Complex
A 10 " square makes a model with a 4 " wingspan


1. This will be the color of the body. Precrease along angle bisectors.

2. Valley to center.

3. Valley the corners to the intersections of creases and unfold.

4. Pleat along existing creases.
5. Turn over.

6. Fold sides to center, allowing flaps to swing outwards.

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7. Squash the center flap.

8. Spread open to reveal small flap. lap.
9. Collapse.

10. Unfold entirely.

11. Valley down as far as possible and unfold. Repeat steps 9-10 behind.

12-13

13. Close back up. Repeat steps $12-13$ on the other side.

16. Precrease sides of flap and then open up. Repeat steps 14-16 behind.

19. Precrease through all layers.

22. Wrap around to make symetrical.

25. Reverse fold.

14. Petal fold.

17. Valley corners. Turn over.

20. Unfold bottom flap.

23. Pull out single layer.

26. Swing over flap while incorporating a reverse fold. Repeat steps 23-26 behind.

15. Valley to intersection of creases.
18. Swing a flap over, front and back.

21. Squash. Do not flatten completely.

24. Valley over.

27. Repeat steps 18-26 in mirror image.

28. Valley up corners.

29. Pull out hidden corners.

30. Pull out hidden points.

31. Crimp sides.

34. View from step 33. Doublecrimp upwards and flatten.

37. Swing back down while collapsing the top single layer outwards.

35. Repeat steps 33-34 on other side.

38. Repeat steps 36-37 behind.

33. Stretch apart sides.

36. Lightly swing up top section.

39. Swing down flaps.

40. Swing over a layer, undoing reverse fold. Repeat behind.

43. Pull flap out, releasing layers at left. Repeat behind.

46. Swivel down. Repeat
behind.
49. Sink triangularly, so as to match up with the folded edge in the middle. Repeat behind.


41. Wrap around a single layer. Repeat behind.
44. Asymmetrical squash. Repeat behind.


42. Swing back. Repeat behind.

5. Valley layer through. Repeat behind.


47. Swivel over. Repeat behind.

50. Sink triangularly again. Repeat behind.
48. Bring single layer to surface (closed sink). Repeat behind.


52. Swing flap over while incorporating a reverse fold along existing creases.

55. Swivel under.

58. Wrap single layer around (closed sink).

61. Swing over flap while pulling up a layer through the pocket. Repeat behind

53. Swing over two layers. Model will not lie flat.

56. Swing single layer back.

59. Close model back up.

62. Valley along existing crease. Repeat behind.

60. Repeat steps $52-59$ behind.

63. Swivel down hidden middle layer into pocket. Repeat behind.

64. Bring single layer to surface (closed sink). Repeat behind.

67. Bring the bottom points to the top, allowing the corners to spread sink.

70. Spread apart.

68-72

73. Repeat steps 68-72 behind.

65. Closed sink along existing crease. Repeat behind.
68. Swing down.

71. View from step 71. Sink single layer through from behind, using the creases from step 69.

74. Sink triangularly along existing crease. Repeat behind.

66. Pull point outwards.

69. Precrease. Repeat with adjacent flap.

72. The edges of the wing should now be flush. Close the model up.

75. Closed sink along existing crease. Repeat behind.

77. Detail of tail. Valley along angle bisectors.

80. Crimp upwards, so point $A$ meets colored raw edge.

82. Valley along angle bisector. Repeat behind. Towards the tail, the fold will terminate at an angle, and at the other end, a swivel will form. Repeat behind.
76. Outside reverse fold along existing crease.

79. Swivel fold. Repeat behind.

85. Mountain top flaps into pocket.

86. Mountain the double layer about 1/4th the width.
83. Swivel over. Repeat behind.

87. Reverse fold back. Repeat behind.

88. Mountain behind wing. Repeat behind.

91. Collapse upwards.

94. Reverse fold the indicated areas.

97. Open sink.

89. Valley to existing crease. Repeat behind.

92. Outside reverse fold.

95. Valley over a single layer. Repeat behind.

98. Reverse the four hidden corners down.

90. Crimp the tail section. See step 91 for positioning.

93. Sink the indicated regions.

96. Pull the center flap fowards while pulling the side flaps outwards.

99. Reverse the first of the three points down. Note how the bottom five layers are distributed.

100. Swivel.

103. Tuck the bottom hidden points into the center of the model.


101. Reverse into pocket. Repeat steps 99-101 behind.

104. Spread apart the flap flat, while pulling it into an upright position.

107. Valley down.

102. Swivel.

105. Valley down.

108. Undo pleat.

109. Repeat steps 106-108 in mirror image.

112. Pull out single layer.

115. Rabbit ear.

118. Valley over.

121. Mountain behind.

110. Asymmetrical squash.

113. Squash.

116. Unsink.

119. Swivel.

122. Flip the points.

111. Squash.

114. Precrease.

117. Swivel up.

120. Mountain behind.

123. Valley through intersection of creases. See step 124 for positioning.

124. Spread squash.

127. Pleat downwards.

130. Pull the single layer up as far as possible.

133. Sread the wings apart, allowing the front to spread apart too. To flatten, fold the top of the cowl over.

125. Swivel at each side.

128. Completed propeller.

131. Pleat the excess into the center pocket.

134. Collapse the sides inwards at $90^{\circ}$. You can trim the sides to taste with mountain folds.

126. Swivel at right. Bring colored layer to surface.

129. Valley up (there are no reference points).

132. Repeat steps 129-131 behind.

135. Completed cowl.

136. View of lower wing Precrease.

140. Wrap a single layer around.

144. Detail of landing gear. Precrease.
148. Shape with mountain folds.

137. Valley at $45^{\circ}$ through intersection of precrease and center.

141. Spread squash.

145. Valley up.

149. Round off with mountain folds.

138. Wrap a single layer 139. Squash over. around.

142. Rabbit ear the tip of the strut.

146. Pull out a single layer from each side.

150. Completed wheel. Repeat steps 144149 behind.

143. Raise the wing and strut, tucking its tip into the pocket on the upper wing. Repeat steps 136143 on other wing.

147. Valley down while incorporating reverse folds.

151. Completed Biplane II ©1996 Marc Kirschenbaum

