

# ENGINE HEART

## Helper Robot /Recycling Ben Instructions

Papercraft Model  
By Jim Bowen



1



Print the model page on card stock and get your supplies ready. You will need Scissors, Glue, a hobby knife, an edging marker, a ruler and a cutting mat.

2



Cut out all of the pieces. Use the marker to hide all the white edges along the cut lines.

3



Find the undercarriage and both tread sections. Fold along the lines shown in **RED**.

4



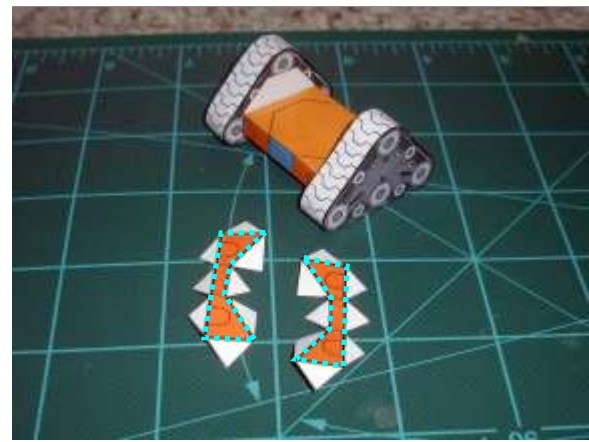
Before applying glue, fold the shapes together. Curl the treads to follow the contour of the wheels. Make sure all your fold lines are crisp.

5



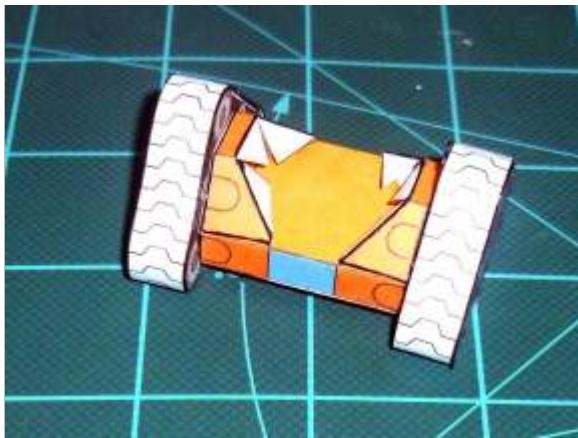
Glue each tab and seal the parts together. If any white is visible, color it with your edging marker.

6



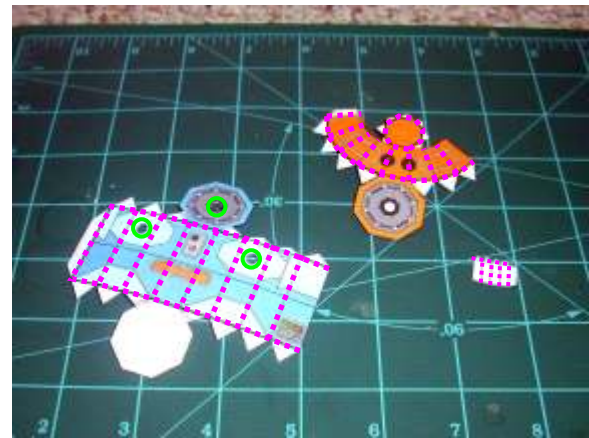
Glue the tread sections to either side of the undercarriage. Find the two Tread Connector parts and fold them along the **BLUE** lines shown here.

7



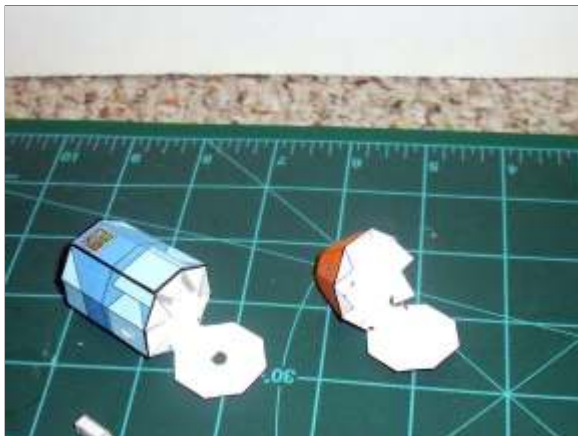
Glue the tabs and attach the parts to the inside section of each tread, connecting it to the undercarriage.

8



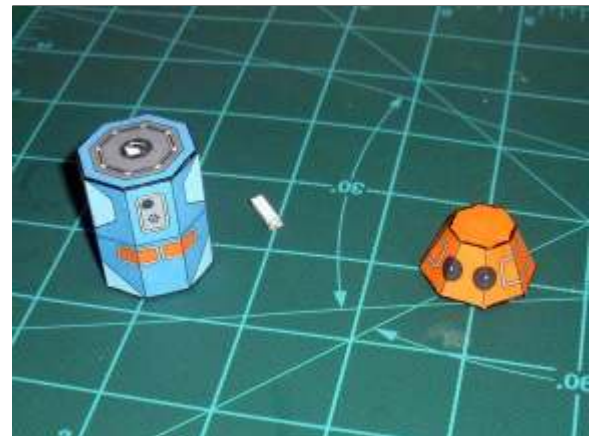
Find the Head, Torso and Neck Joint parts and fold them along the **MAGENTA** lines shown here. Notice the circles highlighted in **GREEN** should be cut out.

9



Glue the tabs on each end of each long edge of both the head and torso parts and attach them to the opposite side.

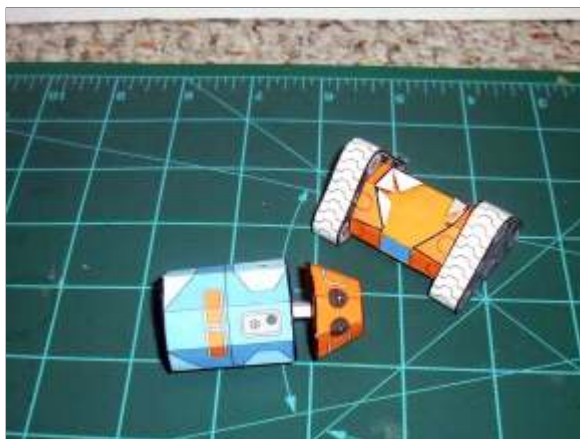
10



Glue the remaining tabs and close the shapes together. The square peg of the neck pin should fit snugly into the hole in the top of the torso.



11



Glue neck pin to the underside of the head. After the glue has thoroughly dried, insert it into the hole in the top of the torso.

12



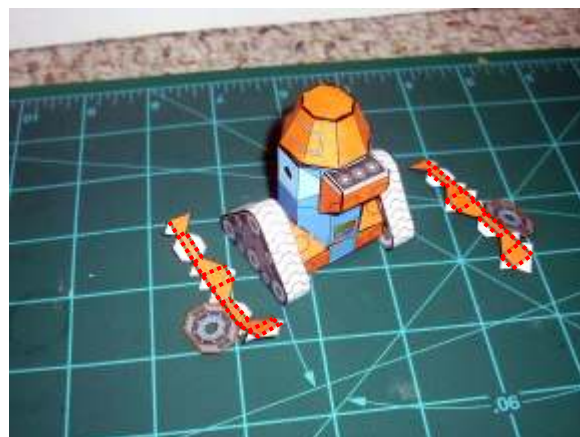
Glue the inside tabs of the tread connectors and the underside of the torso before joining the pieces together. Find the Backpack part and fold along the **GREEN** lines shown here.

13



Glue the tabs and fold the backpack unit together. Note that for the Green Recycling Robot, the backpack unit will go on the bottom side of the back of the robot instead of the top.

14



Glue the backpack unit to the back of the torso. Find the two shoulder/torso connector pieces and fold along the lines shown in **RED**.

15



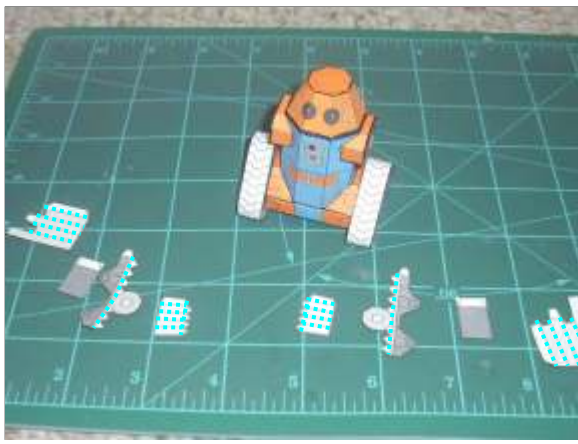
Glue the tabs on the long edges and connect them to the opposite side. Once this is done, fold the remaining tabs inward.

16



Glue the remaining tabs and close the outside flap down onto them.

17



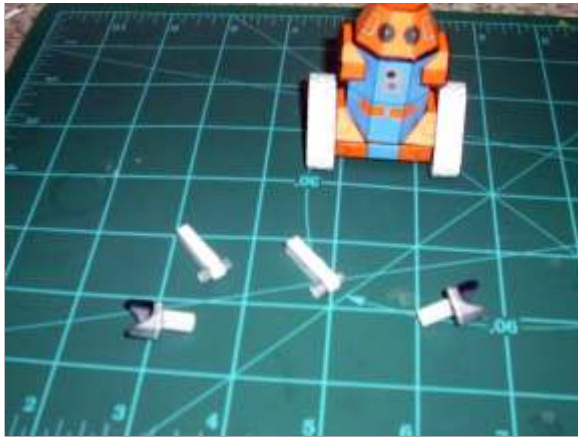
Glue the shoulder connectors to both sides of the torso. Find the shoulder pins, pivots, housings, and arms part 1 for both the left and right arms and fold along the lines shown in **BLUE**.

18



Glue the tabs and fold each section together. The shoulder pivots and arm 2 segments will be rolled into tubes.

19



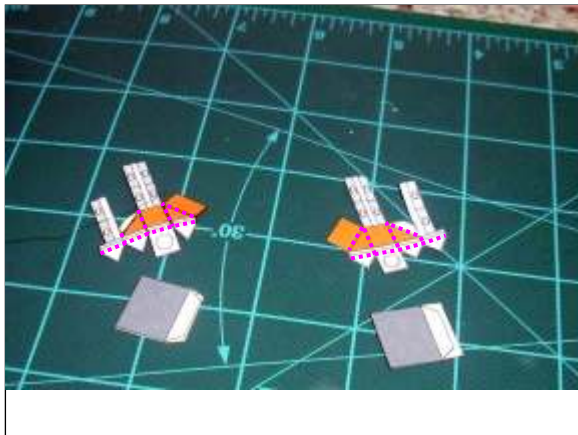
Glue the shoulder pins to the shoulder housings as shown. The flaps on each arm 1 part will be glued and folded over the shoulder pivots, making sure the pivots can rotate with some friction.

20



Glue the open ends of each shoulder pivot and attach them to the inside of the shoulder housings. Insert the shoulder pins into the shoulder connectors on the torso.

21



Find both the left and right arms 2 as well as the left and right hands. Fold the hands along the lines shown in **MAGENTA**.

22



Glue the backs of each finger and fold them in half over the reverse side as shown. Roll arms part 2 into tubes.



23



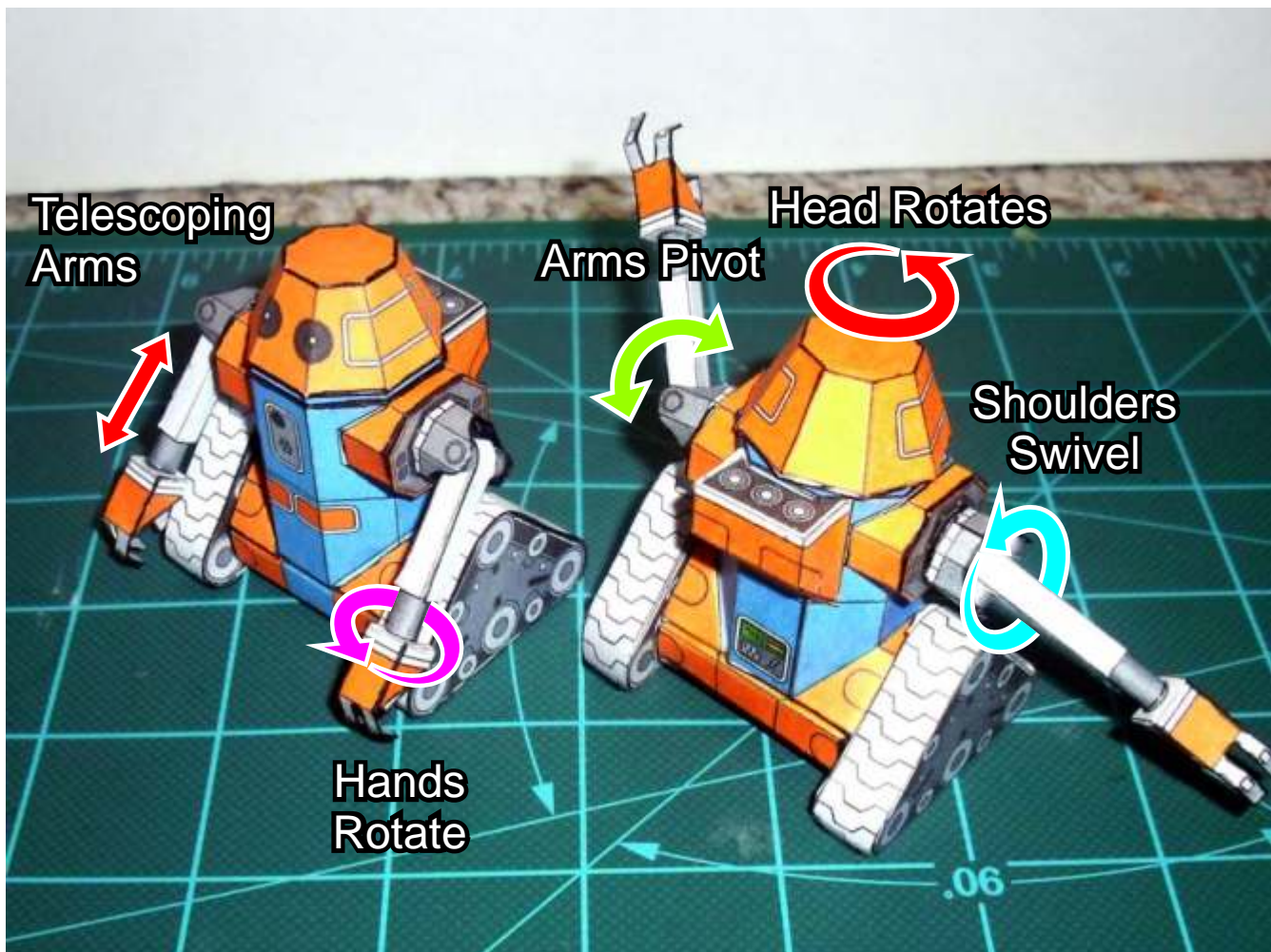
Glue the tabs and fold each hand together.

24



Glue one open end of each arm 2 section and adhere it to the circles on the underside of each hand. Fold the fingers inward as depicted.

25



Insert the rounded arm 2 tubes into the square arm 1 tubes. They should fit snugly allowing for both rotation and a degree of in and out movement.