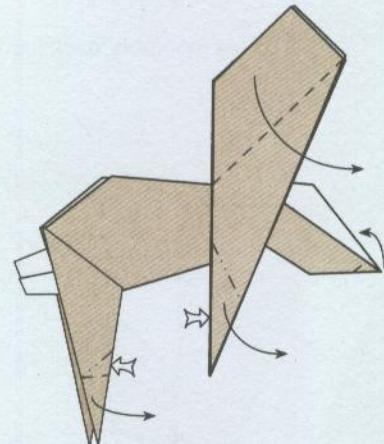
20. Reverse fold tail in and out.



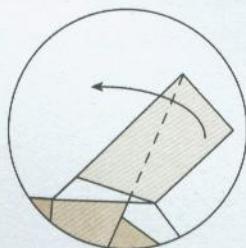
21. Repeat one more time on the tail.



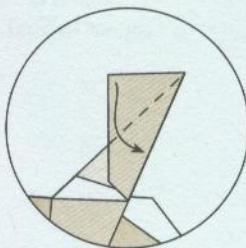
22. Valley or outside reverse leg and mountain face. Repeat behind.



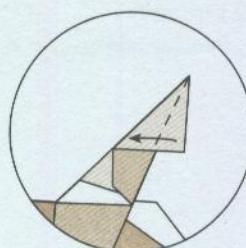
23. Crimp hind legs, outside reverse nose, reverse forelegs, and valley fold each ear.



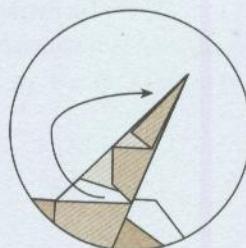
24.



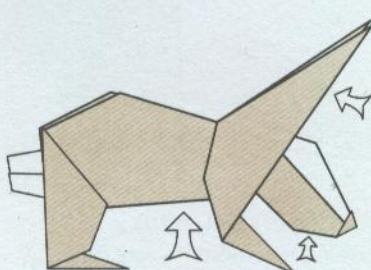
25.



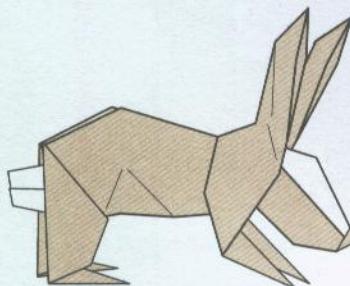
26.



27. Tuck loose paper inside.



28. Round ears, head, and flatten to taste.

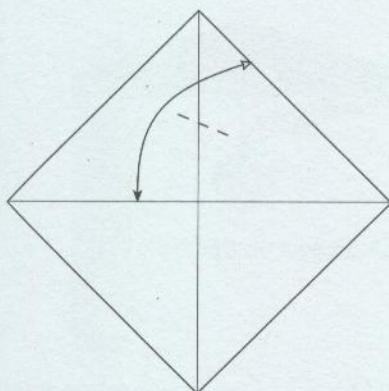


29. Hop along.

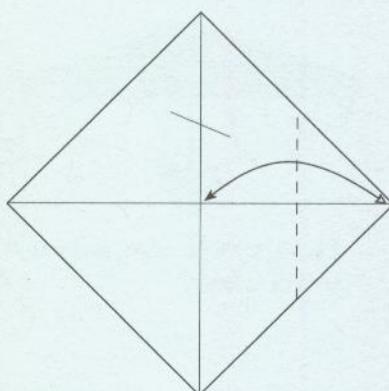
# Ghost Bride



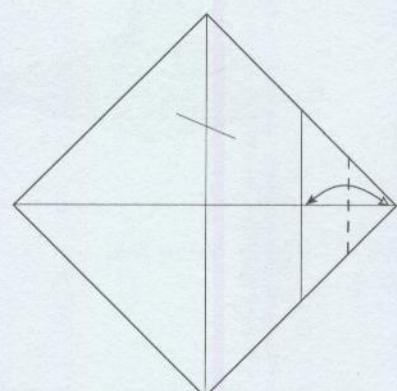
I set out to design a female form, hoping to capture the curves of femininity. This model began to take shape, and I felt that it wasn't worth compromising the graceful folding sequence to add legs and what not. So, we now have an ethereal figure, who seems to have garnered a veil.



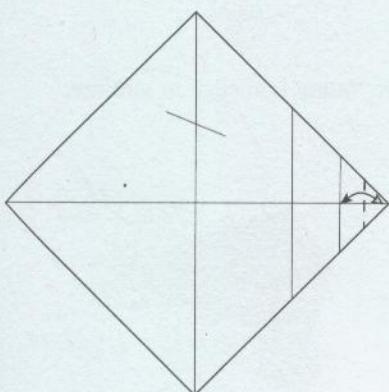
1. With square white side up, fold a  $22.5^\circ$  crease through the midline.



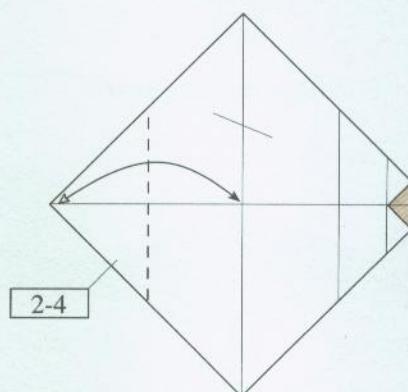
2. Valley fold corner to center, then unfold.



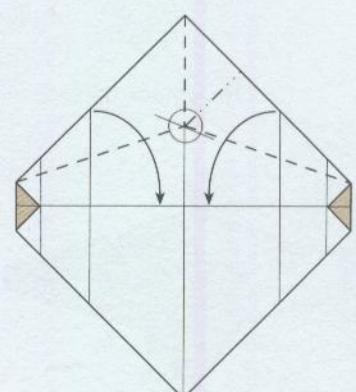
3. Valley fold corner to crease, then unfold.



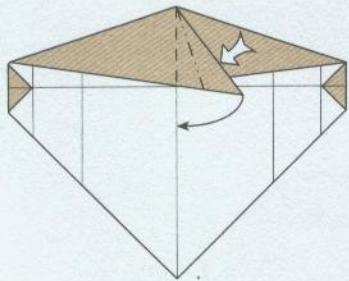
4. Valley fold corner to crease.



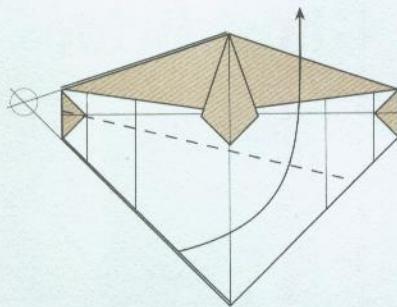
5. Repeat steps 2-4 on left side.



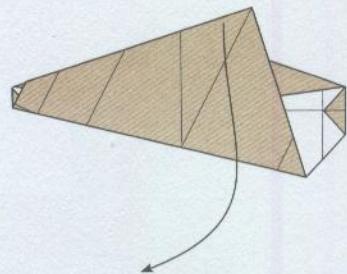
6. Rabbit ear through crease intersection.



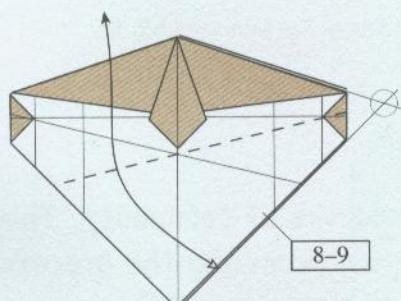
7. Squash fold.



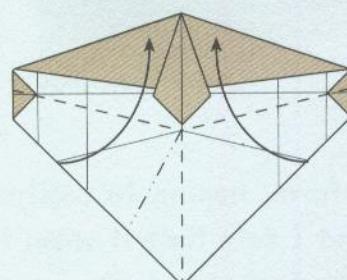
8. Valley edges together.



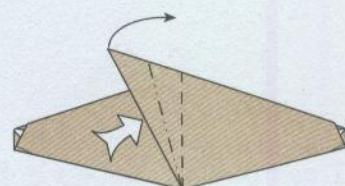
9. Unfold.



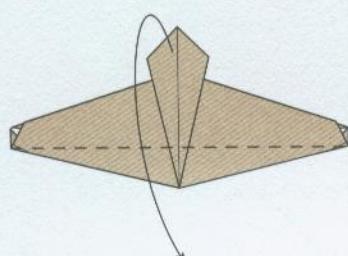
10. Repeat steps 8-9 on right.



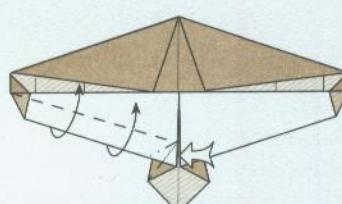
11. Refold into a rabbit ear.



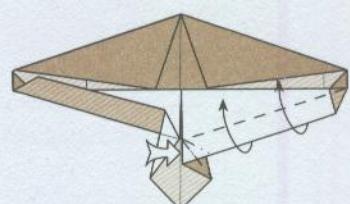
12. Squash fold.



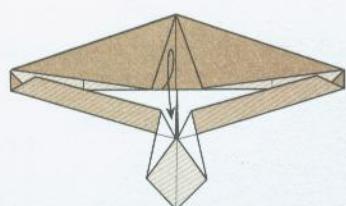
13. Valley fold.



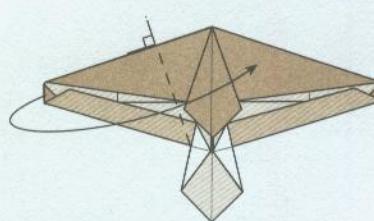
14. Valley fold edge, forming swivel at base.



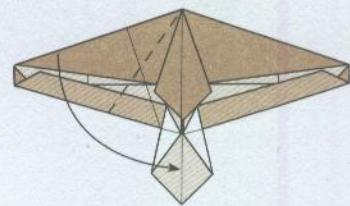
15. Repeat on right side.



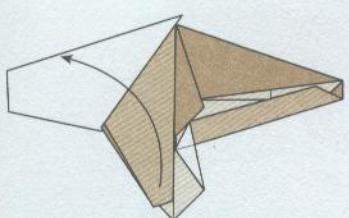
16. Untuck flap.



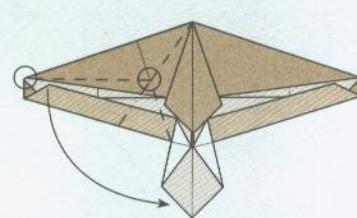
17. Valley fold, then unfold.



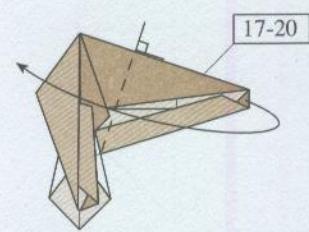
18. Valley fold edge to midline.



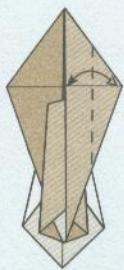
19. Unfold.



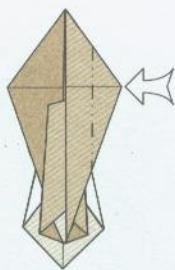
20. Rabbit ear through indicated intersections.



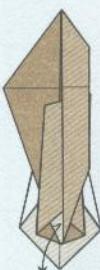
21. Repeat steps 17-20 on right side. The arm will lay on top.



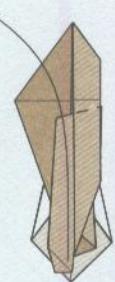
22. Fold and unfold.



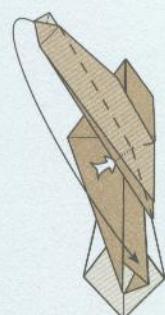
23. Open sink.



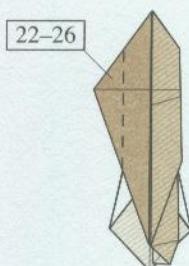
24. Pull out corner.



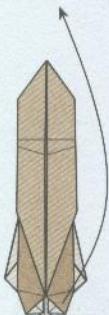
25. Fold arm upward.



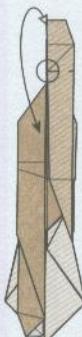
26. Rabbit ear arm down.



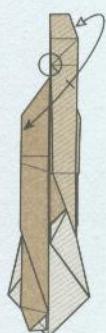
27. Repeat steps 22-26.



28. Fold arm straight upward.



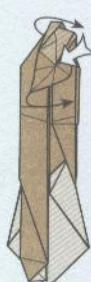
29. Valley flap at crease intersection. Unfold.



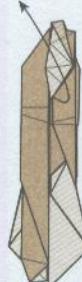
30. Valley flap at crease intersection. Unfold.



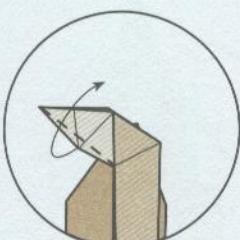
31. Squash fold top layer. The crease you just made will lie on vertical crease, and the model will not lie flat.



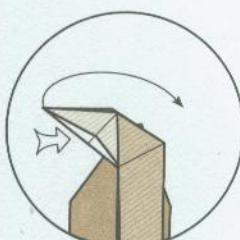
32. ...in process, pop the corner inside out and press flat.



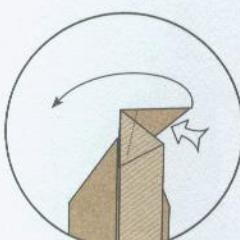
33. Valley upward.



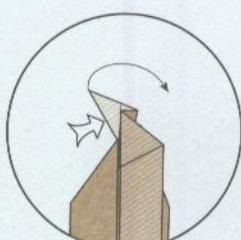
34. Valley excess corner.



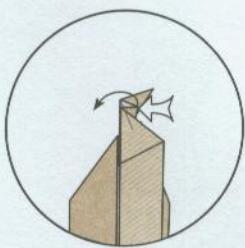
35. Reverse fold.



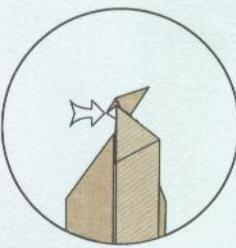
36. Reverse fold.



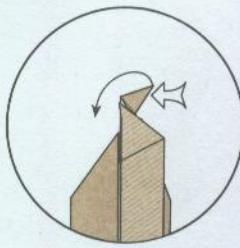
37. Reverse fold.



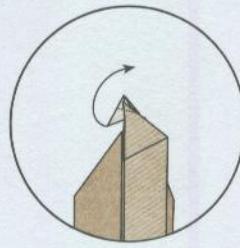
38. Reverse fold small flap.  
Repeat behind.



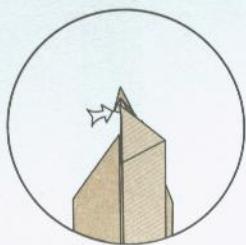
39. Reverse fold small flap.  
Repeat behind.



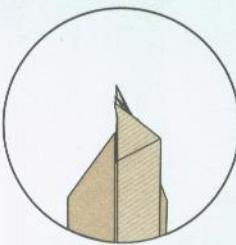
40. Reverse fold.



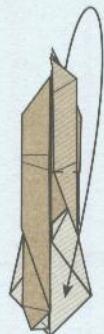
41. Reverse fold.



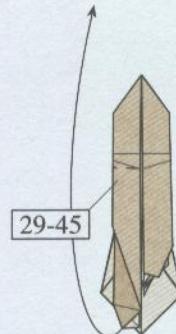
42. Reverse fold small flap.  
Repeat behind.



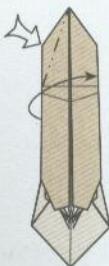
43. Like this.



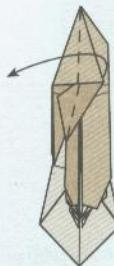
44. Valley downward.



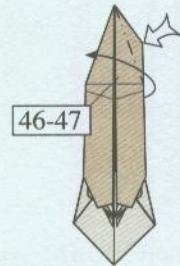
45. Repeat steps 29-45 on  
left side of model.



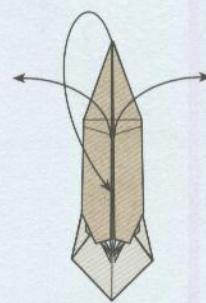
46. Lifting one layer,  
spread sink top corner.



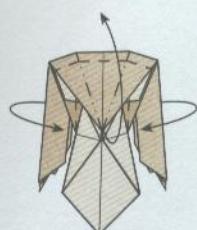
47. Now close.



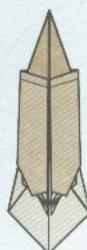
48. Repeat steps 46-47.



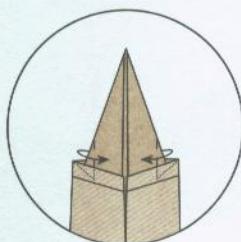
49. Open model from center, and  
squash top down.



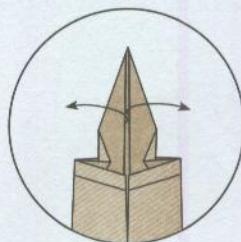
50. Reclose model,  
making a small pleat.



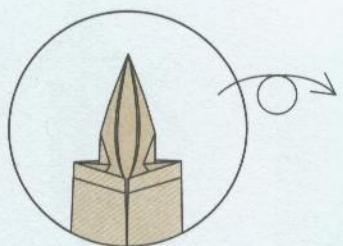
51. Like this.



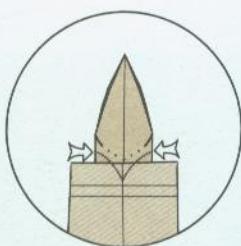
52. Make two valley folds, creating  
a swivel unsink in pockets.



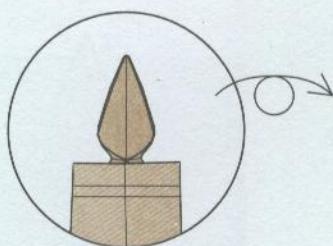
53. Spread open layers.



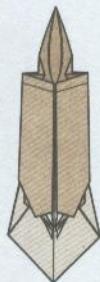
54. Turn model over.



55. Pleat sides three dimensionally to round and shape face.



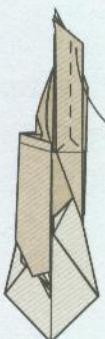
56. Turn model over.



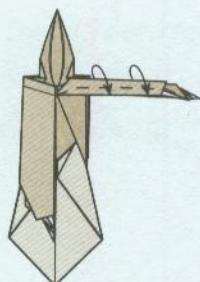
57. Like this.



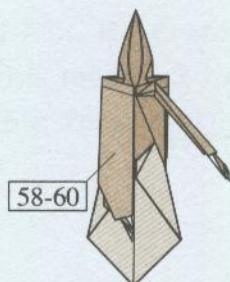
58. Valley fold.



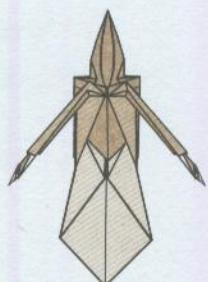
59. Rabbit ear.



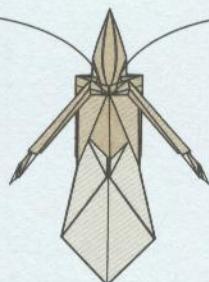
60. Thin arm with valley.



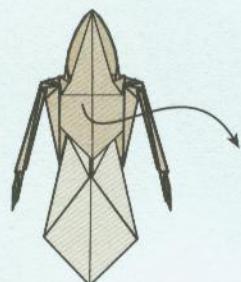
61. Repeat steps 58-60 on the left side.



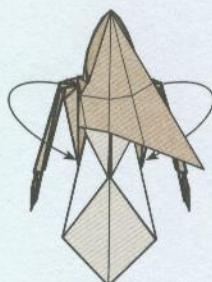
62. Like this.



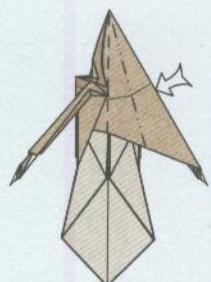
63. Open model in center.



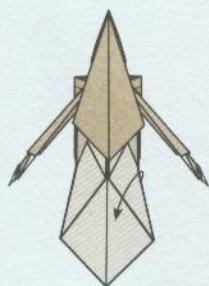
64. Pull out some trapped paper.



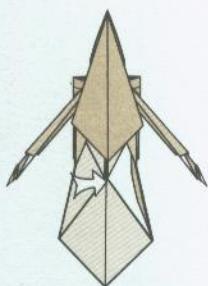
65. Lay arms back down.



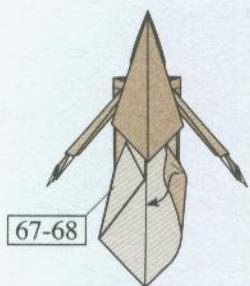
66. Squash fold flap.



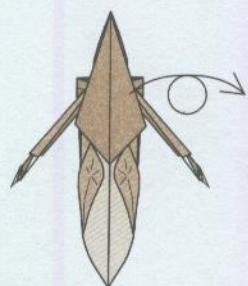
67. Open pocket slightly...



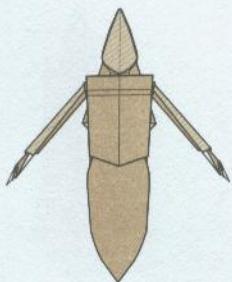
68. Unsink pocket to create rounded buttocks.



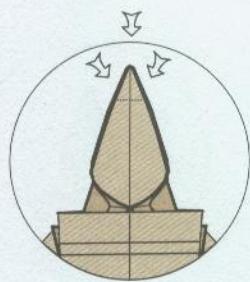
69. Shape to taste. Repeat steps 67-68 on left side.



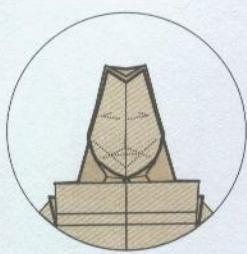
70. Turn model over.



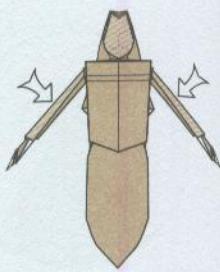
71. Like this.



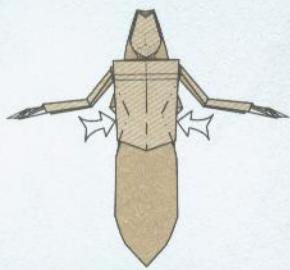
72. Squash apex by inserting finger under hair.



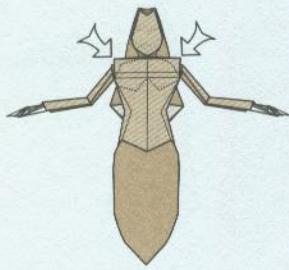
73. If desired, you may shape the face with accent creases.



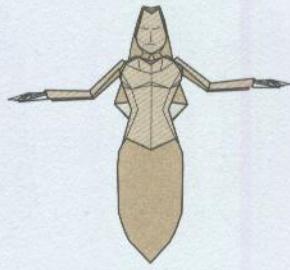
74. Crimp arms.



75. Taper waist.

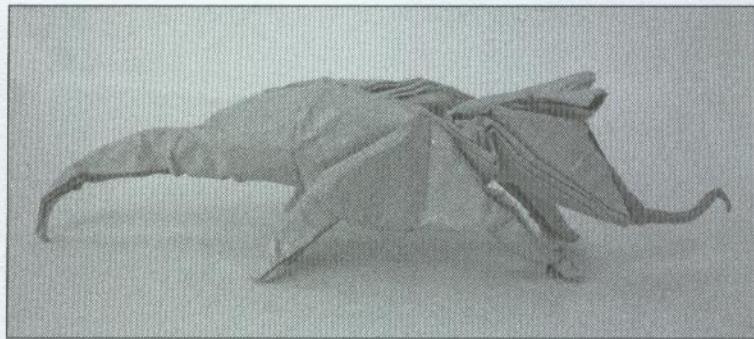


76. Soften shoulders and chest.

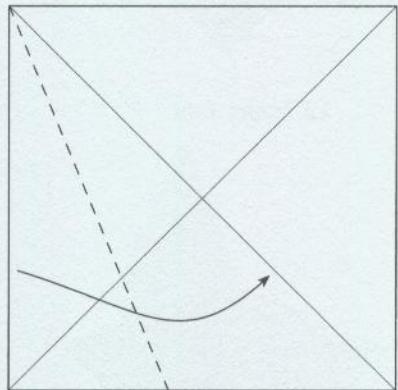


77. Boo.

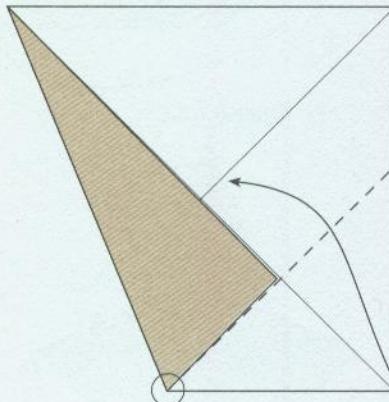
# Chameleon



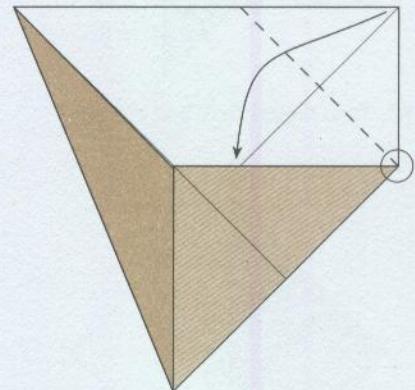
This model is somewhat derivative of John Montroll's Fox. He created a very interesting folding base from which I extrapolated this model. I like my chameleon because of the conical eyes, exposed tongue, opposable toes, and heft.



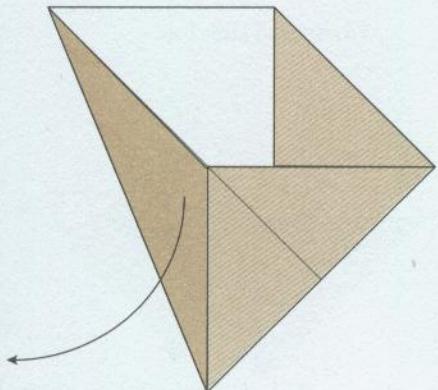
1. With square white side up, fold a kite crease.



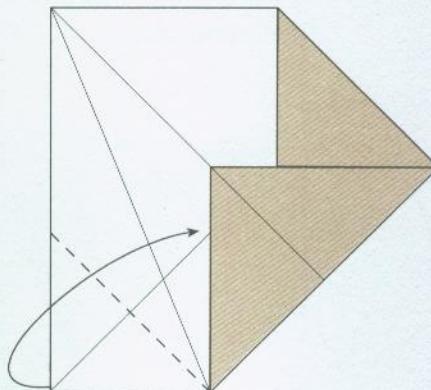
2. Valley fold.



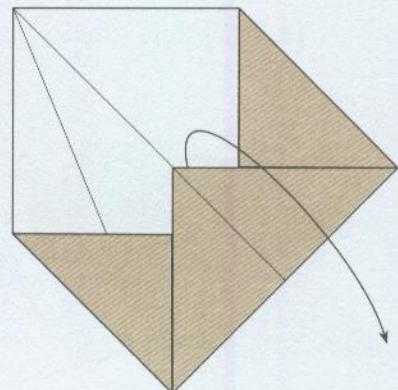
3. Valley fold.



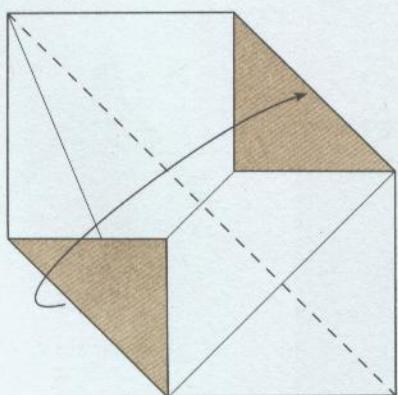
4. Unfold.



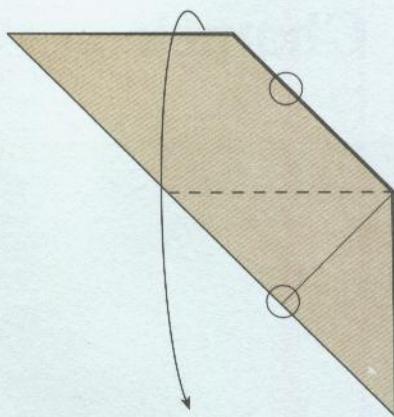
5. Valley fold.



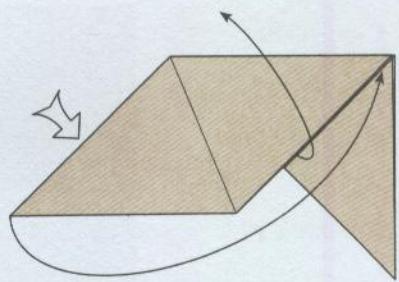
6. Unfold.



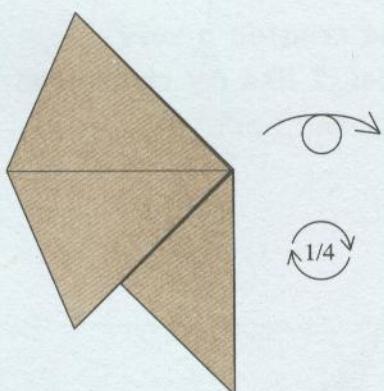
7. Unfold.



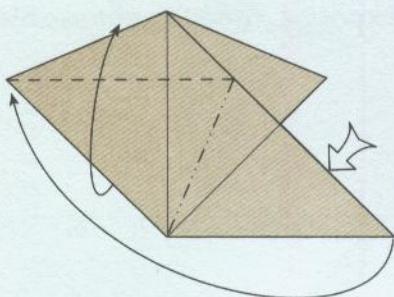
8. Valley fold.



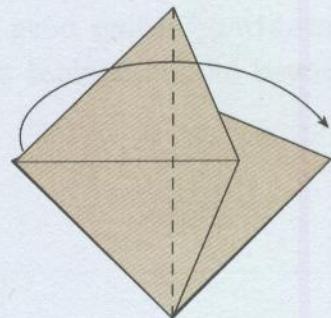
9. Squash fold.



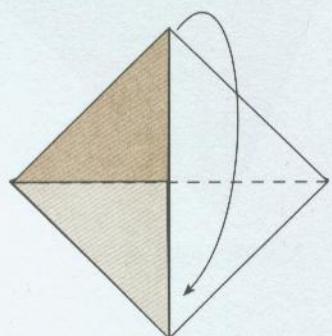
10. Turn model over and rotate.



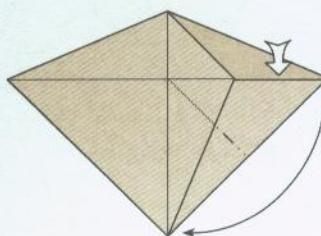
11. Squash fold.



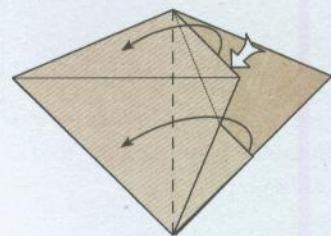
12. Valley fold.



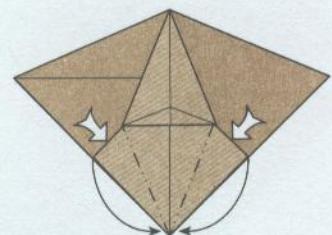
13. Valley fold.



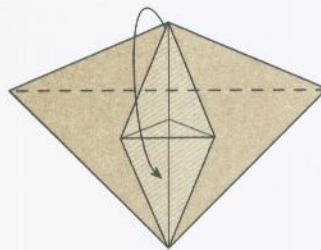
14. Reverse fold.



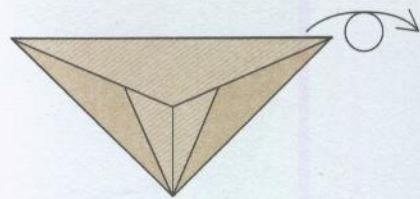
15. Spread sink fold.



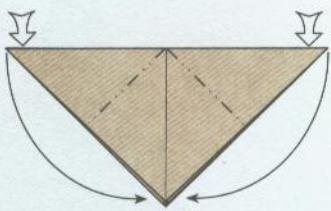
16. Reverse folds.



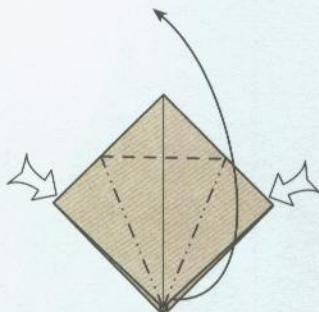
17. Valley fold.



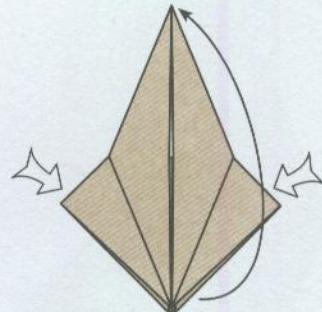
18. Turn model over.



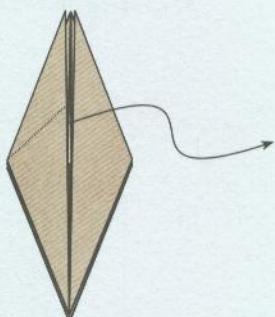
19. Turn model over.



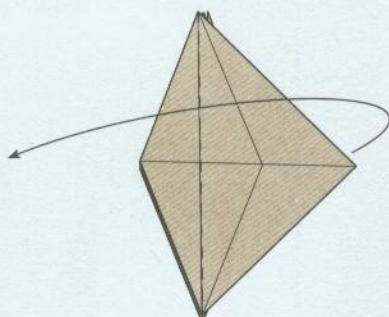
20. Petal fold.



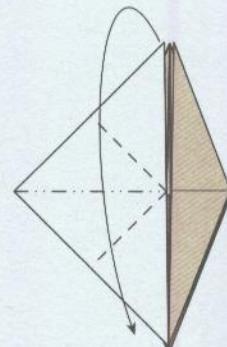
21. Petal fold each side again.



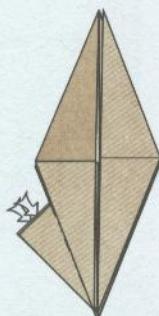
22. Untuck, pull out a hidden layer.



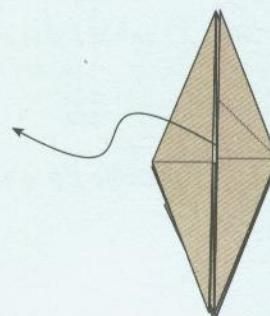
23. Valley fold.



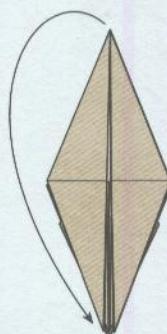
24. Collapse into preliminary structure.



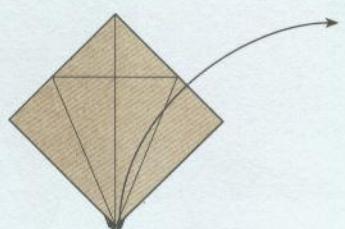
25. Reverse fold two flaps.



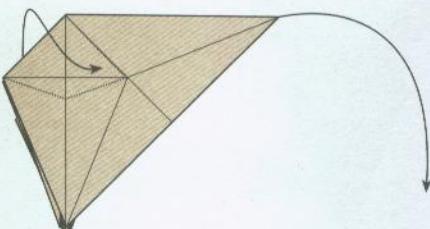
26. Repeat steps 22-25 on the right.



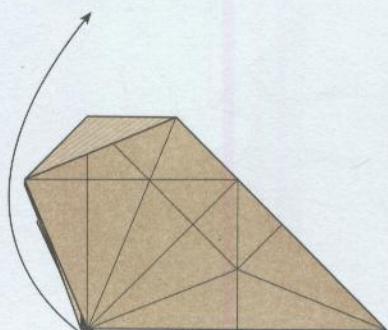
27. Squash fold.



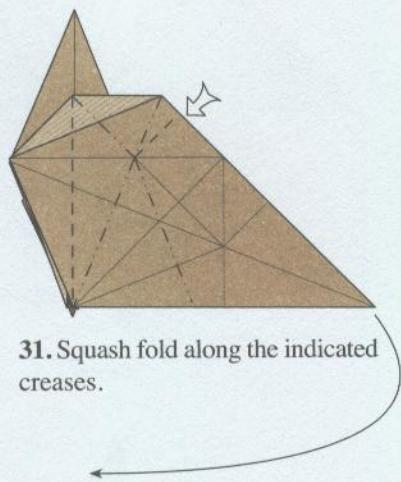
28. Stretch corner as indicated.



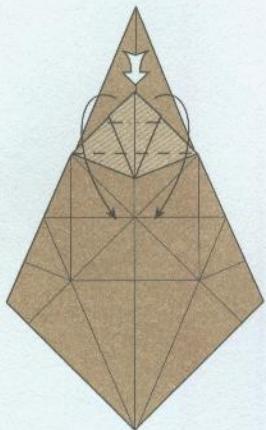
29. Continue stretching corner by unwrapping a layer from behind.



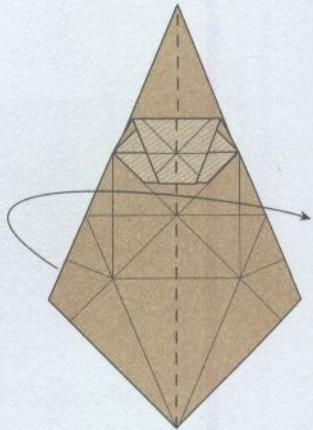
30. Fold up the large flap on the back of the model.



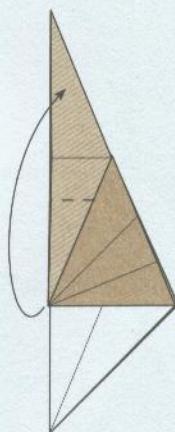
**31.** Squash fold along the indicated creases.



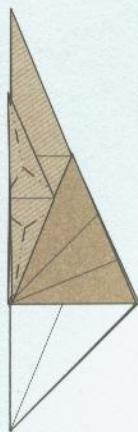
**32.** Spread squashfold center flap.



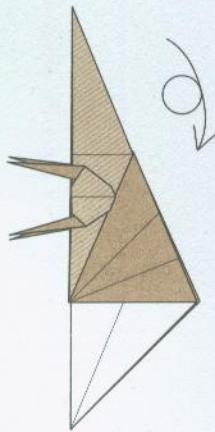
**33.** Valley fold model in half.



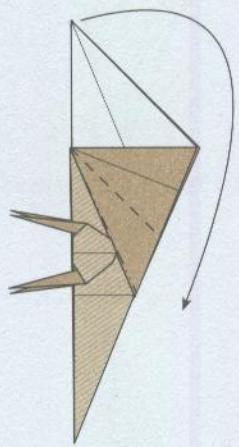
**34.** Valley fold flap upward.  
Repeat behind.



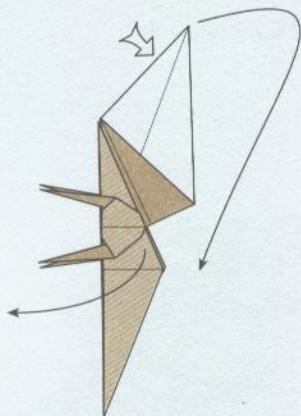
**35.** Double rabbit ear legs.  
Repeat behind.



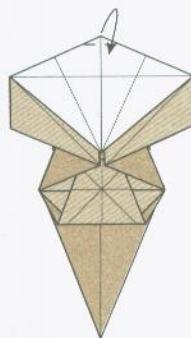
**36.** Flip top to bottom.



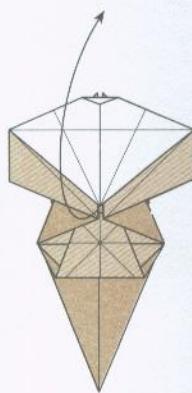
**37.** Crimp large flap inside.



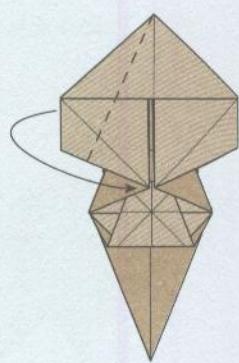
**38.** Open model and squash fold top flap.



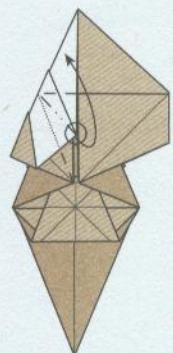
**39.** Valley fold very tip.



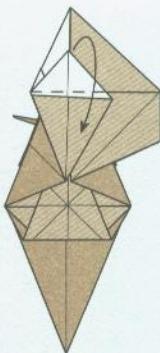
**40.** Valley fold.



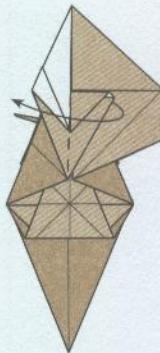
**41.** Valley fold.



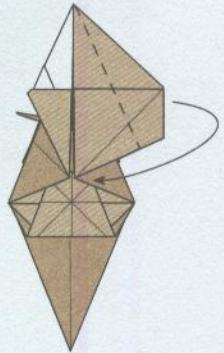
42. Swivel point upward.



43. Valley fold.



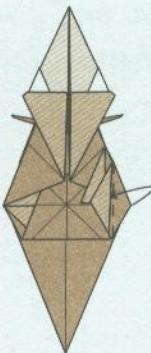
44. Valley fold.



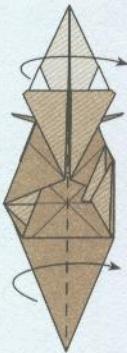
45. Repeat steps 41-44 on the right side.



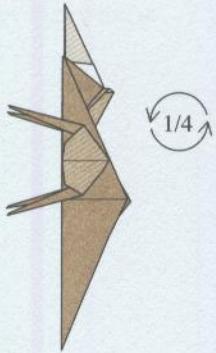
46. Valley fold two flaps.



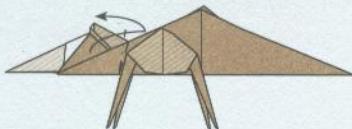
47. Valley fold last flap inside of pocket.



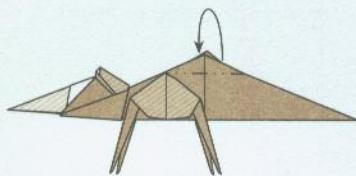
48. Valley fold model in half.



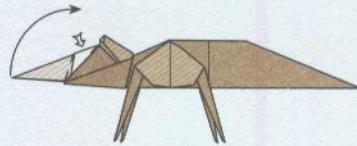
49. Rotate model.



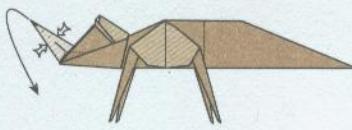
50. Make a subtle outside crimp.



51. Tuck flaps inside of pockets to lock the model.



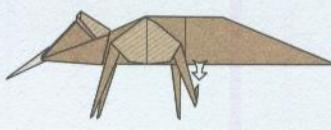
52. Inside crimp.



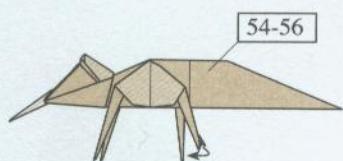
53. Double rabbit ear.



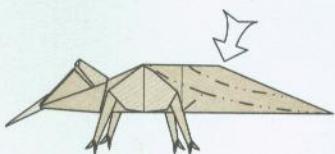
54. Reverse fold the tip of foot.



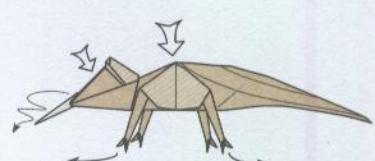
55. Reverse fold again.



56. Thin with valley folds. Repeat steps 54-56 on the remaining feet.

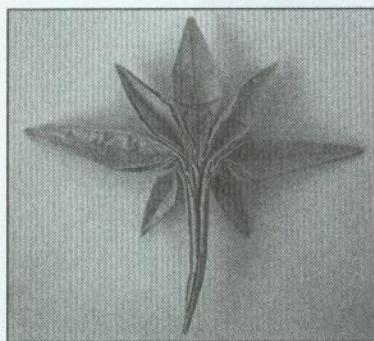


57. Round and curve the tail.

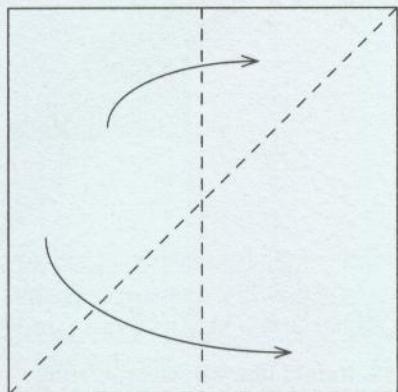


58. Curl the tongue, shape to taste.

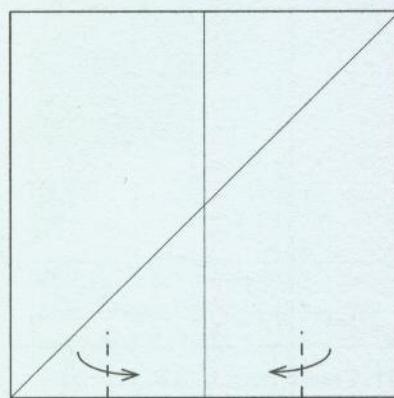
# Hemp



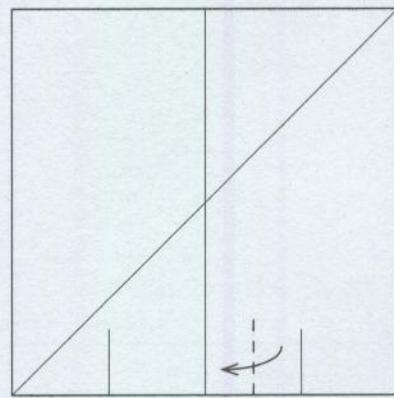
Also known as Cannabis, the use of this plant dates back to the Neolithic age. Hemp is cultivated virtually everywhere in the world, except the United States. It makes a remarkably durable fiber, and can even be used as a biofuel. Hemp is particularly useful due to its rapid maturation.



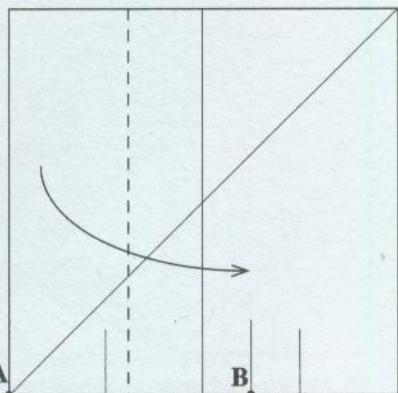
1. Begin with square, white side up. Fold and unfold along diagonal and center.



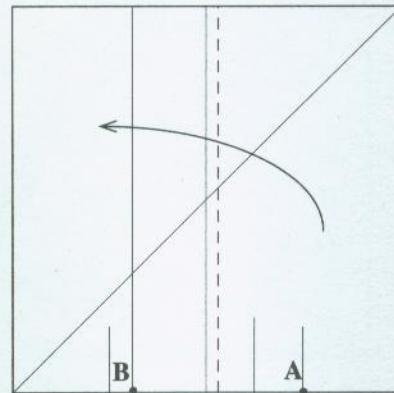
2. Pinch to center & unfold.



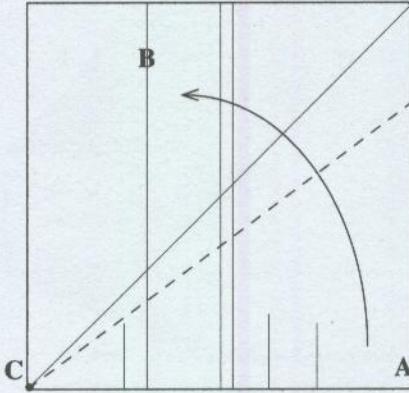
3. Bisect with additional pinch along edge.



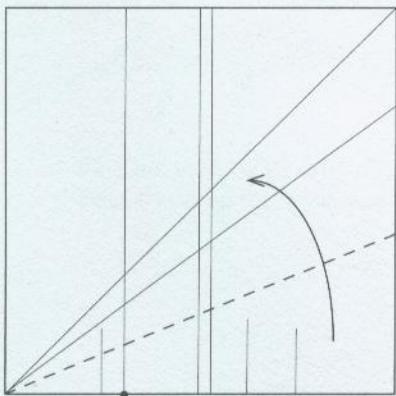
4. Valley fold A to B, then unfold.



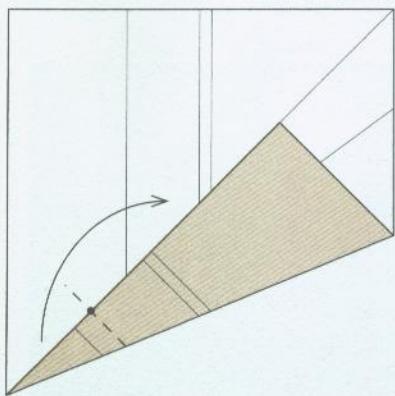
5. Valley fold A to B, then unfold.



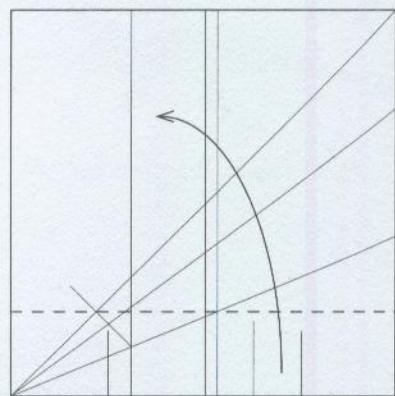
6. Valley fold A to B, through C, then unfold.



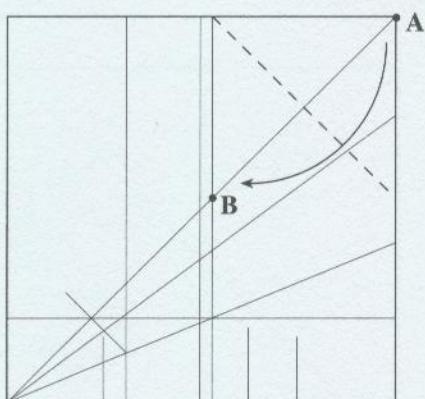
7. Kite. Note existing point C.



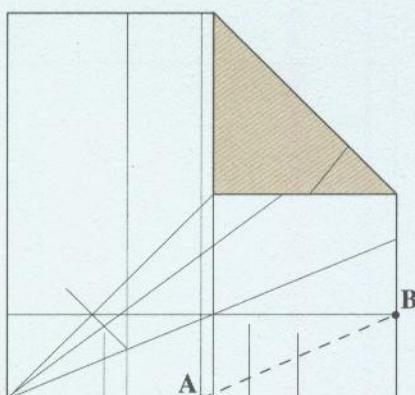
8. Pinch through existing point C, then unfold to step 8.



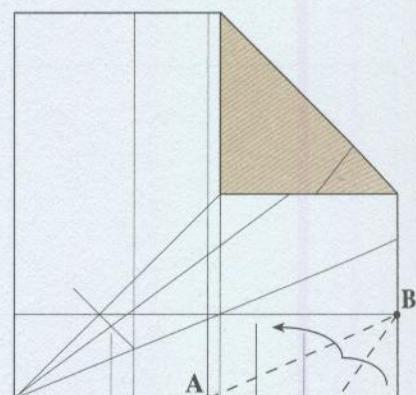
9. Fold through crease intersection. Unfold.



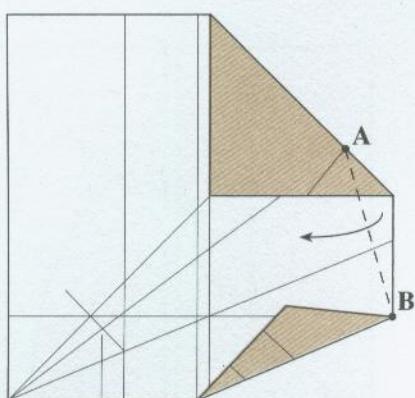
10. Fold corner A to B.



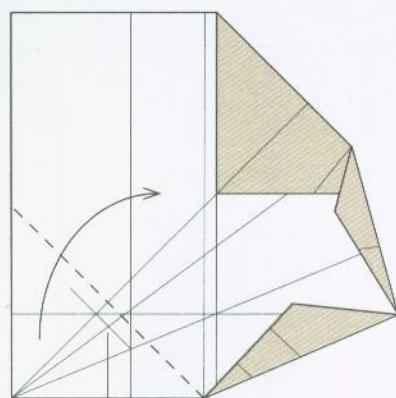
11. Crease from A to B. Unfold.



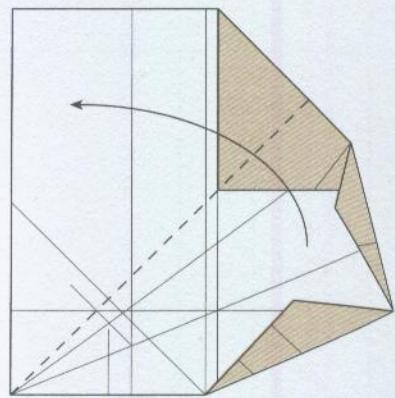
12. Refold line AB, incorporating new crease.



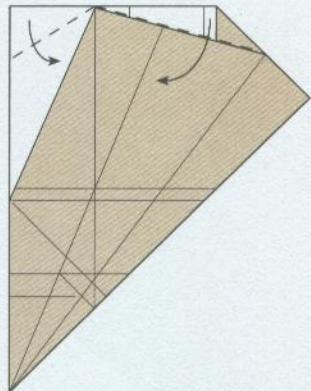
13. Fold edge to indicated crease intersection, along line AB.



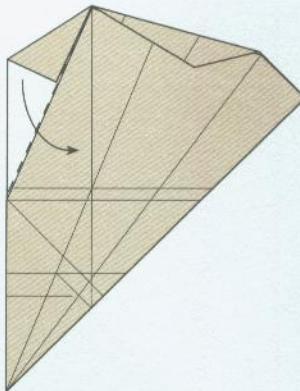
14. Valley fold along diagonal, then unfold.



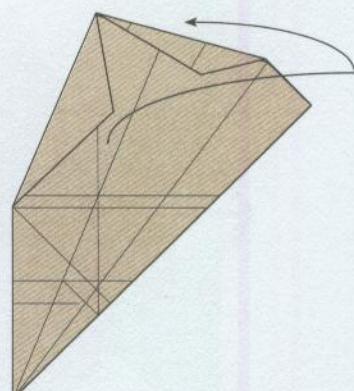
15. Valley fold upward along diagonal.



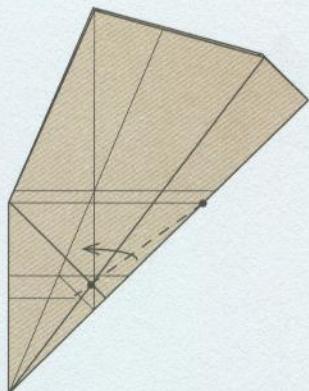
16. Fold lower layer over folded edge. Fold indicated angle bisection.



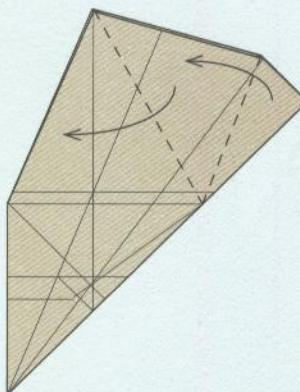
17. Again, fold lower layer over folded edge.



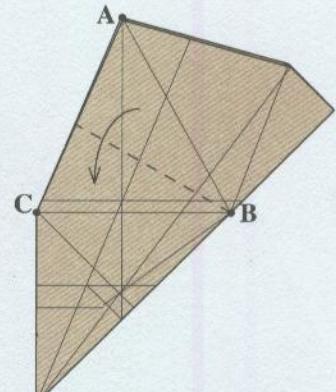
18. Pull out large layer and lay on top.



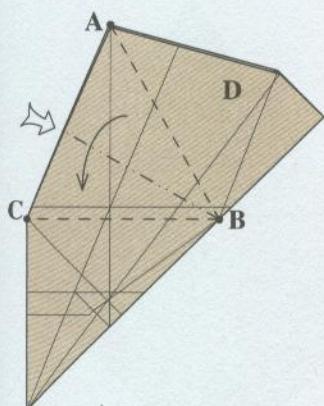
19. Crease from indicated intersections, then unfold. This crease is critical, as it will facilitate a later collapse.



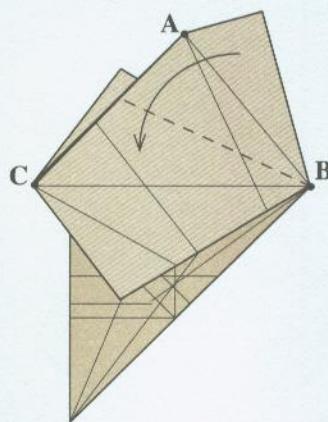
20. Crease from indicated intersections, through all layers, then unfold.



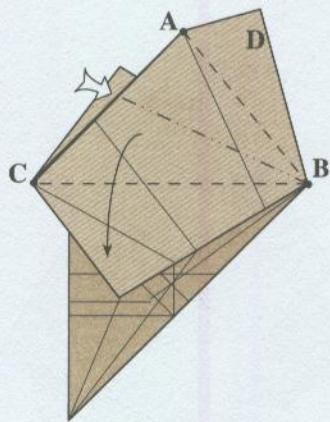
21. Valley line AB to line CB, then unfold.



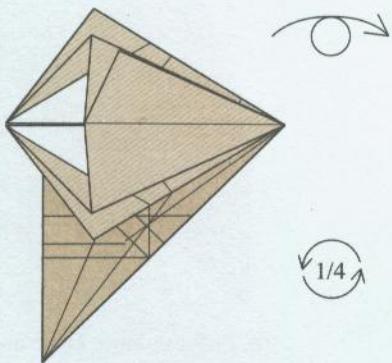
21. Squash line AB to line CB, allowing region D to lay upward when finished.



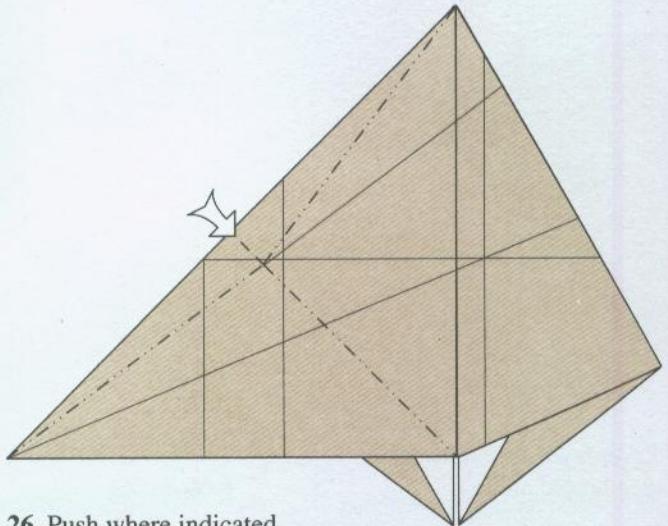
23. Valley line AB to line CB, then unfold.



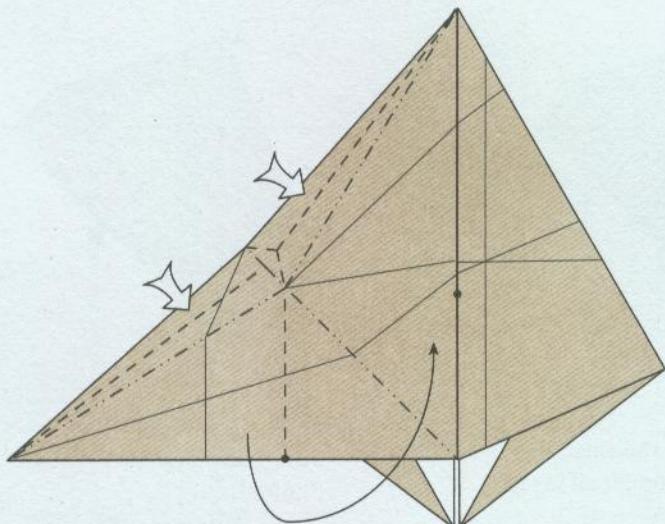
24. Squash line AB to line CB, laying region D flat.



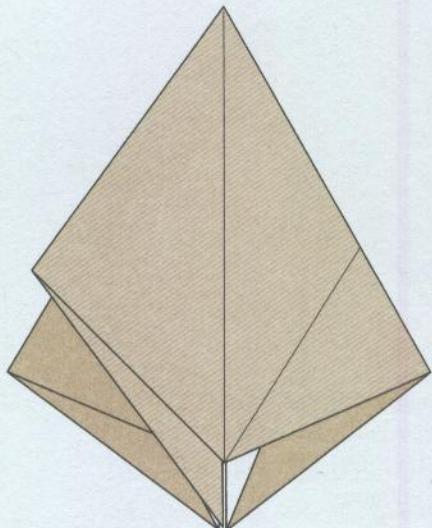
25. Rotate and flip model over.



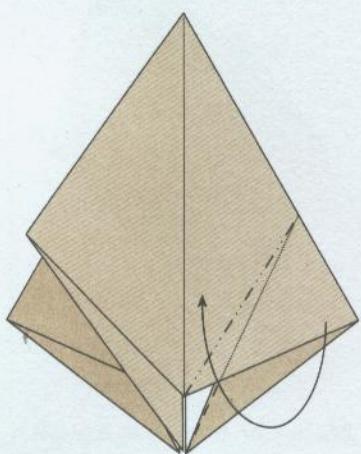
26. Push where indicated, facilitating collapse along guide creases.



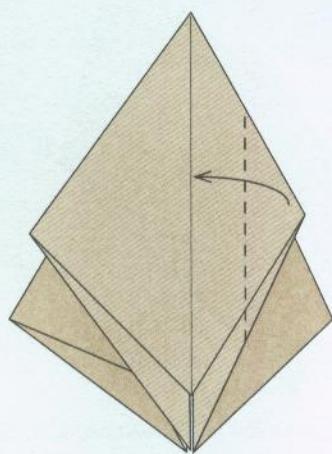
27. Bring dots together, with a swinging motion to the inside of the model. Simultaneously, complete reverse folds at arrows.



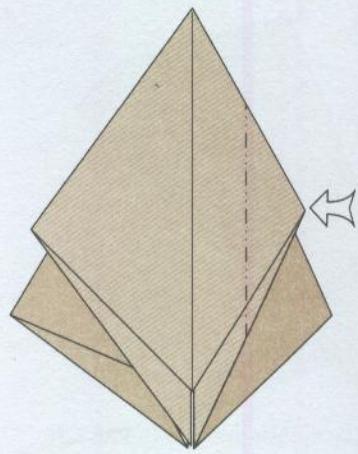
28. Like this.



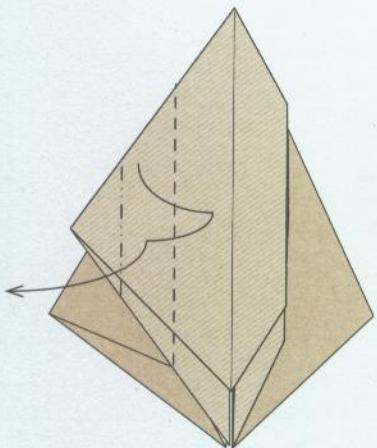
29. Reverse kite fold.



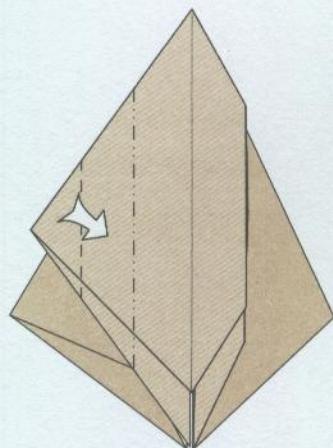
30. Crease in half, then unfold.



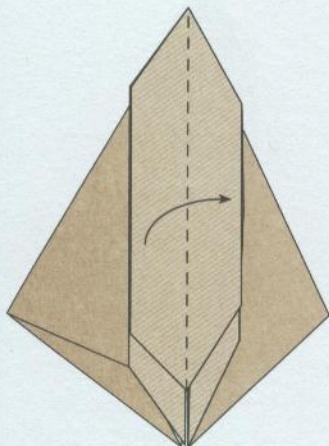
31. Open sink fold.



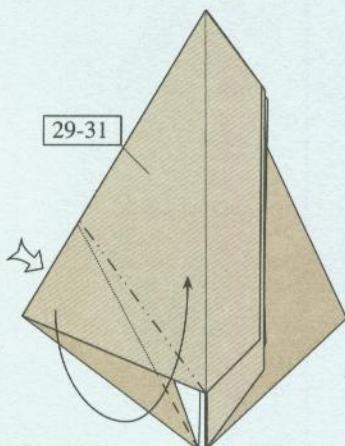
32. Crease into thirds, then unfold.



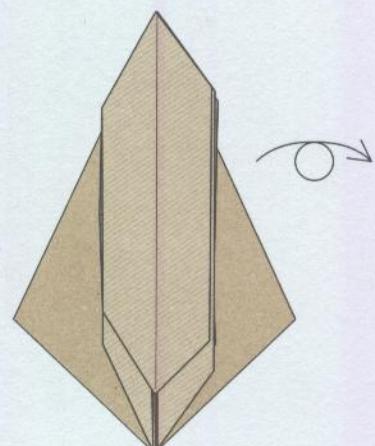
33. Sink in & out, maintaining the integrity of step 27's gusset.



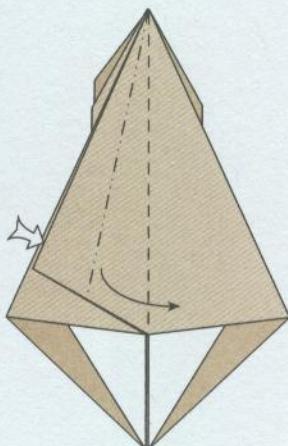
34. Fold flap to right.



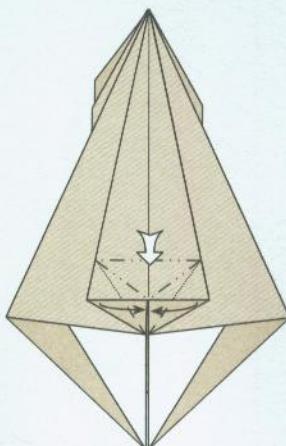
35. Repeat steps 29-31 on left flap.



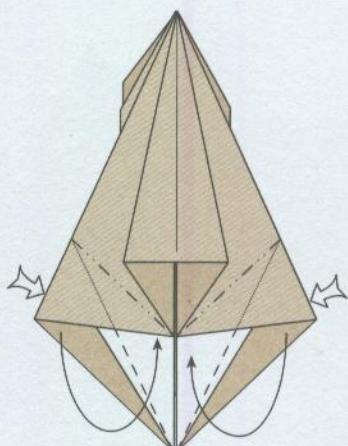
36. Turn model over.



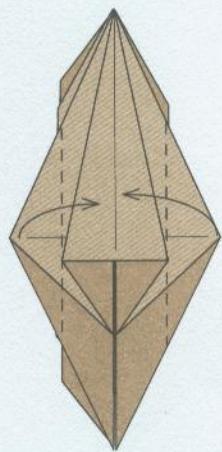
37. Squash fold symmetrically.



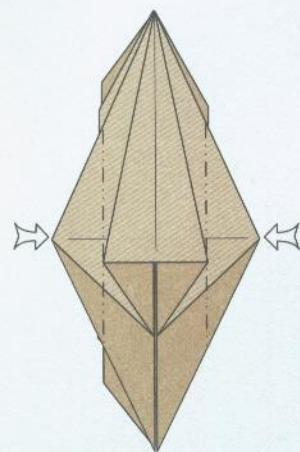
38. Petal fold inside.



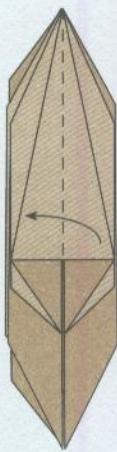
39. Reverse kite fold both sides.



40. Valley both sides to align with hidden edges, then unfold.



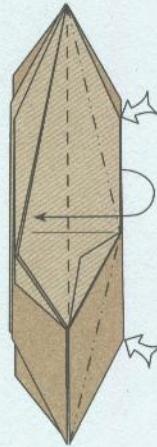
41. Sink fold both sides.



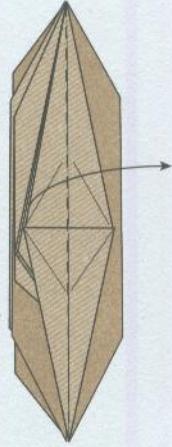
42. Now, fold one layer to the left.



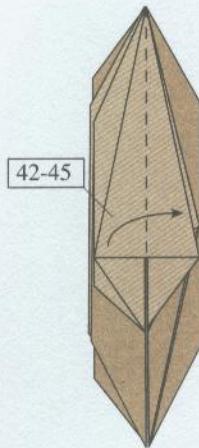
43. Valley fold flap.



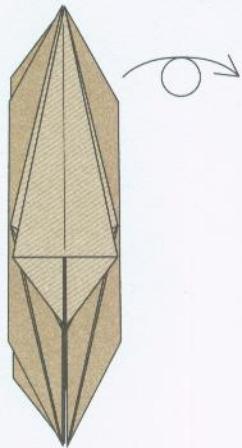
44. Fold layer to left, spread-sinking upper and lower corners.



45. Fold two layers to the right, arriving at step 42.



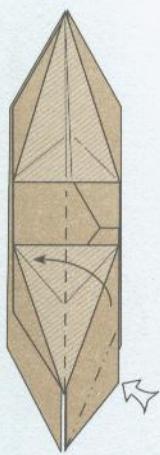
46. Repeat steps 42-45 on the left side.



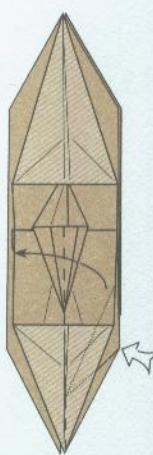
47. Turn model over.



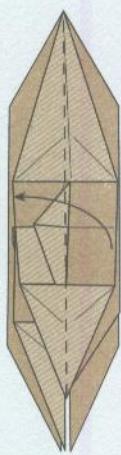
48. Fold flap to left, spread sinking two corners.



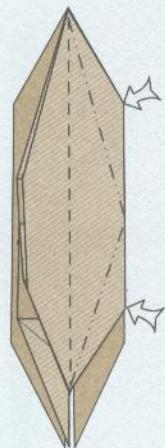
49. Fold lower flap to left, spread sinking corner.



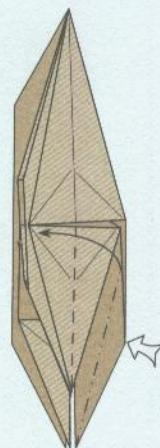
50. Again, fold lower flap to left, spread sinking corner.



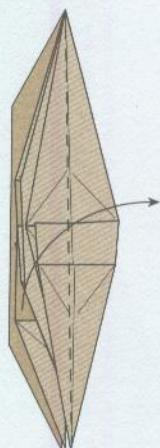
51. Fold flap to left.



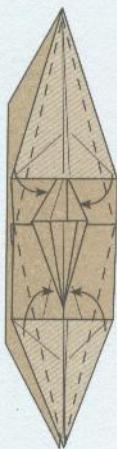
52. Fold flap to left, spread sinking corners.



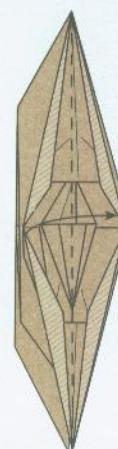
53. Fold lower flap to left, spread sinking last corner on right side.



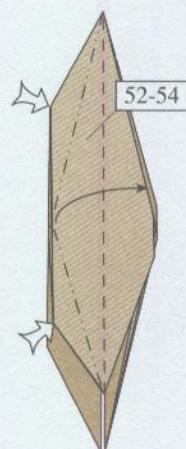
54. Fold four flaps back to right, returning model to step 50.



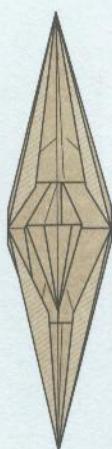
55. Thin flaps with valley folds.



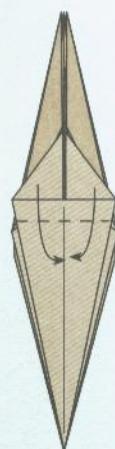
56. Fold two layers to the right.



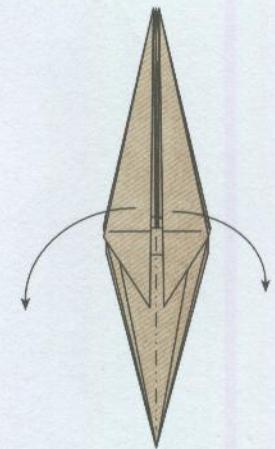
57. Repeat steps 52-54 on left side.



58. Turn model over and rotate 180 degrees.



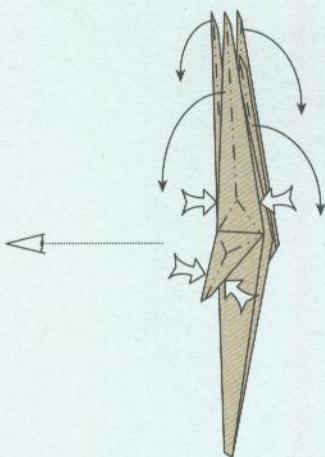
59. Fold down two small leaves in front.



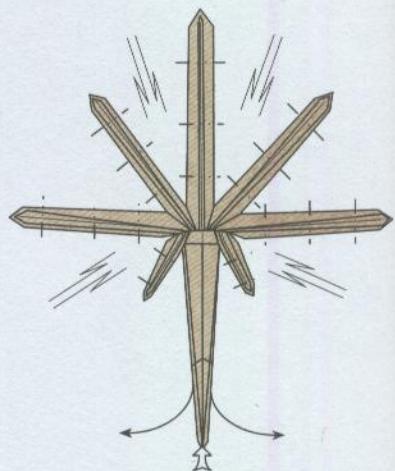
60. Fold model in half.



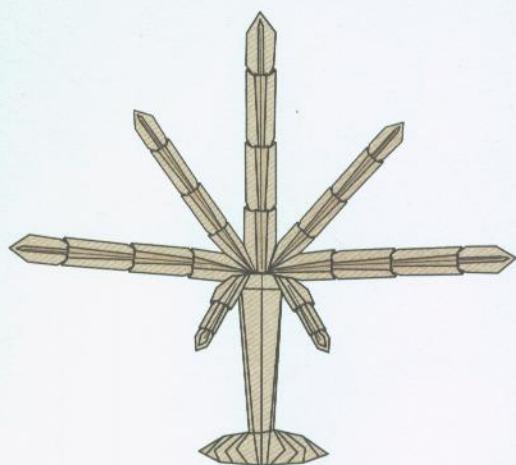
61. View model from side.



62. Double rabbit ear all leaves and feather outward, then view from front.

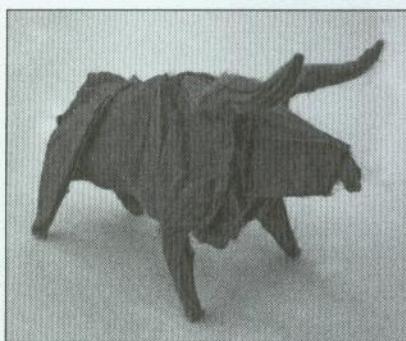


63. Pleat leaves with interior crimps. Spread sinking stem will create standing base.

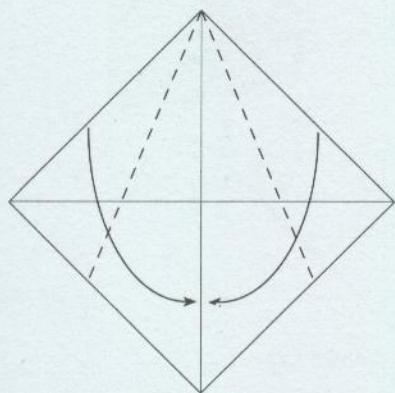


64. Enjoy!

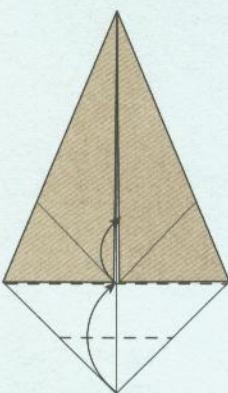
# Brahma Bull



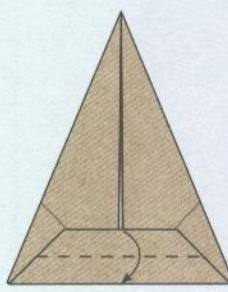
The Brahma Bull was one of my first efforts at circle packing a model. This means the design was laid out topographically on the square, and then folded to fit the conception.



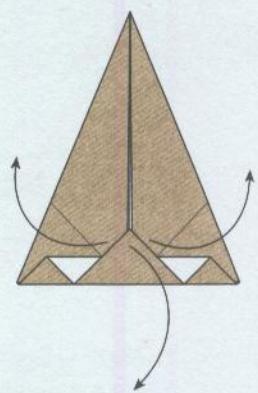
1. With square white side up,  
kite fold both sides.



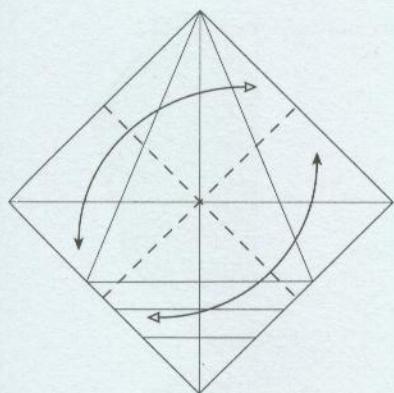
2. Valley folds.



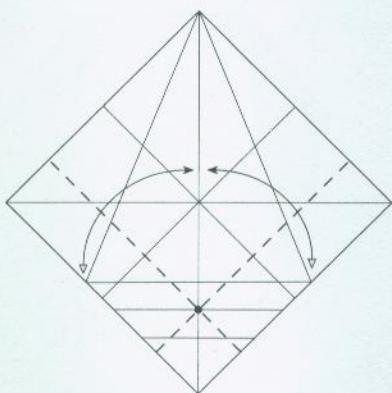
3. Valley fold top layer.



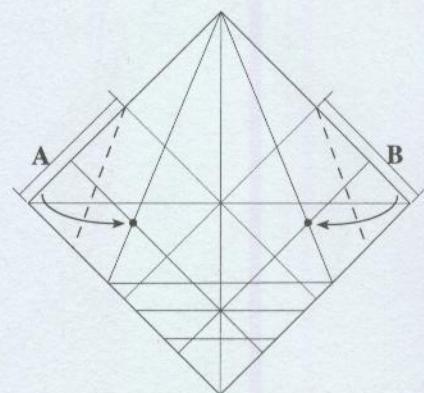
4. Unfold to step 1.



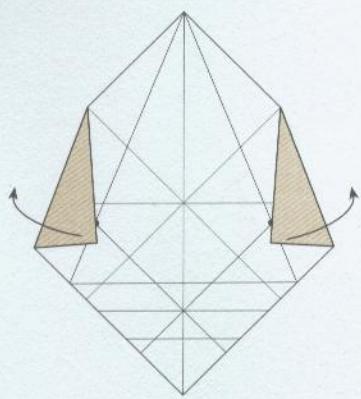
5. Fold and unfold through center.



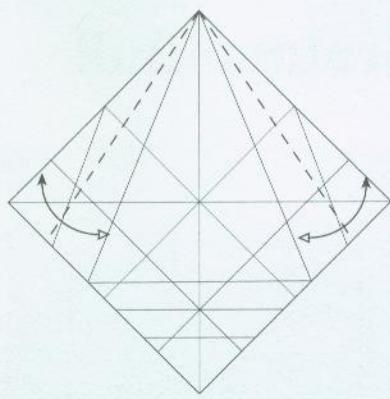
6. Fold and unfold through CI.  
(crease intersection.)



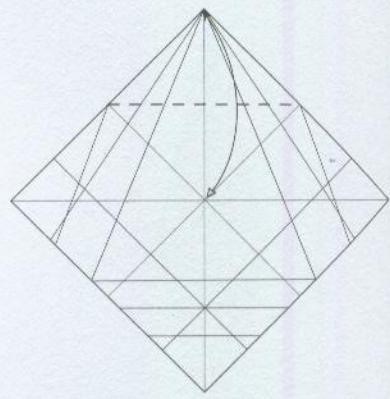
7. Fold edges A and B to lie on  
respective CIs.



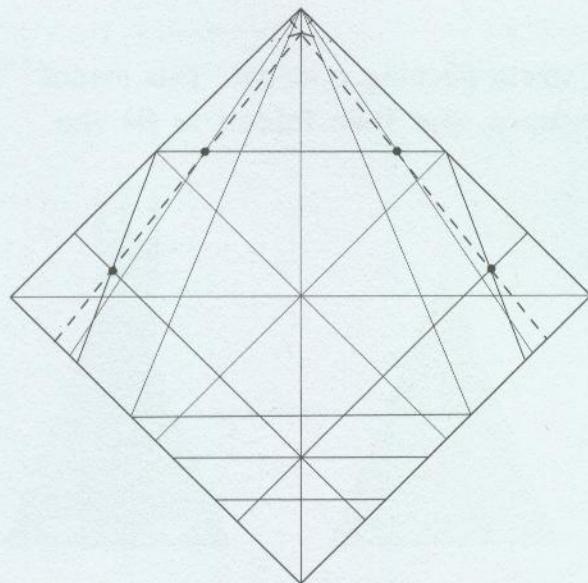
8. Unfold.



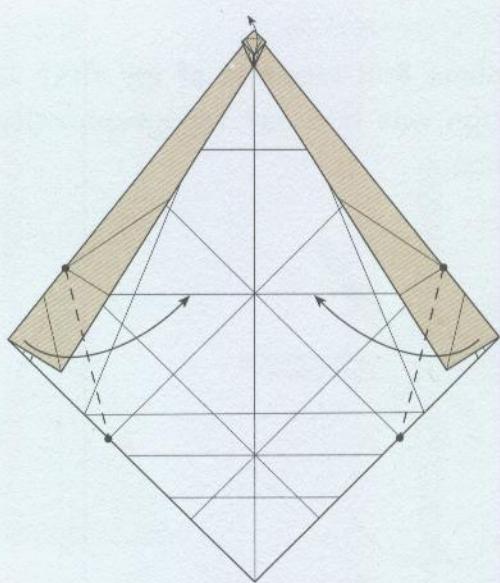
9. Bisect and unfold.



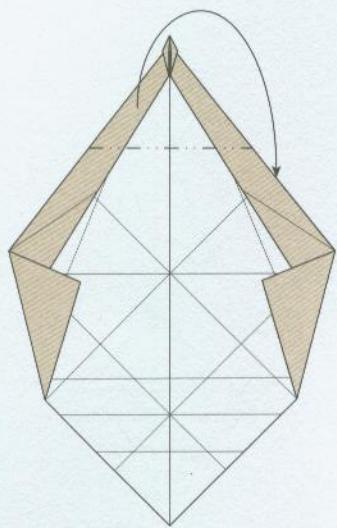
10. Fold and unfold.



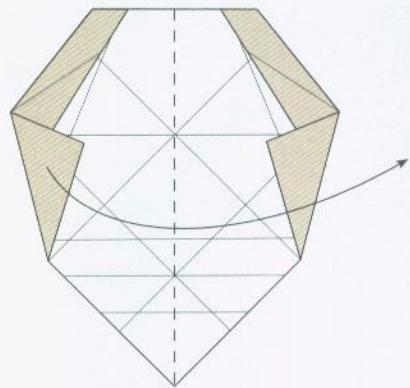
11. Make valley folds through CIs, forming a preliminary at apex.



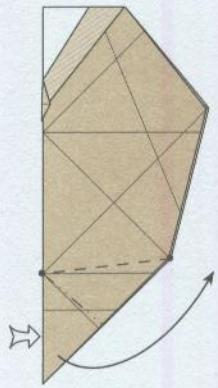
12. Make valley folds through CIs, and petal fold the top.



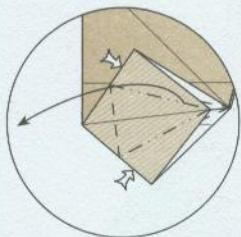
13. Mountain fold through the existing crease.



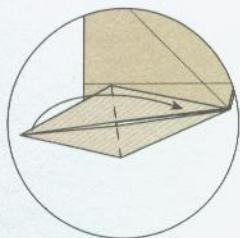
14. Valley fold the model in half.



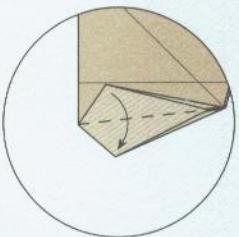
15. Squash fold.



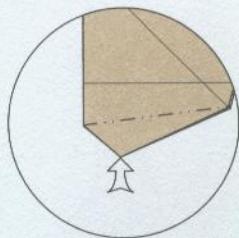
16. Petal fold.



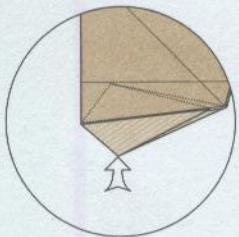
17. Valley fold.



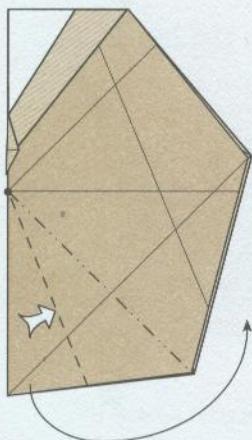
18. Valley fold.



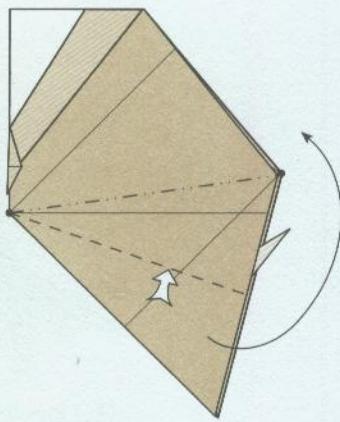
19. Open sink  
symmetrically.



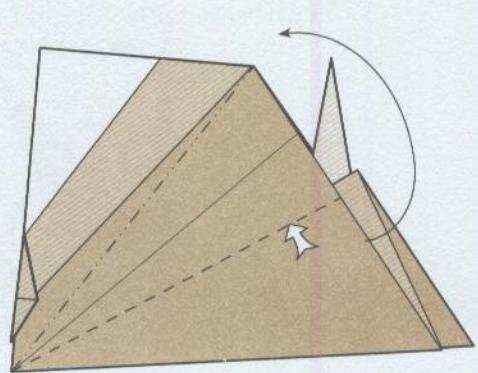
20. Repeat.



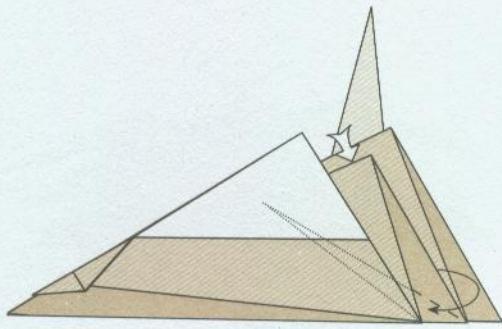
21. Crimp inside.



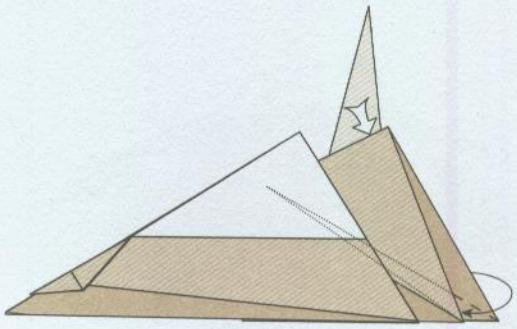
22. Crimp inside again.



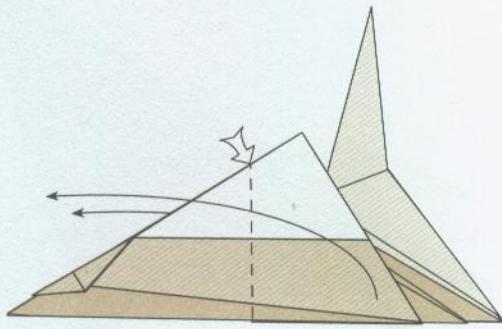
23. ...and again.



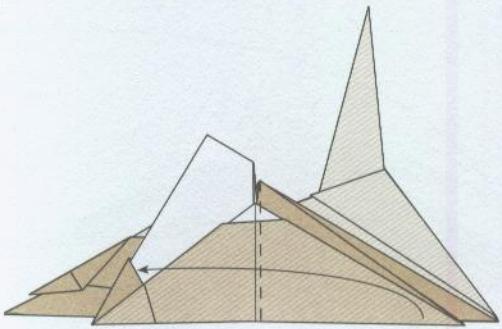
24. Reverse fold, then repeat behind.



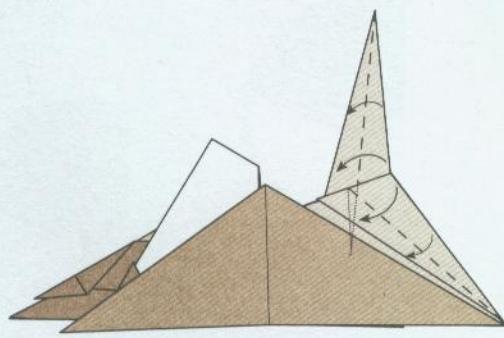
25. Reverse fold next flap, then repeat behind.



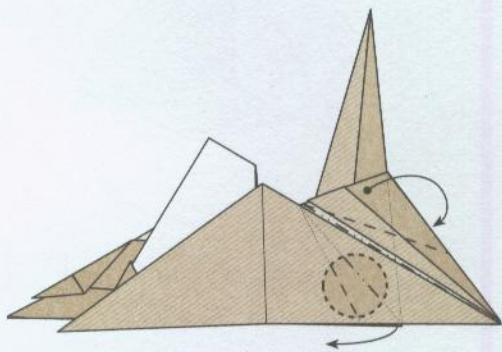
26. Outside reverse fold.



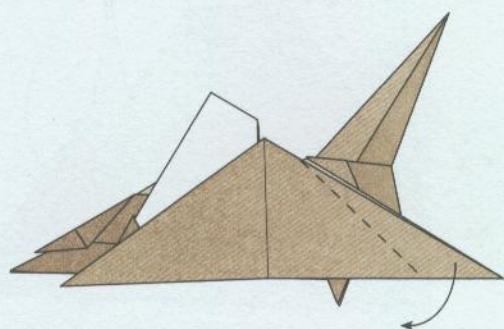
27. Valley fold, then repeat behind.



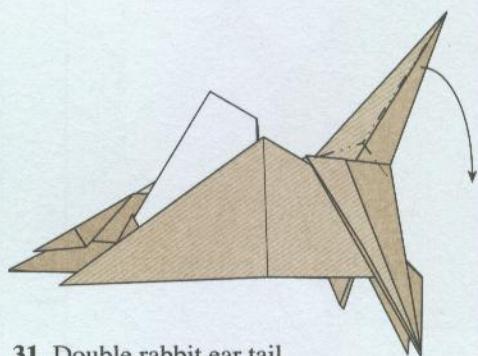
28. Wrap the colored edge forward with a continuous valley fold. Repeat behind.



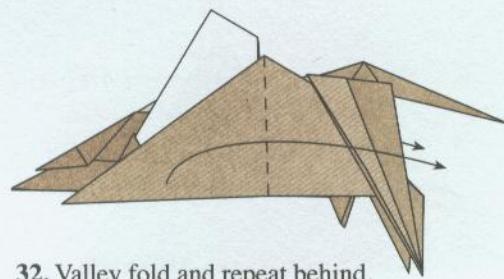
29. Inside crimp the rump, forming a pleat on the hidden middle flap.



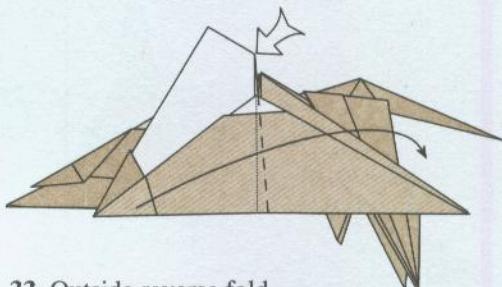
30. Valley fold leg. Repeat behind.



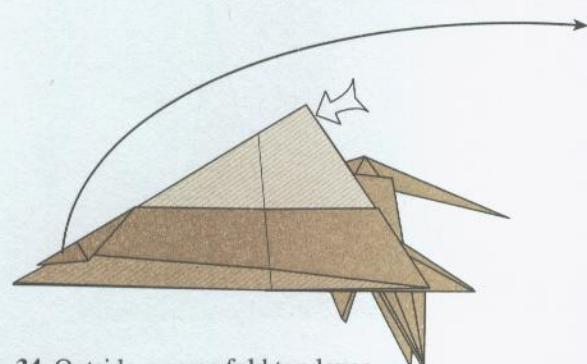
31. Double rabbit ear tail.



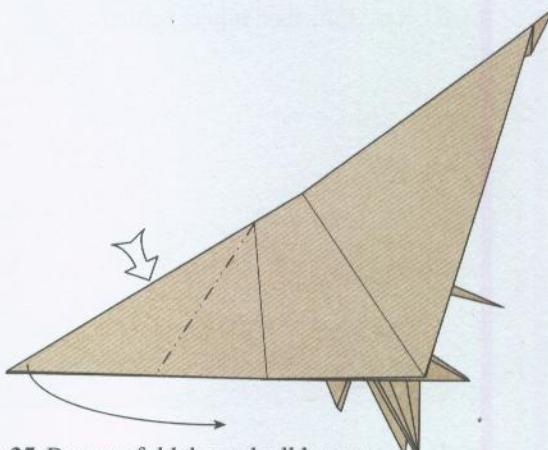
32. Valley fold and repeat behind.



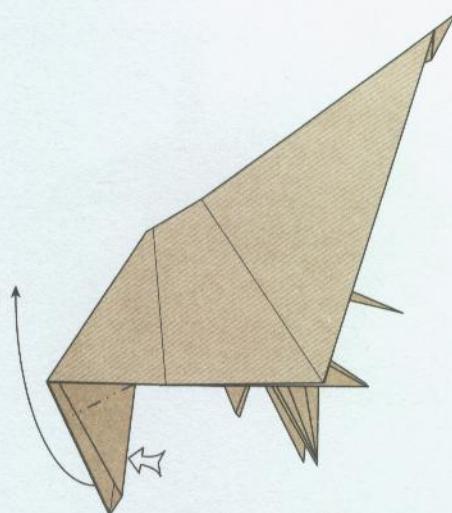
33. Outside reverse fold.



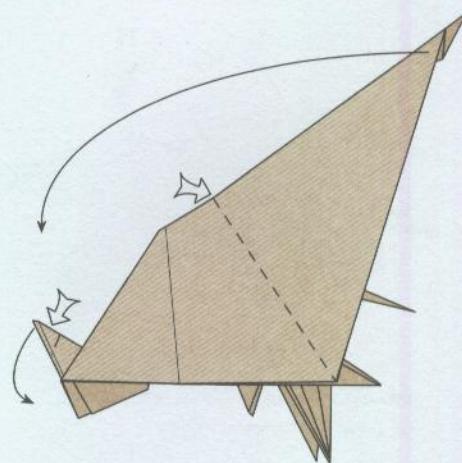
34. Outside reverse fold top layer.



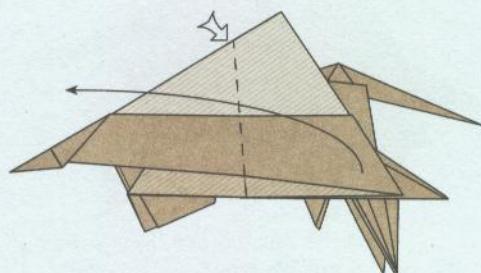
35. Reverse fold through all layers, shifting paper to flatten.



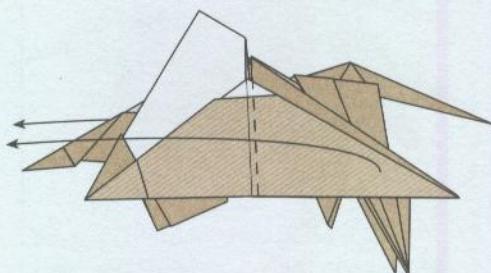
36. Reverse fold.



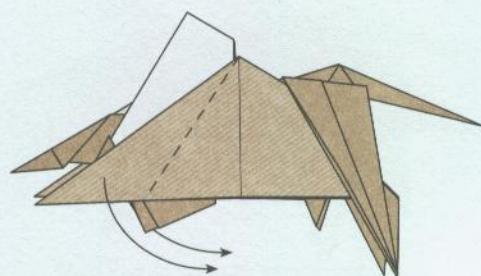
37. Reverse fold again, and refold large flap to step 34.



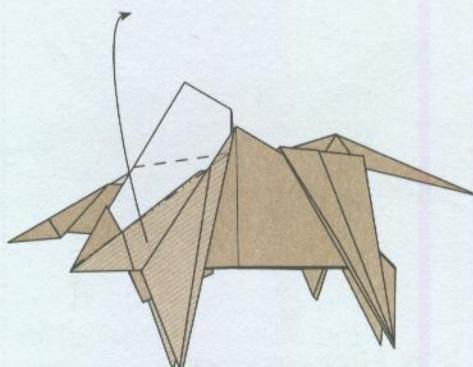
38. Refold large flap to step 33.



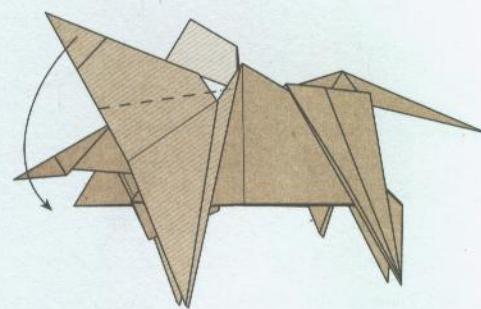
39. Valley fold and repeat behind.



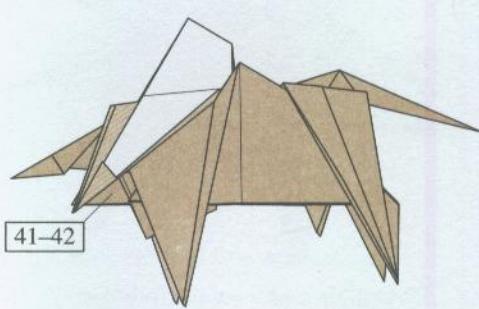
40. Valley fold and repeat behind.



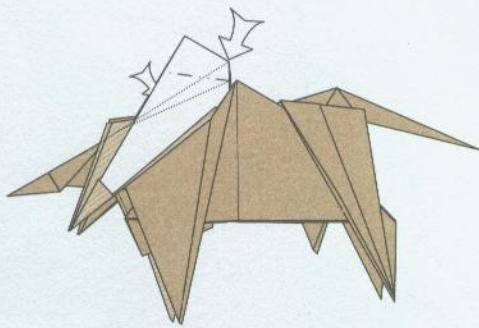
41. Pull out the paper, making a pleat where indicated.



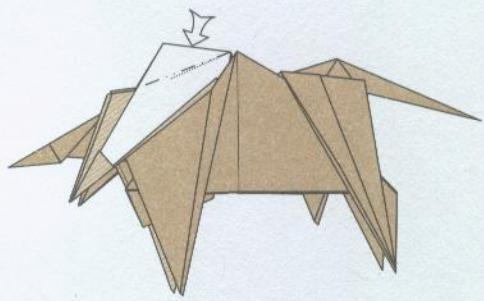
42. Valley fold horn down.



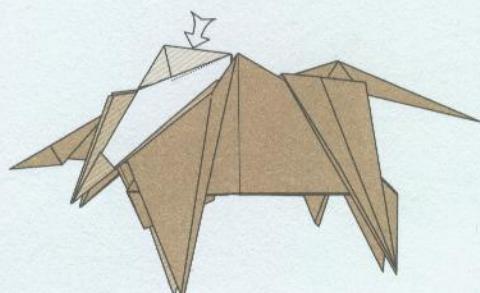
43. Repeat steps 41 & 42 behind.



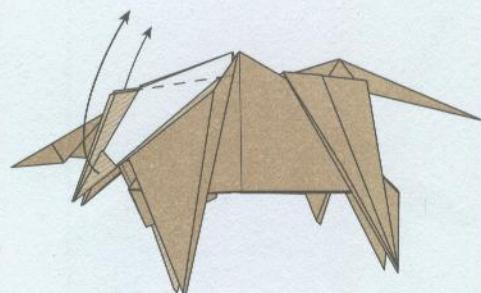
44. Spread sink crown and bridge of nose symmetrically.



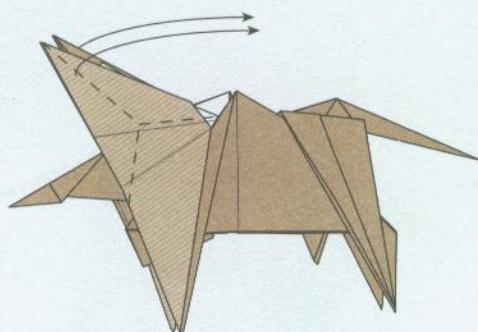
45. Reverse fold.



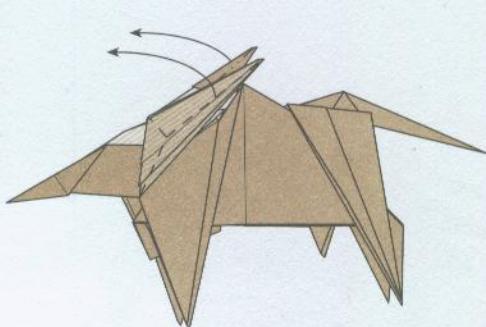
46. Reverse fold.



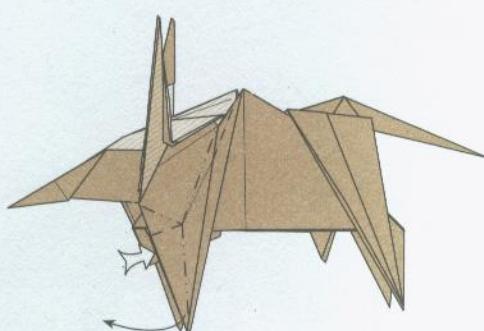
47. Fold horns back up.



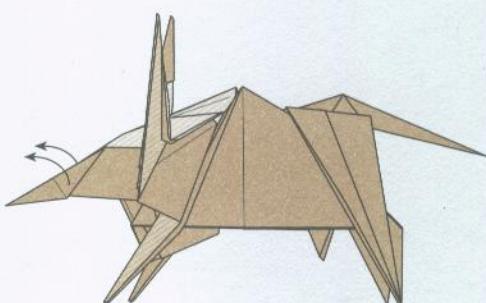
48. Rabbit ear the horns.



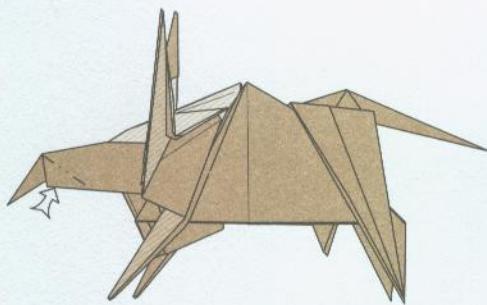
49. Rabbit ear the horns again.



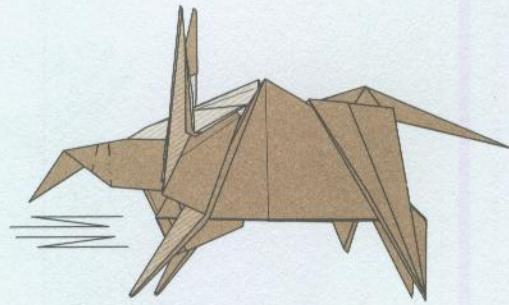
50. Double rabbit ear the forelegs.



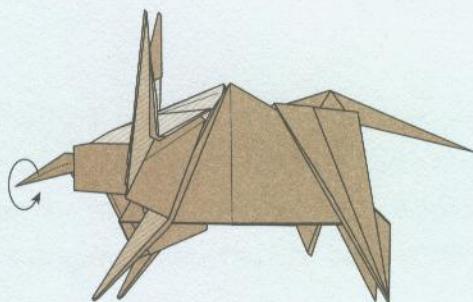
51. Valley both sides.



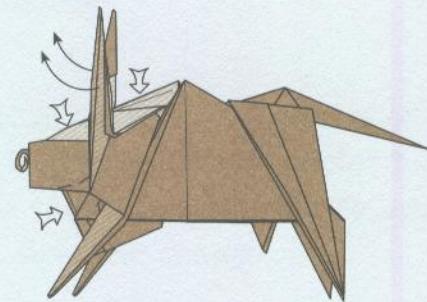
52. Closed sink fold to taper tip.



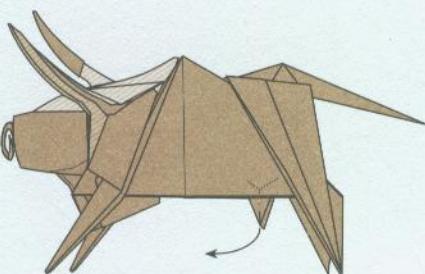
53. Crimp the nose inside.



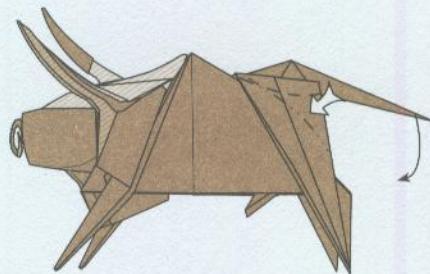
54. Rabbit ear and curl the nose ring.



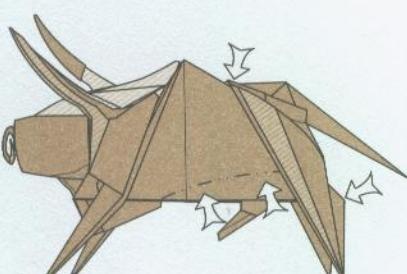
55. Curl horns forward. Round the head and body.



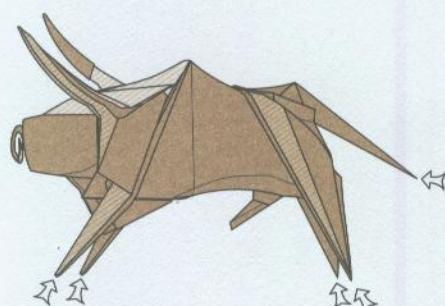
56. Double rabbit ear appendage.



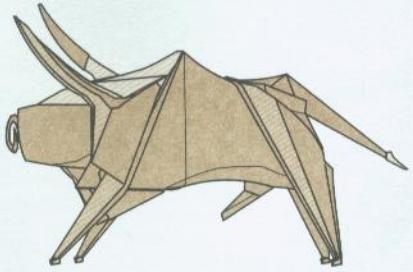
57. Round the rump, and pivot the tail linkage downward.



58. Round the hind legs and body.



59. Reverse fold four hooves.  
Crimp tail.



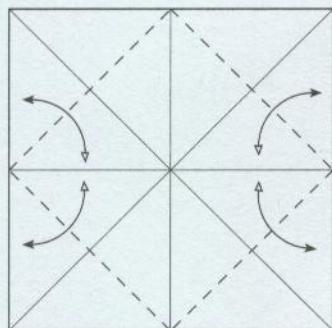
**60.** Like this!

# Polar Bear

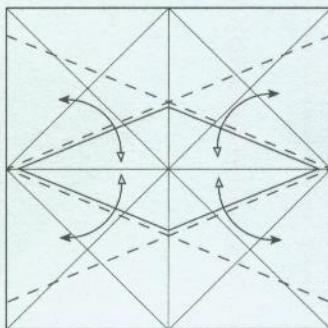


Originally I viewed this model as simply a bear, but after reviewing photos of various sorts of bears, determined that it was definitely the arctic variety. Polar bears are presently in a bit of trouble, and I really do hope that they are able to adapt to our changing climate. Or conversely, that we can slow the change...

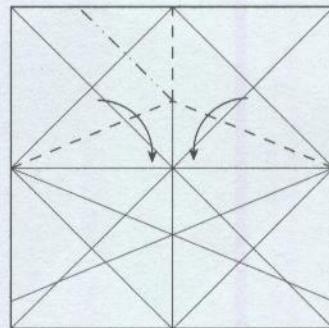
It would be a shame to lose them.



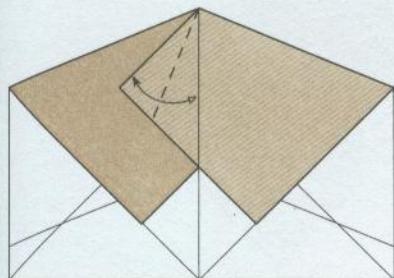
1. With square white side up, blintz four corners. Unfold.



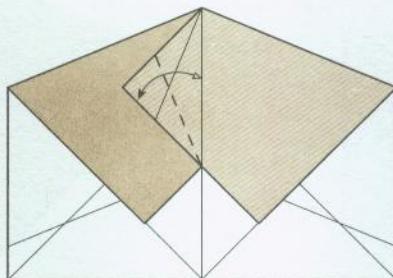
2. Kite fold through angle bisectors. Unfold.



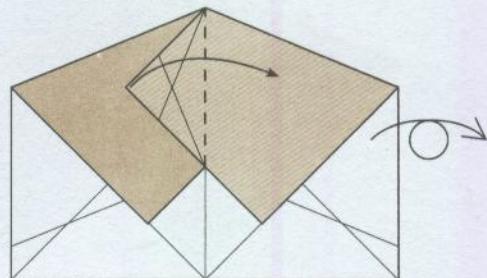
3. Rabbit ear through one side.



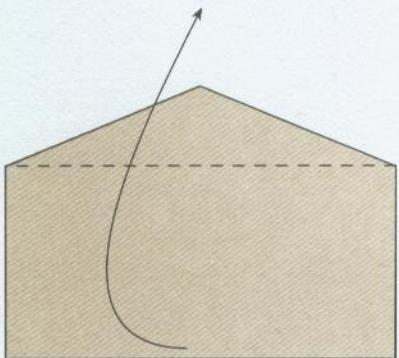
4. Kite fold flap. Unfold.



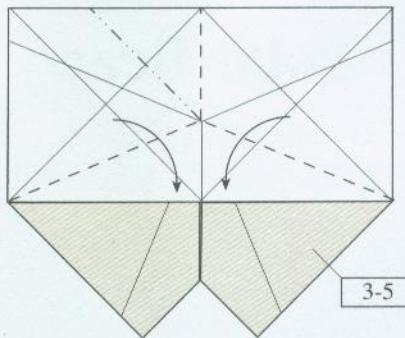
5. Kite fold flap. Unfold.



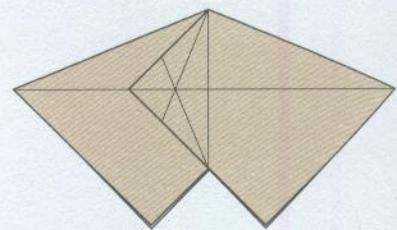
6. Valley fold flap, then turn over.



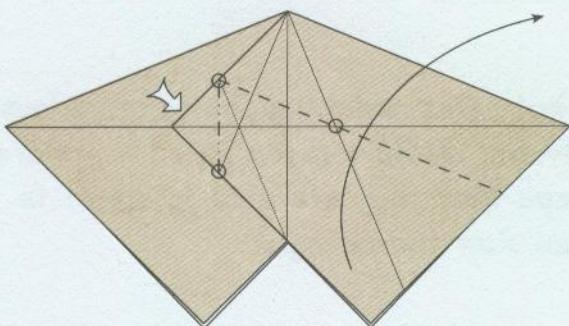
7. Valley fold.



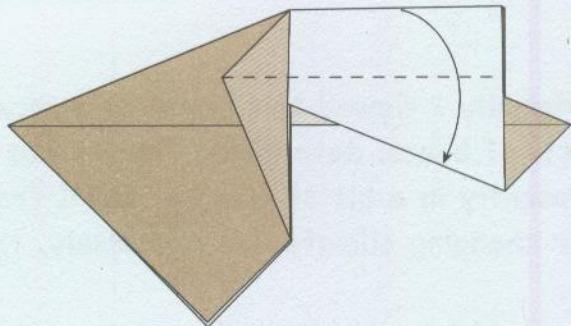
8. Repeat steps 3-5 on this side.



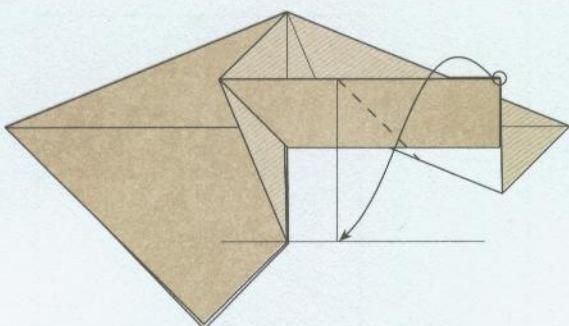
9. Like this.



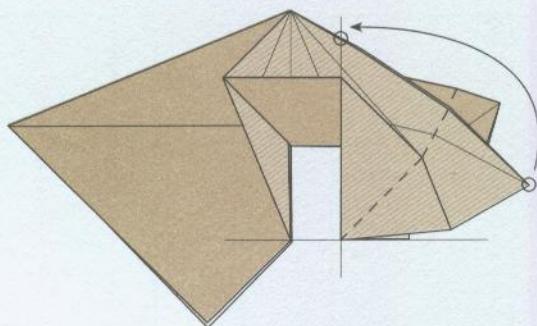
10. Squash fold. Repeat behind.



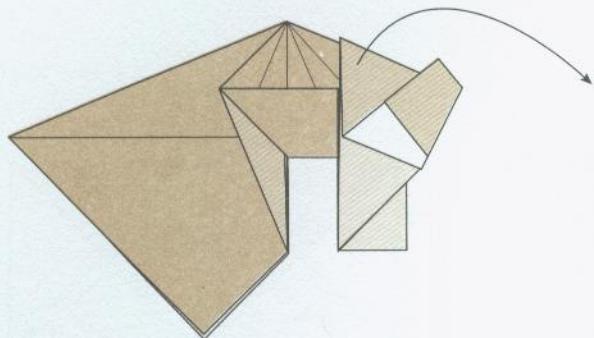
11. Valley fold. Repeat behind.



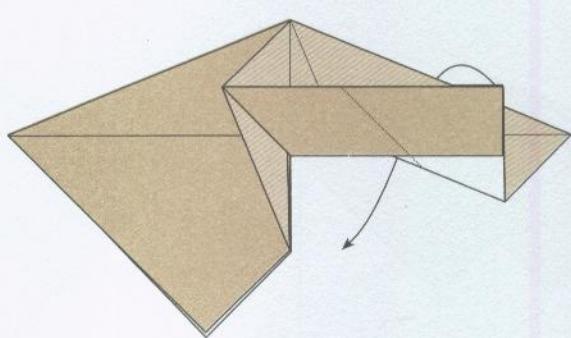
12. Valley fold corner to indicated point. Model will not lie flat.



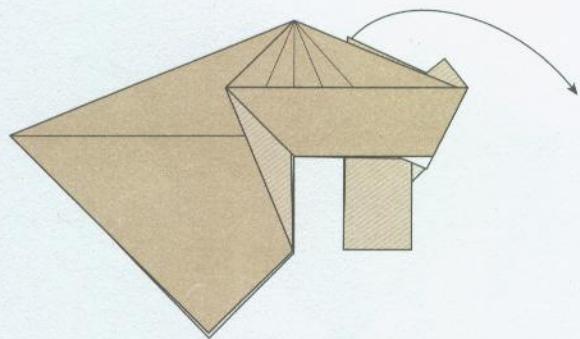
13. Valley fold corner to indicated point. This will close the model.



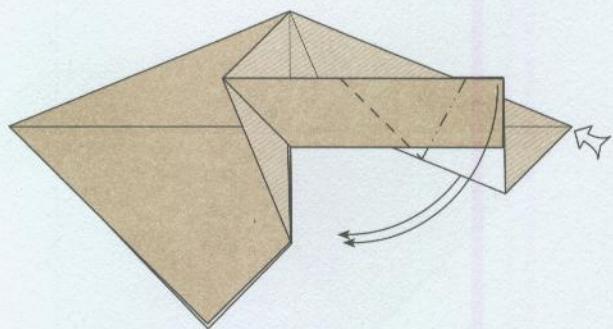
14. Like this. Unfold to step 12.



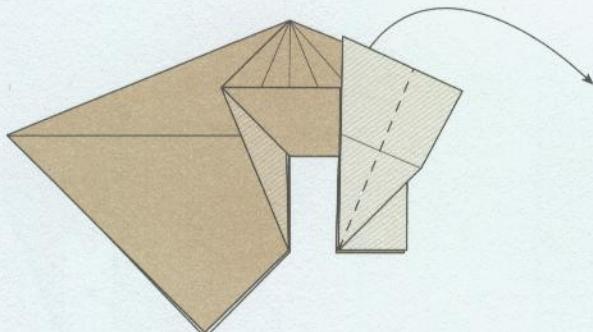
15. Repeat steps 12-13 behind.



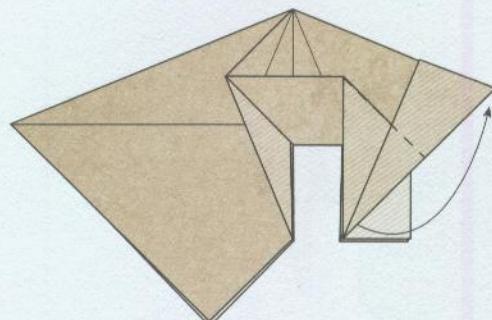
16. Like this. Unfold to step 12.



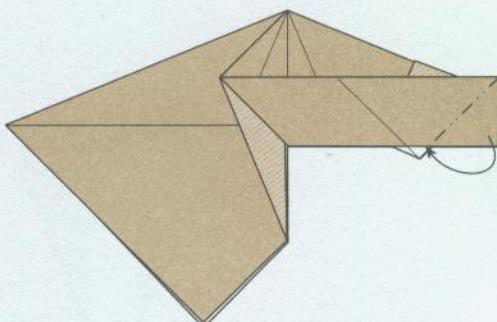
17. Refold both sides, with an outside reverse fold.



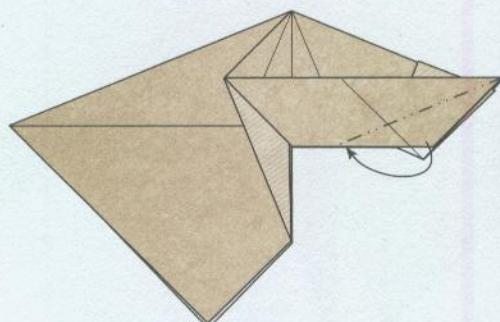
18. Outside reverse fold.



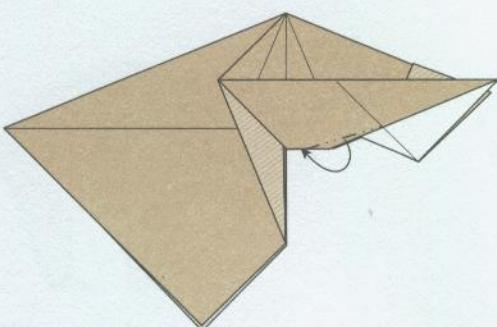
19. Valley fold. Repeat behind.



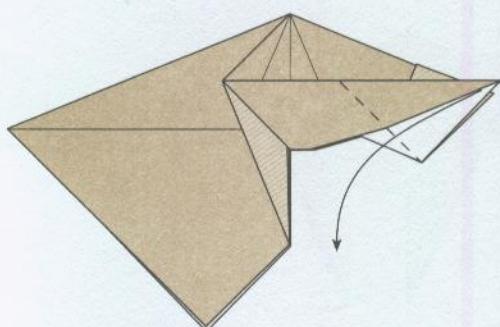
20. Mountain fold. Repeat behind.



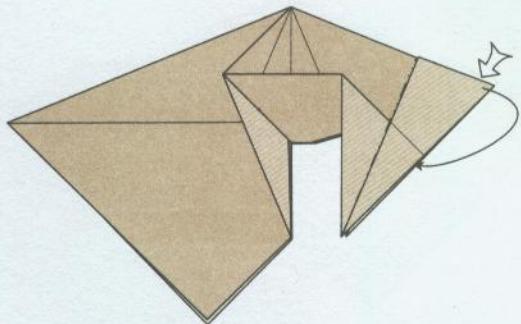
21. Mountain fold. Repeat behind.



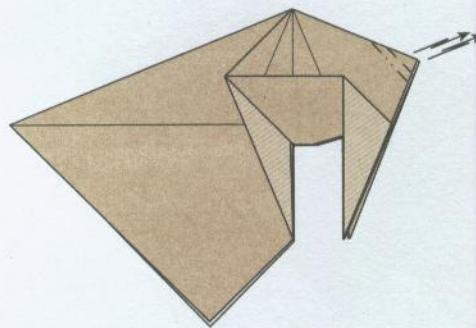
22. Mountain fold. Repeat behind.



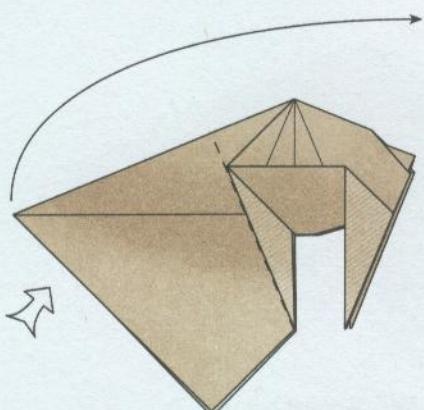
23. Valley fold. Repeat behind.



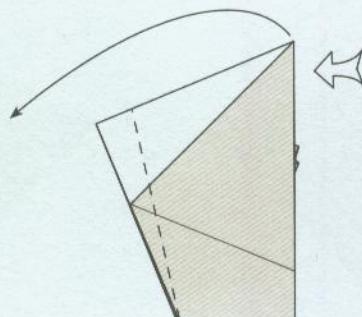
24. Reverse fold.



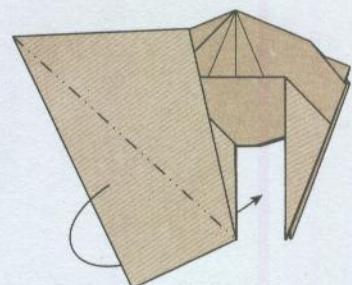
25. Inside crimp fold.



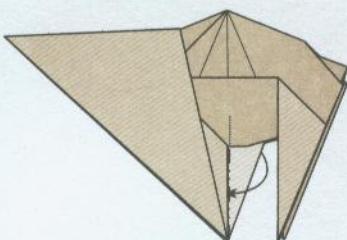
26. Outside reverse fold. Hidden ridge in center will fall to one side.



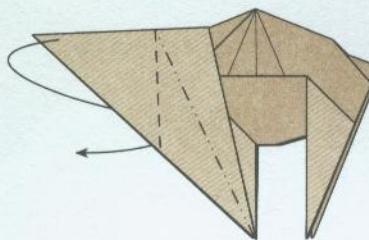
27. Outside reverse fold again, exposing half of the front legs.



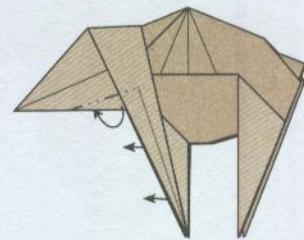
28. Mountain fold flap behind leg. Repeat behind.



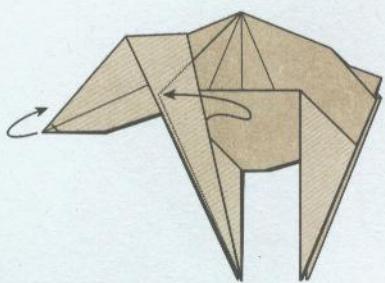
29. Mountain fold excess into leg. Repeat behind.



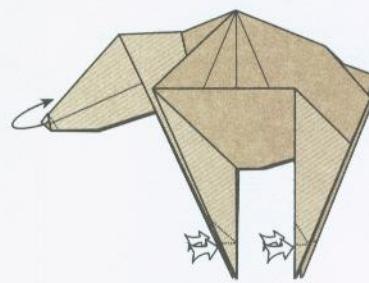
30. Inside crimp fold.



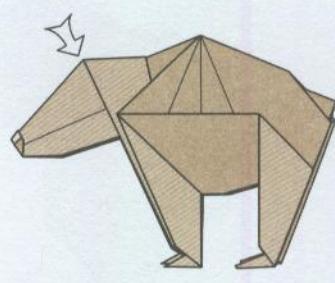
31. Mountain fold, forming a swivel behind leg. Repeat behind.



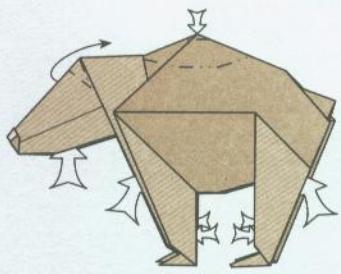
32. Outside reverse fold nose. Untuck layers of body to the front.



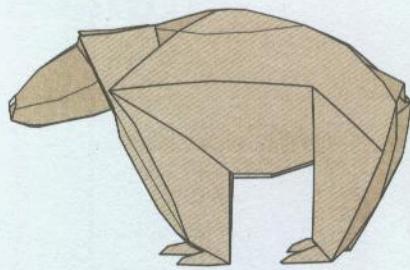
33. Outside reverse fold again. Double reverse fold feet.



34. Spread paper at apex of head. This will separate the ears.

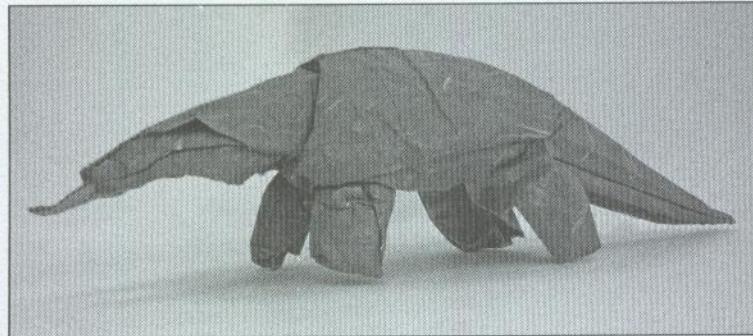


35. Crimp ears and head back.  
Round head, legs, and body.

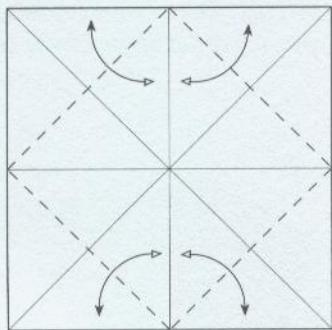


36. "Brrrrrrrrrrrr."

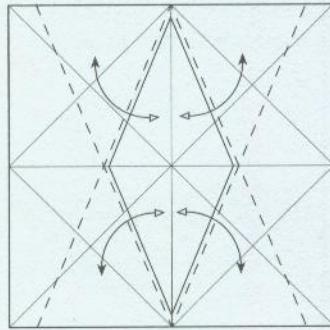
# Komodo Dragon



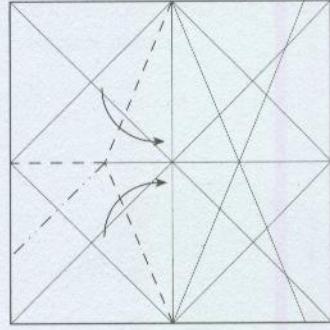
The Komodo Dragon was the first four legged alteration of my butterfly base. I like the expandable nature of this model, as well as the ease of folding. I imagine that one could create a number of four legged animals from this base. Good luck...



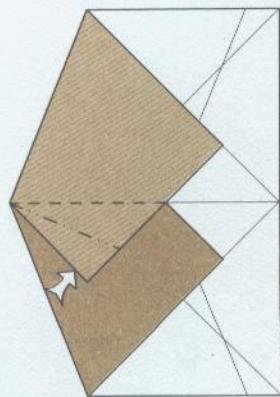
1. With square white side up, blintz four corners. Unfold.



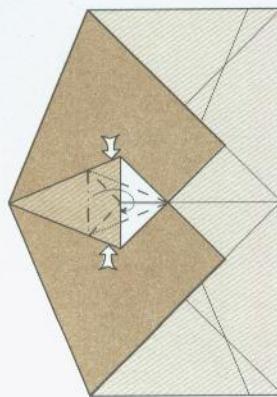
2. Kite fold through angle bisectors. Unfold.



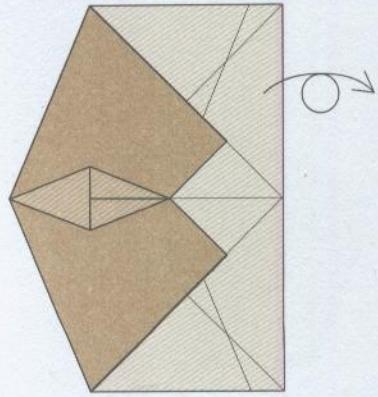
3. Rabbit ear through one side.



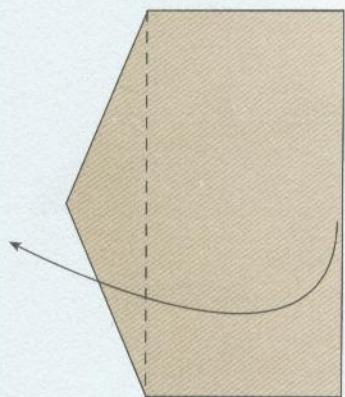
4. Squash fold flap.



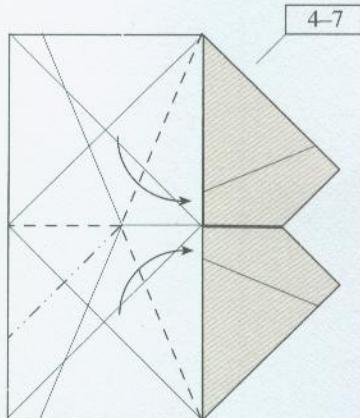
5. Petal fold inside of top layer.



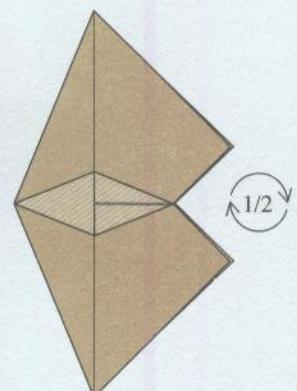
6. Turn model over.



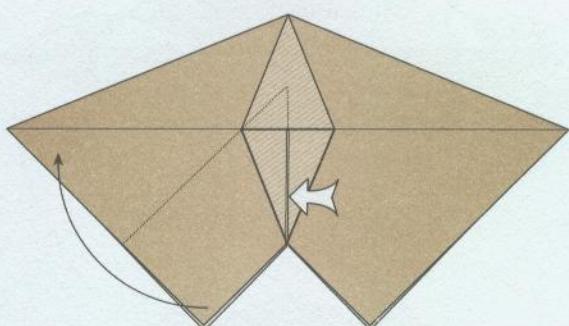
7. Valley fold.



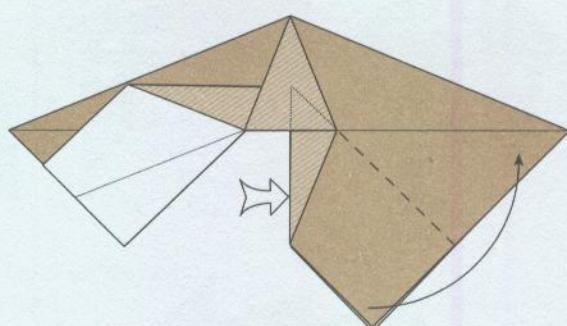
8. Repeat steps 4-7 on this side.



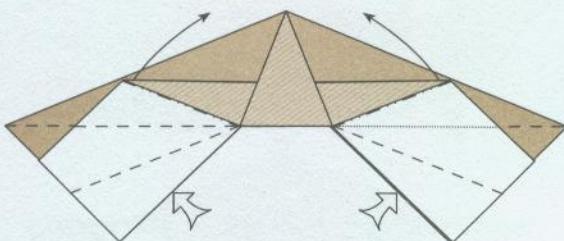
9. Rotate model.



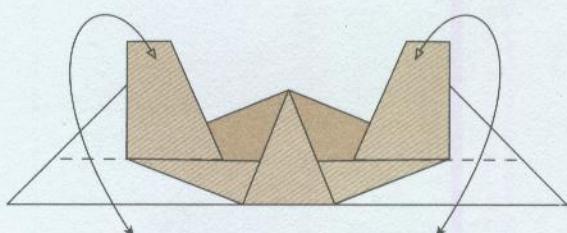
10. Reverse fold. Repeat behind.



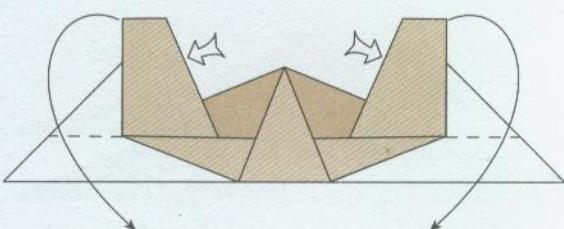
11. Repeat step 10 on right side.



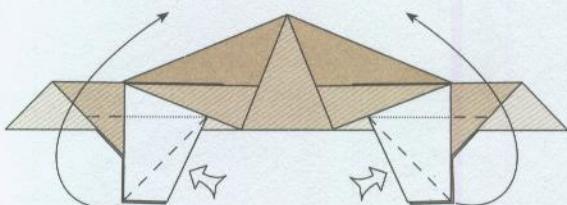
12. Reverse fold on each side.  
Repeat behind.



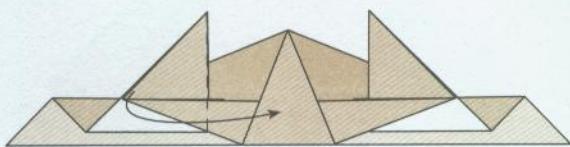
13. Valley folds. Unfold. Repeat  
behind.



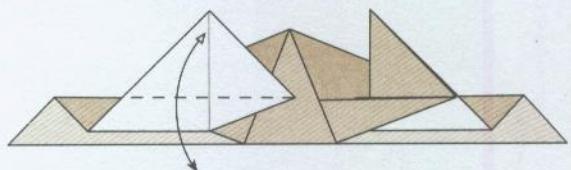
14. Reverse fold each side.  
Repeat behind.



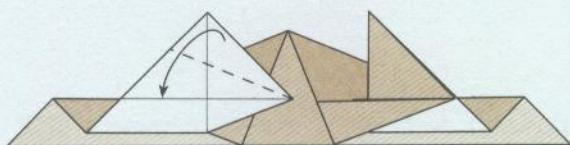
15. Reverse fold each side.  
Repeat behind.



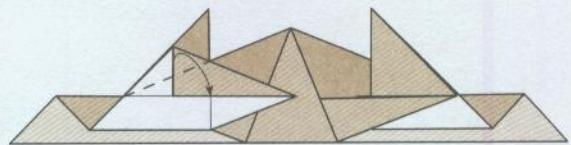
16. Valley fold top layer.



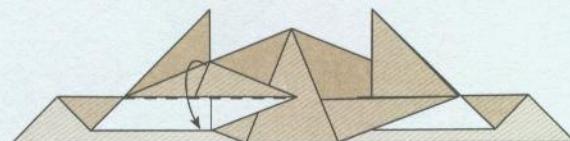
17. Fold and unfold.



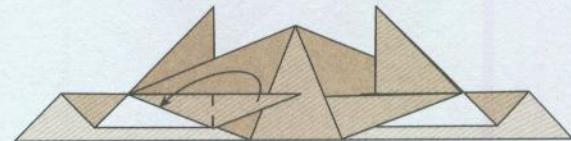
18. Valley fold.



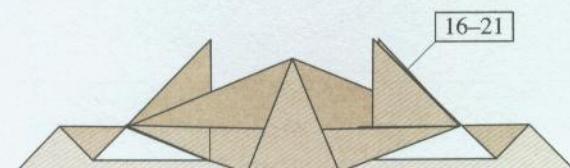
19. Valley fold.



20. Valley fold.



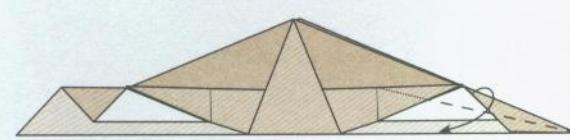
21. Valley fold.



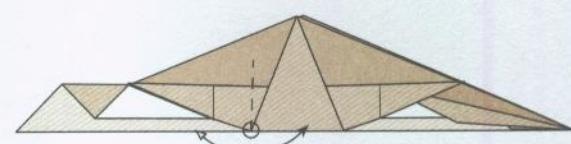
22. Repeat steps 16-21 on three remaining legs.



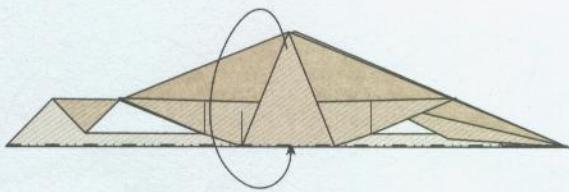
23. Valley fold. Repeat behind.



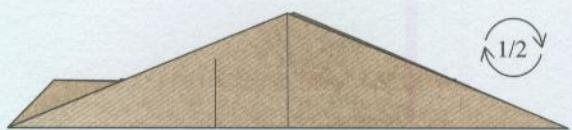
24. Valley fold once more. Repeat behind.



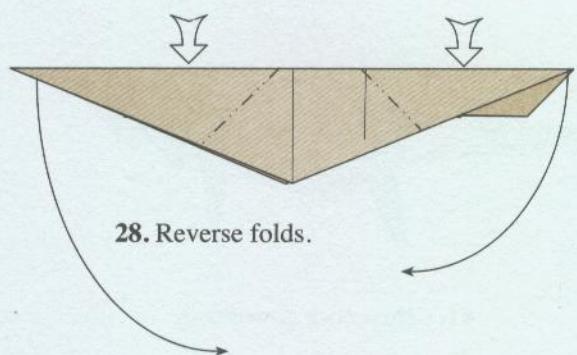
25. Fold and unfold to mark point.



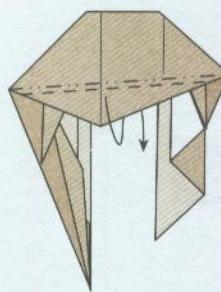
26. Fold front layers behind.



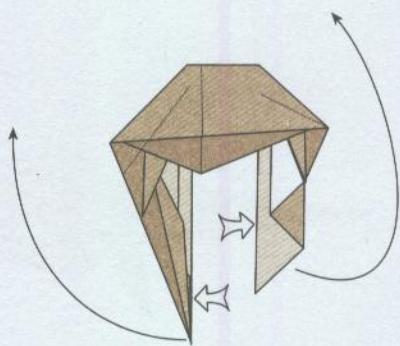
27. Rotate model.



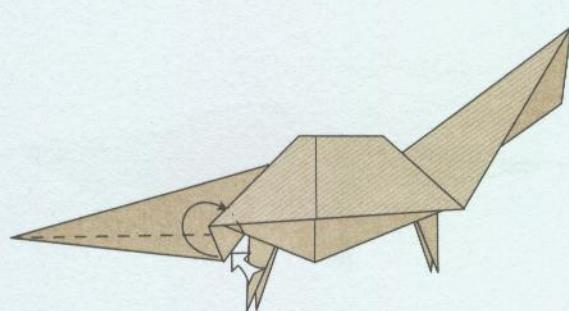
28. Reverse folds.



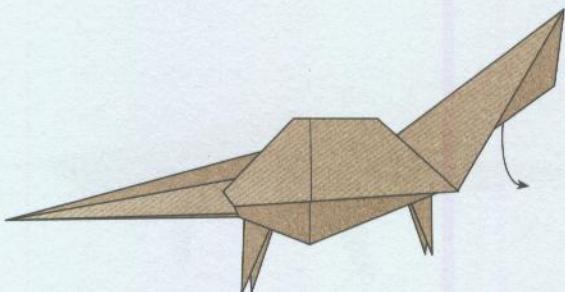
29. Pleat layer inside body.  
Repeat behind.



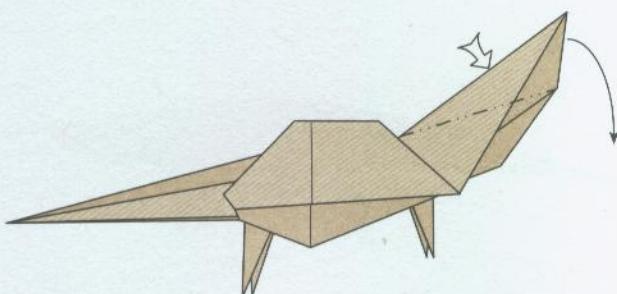
30. Reverse folds.



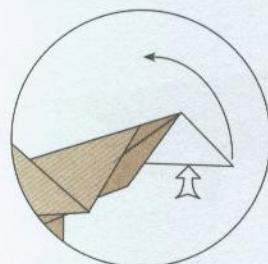
31. Reverse fold. Repeat behind.



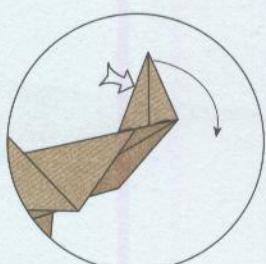
32. Pull out some paper from the  
neck. Repeat behind.



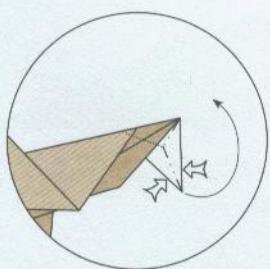
33. Reverse fold head.



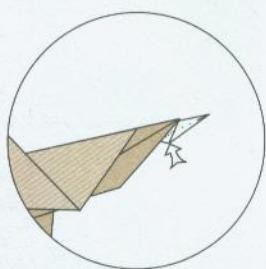
34. Reverse fold head.



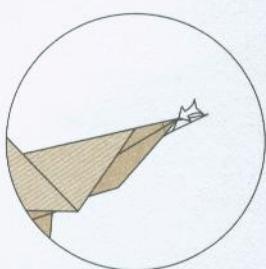
35. Reverse fold head.



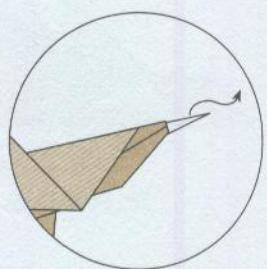
36. Double rabbit ear.



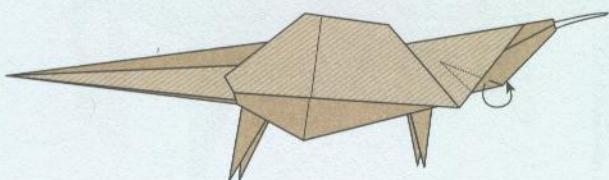
37. Sink tongue to taper.



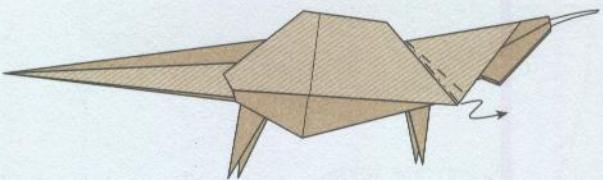
38. Reverse fold.



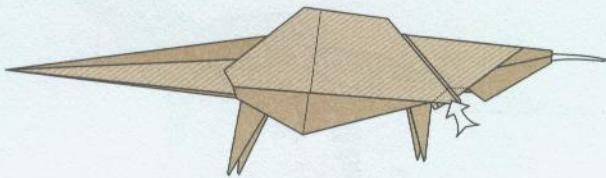
39. Pinch and curl.



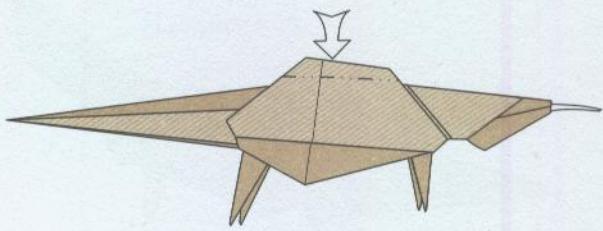
40. Crimp fold to shape head.  
Repeat behind.



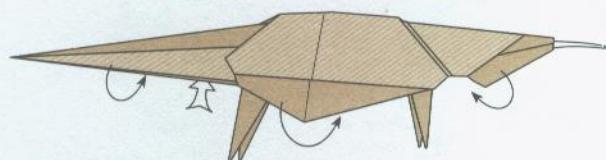
41. Crimp neck downward.



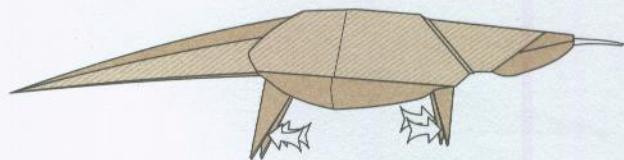
42. Mountain fold the corner  
underneath neck. Repeat behind.



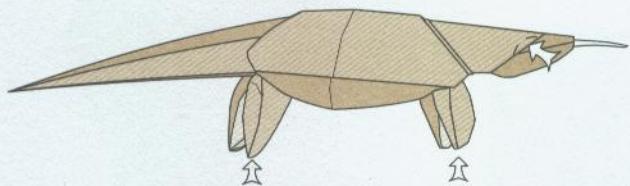
43. Sink the back slightly.



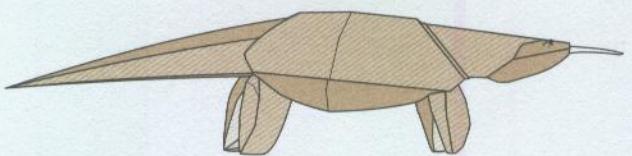
44. Round the body and tail.



45. Explode each leg by pushing  
out some layers from within.

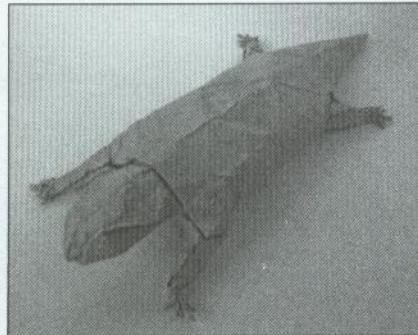


46. Round feet and shape eyes.

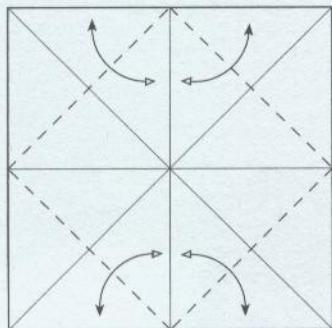


47. Like this.

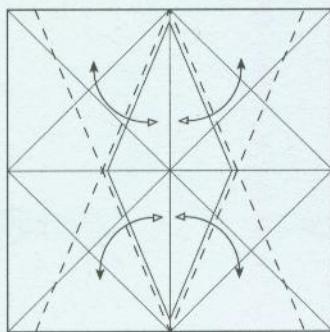
# Gila Monster



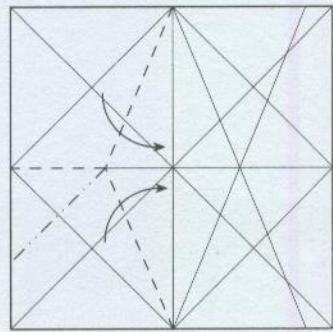
A native to my home of Arizona, the Gila Monster is a tenacious lizard. This model is a branch of my butterfly base, and quite similar to my Komodo Dragon. I like designing aggressive animals, and hope this model captures the Gila's hefty frame.



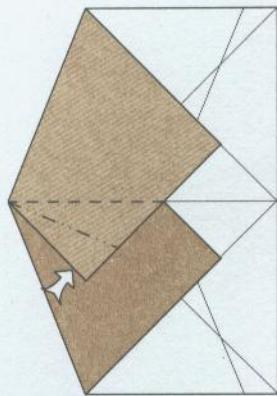
1. With square white side up, blintz four corners. Unfold.



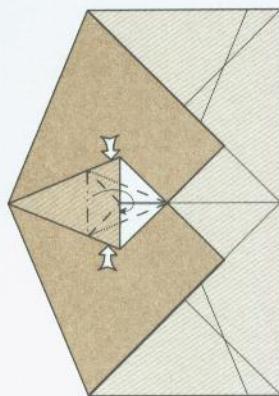
2. Kite fold through angle bisectors. Unfold.



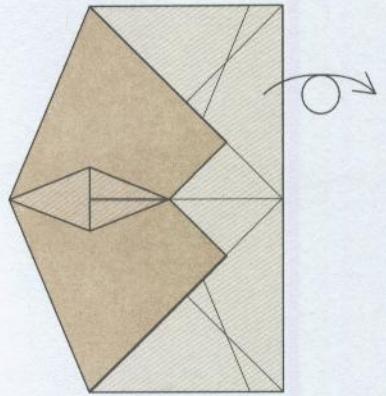
3. Rabbit ear through one side.



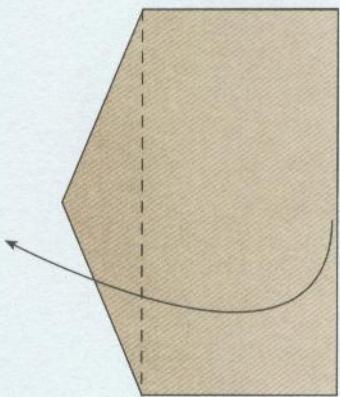
4. Squash fold flap.



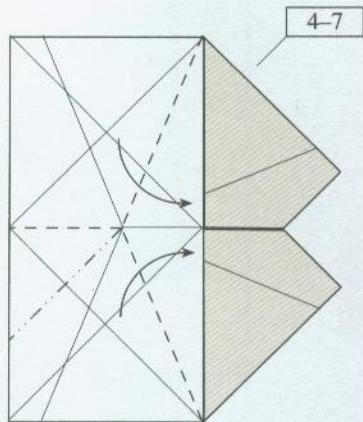
5. Petal fold inside of top layer.



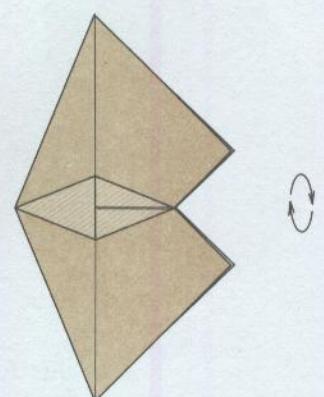
6. Turn model over.



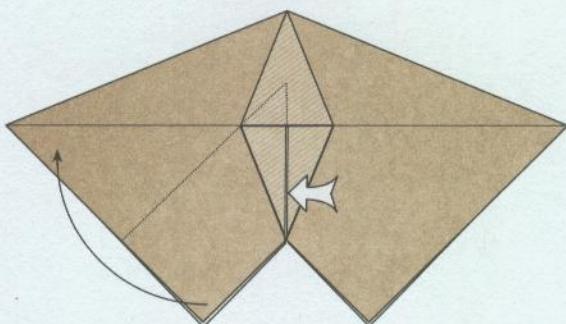
7. Valley fold.



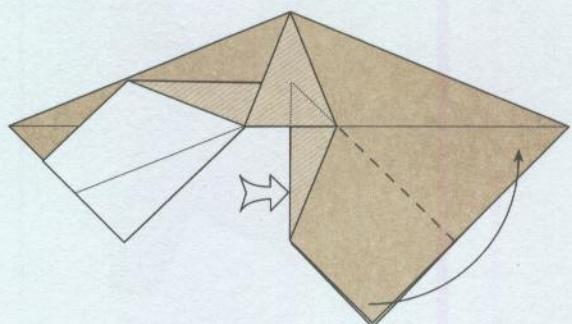
8. Repeat steps 4-7 on this side.



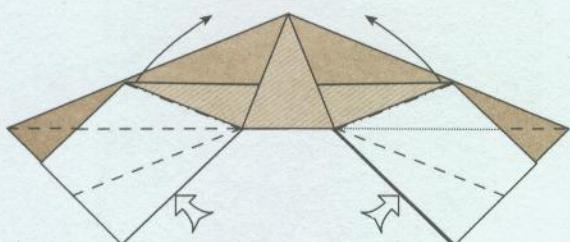
9. Rotate model.



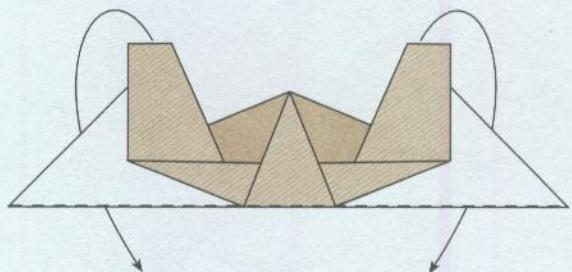
10. Reverse fold. Repeat behind.



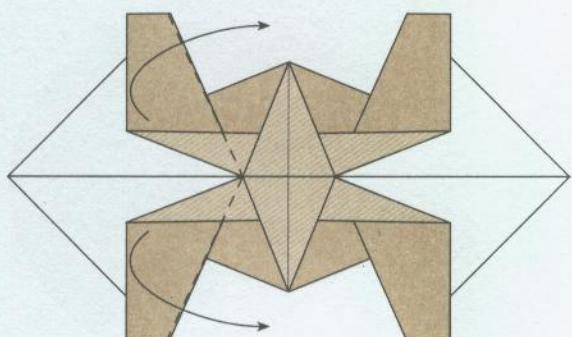
11. Repeat step 10 on right side.



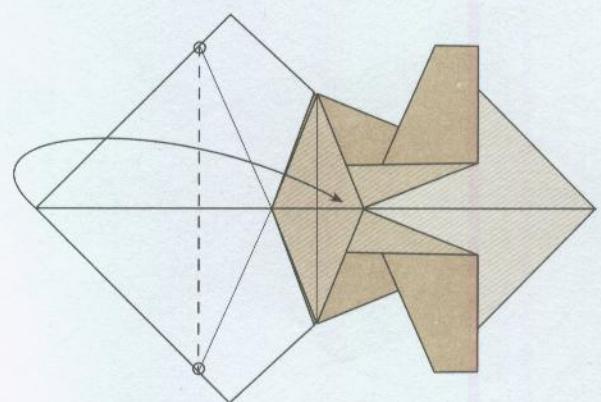
12. Reverse fold on each side.  
Repeat behind.



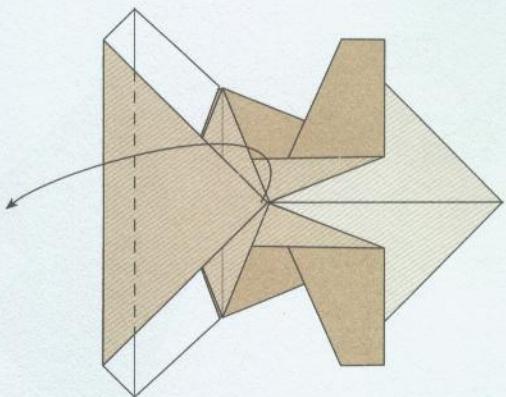
13. Open model.



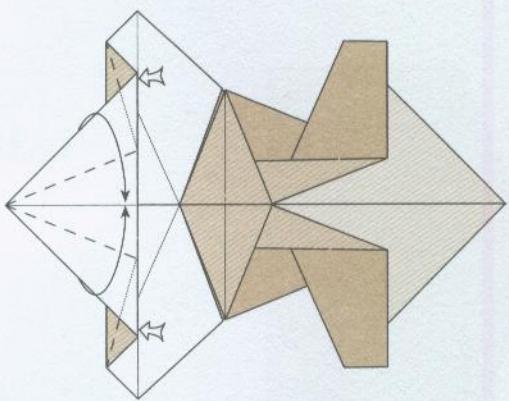
14. Valley fold flaps.



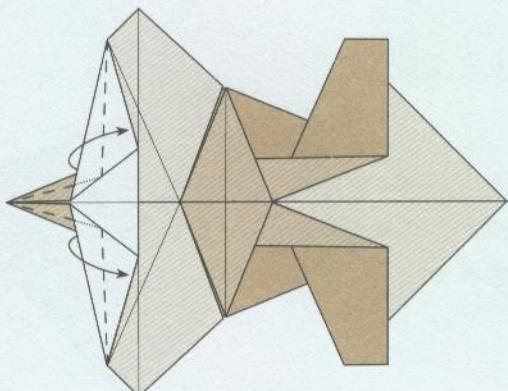
15. Valley fold.



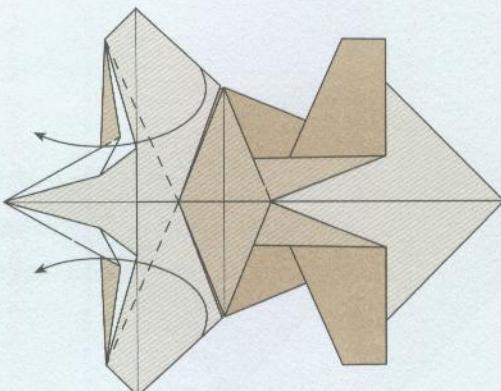
16. Valley fold.



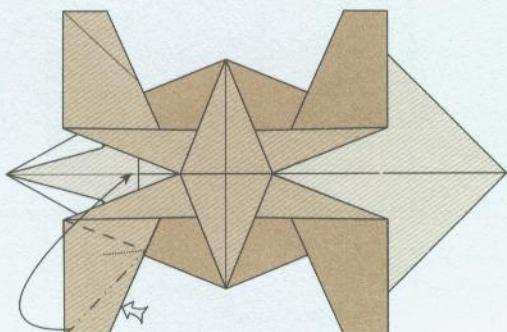
17. Swivel folds.



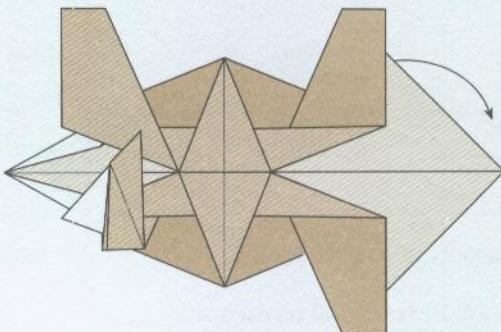
18. Swivel folds.



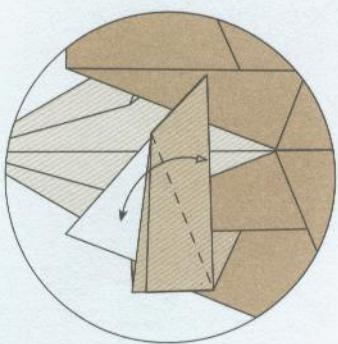
19. Valley folds.



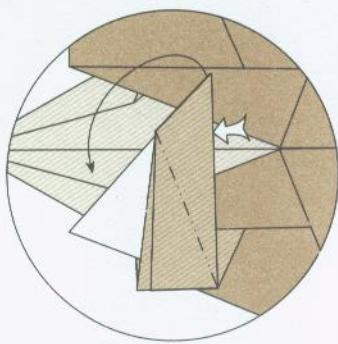
20. Squash fold one side.



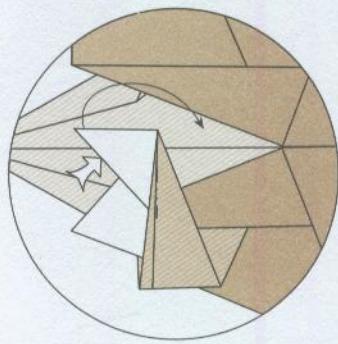
21. Like this.



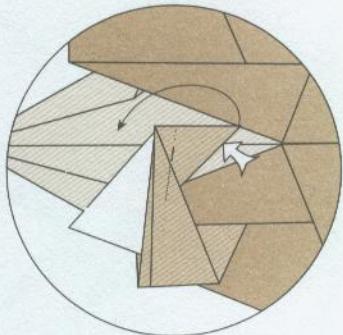
22. Fold and unfold.



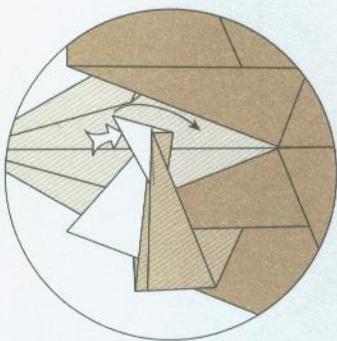
23. Reverse fold.



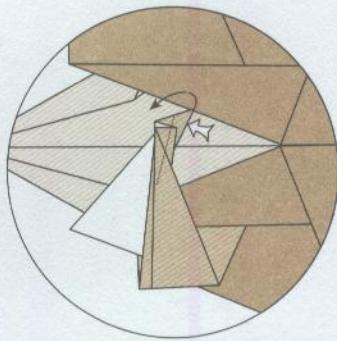
24. Reverse fold.



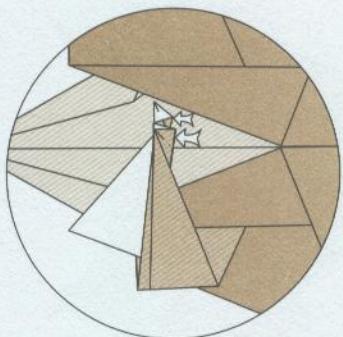
25. Reverse fold.



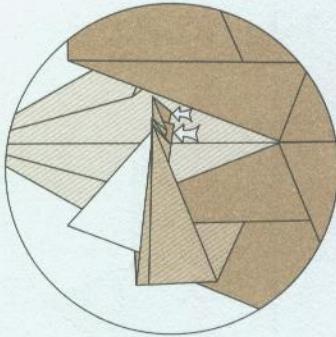
26. Reverse fold.



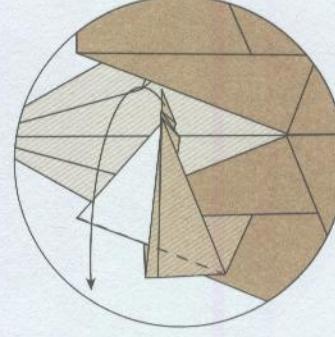
27. Reverse fold.



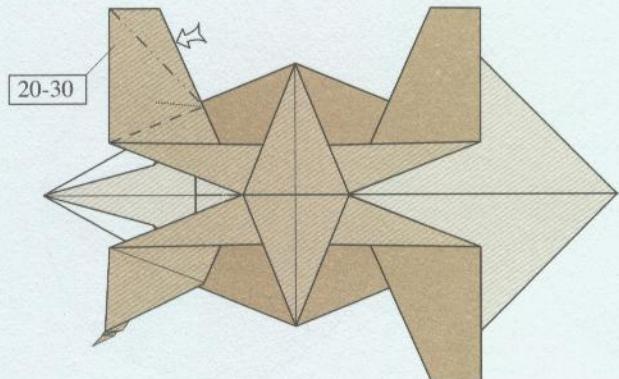
28. Reverse fold toes.



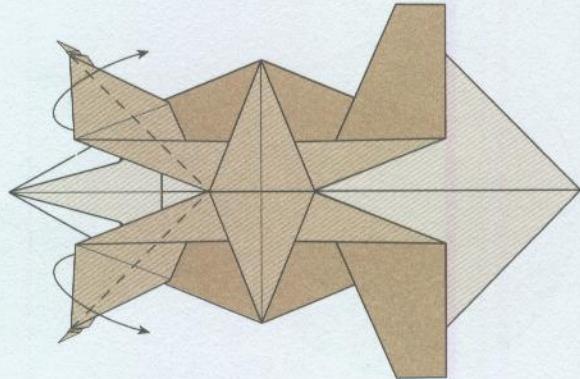
29. Reverse fold toes.



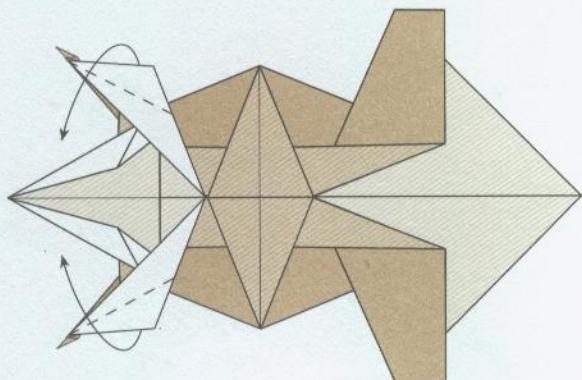
30. Valley fold leg.



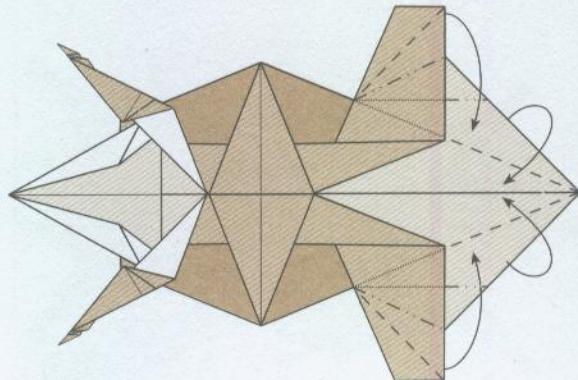
31. Repeat steps 20-30 above.



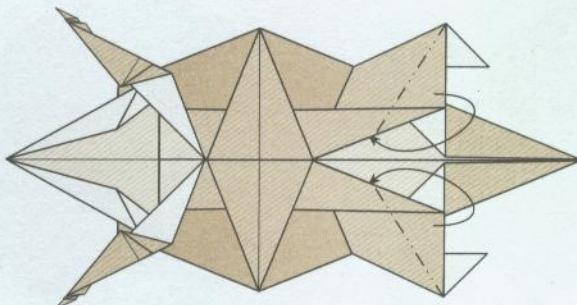
32. Valley folds.



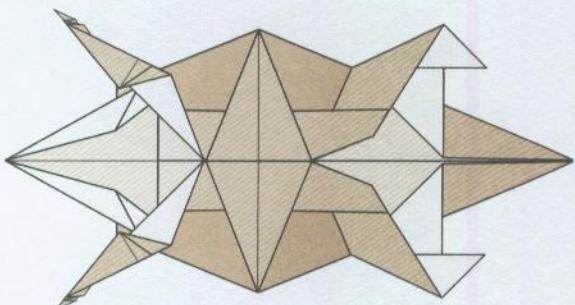
33. Valley folds.



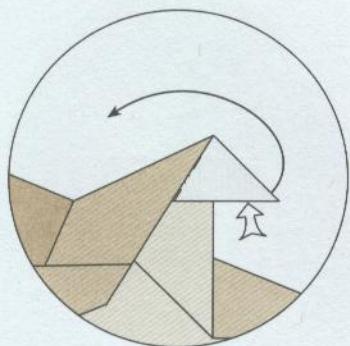
34. Swivel fold back legs.



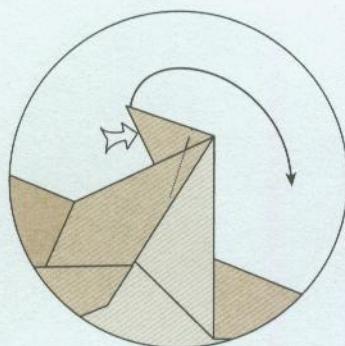
35. Mountain fold the flaps behind.



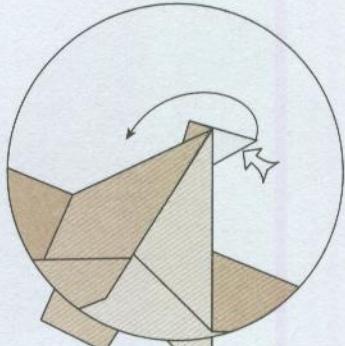
36. Like this.



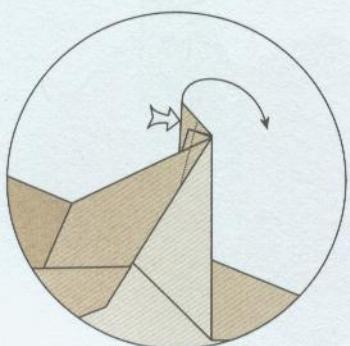
37. Reverse fold.



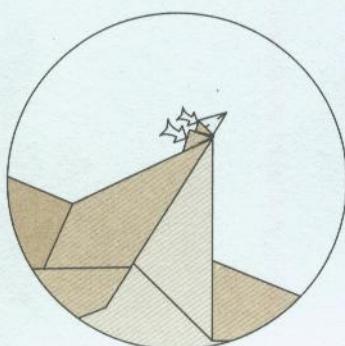
38. Reverse fold.



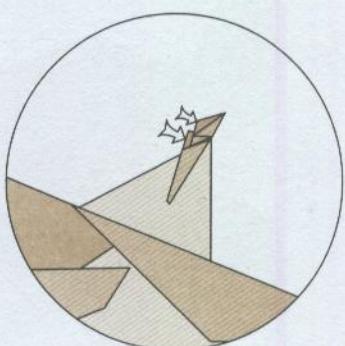
39. Reverse fold.



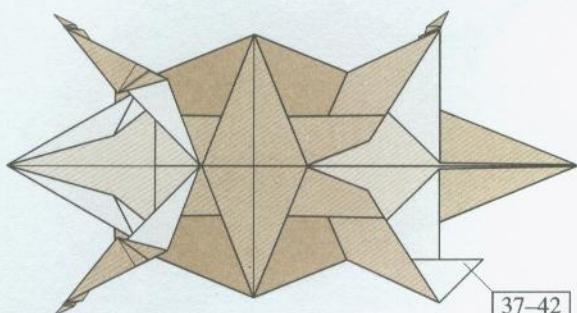
40. Reverse fold.



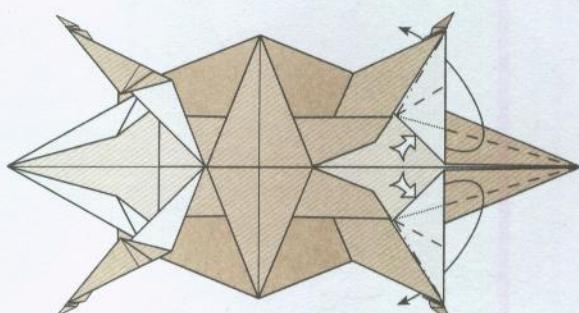
41. Reverse fold toes.



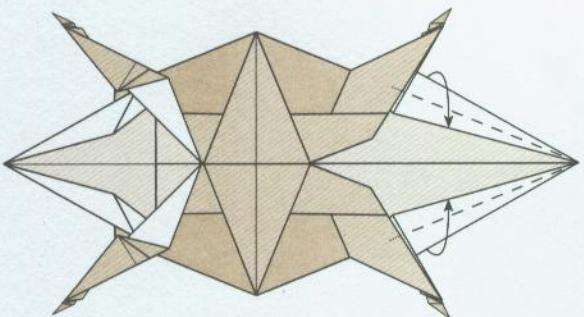
42. Reverse fold toes.



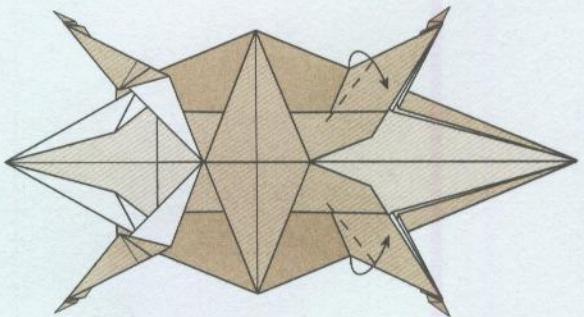
43. Repeat steps 37-42 below.



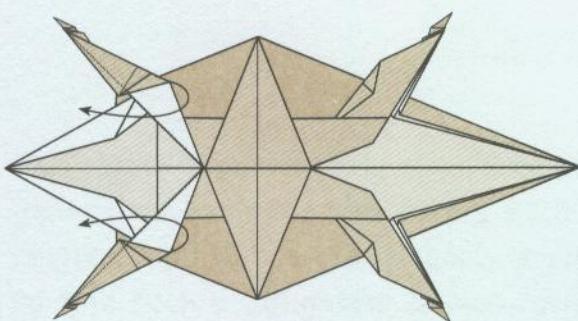
44. Swivel fold at 1/3rds.



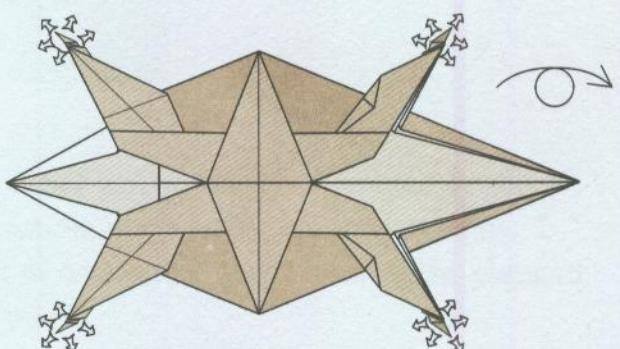
45. Swivel folds.



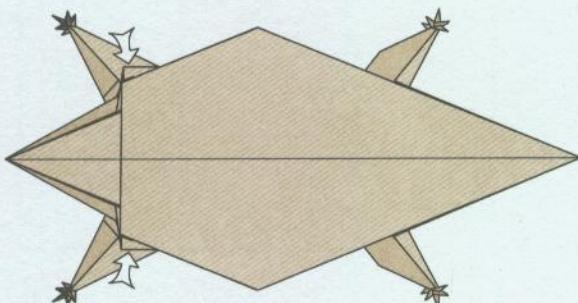
46. Valley folds.



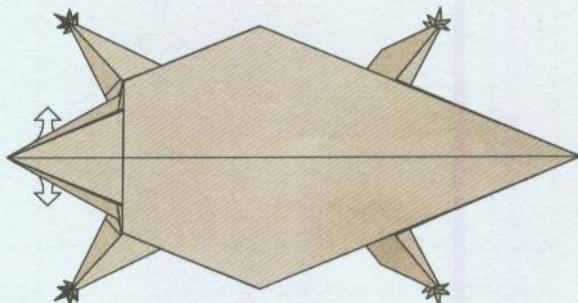
47. Valley fold flaps of legs. Some paper will tuck behind.



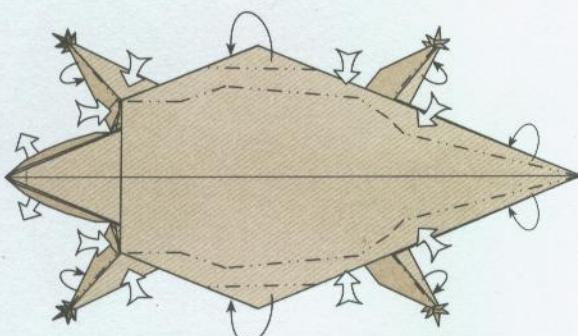
48. Spread and squash each toe.  
Turn model over.



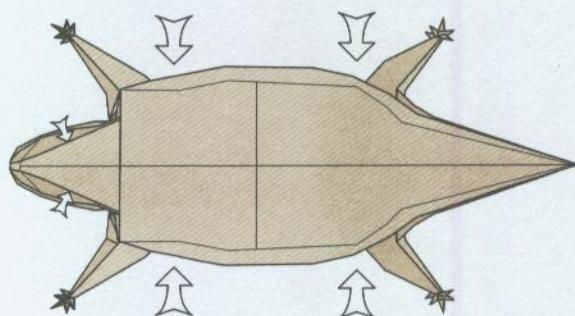
49. Reverse folds.



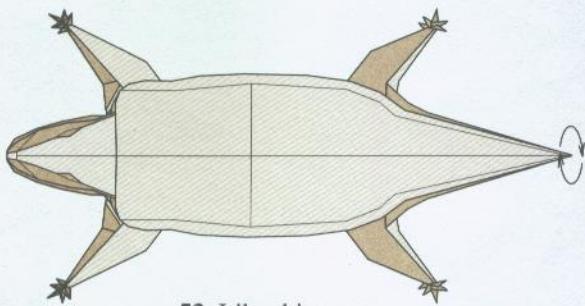
50. Unpleat sides of head.



51. Unpleat sides of head again.  
Shape each leg and round body.

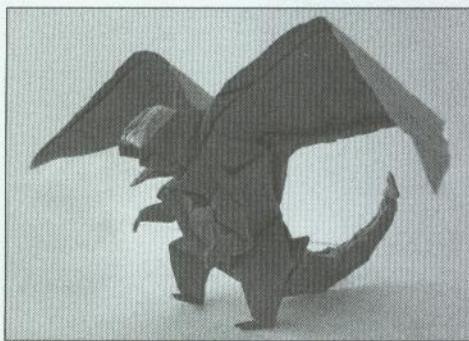


52. Continue rounding the body.  
Each leg is rounded from beneath.

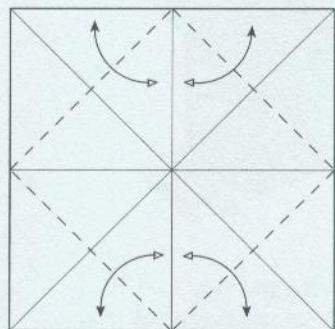


53. Like this.

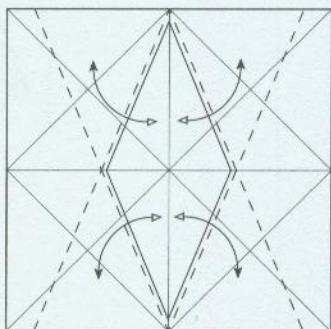
# Demon



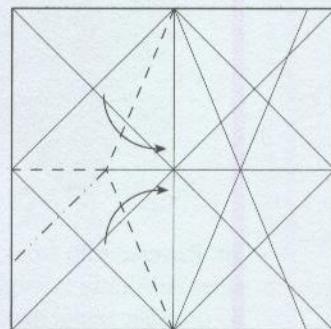
This model is particularly special to me because I set out to design a winged creature, generated from the reoccurring  $22.5^\circ$  diamond found in so many origami designs. I realize that this angle is simply a consequence of bisection, but I was quite pleased to find such a delightful Demon form from its root.



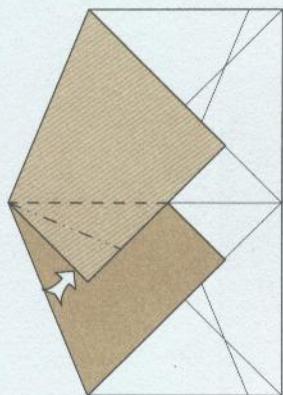
1. With square white side up, blintz four corners. Unfold.



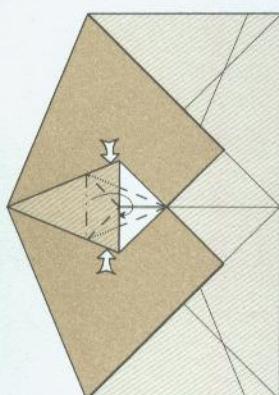
2. Kite fold through angle bisectors. Unfold.



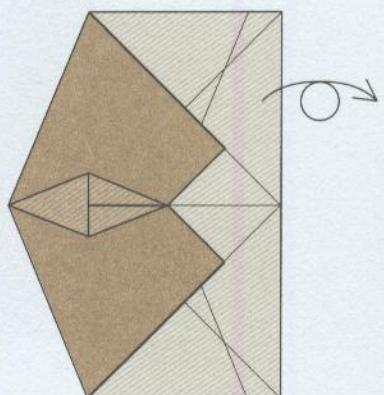
3. Rabbit ear through one side.



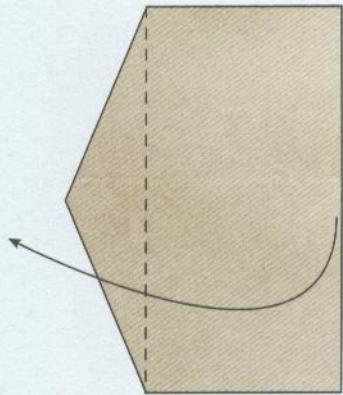
4. Squash fold flap.



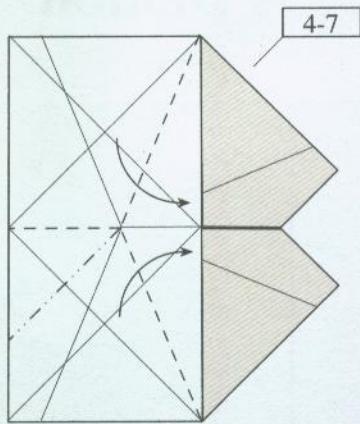
5. Petal fold inside of top layer.



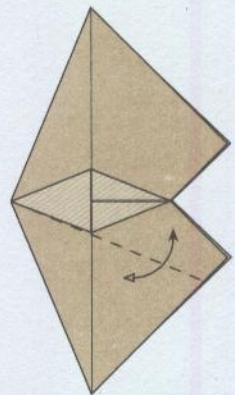
6. Turn model over.



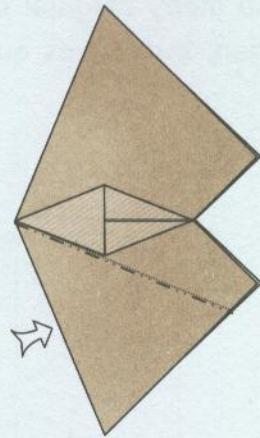
7. Valley fold.



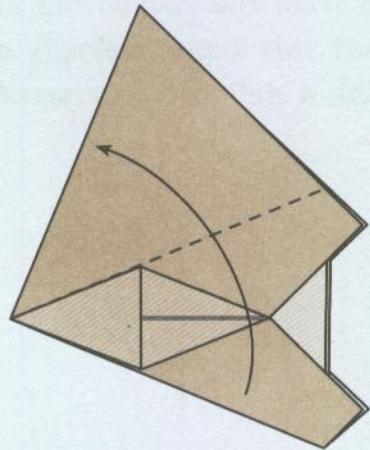
8. Repeat steps 4-7 on this side.



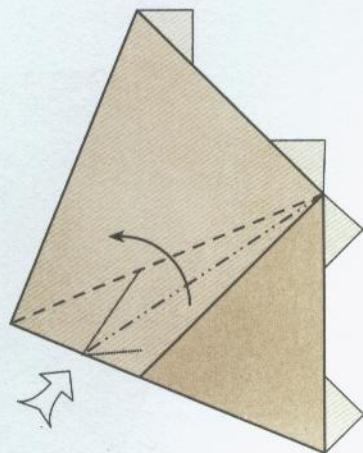
9. Valley fold through all layers.  
Unfold.



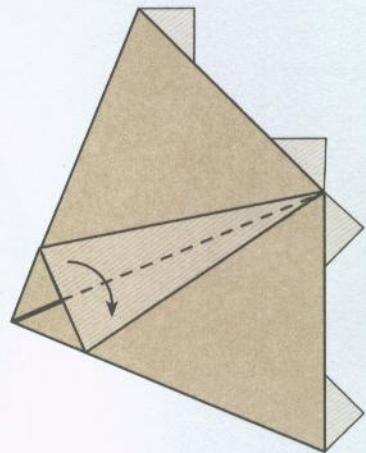
10. Reverse fold front and back  
sides uniformly through all layers,  
by opening and collapsing model.



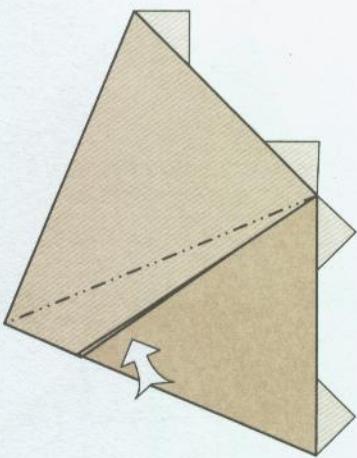
11. Valley fold upper layers.



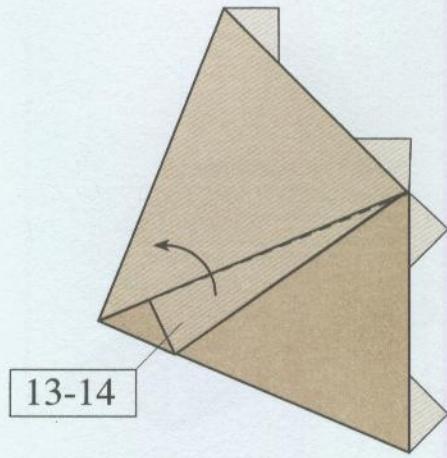
12. Spread sink middle flap.



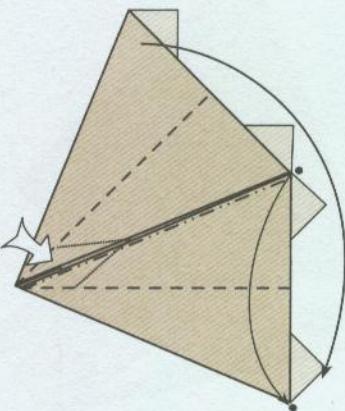
13. Valley fold small middle flap.



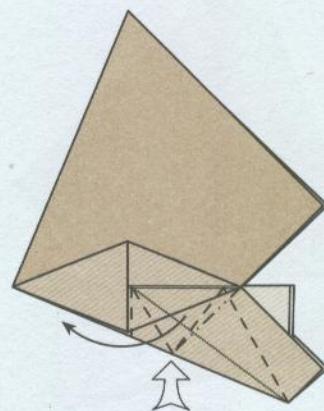
14. Perform a closed sink on middle flap.



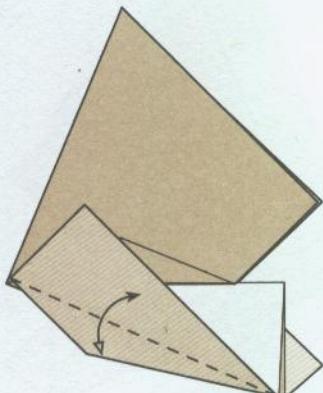
15. Repeat steps 13-14 in mirror symmetry.



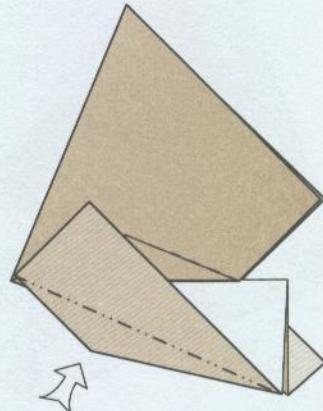
16. Close large flap while incorporating reverse fold shown. A small gusset will form in the interior region. Dots lie together.



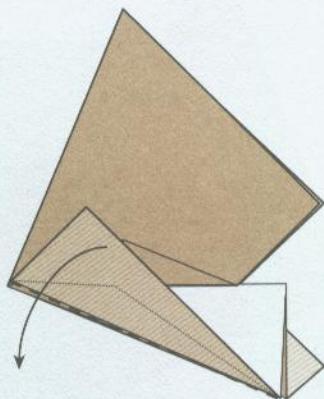
17. Swing flap to left, incorporating squash fold, to form leg assembly. Observe X-ray creases for clarification.



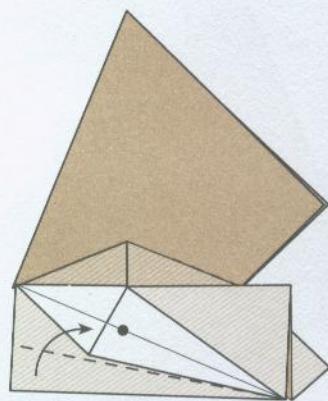
18. Valley fold flap upward. Unfold.



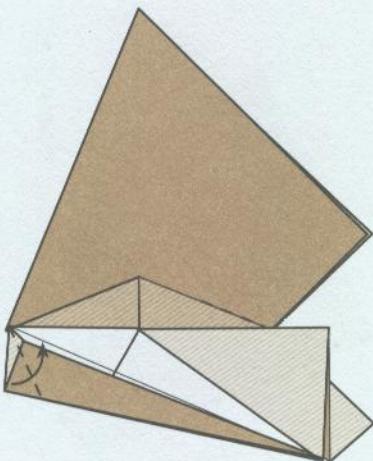
19. Perform a closed sink fold on flap.



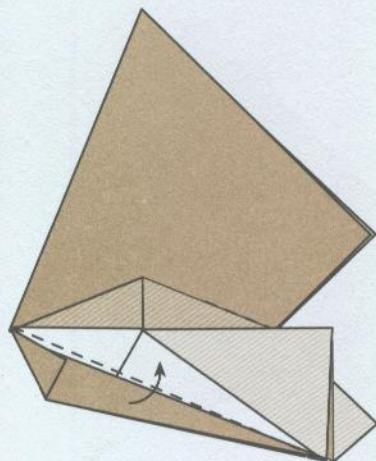
20. Fold two layers down, large and small.



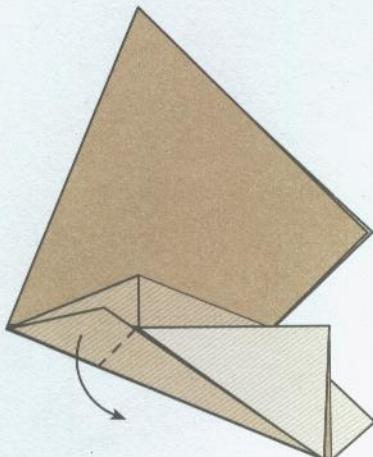
21. Valley fold raw edge to indicated crease.



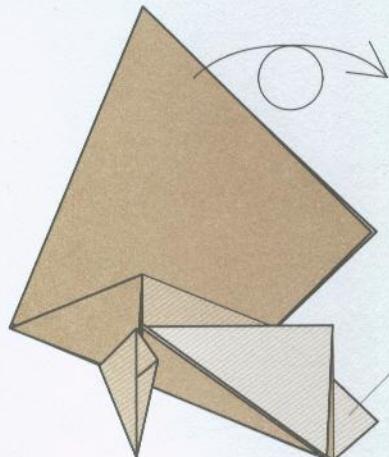
22. Valley fold raw edge to crease.



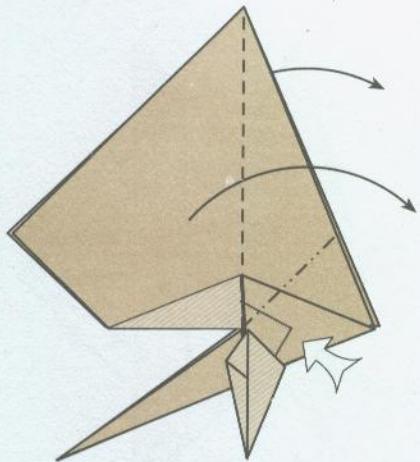
23. Valley fold flap back up.



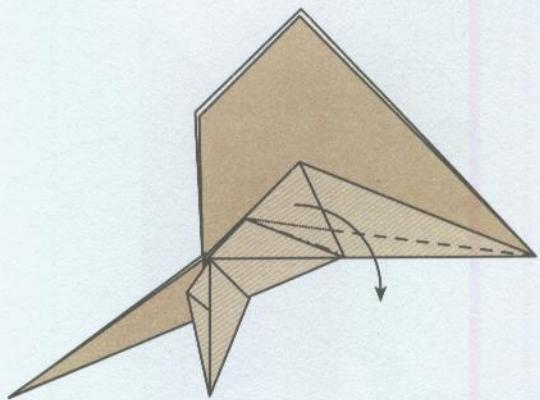
24. Valley fold leg down.



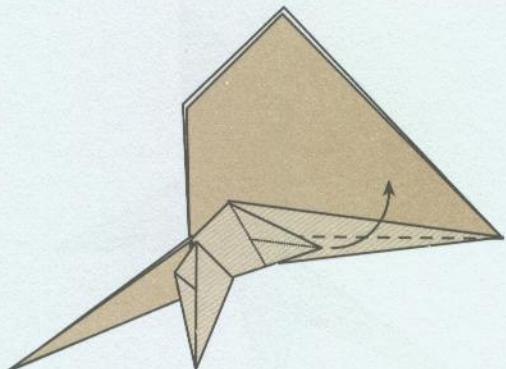
25. Turn model over, then repeat steps 17-24 on other side.



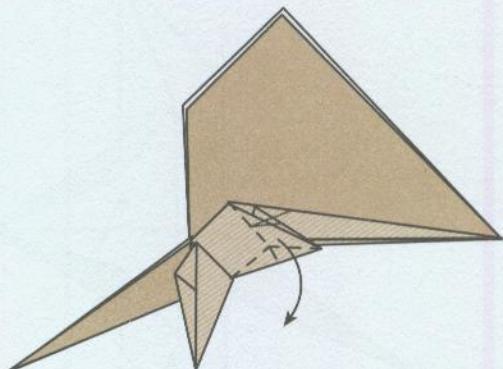
26. Crimp wings to form neck.  
Spread squash interior layer  
symmetrically to form chest plate.



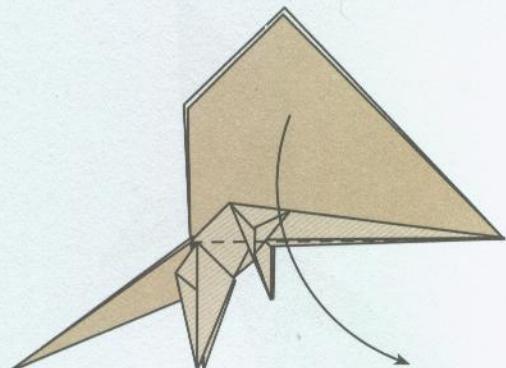
27. Reverse fold to thin neck.  
Repeat behind.



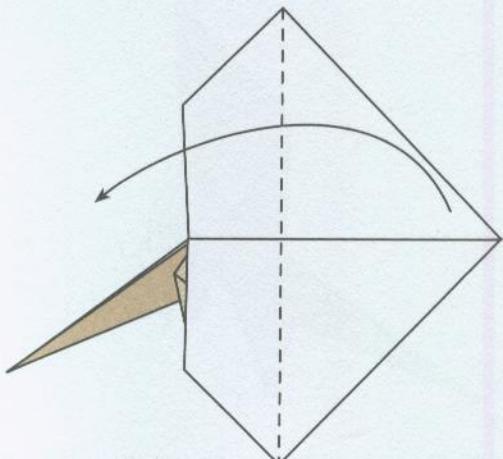
28. Reverse fold again. Repeat  
behind.



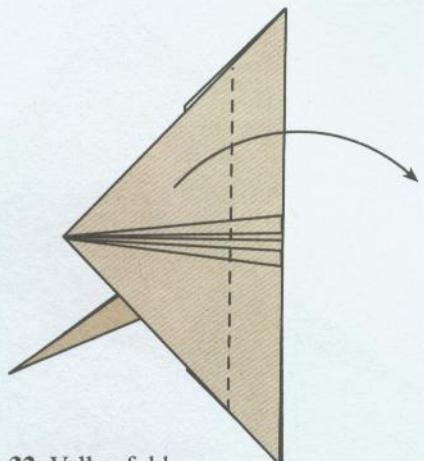
29. Rabbit ear arm, forming gusset  
in shoulder. Repeat behind.



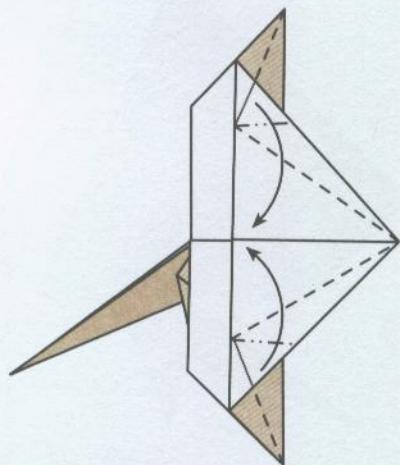
30. Open by folding near wing  
down.



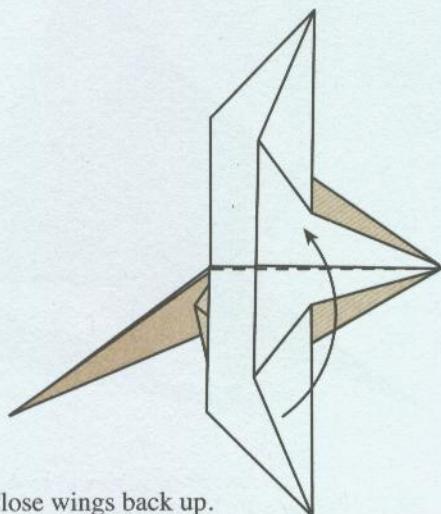
31. Valley fold.



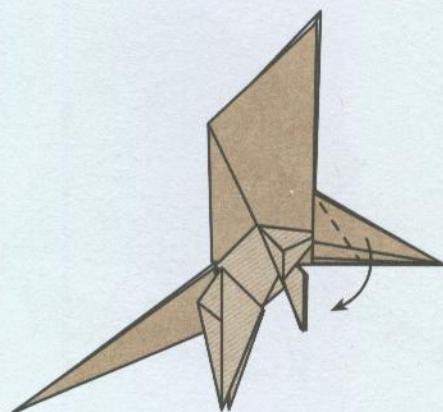
32. Valley fold.



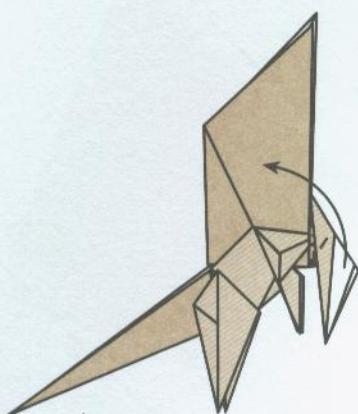
33. Thin neck with swivel folds.



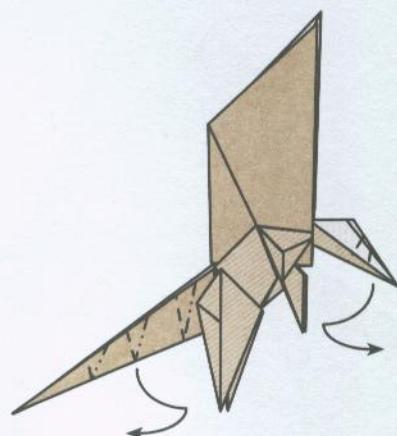
34. Close wings back up.



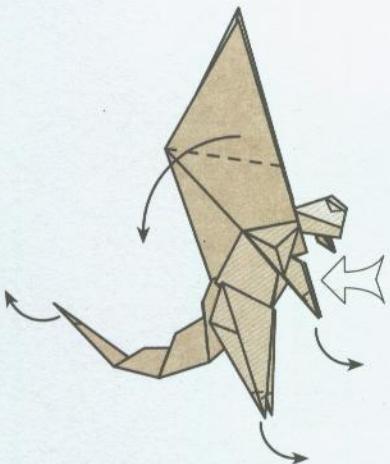
35. Outside reverse fold.



36. Crimp head back and upward between wings.



37. Reverse fold head into jaw.  
Define tail with reverse folds.

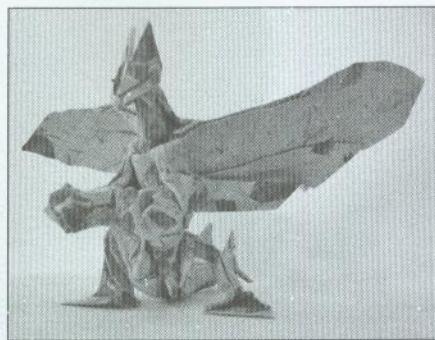


**38.** Squash tip of tail, hands, and feet. Bend a layer to form eye sockets. Spread chest plate. Shape to taste.

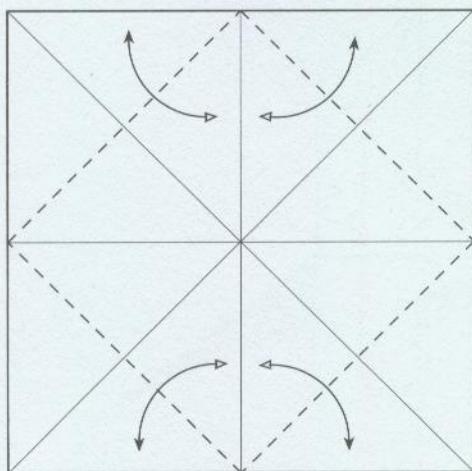


**39.** Open mouth with valley and enjoy.

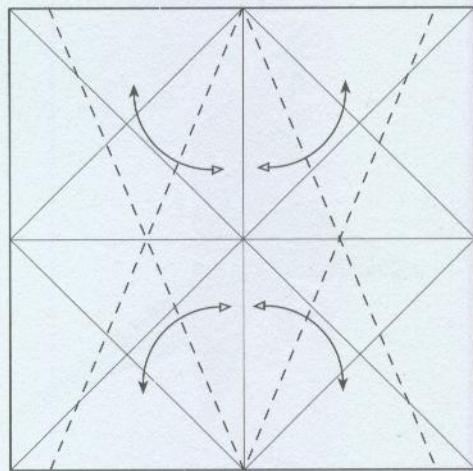
# Dragon



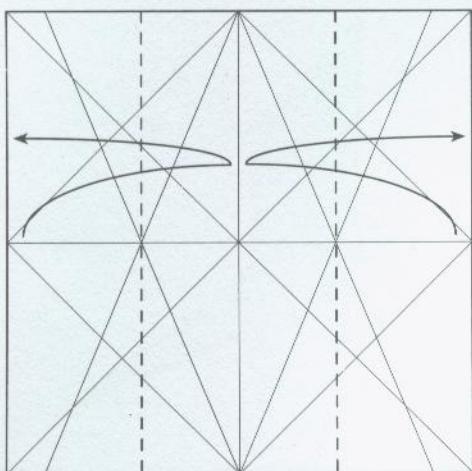
The Dragon is a complicated deviant of the Demon model. It utilizes extensive grafting at the outset to produce horns, fingers, toes, and an expanded wingspan.



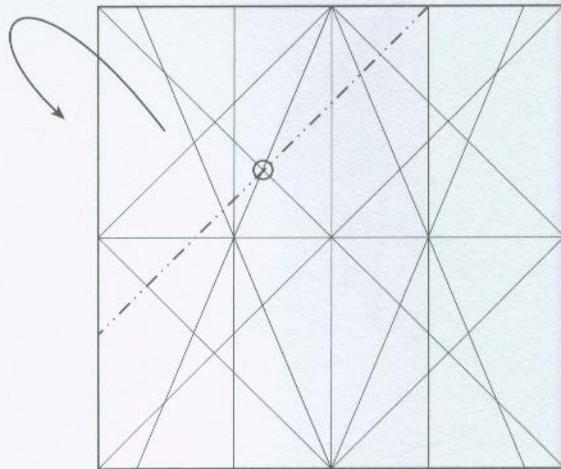
1. With square white side up,  
blintz four corners. Unfold.



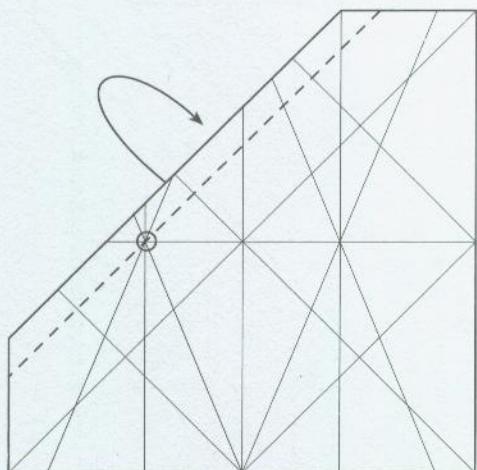
2. Kite fold through angle  
bisectors. Unfold.



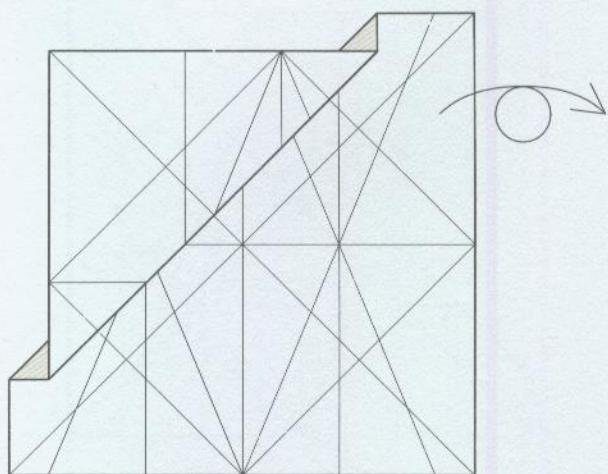
3. Valley folds. Unfold.



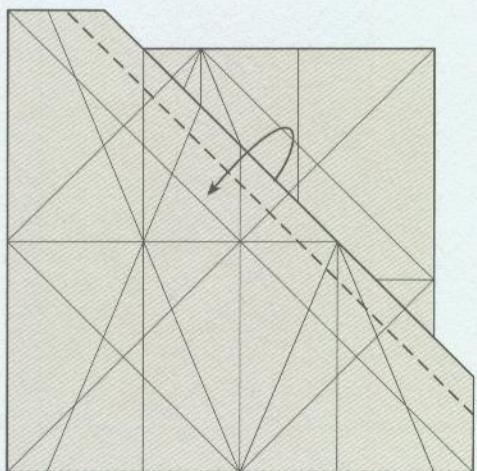
4. Mountain fold.



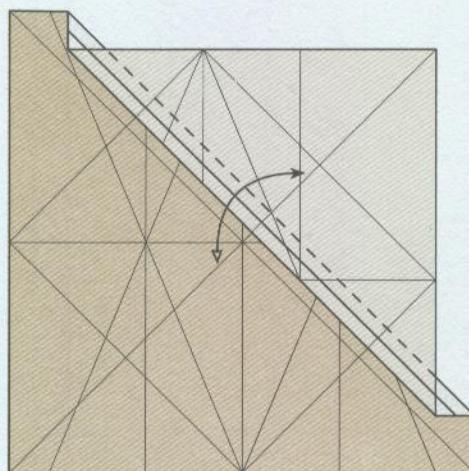
5. Valley fold.



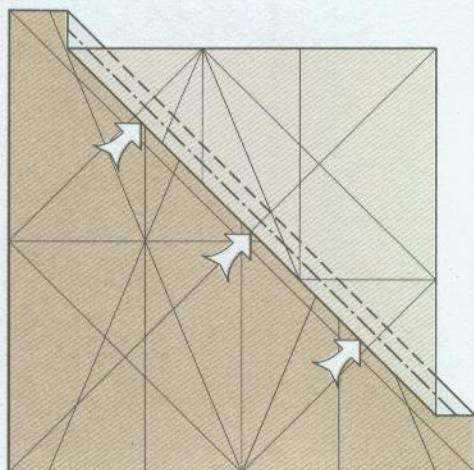
6. Turn model over.



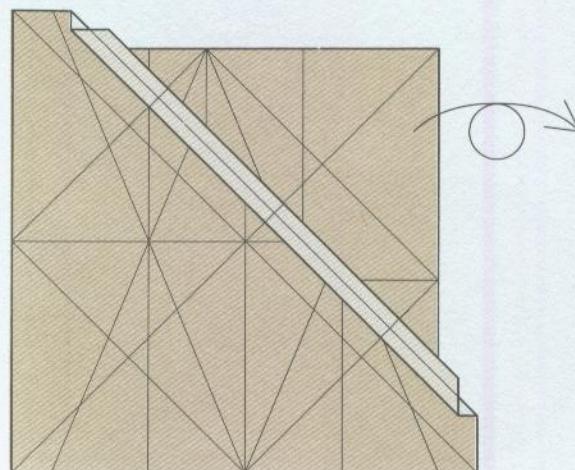
7. Valley fold along hidden edge.



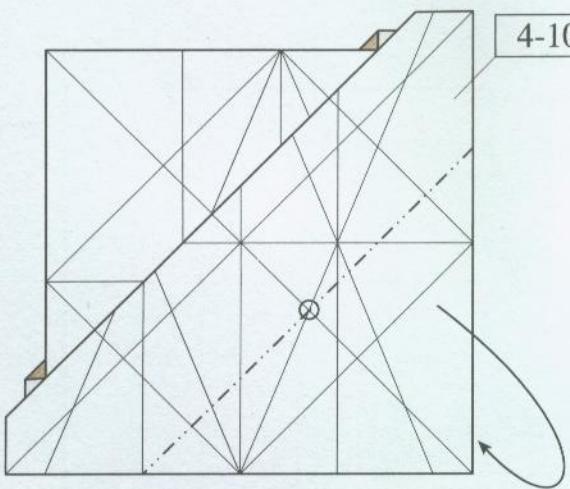
8. Bisect. Unfold.



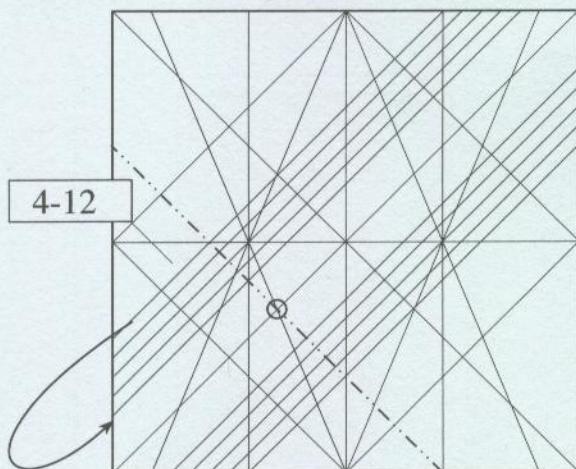
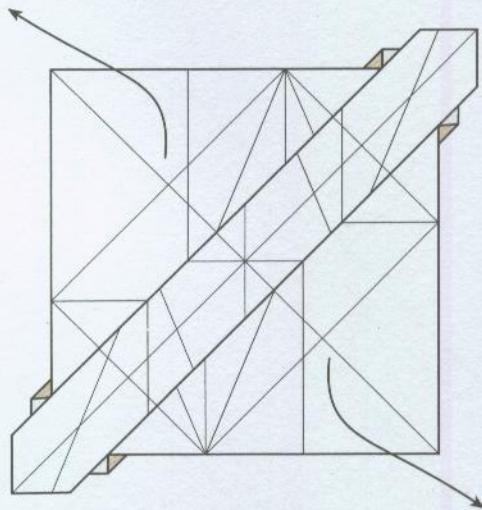
9. Squash fold along existing creases.



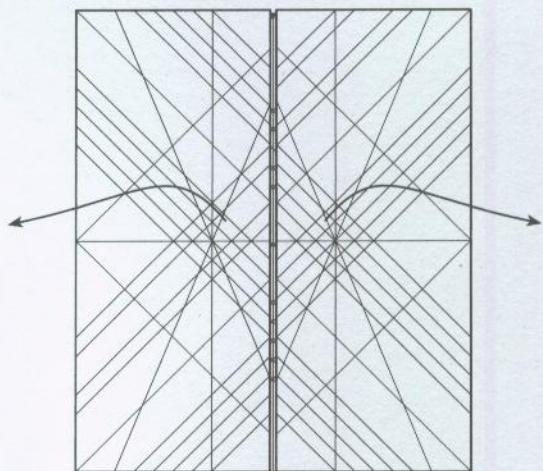
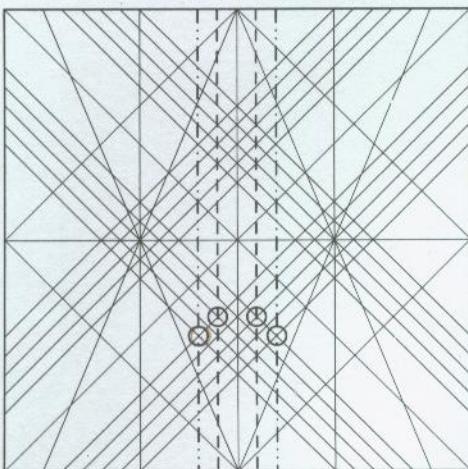
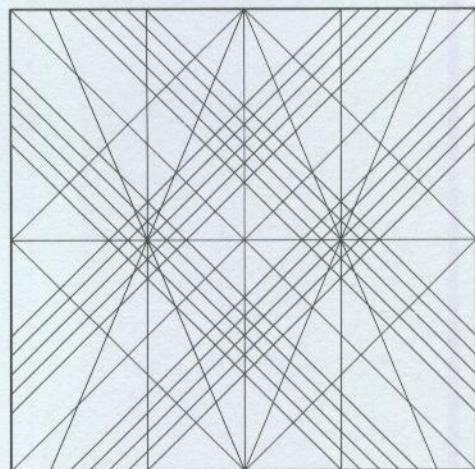
10. Turn model over.

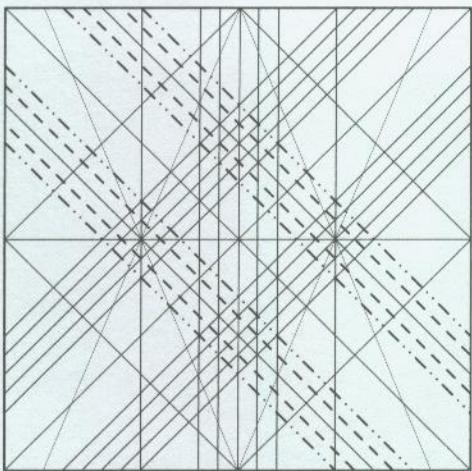


11. Repeat steps 4-10 on the opposite corner.

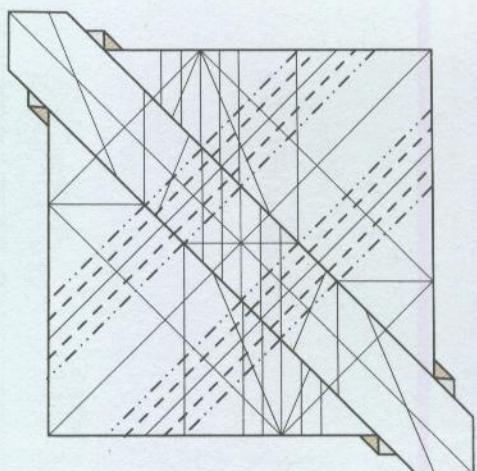


13. Repeat steps 4-12 on the remaining corners.

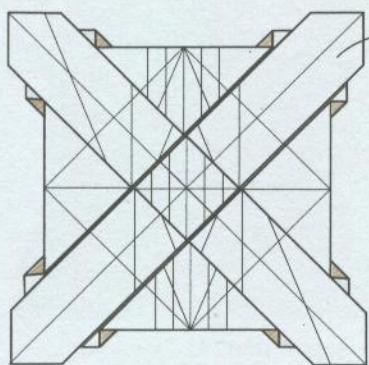




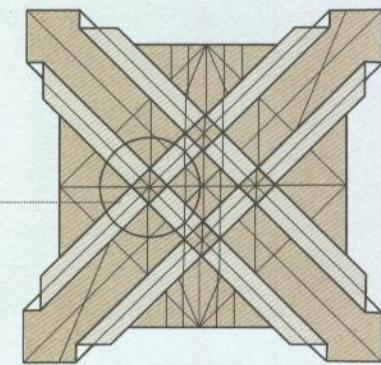
17. Repleat indicated creases.



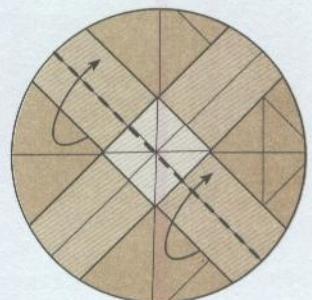
18. Repleat indicated creases.



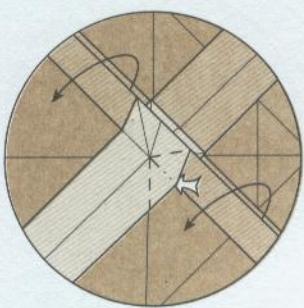
19. Like this.



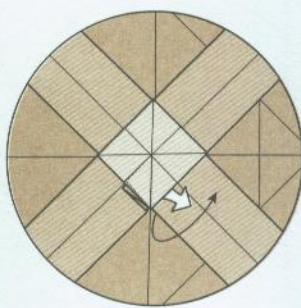
20. Focus here.



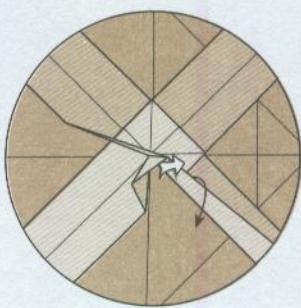
21. Lift lower edge.



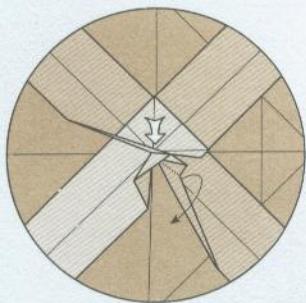
22. Lay flap back down,  
incorporating a reverse fold.



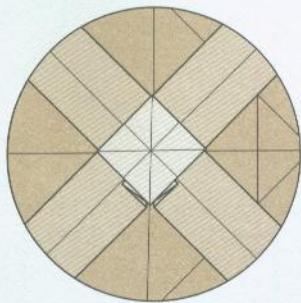
23. Lift up the flap again, and  
unsink corner to match left side.



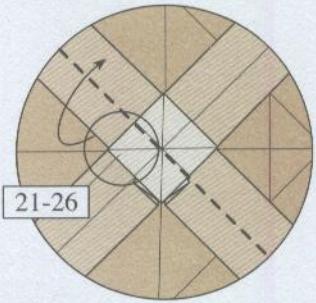
24. ...in process, unsink.



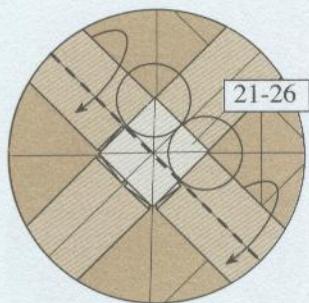
25. ...lay flat.



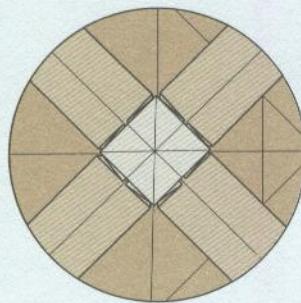
26. Like this.



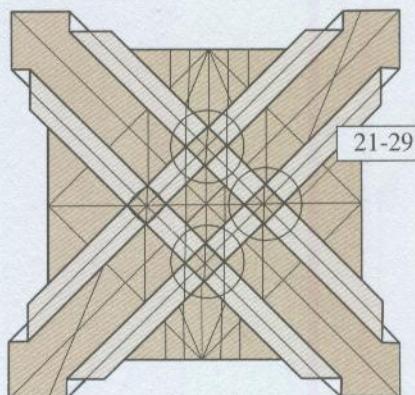
27. Repeat 21-26 on this corner.



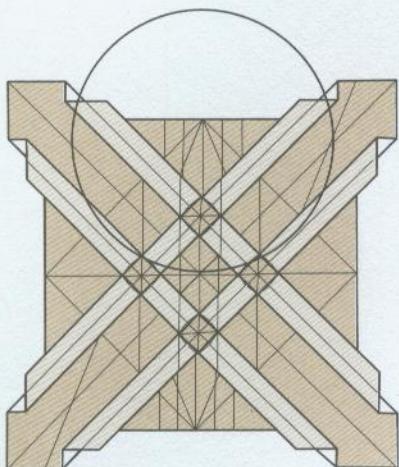
28. Repeat steps 21-26 on remaining two corners.



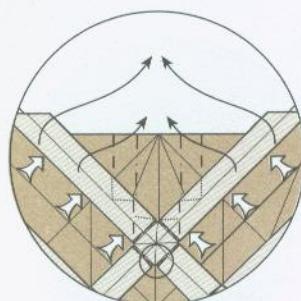
29. Like this.



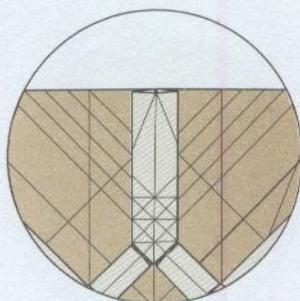
30. Repeat steps 21-29 on the remaining corners.



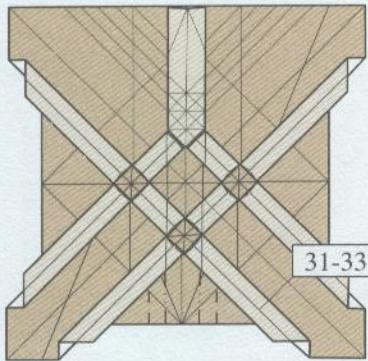
31. Focus here.



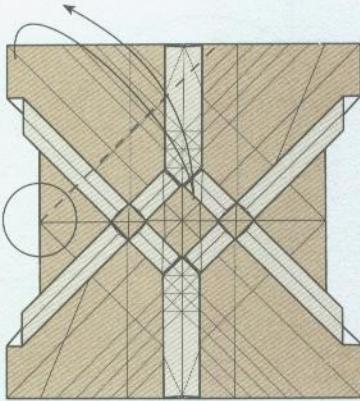
32. Keeping circled corner intact, stretch pleats to reform a portion of the pleat formed in step 15.



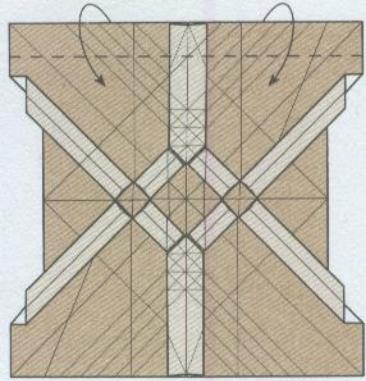
33. Like this.



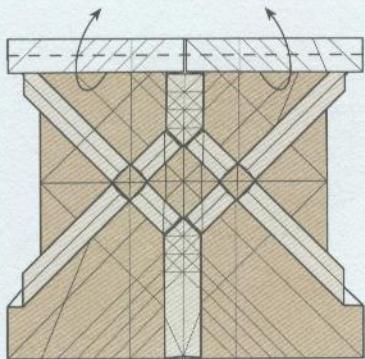
34. Repeat steps 31-33 on the bottom half of the model.



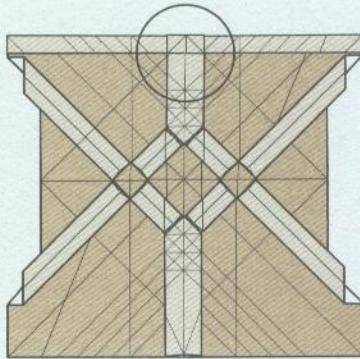
35. Valley fold at  $45^\circ$ . Unfold.



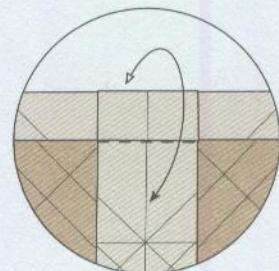
36. Valley fold through crease intersection.



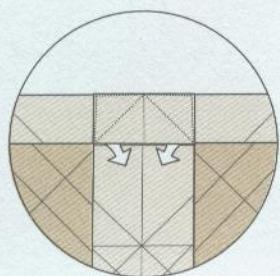
37. Valley fold.



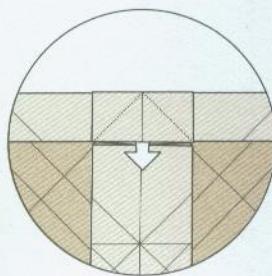
38. Focus here.



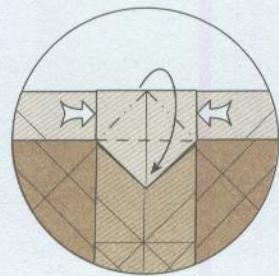
39. Crease through all layers, then Unfold.



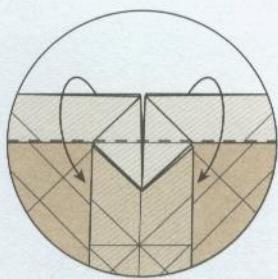
40. Reverse fold hidden corners.



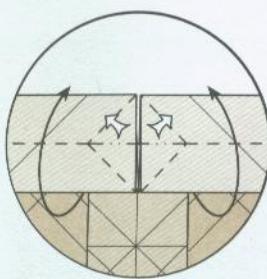
41. Unsink triangular region.



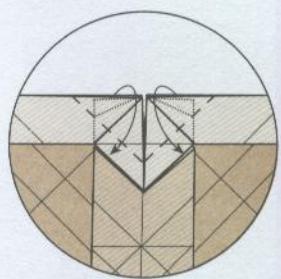
42. Squash fold top layer.



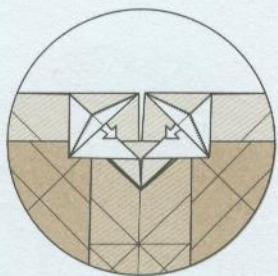
**43.** Valley fold top layer. If the paper seems locked, then you must reform step 41.



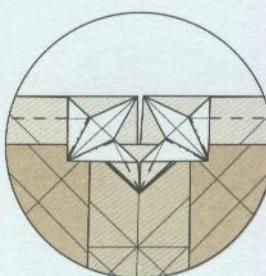
**44.** Fold back, incorporating reverse folds.



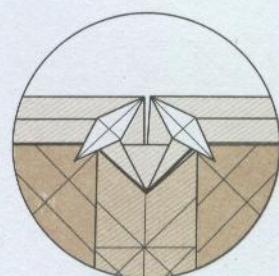
**45.** Valley fold each corner, forming a half petal beneath.



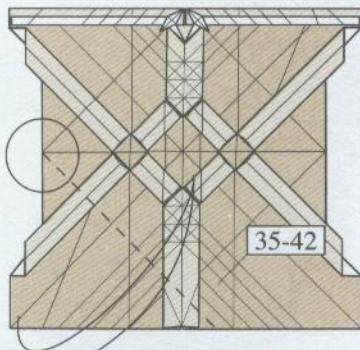
**46.** Unsink each petal.



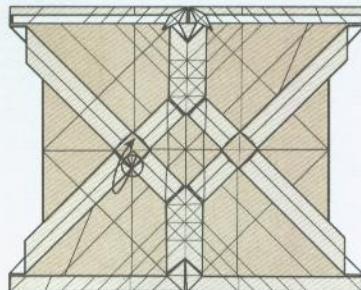
**47.** Swivel fold each side of the petals underneath.



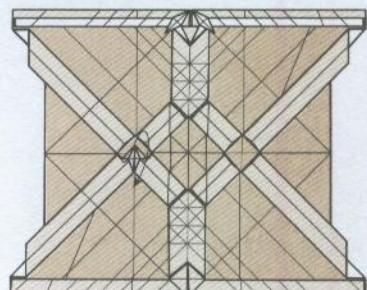
**48.** Like this.



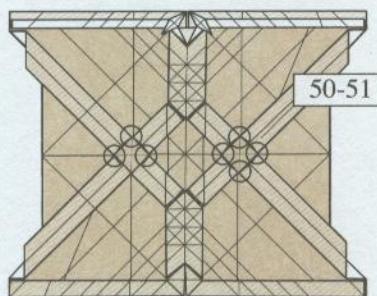
**49.** Repeat steps 35-42 on lower half of model.



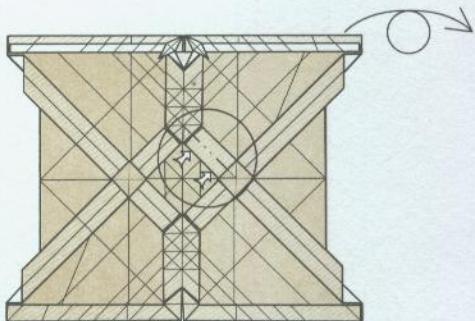
**50.** Petal fold small corner.



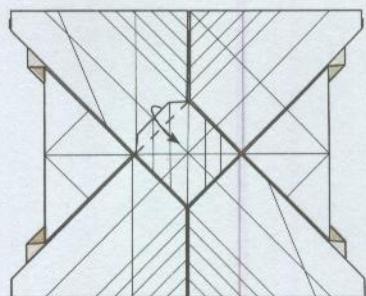
**51.** Fold the flap back down.



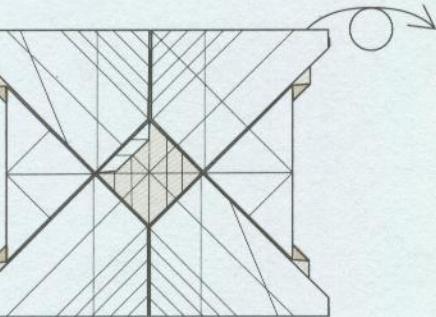
52. Repeat steps 50-51 on these remaining corners.



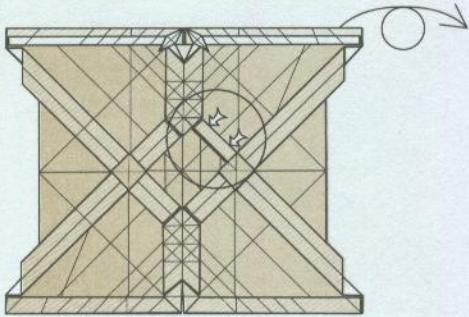
53. Sink half of pleat beneath the model. Turn model over.



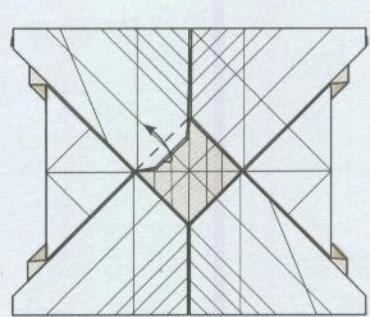
54. Valley fold the flap toward the center.



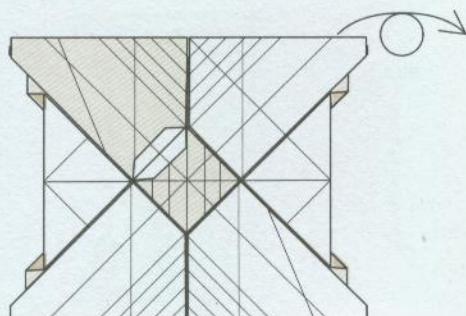
55. Turn model over.



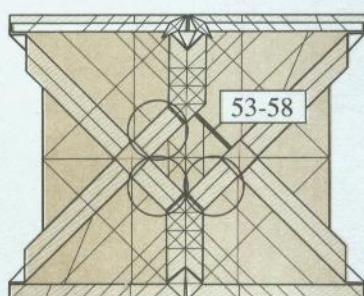
56. Sink other half of pleat beneath the model. Turn model over.



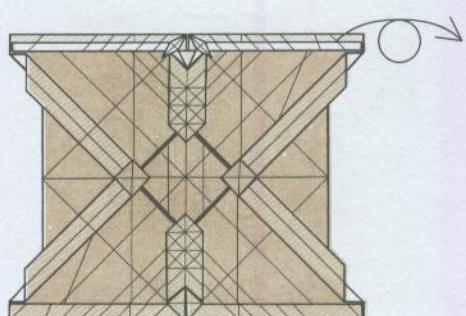
57. Valley fold the flap outward.



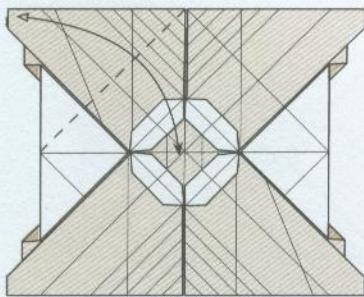
58. Turn model over.



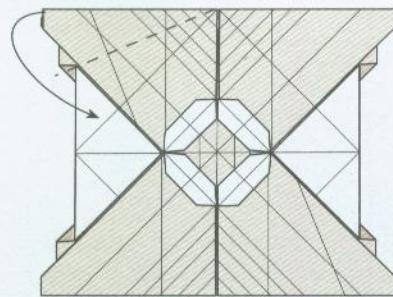
59. Repeat steps 53-58 on three more interior pleats.



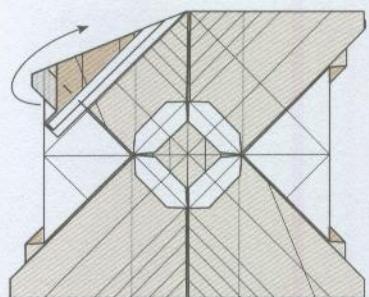
60. Turn model over, left to right.



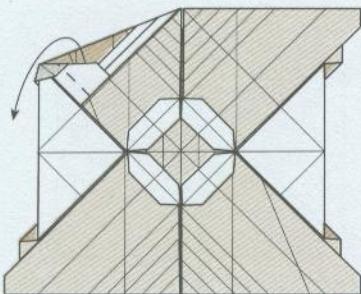
61. Fold at  $45^\circ$  and unfold.



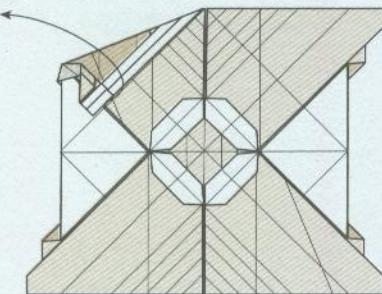
62. Valley fold at  $22.5^\circ$ .



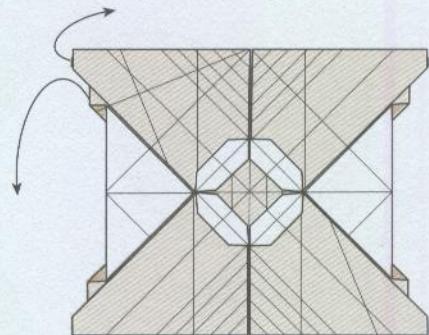
63. Valley fold top layer, squashing at apex.



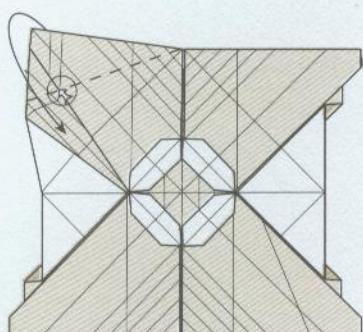
64. Valley fold again, aligning with pleats beneath.



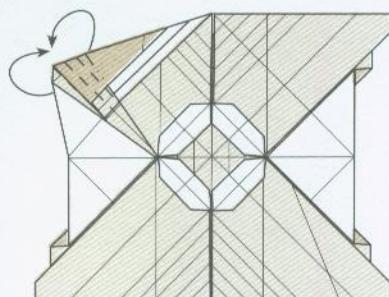
65. Like this. Unfold to step 62.



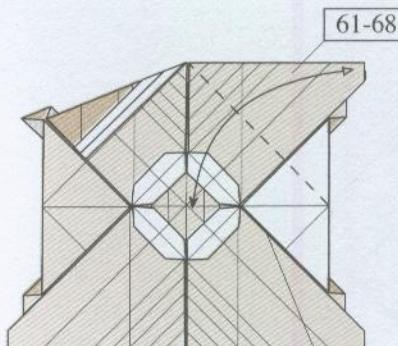
66. Spread open pleat.



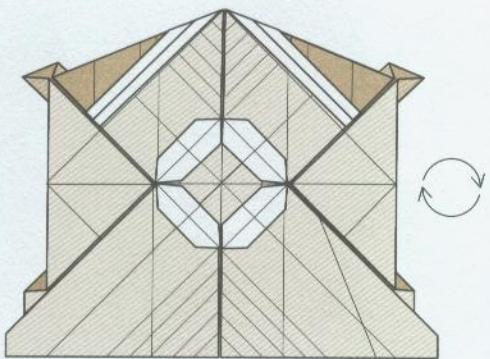
67. Pop the indicated point, and valley the corner to lay inside the pleat.



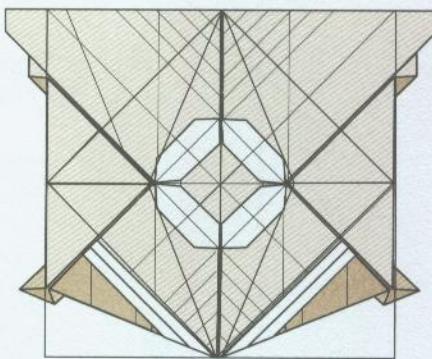
68. Refold the pleat using the existing creases.



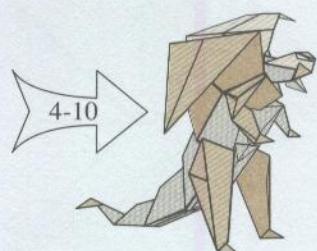
69. Repeat steps 61-68 on right.



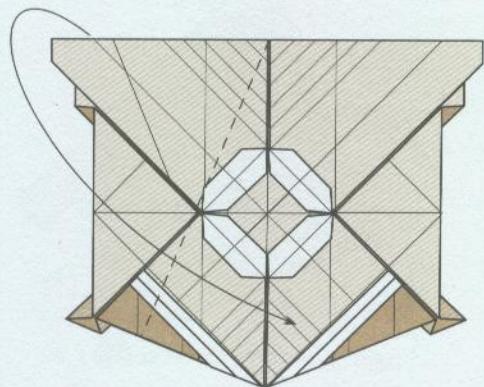
70. Rotate model.



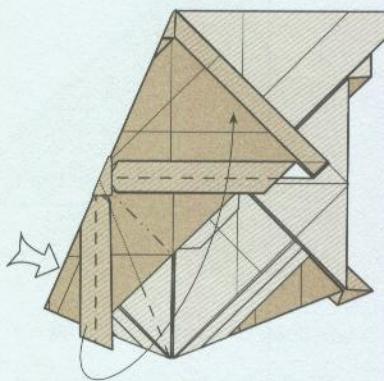
71. Note crease structure.



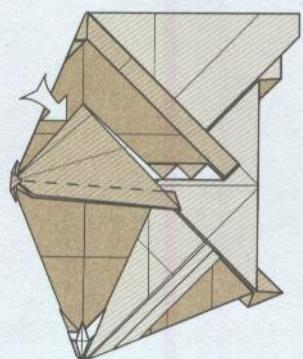
72. We will now be folding steps 4-10 of the Demon.



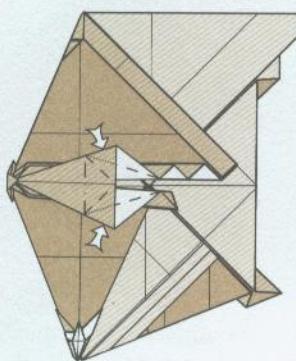
73. Valley fold through  $22.5^\circ$ .



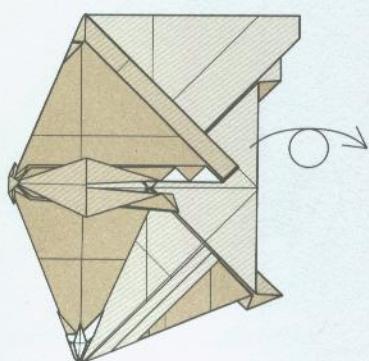
74. Squash fold. Model may not lie symmetrically.



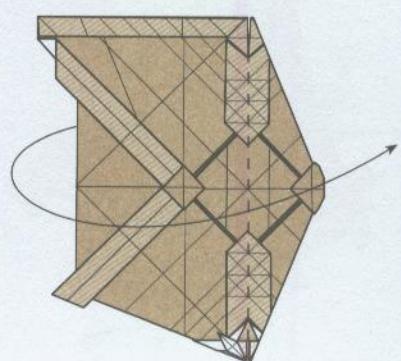
75. Squash fold to form symmetry.



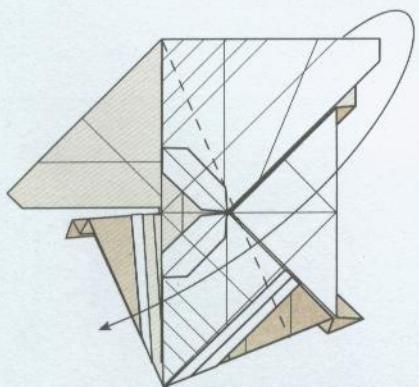
76. Petal fold inside.



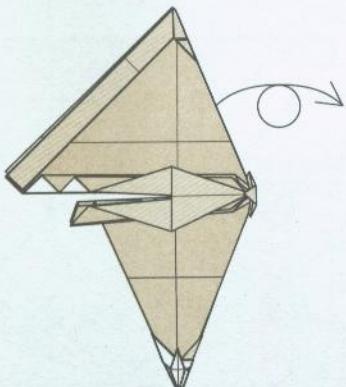
77. Turn model over.



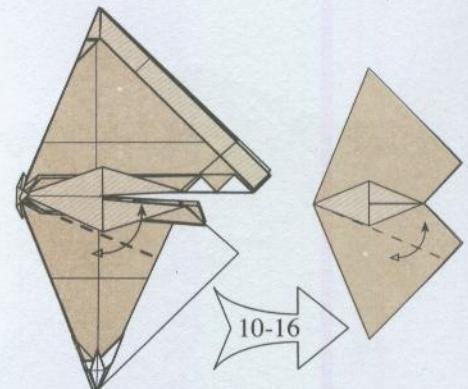
78. Valley fold.



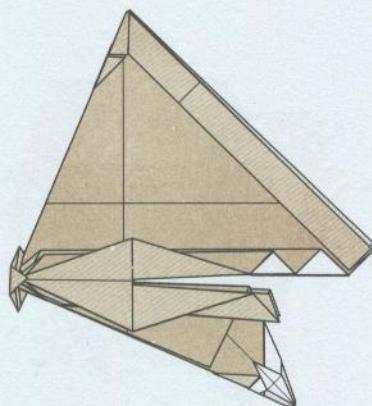
79. Repeat steps 73-76.



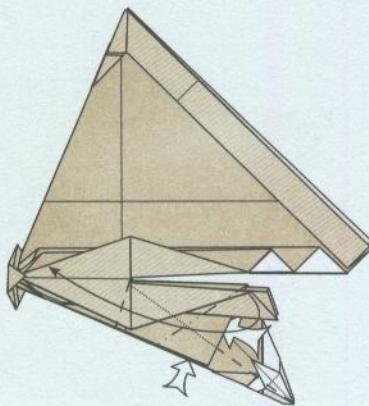
80. Turn model over.



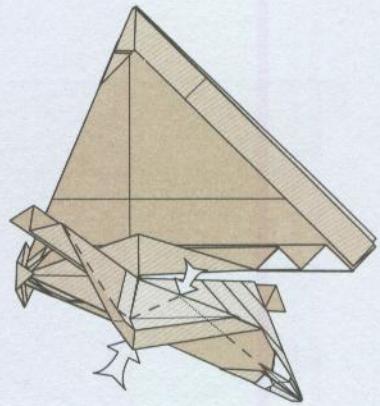
81. Proceed with steps 10-16 of the Demon. Treat pleats as single layer.



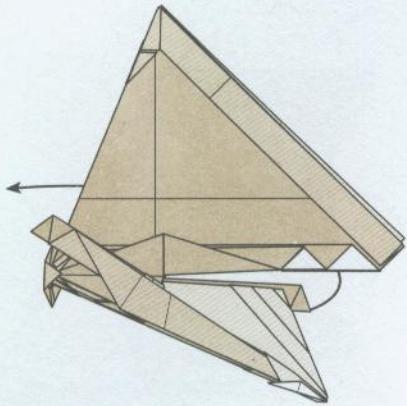
82. Like this.



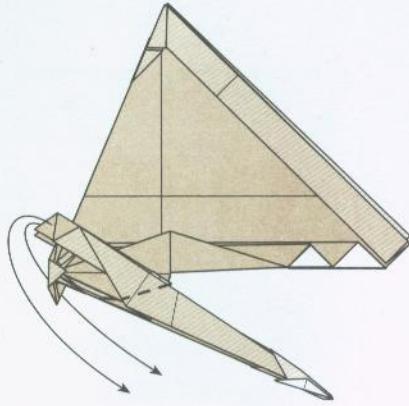
83. Squash leg toward the left.



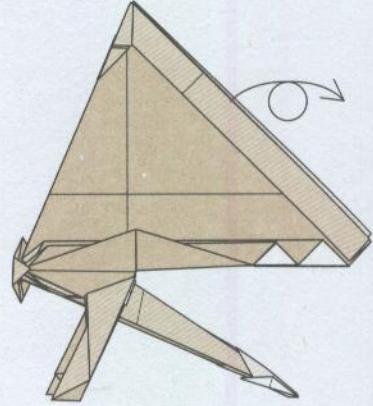
84. ...in process, swivel and squash.



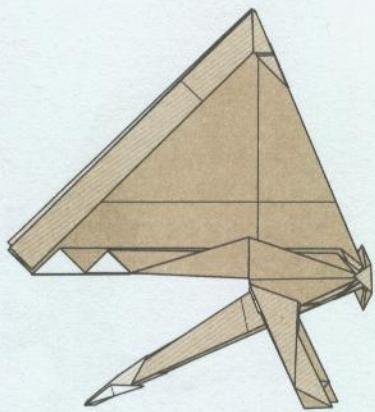
85. Repeat steps 83-84 behind.



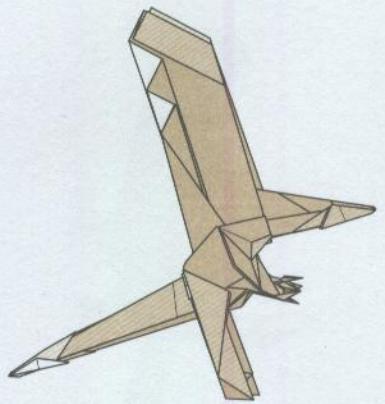
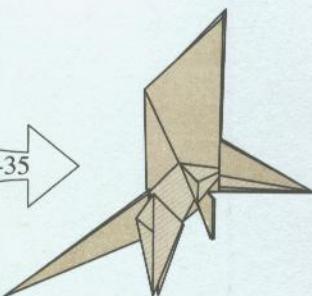
86. Valley fold legs down.



87. Turn model over.

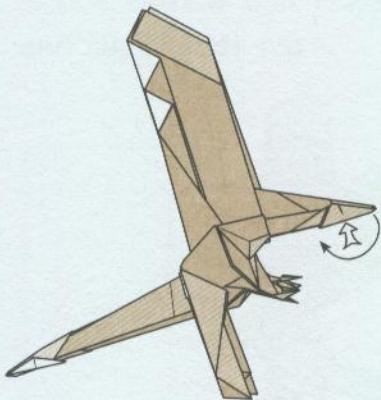


26-35

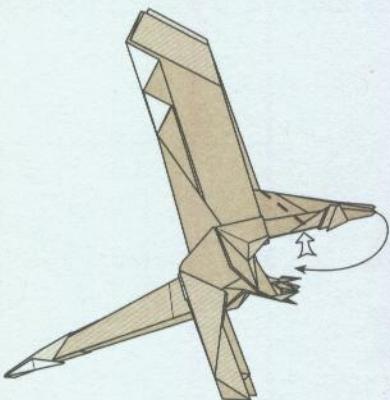


88. Fold steps 26-35 of the Demon.

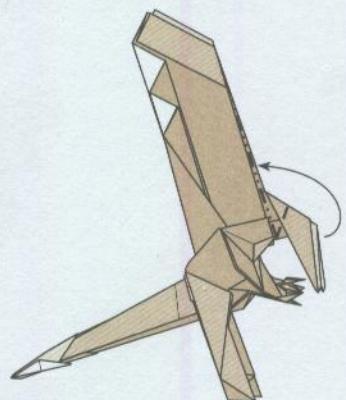
89. Like this.



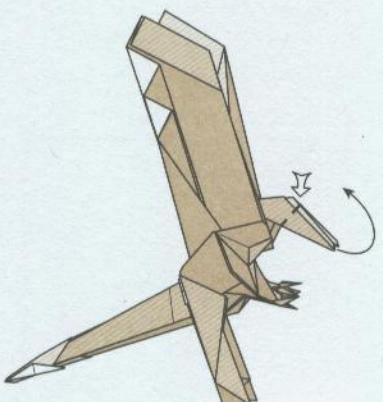
90. Outside reverse fold small flap.



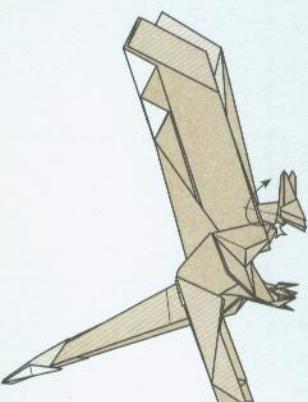
91. Outside reverse fold neck and head.



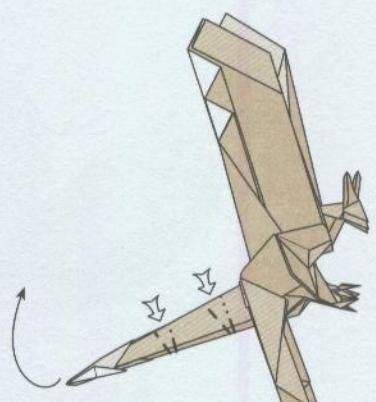
92. Swivel and crimp head assembly in between the wings.



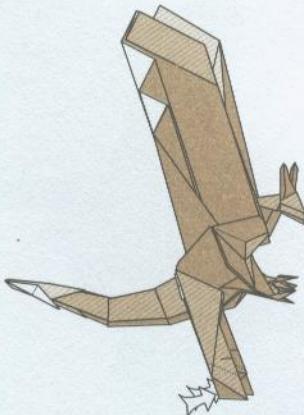
93. Outside reverse fold head again, allowing all hidden layers to swing forward.



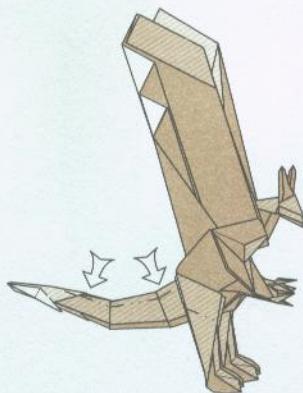
94. Reverse fold to taper horns.  
Repeat behind.



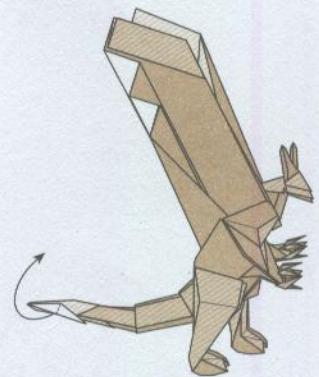
95. Inside crimp tail.



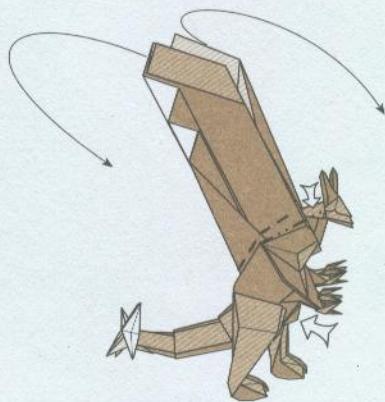
96. Pop ridge of leg to form rounded foot, or reverse for clefts.



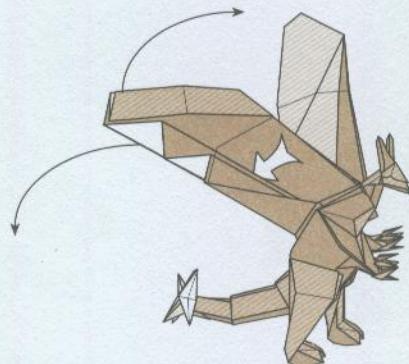
97. Taper tail with mountains, shape legs.



98. Crimp tip of tail, and spread points into pentagram.



99. Round neck and body. Spread wings with valley.

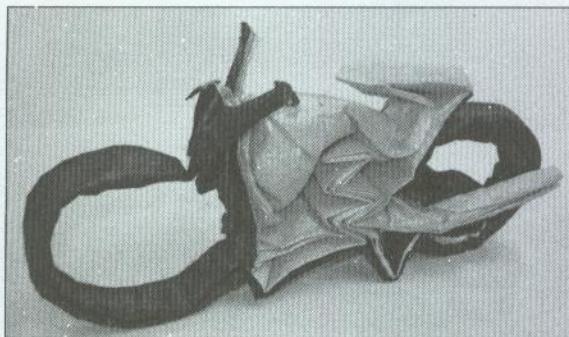


100. The wings may be further expanded by unfurling pleats.

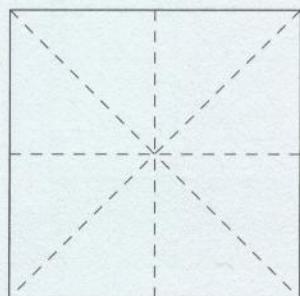


101. Like this.

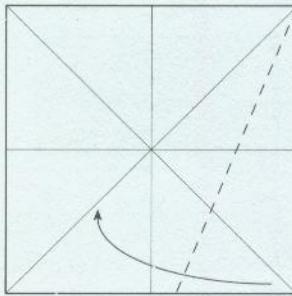
# Motorcycle



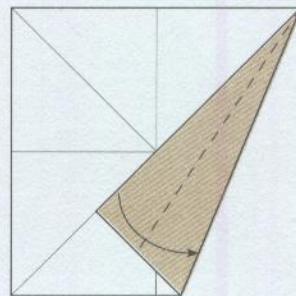
In an effort to add to unusual origami, I have sought out several mechanized forms. This motorcycle is rectangularly optimized with adjacent corners for the wheels. A few tweaks can yield ape hangers, fat boys, custom exhaust, spec tank curves, and significant rake.



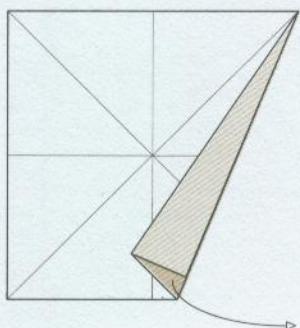
1. With square white side up, fold through diagonals & horizontals.



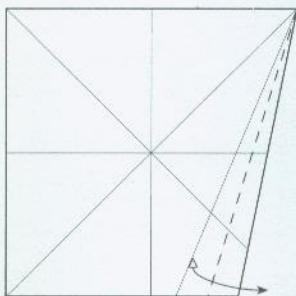
2. Kite crease.



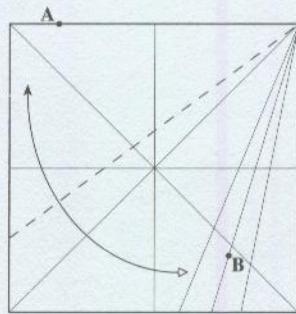
3. Kite crease.



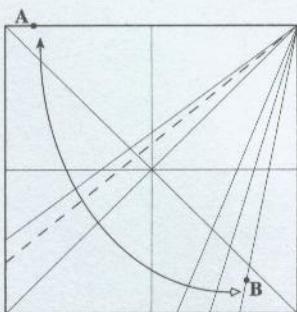
4. Unfold first kite.



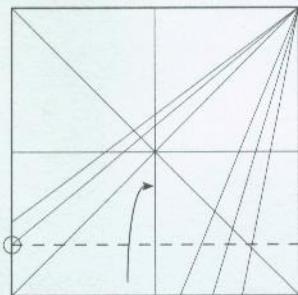
5. Bring folded edge to crease, then unfold to square.



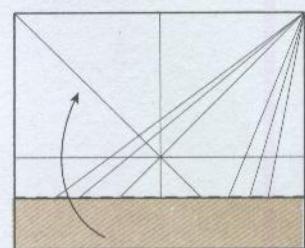
6. Kite crease edge A to line B, then unfold.



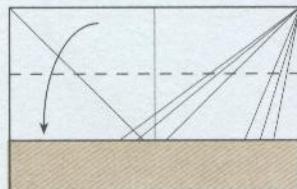
7. Kite crease edge A to line B, then unfold.



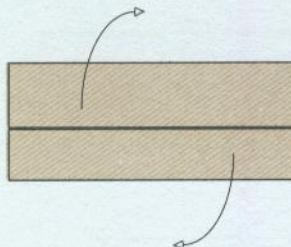
8. Valley fold through CI, (crease intersection).



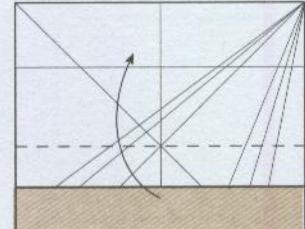
9. Valley fold through the raw edge.



10. Valley fold the raw edge to the folded edge.



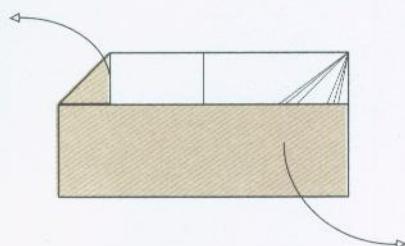
11. Unfold to step 9.



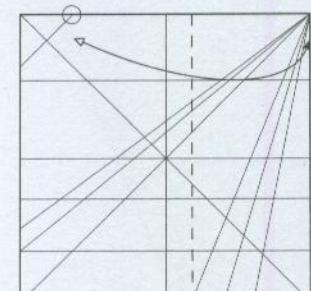
12. Valley fold through midline.



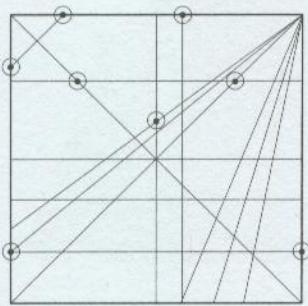
13. Valley fold.



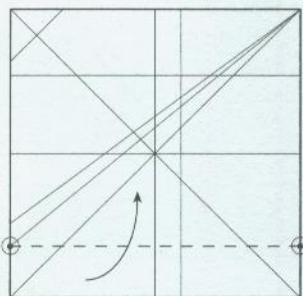
14. Unfold to square.



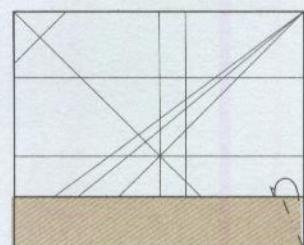
15. Valley fold vertically to CI, then unfold.



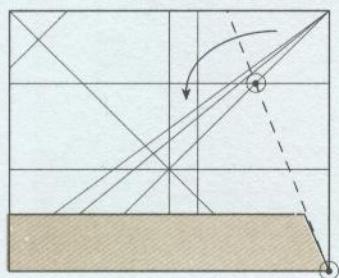
16. Circle packing, please proceed.



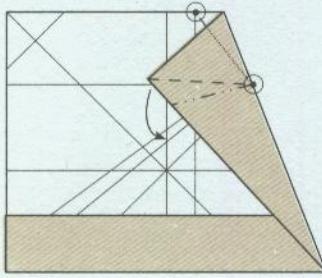
17. Valley fold.



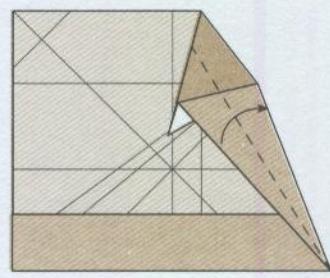
18. Mountain fold approximately.



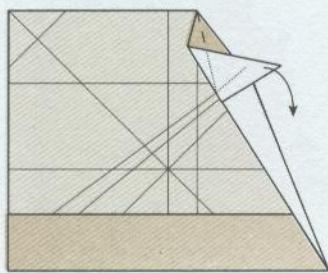
19. Valley fold.



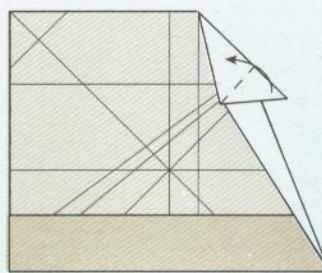
20. Swivel fold.



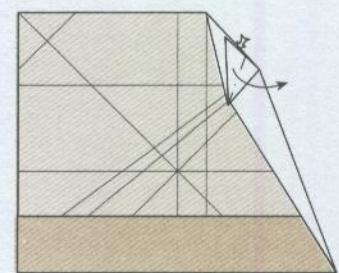
21. Valley fold.



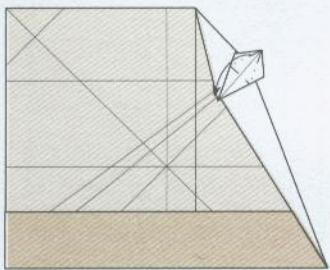
22. Swivel fold.



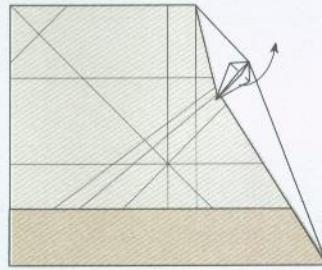
23. Valley fold.



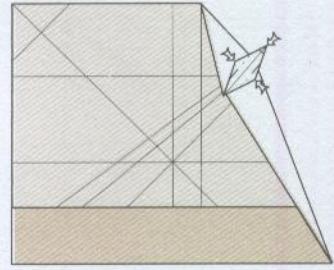
24. Squash fold.



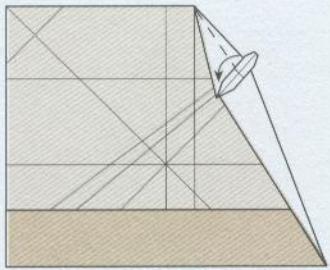
25. Petal fold.



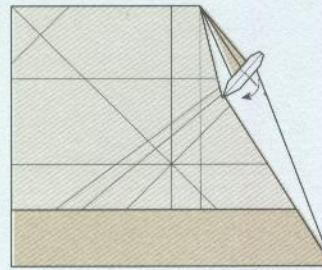
26. Fold flap back.



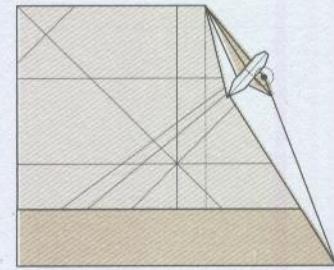
27. Arbitrary sinks.



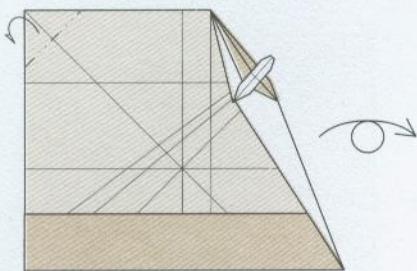
28. Valley fold, incorporating a small reverse fold.



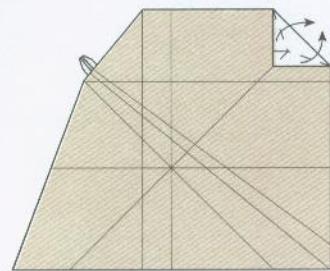
29. Arbitrary valley fold, incorporating reverse at base.



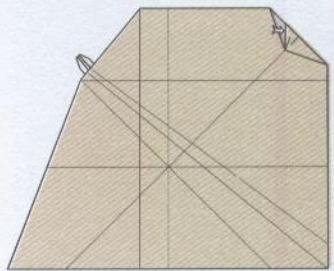
30. Note CP's reference point.



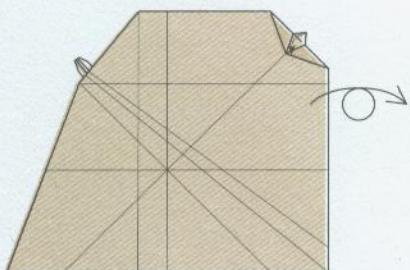
31. Fold behind and turn model over.



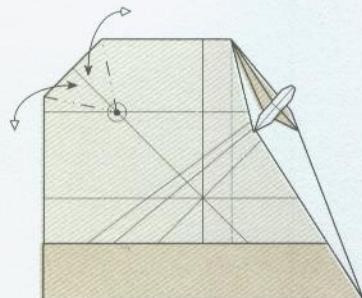
32. Rabbit ear.



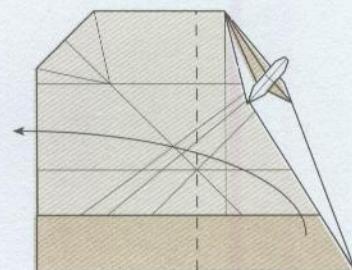
33. Squash fold small flap.



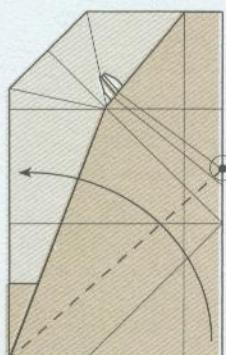
34. Valley fold small triangle, then turn model over.



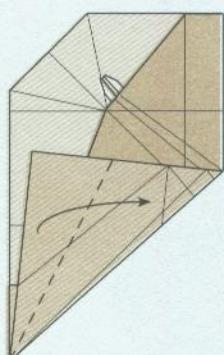
35. Make mountains, then unfold.



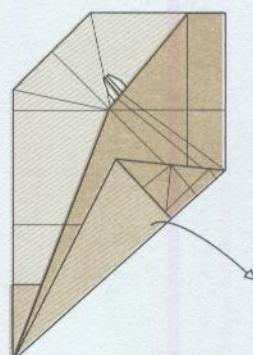
36. Valley in half.



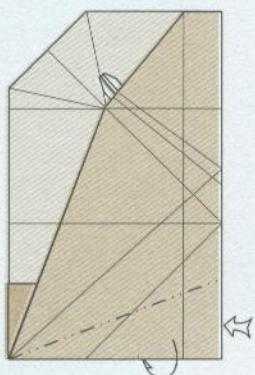
37. Valley fold through all layers.



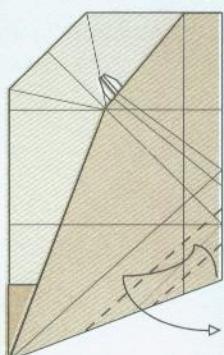
38. Valley fold top layer.



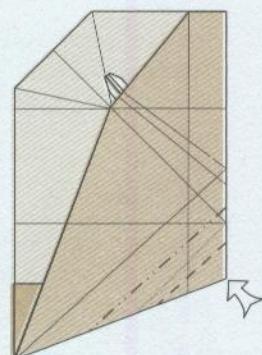
39. Unfold to step 37.



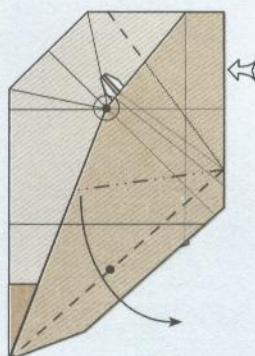
40. Reverse fold.



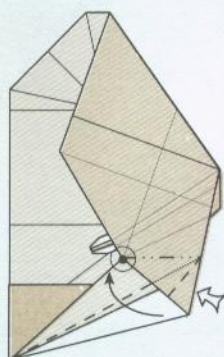
41. Crease into thirds, parallel, then unfold.



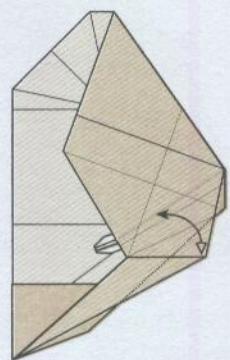
42. Sink in and out triangularly.



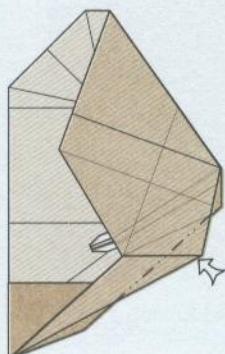
43. Squash fold, so that circled point lies on line.



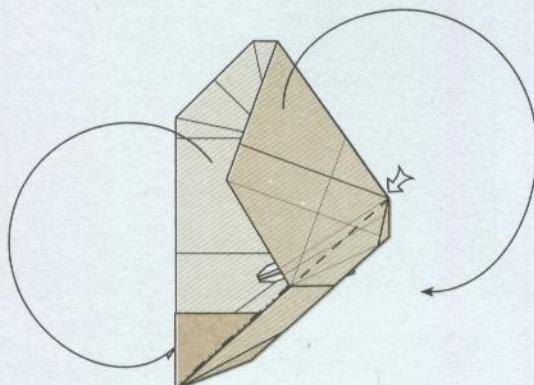
44. Reverse fold.



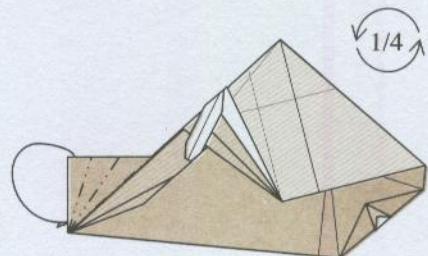
45. Valley along hidden edge, then unfold.



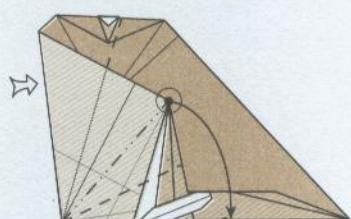
46. Open sink.



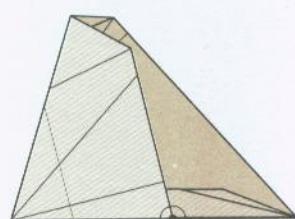
47. Outside reverse fold.



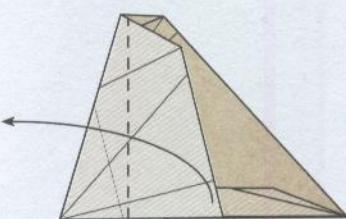
48. Mountain fold over into thirds, then into pocket, then rotate model.



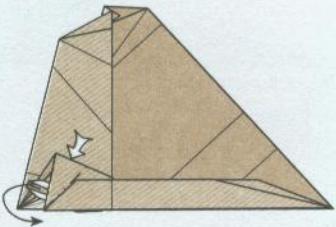
49. Swivel fold corner to UB, (uniaxial base).



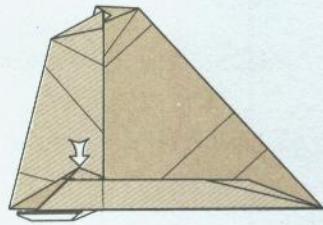
50. Like this.



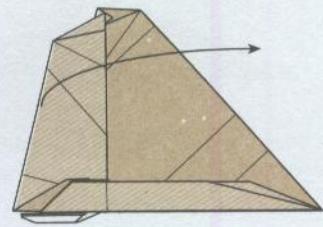
51. Valley fold.



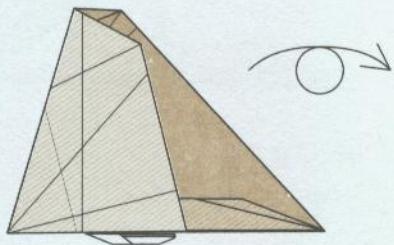
52. Mountain fold exhaust, and swing down while reverse folding.



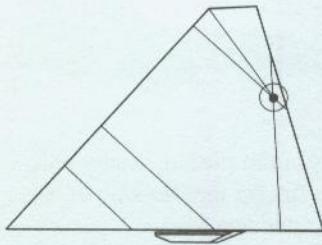
53. Open sink, unwrapping slightly to accomplish.



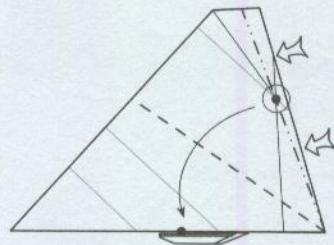
54. Close large flap.



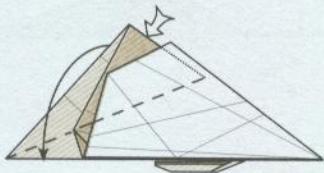
55. Turn model over.



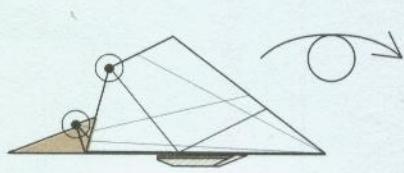
56. Note crease intersection.



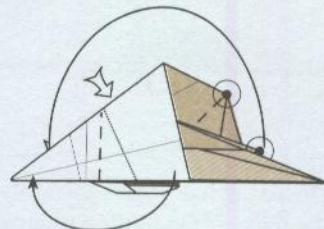
57. Bring CI to UB, rolling paper along the mountain fold.



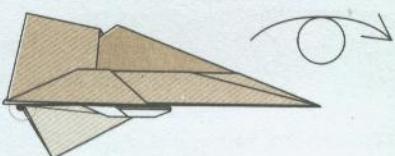
58. Reverse fold.



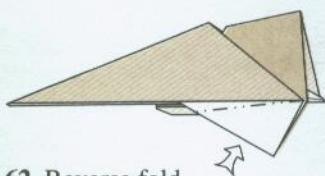
59. Note reference corners, then turn model over.



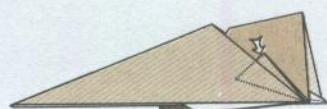
60. Outside reverse fold, allowing reference corners to lie on UB.



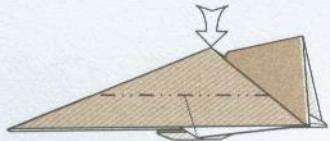
61. Like this, then turn over.



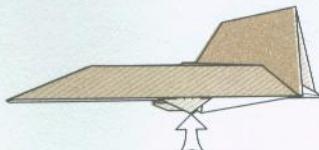
62. Reverse fold.



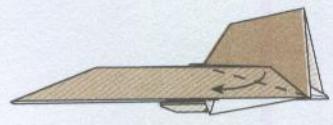
63. Reverse fold again.



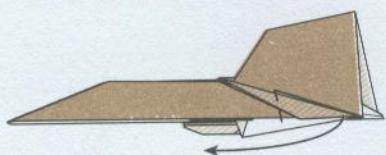
64. Sink triangular region to align with horizontal layers. A crimp will form in the interior.



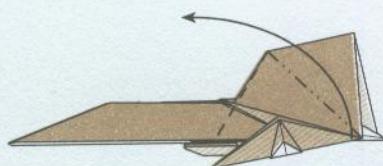
65. Sink upward into model.



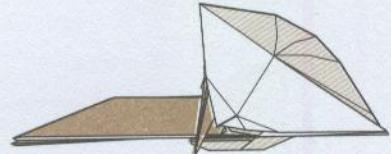
66. Valley fold.



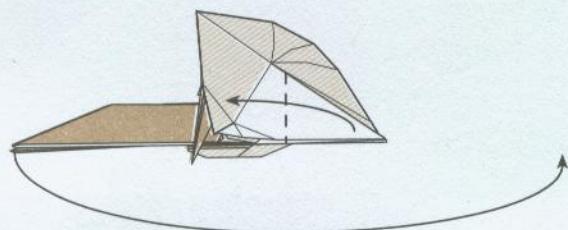
67. Valley fold.



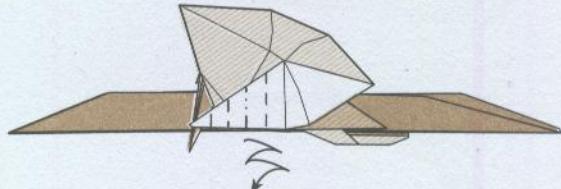
68. Open out pocket, model will not lie flat for the duration of the folding sequence.



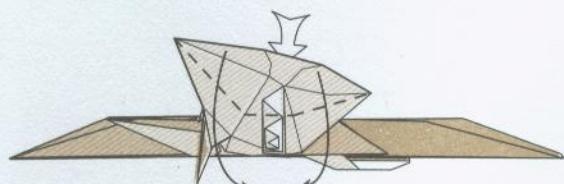
69. Like this.



70. Swing rear wheel assembly to the right, while folding triangular interior to the left.



71. Pleat the central triangular region into an engine block.



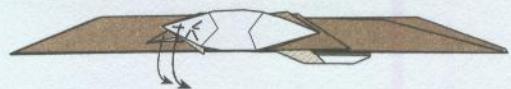
72 Push pocket inside out, folding along indicated creases.



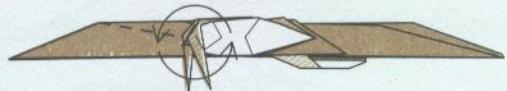
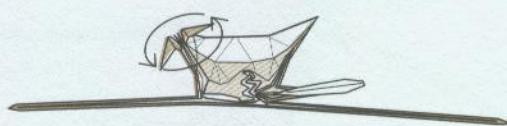
73. Fold pocket in half. The handlebars will come together.



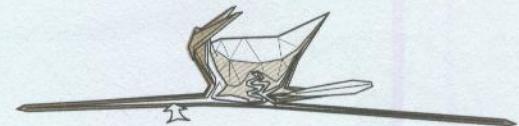
74. Like this.



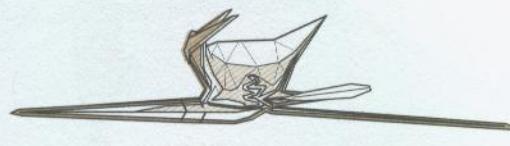
75. Rabbit ear both handlebars.



76. Twist handlebars, running a swivel into forward flap.



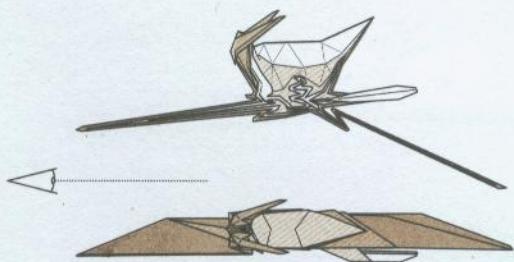
77. Open out forward wheel flap slightly.



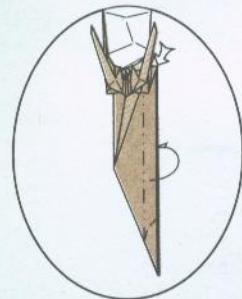
78. Inside crimp the front wheel assembly.



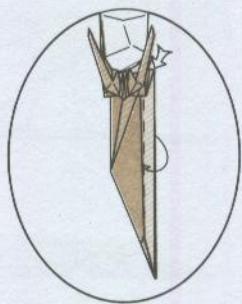
79. Pleat the rear wheel assembly.



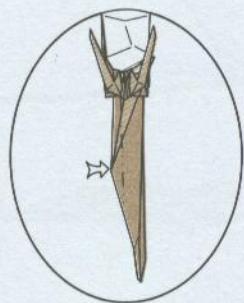
80. Like this, then view front wheel.



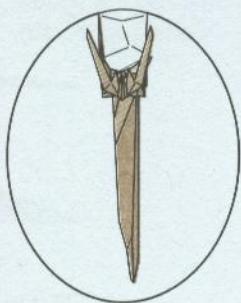
81. Mountain fold top layer, forming a squash at the top.



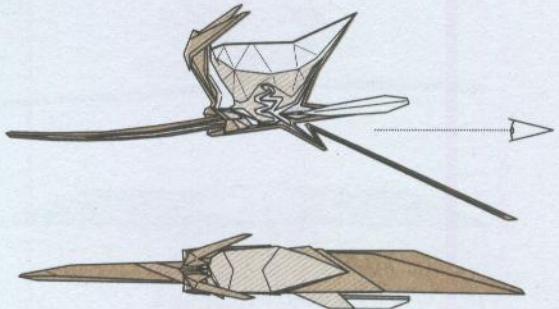
82. Valley fold lower layer, squash at the top, and curve at the tip.



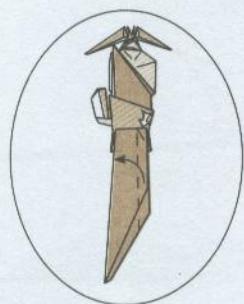
83. Sink the left side.



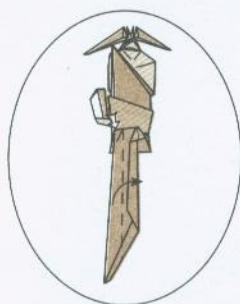
84. Like this.



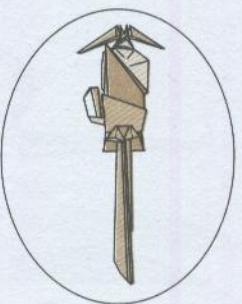
85. View rear wheel.



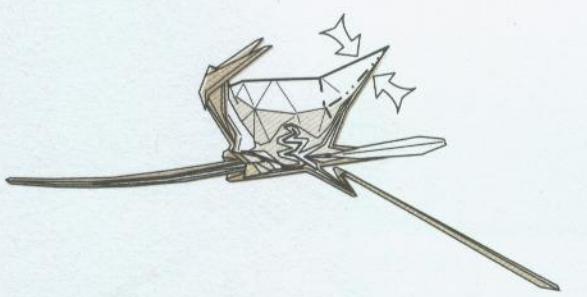
86. Valley fold, with a squash at the top.



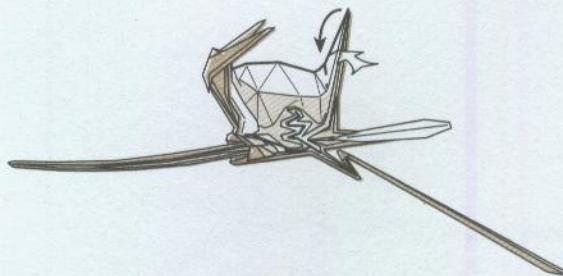
87. Valley fold, with a squash at the top.



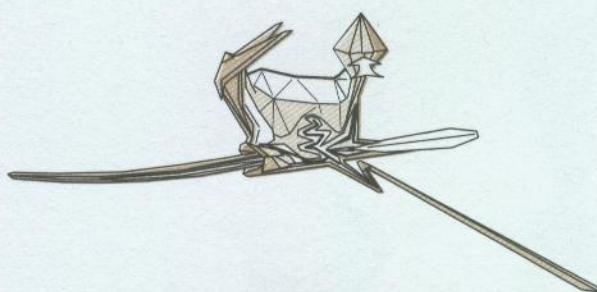
88. Like this.



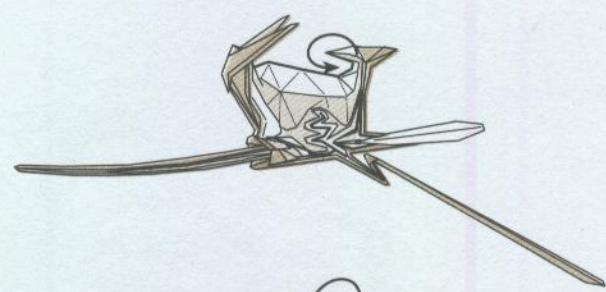
89. Compress seat.



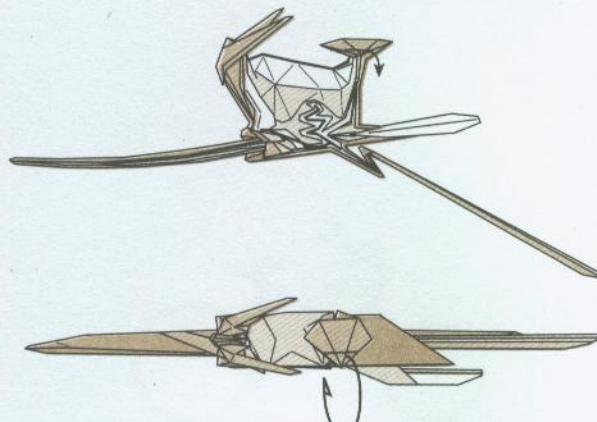
90. Popping middle ridge, begin squash folding seat...



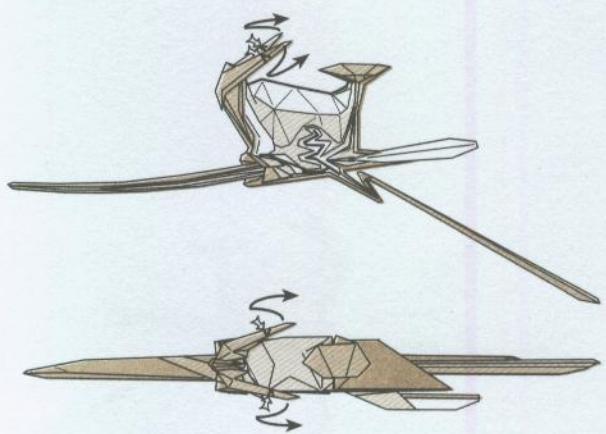
91. ...in progress...



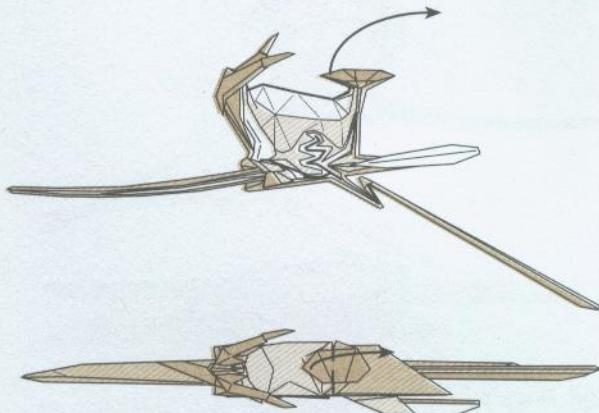
92. Wrap lighter portion of seat behind.



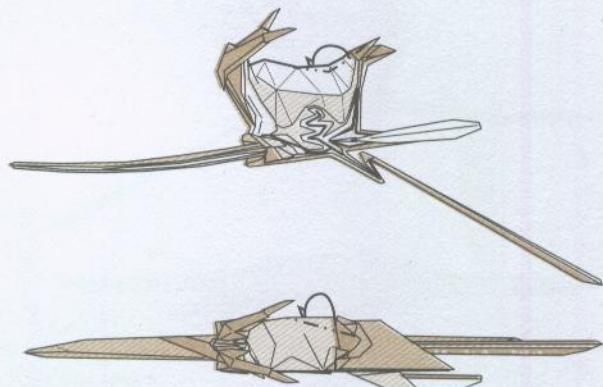
93. Mountain fold corner of seat.



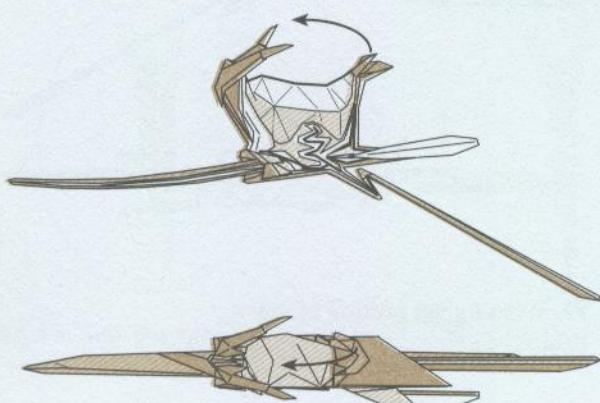
94. Outside crimp handgrips.



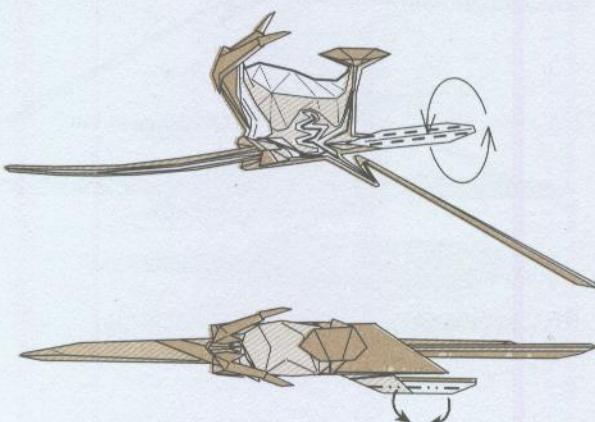
95. Fold top of seat backward.



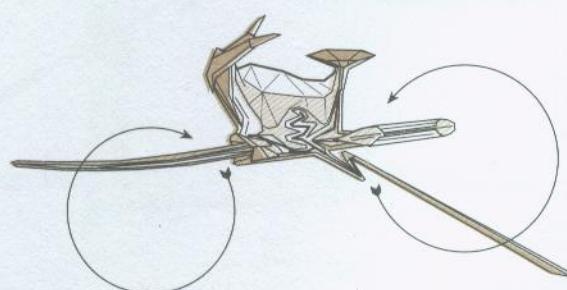
96. Mountain fold edge of tank underneath.



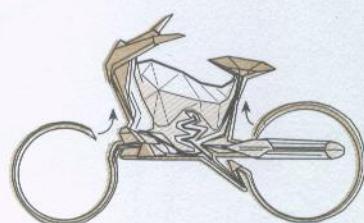
97. Swing seat back into position.



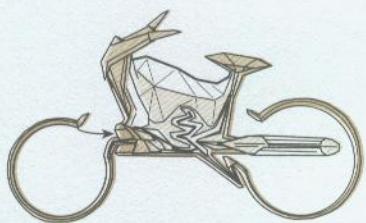
98. Roll exhaust into a cylinder.



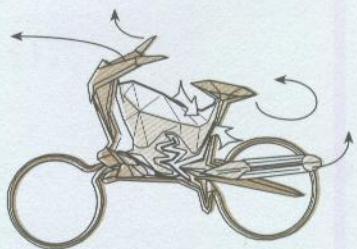
99. Round both wheels.



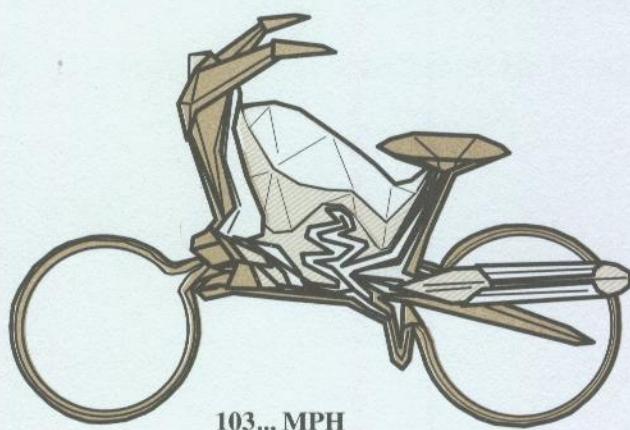
100. Fold a tab out of each tire.



**101.** Tuck the front tire into the bike, the rear wheel will close when rested on the bike's own weight.

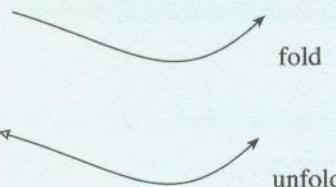


**102.** Customize the seat, exhaust, handlebars, and body.



**103... MPH**

# Symbols



----- crease valley

----- crease mountain



squash fold, or reverse fold



turn over



rotate

<----- view here

# ORIGAMI on the edge

Xander Arena

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