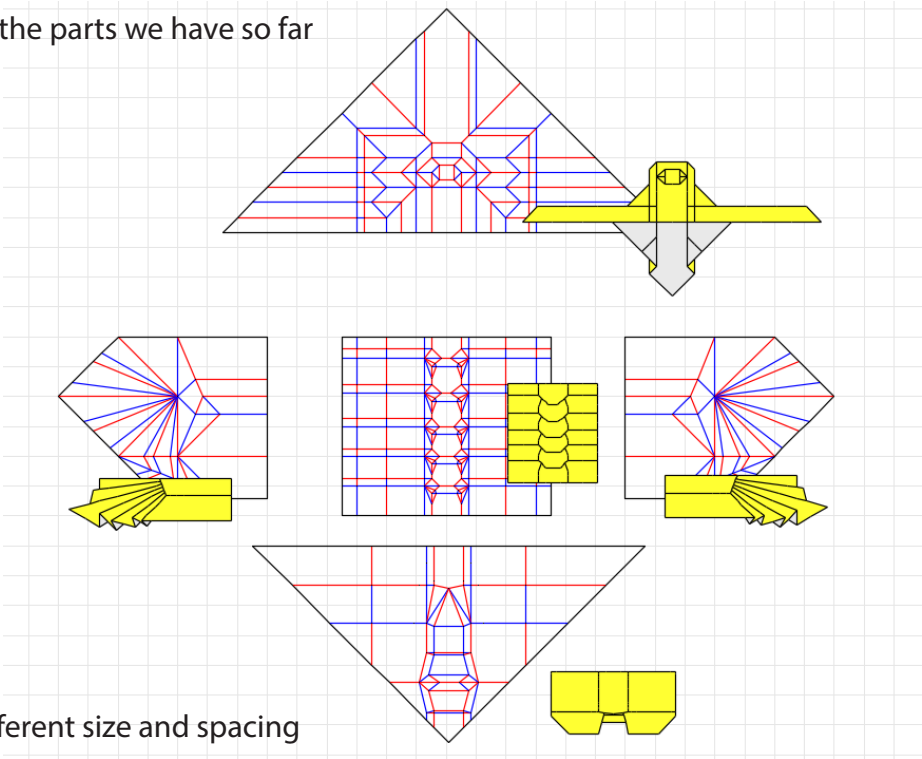


Here is a simplified version of all the parts we have so far



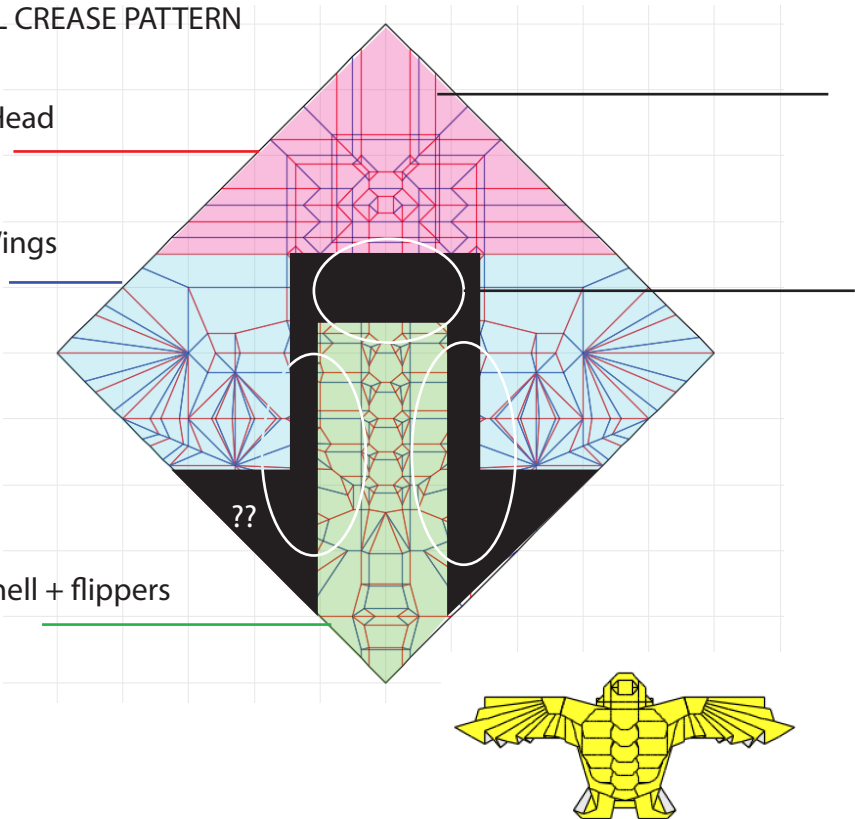
PROBLEM:
How to connect pleats of different size and spacing

FULL CREASE PATTERN

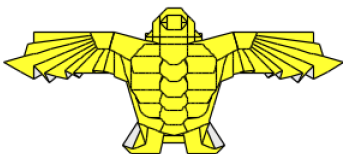
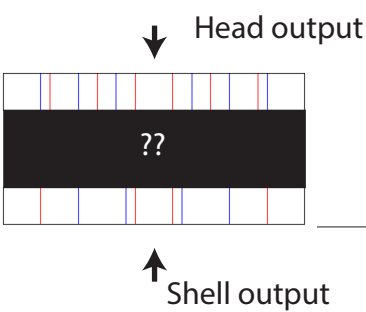
Head

Wings

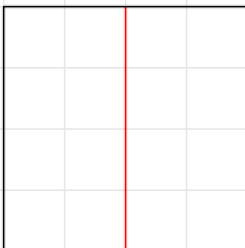
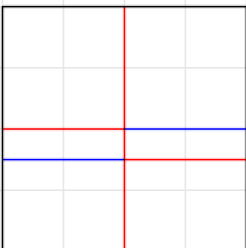
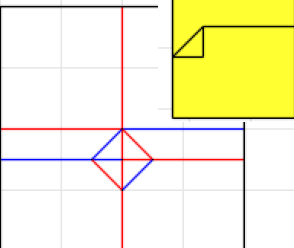
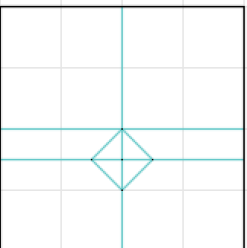
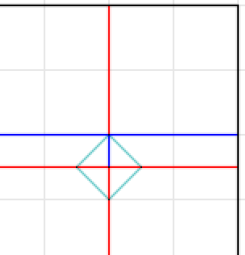
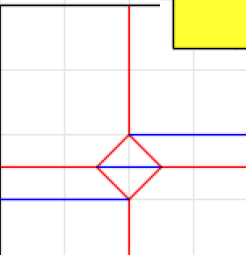
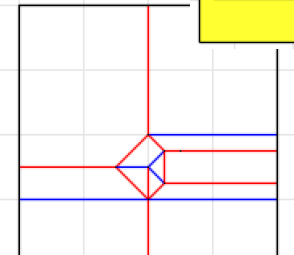
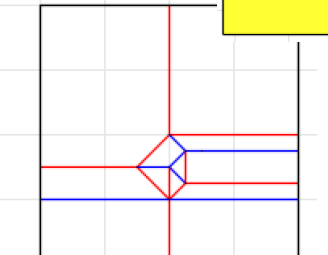
Shell + flippers



Creases that run off the page can be ignored

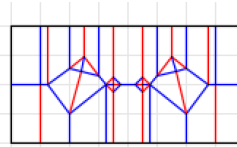
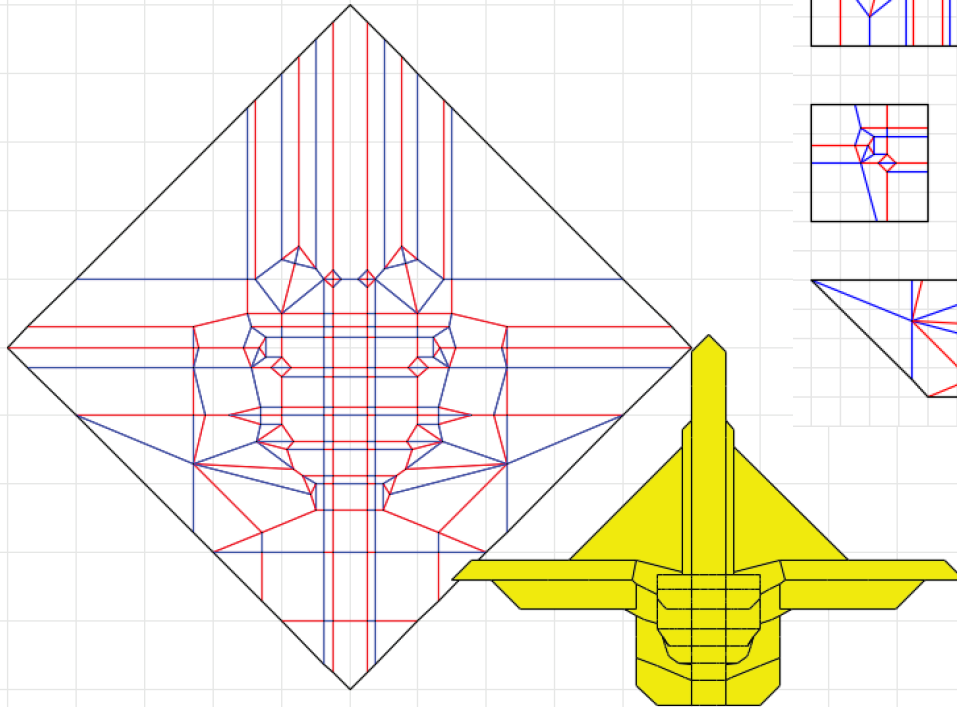


Pleat manipulation using simple transition:

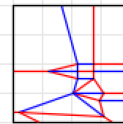
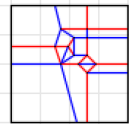
1 	2 	3 	4 
Fold in half	Pleat 1/8th (fold 1/4th first)	valley fold the corner	unfold
5 	6 	7 	8 
fold 1/8 pleat then fold in half vertically	Carefully open the pleat and pinch along the diamond creases then collapse	Spread squash one side of the transition (same as for step 18 of the turtle head instructions)	sink the top pleat
This transition that can shift a pleat up or down		This transition splits the pleat into 2 pleats of 1/2 its initial width	You can also change the spacing by sinking the pleats in or out

SOLUTIONS: With this base we can then fold all the elements of the turtle from a single square

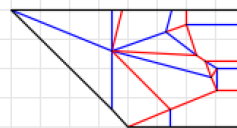
Base cp with completed transitions



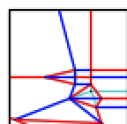
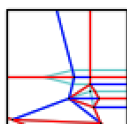
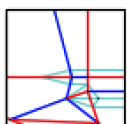
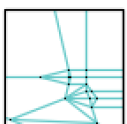
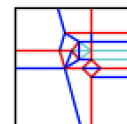
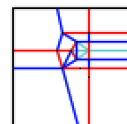
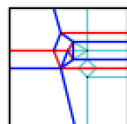
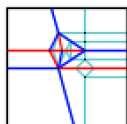
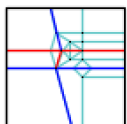
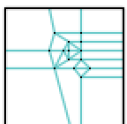
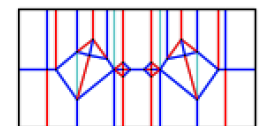
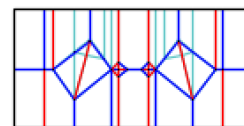
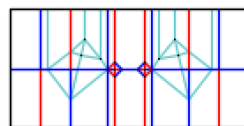
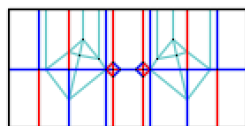
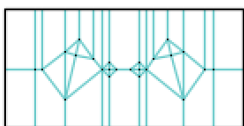
Head to shell
vertical pleat transition



Wing to shell + flipper
horizontal pleat transitions

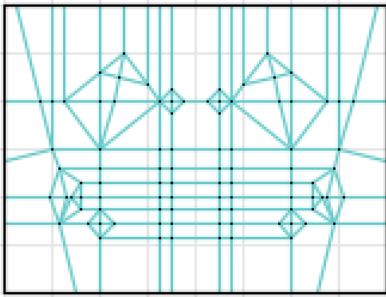


Progression for individual transitions

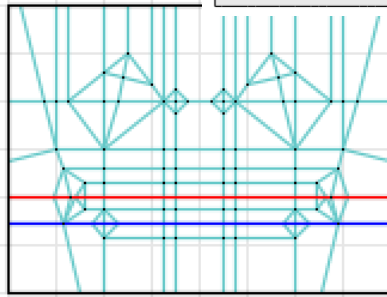


Collapse process for top transitions

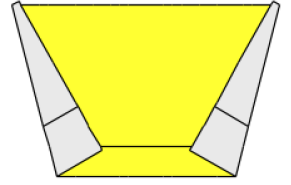
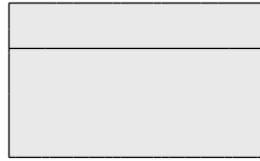
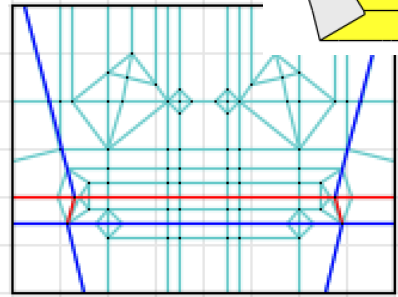
1



2



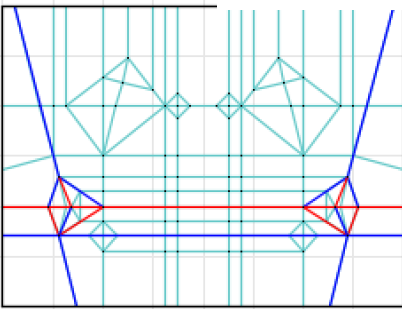
3



Start with the horizontal pleat

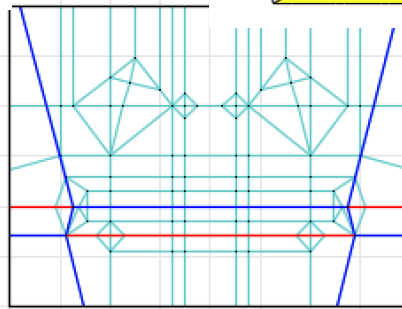
Fold the slanted crease through the layers

4



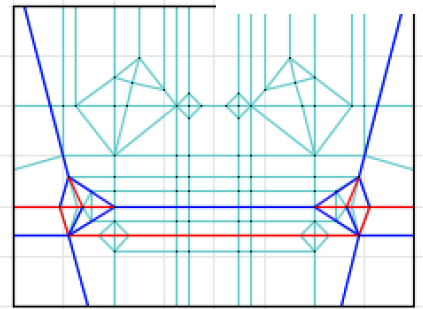
Reverse fold

5

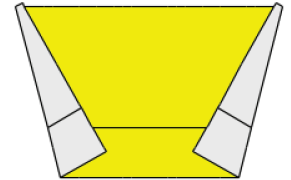
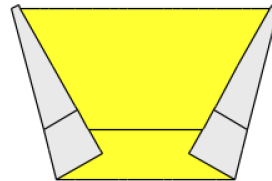
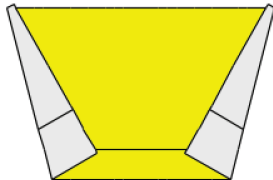


Open the pleat then reverse the creases

6

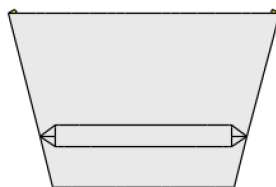


Reverse fold along creases from step 4
Flip model over

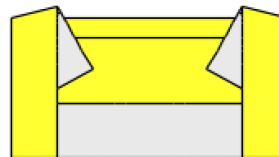


7

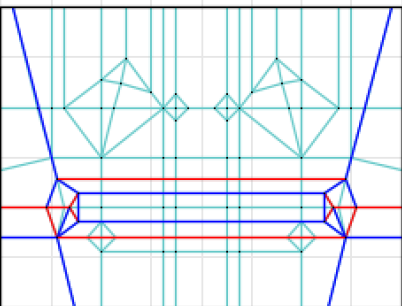
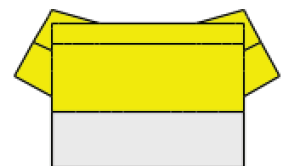
(back view)



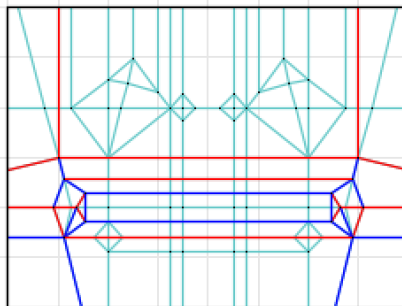
8 (front view)



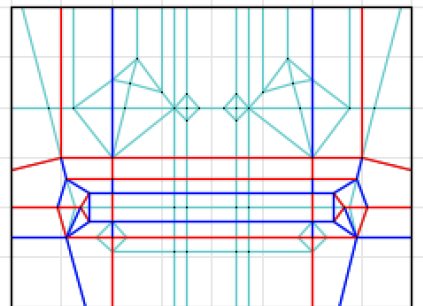
9



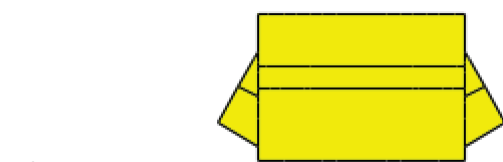
Spread squash from backside



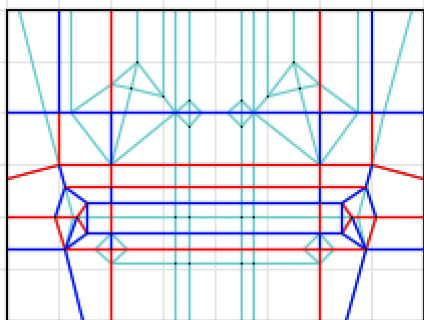
Outside reverse fold along the top mountain folds



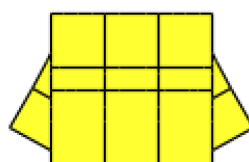
Mountain fold through all layers



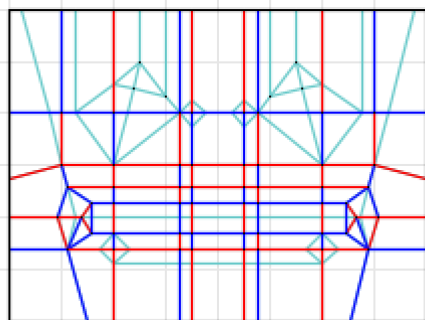
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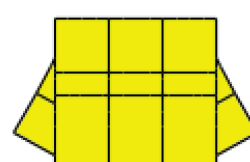
Open the vertical pleats at the top and valley fold along the horizontal crease
Then reverse the crease lines to collapse



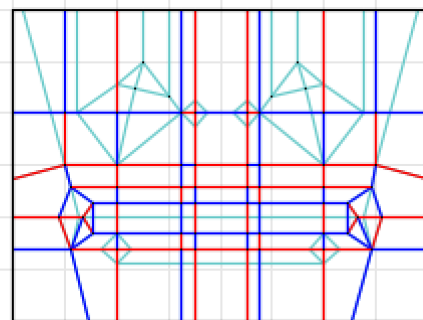
11



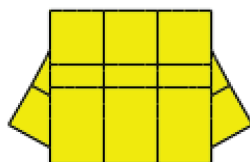
Fold the vertical pleats through all layers



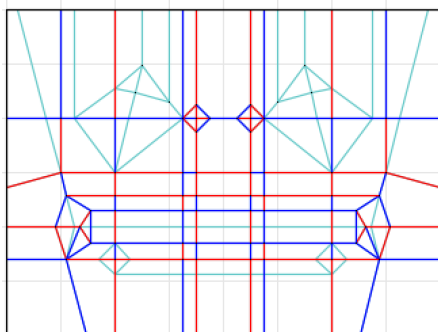
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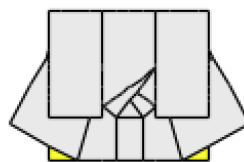
Open the large horizontal neck pleat and reverse the creases of the vertical pleats



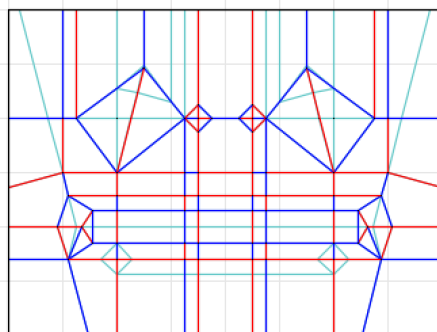
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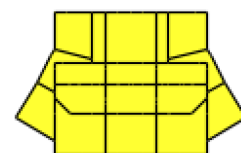
Open the large horizontal neck pleat and reverse fold the thin vertical pleats



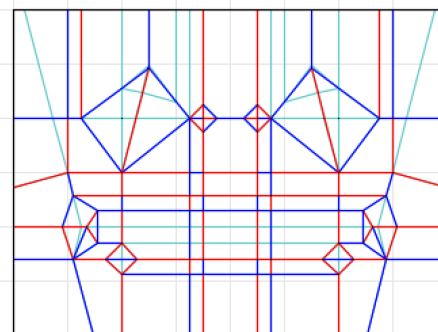
14



From the back, form transitions by pushing in the indicated creases

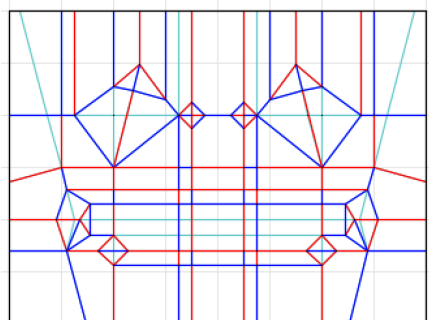


15

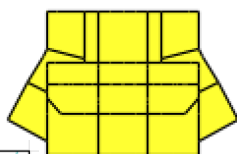


Pull out the lower horizontal shell pleat and shift the pleat down (open vertical pleats)

16

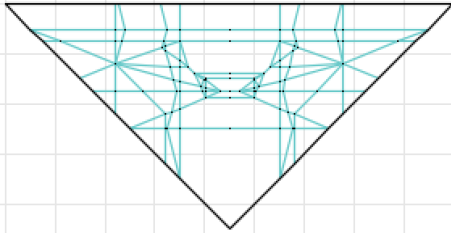


Sink fold the transition

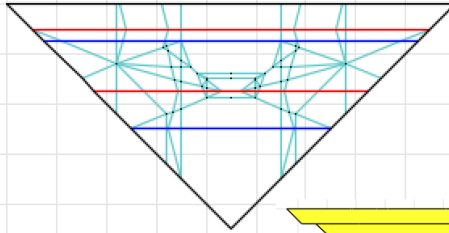


Collapse process for bottom transitions

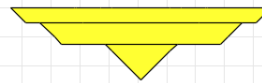
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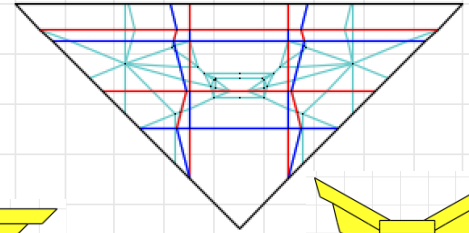
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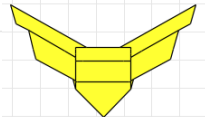
Pleat horizontally



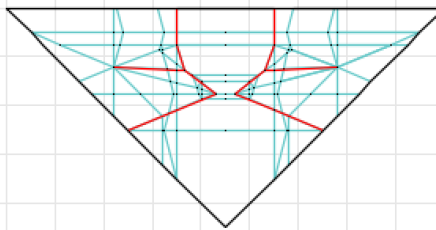
3



Pleat vertically
at an angle

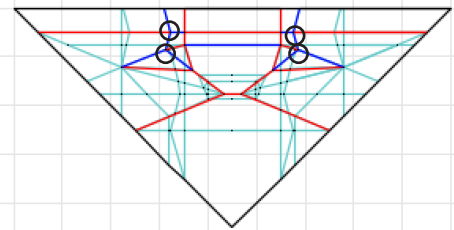


5



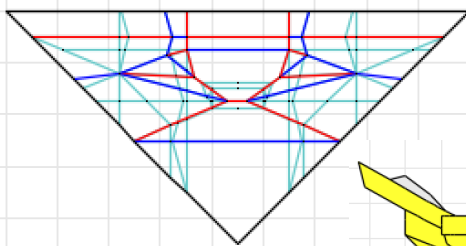
Pinch along indicated
creases

6

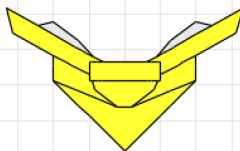


Create tension by pulling the sides back
Gently push in the circled points

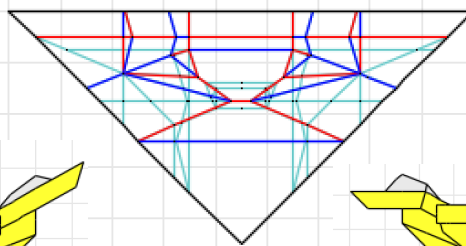
7



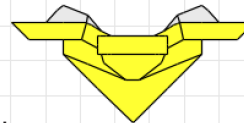
Push the the folds flat



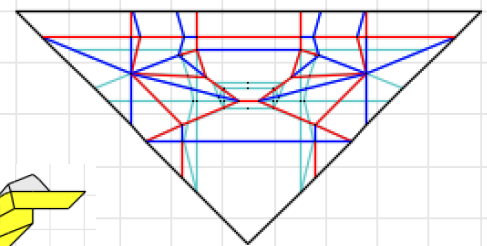
8



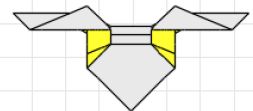
Pleat the wing flaps down
Flip over



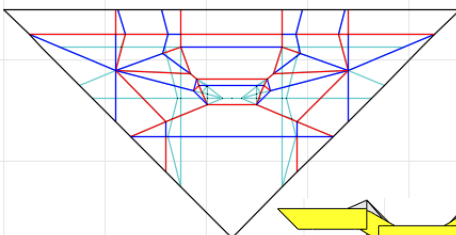
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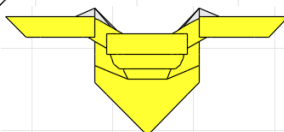
Swivel fold



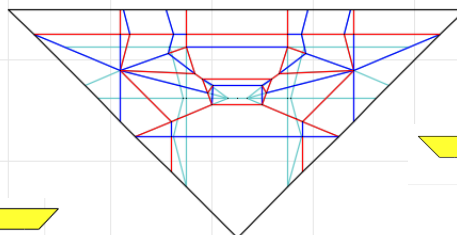
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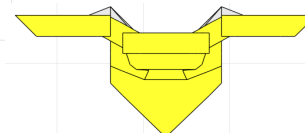
Squash fold



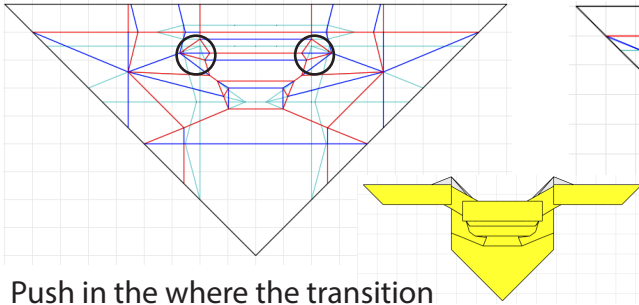
11



Reverse fold the squashed edges
inward

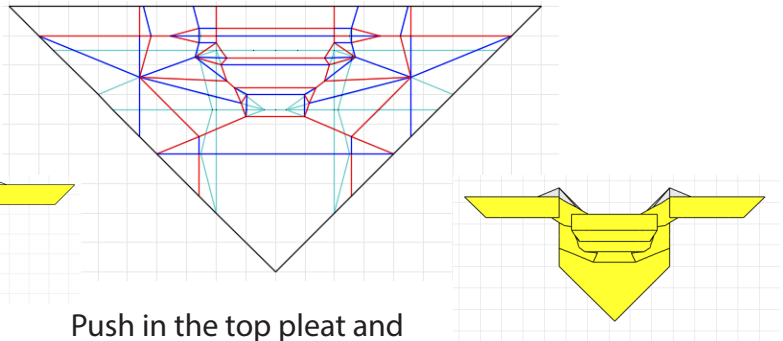


12



Push in the where the transition
should be and pinch along the creases
to form them

13



Push in the top pleat and
Flatten the model