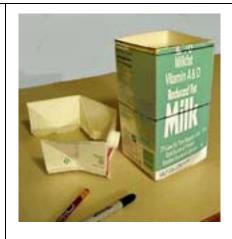
## How to make a small Robot



## **Materials**

1 large fruit juice carton
1 small fruit juice carton
Egg Box
Drinking straw
2 small soap boxes
5 Bathroom tissue tubes
Elmer's Glue or similar
Glue brush
Hot glue gun
Masking tape
Felt tip pen and scissors
White and coloured acrylic or
poster paint and paint brush



1.Measure the width of one side of the box, then measure the same distance up from the bottom, draw a line around all four sides at this height.







2. Draw another line around the carton, the same distance as the first line. Cut around the top line to remove the top of the carton.

3. Cut downwards at each corner from the top edge to the first line, to make four flaps.

4. Fold these flaps over to make a closed box, fastening the edges neatly with masking tape.







5. Make two boxes for the little robot, one slightly bigger than the other. One for the body and one for the head.

6. Use two bathroom tissue rolls for the Robot's legs. Draw a circle about half an inch from the end of each roll, with lines down to the rim, as shown above.

7. Cut on the short lines as far as the drawn circle, and bend back the little tabs as shown.



8. Repeat steps 6 and 7 for each end of the two leg rolls.



9. Fix the legs to the base of the bigger box, either by hot-gluing the tabs and pressing them on the base, or by sticking them down with masking tape.



10. After the legs are fastened to the body, the tabs at the other end of the tubes are hot glued or taped to the small soap boxes, to make the feet.



11. Now the body, legs and feet of the Robot are fastened together, and it is time to make a neck and fasten the head on.



12. Use a very short tube for the neck, cutting into the rim to make tabs as in steps 6 and 7. Fix one end of the short tube, to top of body section.



13. Next, glue, or tape the tabs at the top end of the tube to the base of the small box, to make the Robot's head.



14. If you want to make thinner arms for the Robot, cut along the length of a third tube, and cut a slice out as shown above.

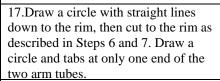


15. Slightly overlap the long edges and tape together to make a thinner tube.



16. The photo above shows the thinner 'arm' tube, now fastened with taped along the length and around each end. Make two thinner tubes like this.







18. Open the tabs flat at one end of each arm tube.



19. Either hot glue or tape the tabs, one tube, to each side of the body as shown, making sure they are positioned near where 'shoulders' would be



20.Two 'cup' shapes from an egg box were hot glued at the base then fastened near the top of the head, for eye sockets, and a drinking straw used for antennae.



21. Two, short, narrow, lengths of card, bent over and glued into the sleeves, make hands. Only half the Robot was painted to show the construction.



Some of the techniques used in making the small robot can be applied to any size of robot. The one at the right is about 36 inches high.

These techniques can be used in many different projects. For example, the closed box method, used on the body and head of the robot, is also used on the Giant Dice. The method for fixing the arms and legs to the body, using tabs on the end of tubes, is the same as that described in fitting the wheels to the moon buggy.

Incorporate basic methods such as these for creating your own or group projects. Just enjoy!