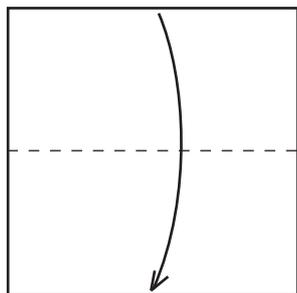


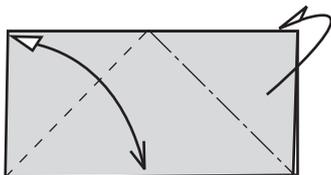
Gantry Crane

by Gareth Louis © January 2004

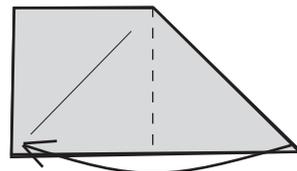
Recommended medium is paper backed foil measuring 30 cm.



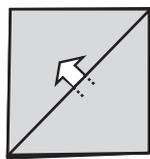
1. White side up.
Valley fold down.



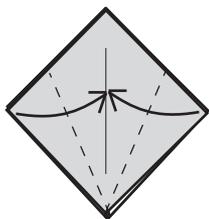
2. Precrease the left side.
Mountain fold the right side.



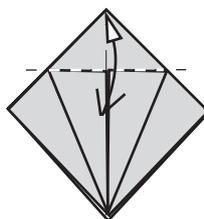
3. Swing flap to the left.



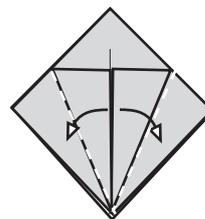
4. Eject a layer and
rotate 45° anti -
clockwise.
(Preliminary base)



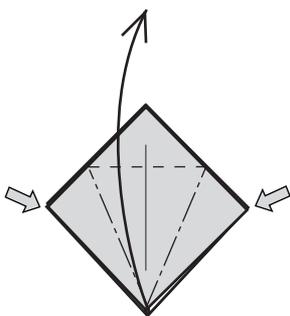
5. Valley fold sides
to the centre.



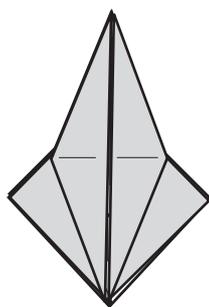
6. Precrease heavily.



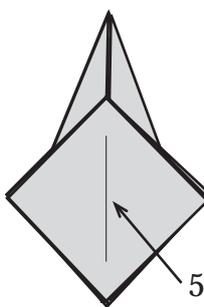
7. Unfold back



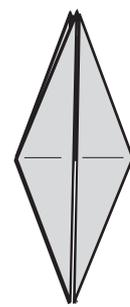
8. Petal fold upwards.



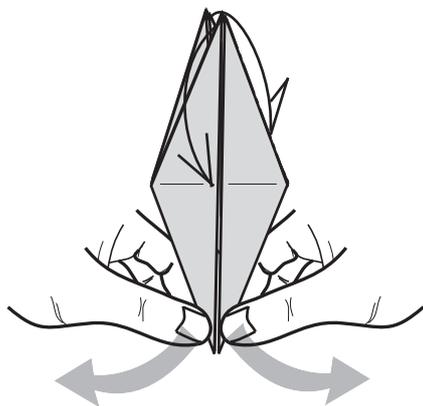
9. Turn over.



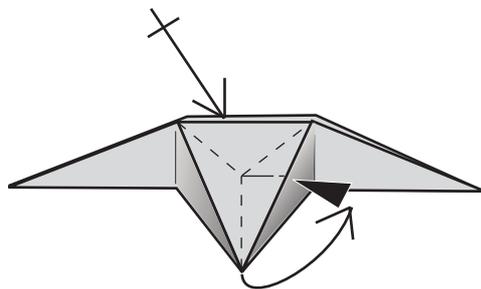
10. Repeat steps 5-8
on this side.



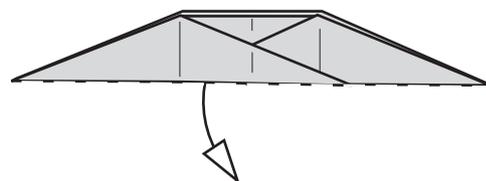
11. Bird base formation.
Note there are now two
points at the bottom.
Next drawing is larger.



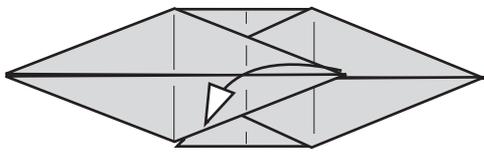
12. Hold the two
points, and pull...



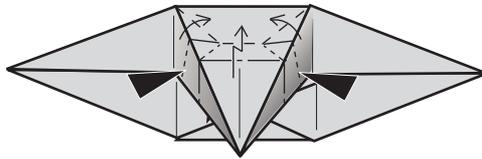
13. ...and the model
becomes 3D. Wahey!!!
Then rabbit ear a point
to flatten the model.
Repeat behind too.



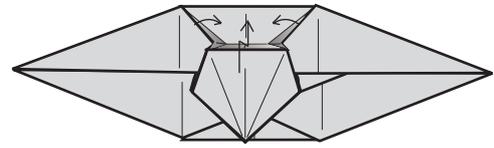
14. Unfold back portion.



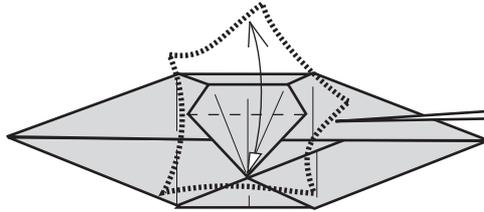
15. Pull top point back to 3D form.



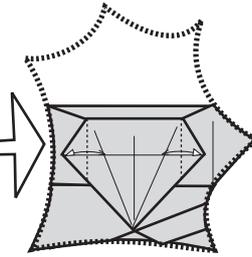
16. Install new creases and collapse flat.



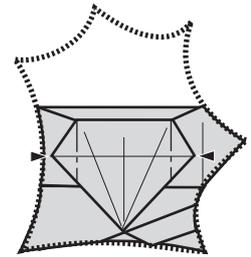
17. The step in progress.



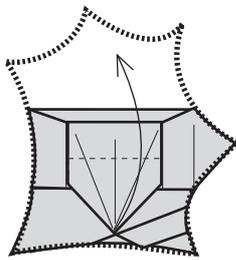
18. Precrease. Next steps shows the enlarged view.



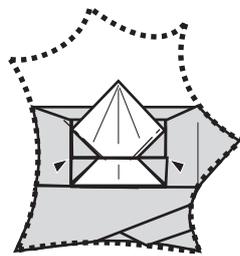
19. Precrease. The fold connects to the top corners.



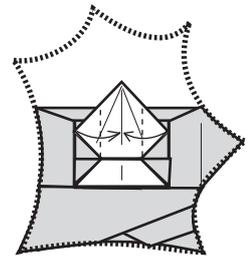
20. Reverse inside.



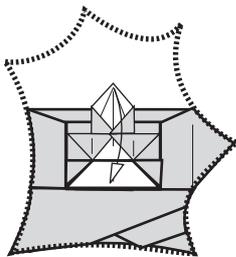
21. Valley up as far as it will go without stretching gussets.



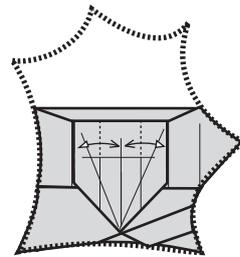
22. Reverse inside.



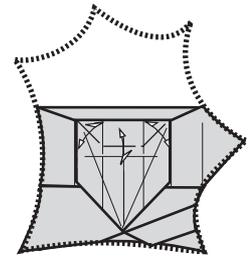
23. Valley based on the edge of the coloured corners. In some cases, both folds overlap slightly.



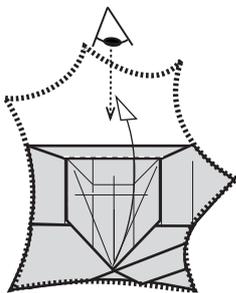
24. Unfold back to step 21.



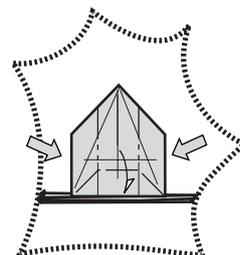
25. With earlier creases installed, extend the crease line to the top.



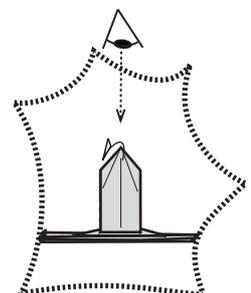
26. Carefully insert some mountain creases.



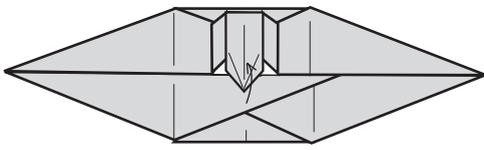
27. Lift up the flap. Model will not lie flat.



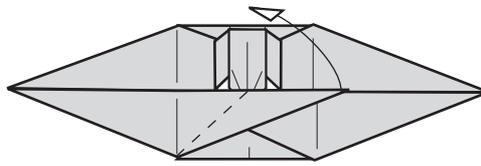
28. View from the front. Collapse into a box formation.



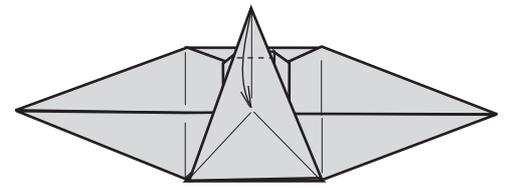
29. Fold back down flat.



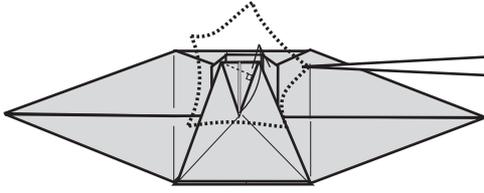
30. Bring entire flap to surface.



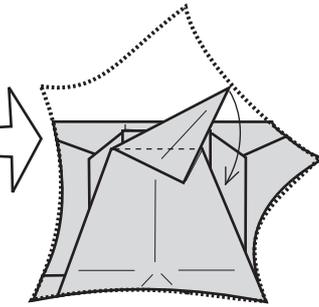
31. Undo rabbit ear.



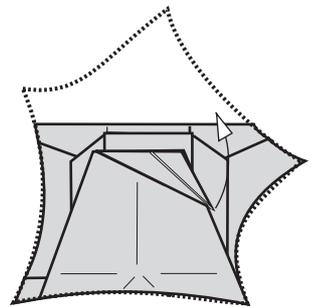
32. Valley down.



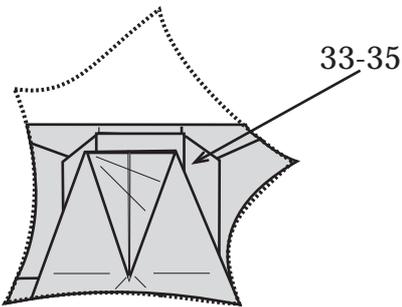
33. Valley up. Next drawing is an enlargement.



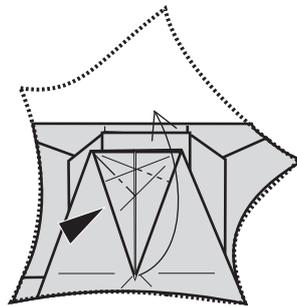
34. Valley down along angle bisectors.



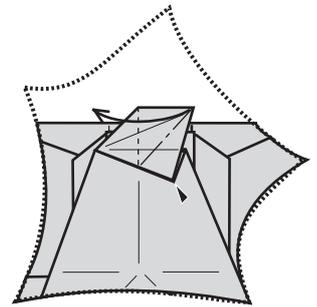
35. Unfold back to step 33.



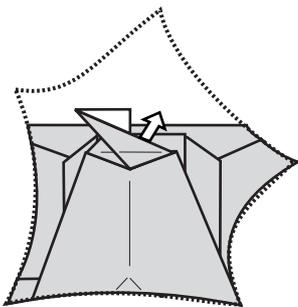
36. Repeat steps 33-35 on the other side.



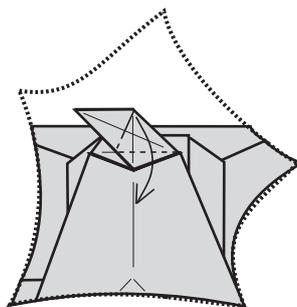
37. Asymmetric squash fold.



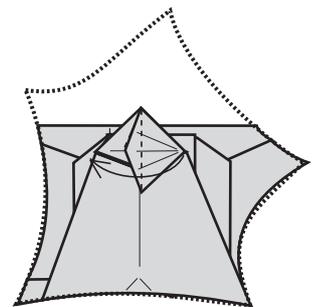
38. Swing to the left while incorporating a squash.



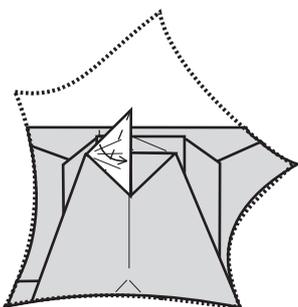
39. Eject some material symmetrically to surface.



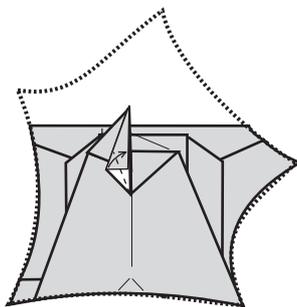
40. Fold down while incorporating a squash.



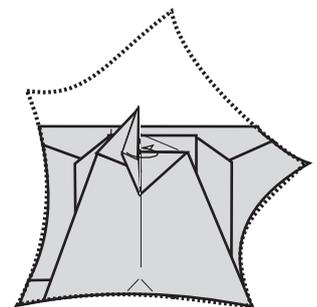
41. Valley.



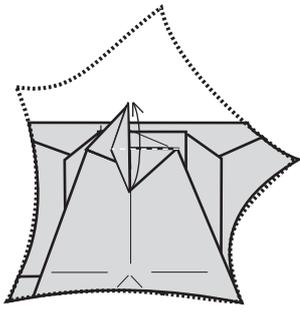
42. Valley along angle bisectors.



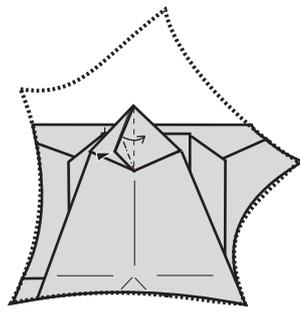
43. Valley along angle bisectors again.



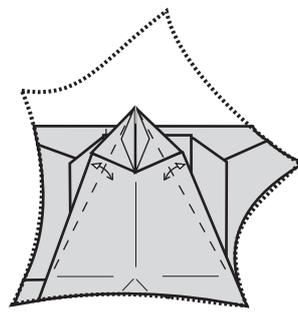
44. Fold the top flap inside the pocket beneath.



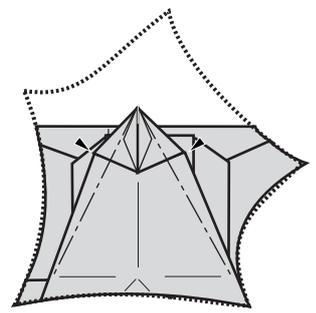
45. Valley up.



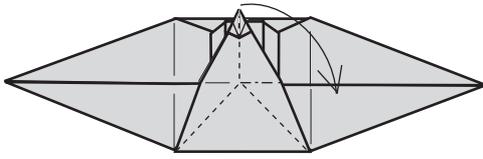
46. Valley to the left incorporating a spread squash.



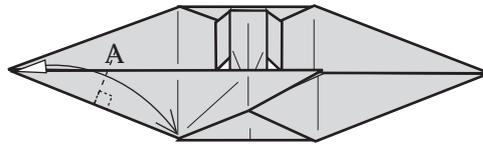
47. Precrease. Note landmarking creases.



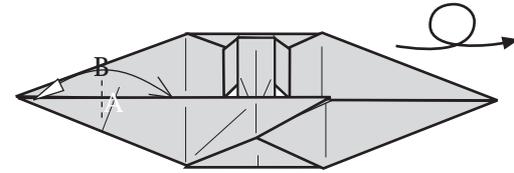
48. Closed sink both sides.



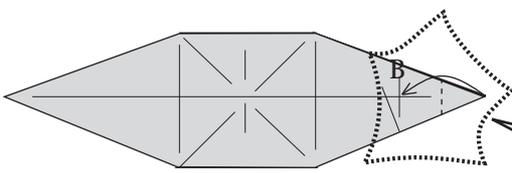
49. Full view. Reform the rabbit ear again.



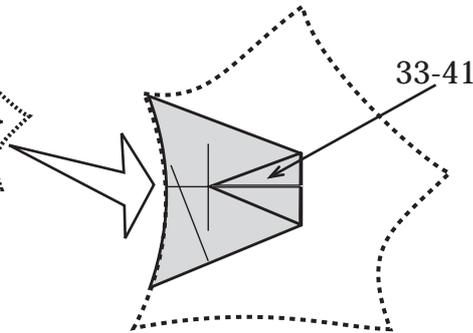
50. Precrease by a pinch mark. This is crease A.



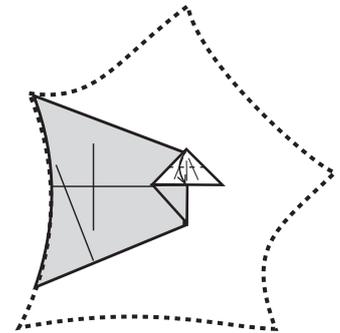
51. Precrease by a pinch using crease A as a landmark. This is now crease B. Turn over.



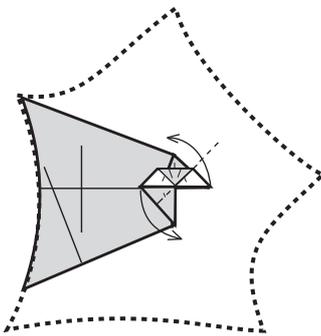
52. Valley to crease B.



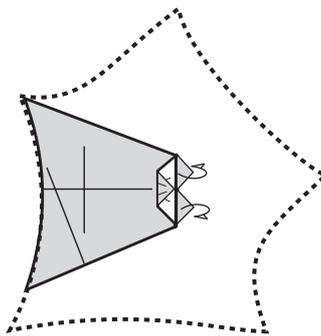
53. Enlargement detail for folding the wheels. Repeat steps 33-41 on the point.



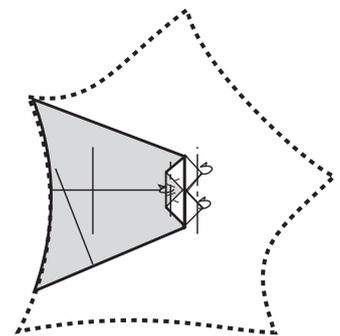
54. Valley.



55. Rotate flaps anti-clockwise at 45 degrees. (Reverse folds will occur)

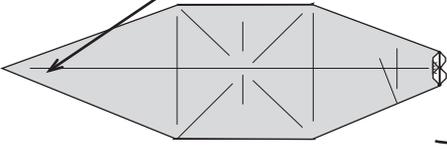


56. Wrap a single layer on each side.

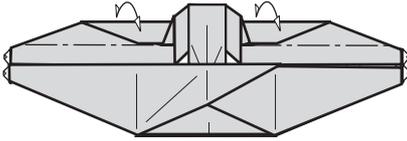


57. Trim the sides with mountain folds. This completes the wheel.

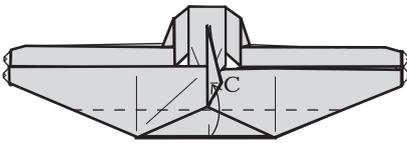
50-57



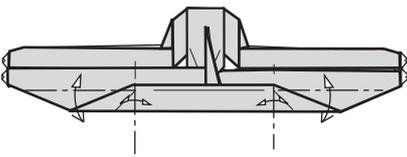
58. Repeat steps 50-57 on the other side. Then turn over.



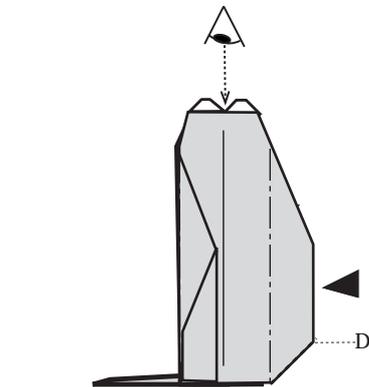
61. Mountain precrease.



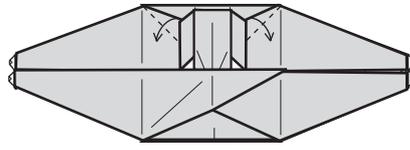
64. Valley up to the extent that the sides hit corner C of the crane claw.



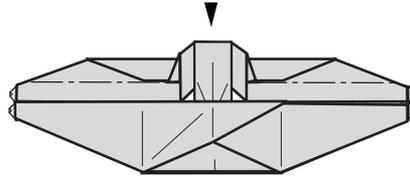
67. Modify the indicated creases to mountain folds. This simplifies the collapsing at the next step.



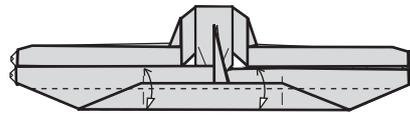
70. Ok, the hardest step. From the side view, point D becomes the corner. Make a closed sink on the pointed edge into the leg taking point D with it.



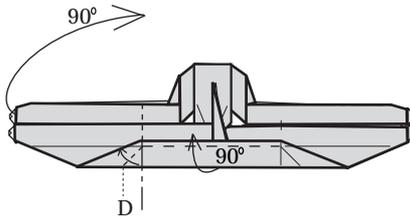
59. Swivel two flaps down.



62. Closed sink at the back flap.

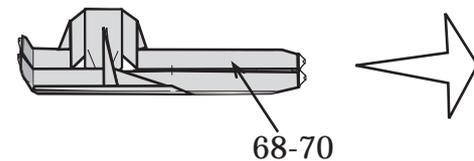


65. Precrease to the centre. Note the crease runs through the folded flap in step 64.

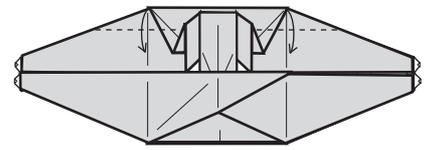


68. Fold the first leg at a 90° position, while collapsing the creases made in step 65-66, the segment at the back also goes 90° .

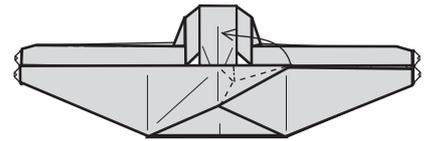
Watch edge D. Too much to digest? If you folded the masu box, you will get a hang of this!!!



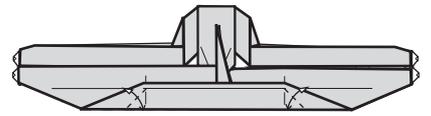
71. Top view. Repeat steps 68-70 on the other side. Ok don't go blind, I'm enlarging the next drawing!



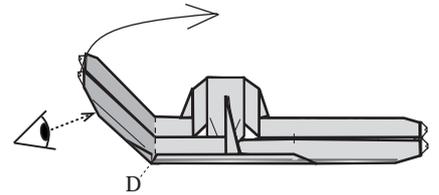
60. Valley fold beneath the top layer.



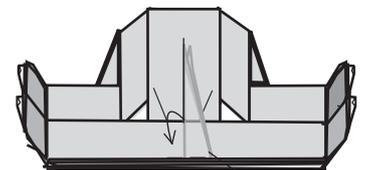
63. Rabbit ear the point up. This will be the crane claw mechanism.



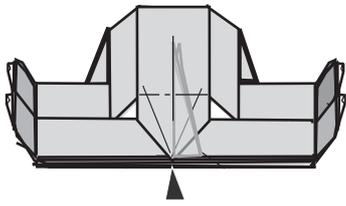
66. Precrease along angle bisectors of indicated creases.



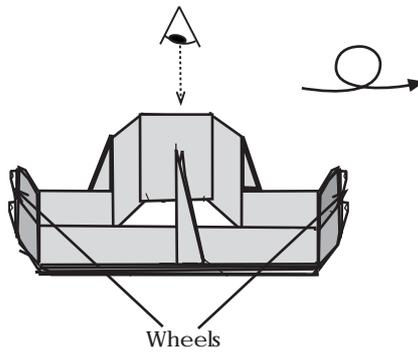
69. This shows how the legs and back gets folded 90° . Next drawing is a side view.



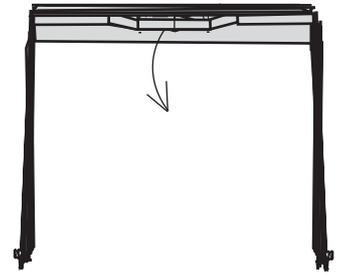
72. The claw is temporarily blurred for clarity. Now pull out the traped flap.



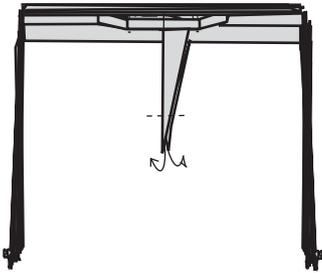
73. Reverse inside.



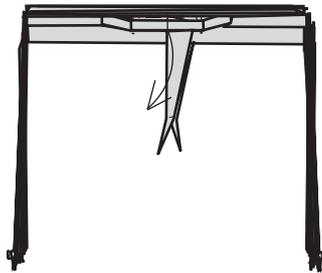
74. Turn over. You will now place the crane on its wheels. Next drawing focuses on the front.



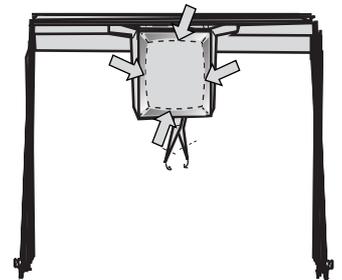
75. Front view. Swing down the claw to view.



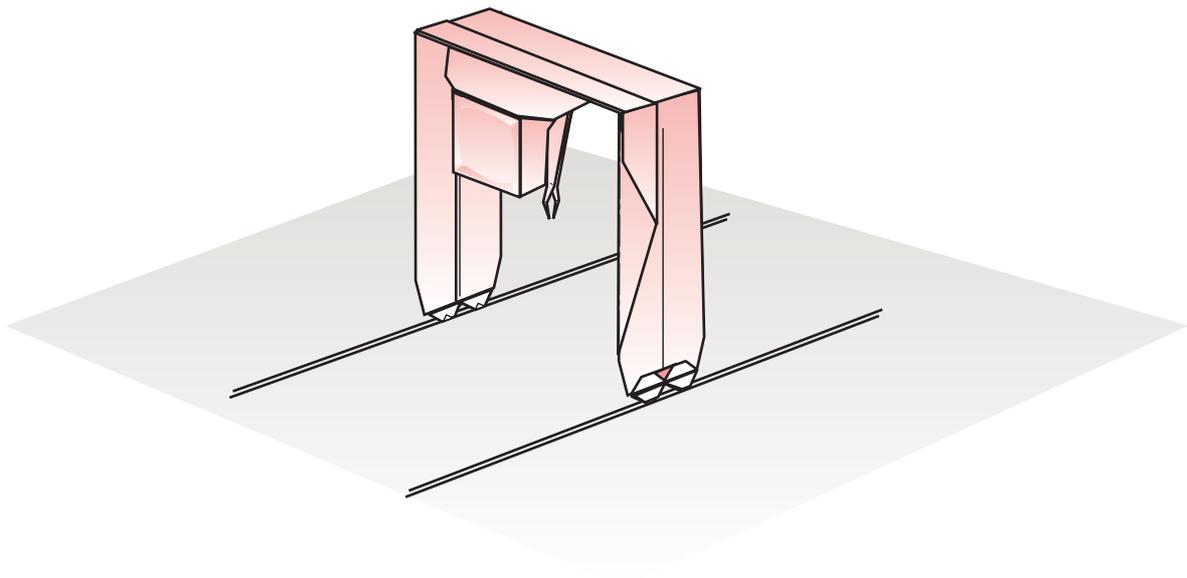
76. Spread out the claw and shape to taste.



77. Pull out the cab into a box shape.



78. Form the window of the cab and shape it to taste. Then add final shaping of the claw.



79. Completed Gantry Crane.

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