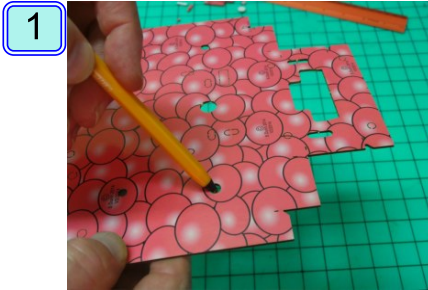


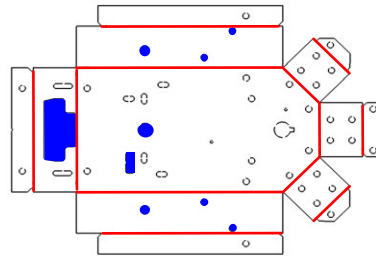
Images taken from our
YouTube video

Equipment Needed

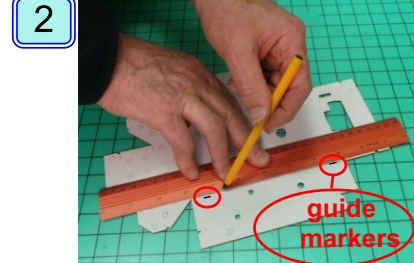
- (1) HapPi-Robot Kit
- (2) Ball Point pen
(preferable thin point type)
- (3) Clear adhesive tape
(12mm wide is easiest to use)
- (4) Rule (30cm long is ideal)
- (5) Cutting board (protect table)
(or work on used paper)



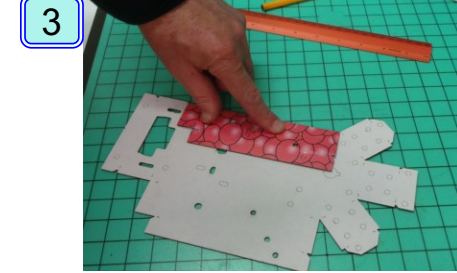
1 Push out holes needed, see next drawing. You can use a ball point pen for this.



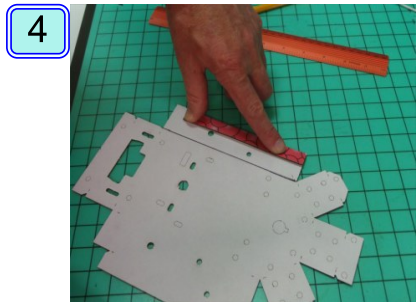
Drawing showing holes and score lines. Only need holes marked blue.



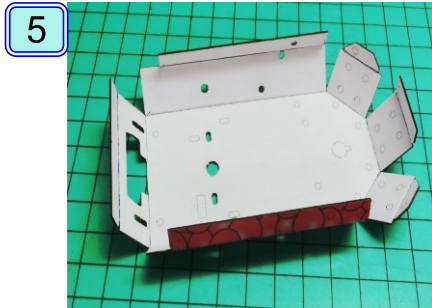
2 Score the fold lines using a ball point pen by joining the guide markers.
NOTE Score a light line first



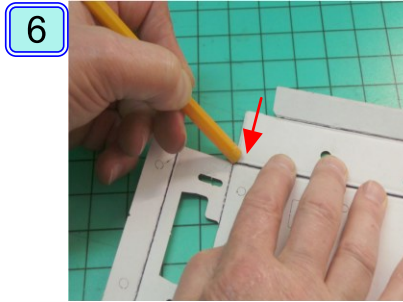
3 Fold along the first score line



4 Fold along the second scored line



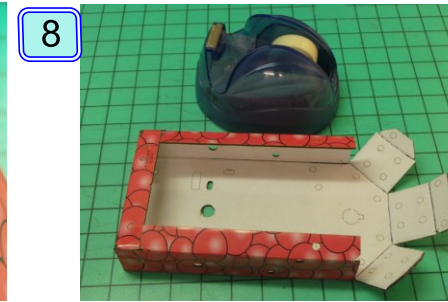
5 Complete the other folds so it looks like this.



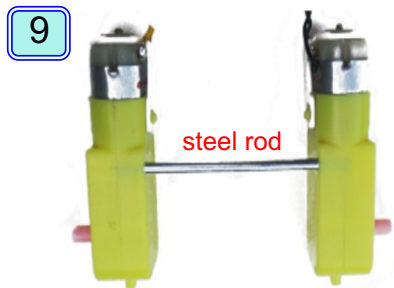
6 Optional - bevel edges that will touch, by dragging along the edge with a pen end at 45 degrees.



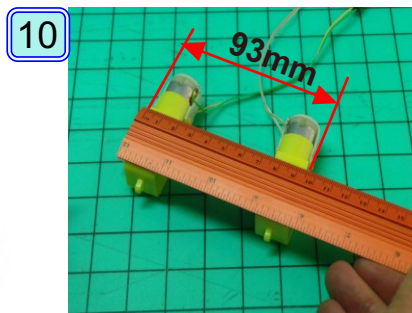
7 Tape only the back corners using clear tape.



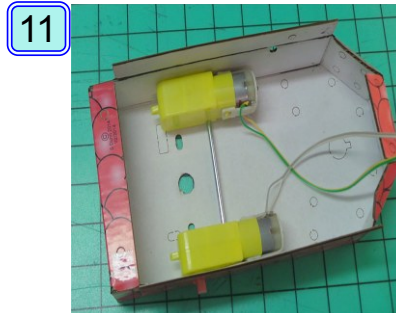
8 At this stage we we can add the motors - see next steps.



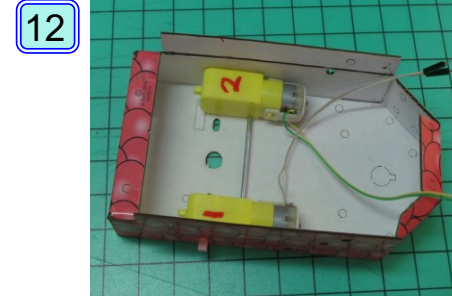
9 Push the 3mm steel rod into the motors holes as shown.



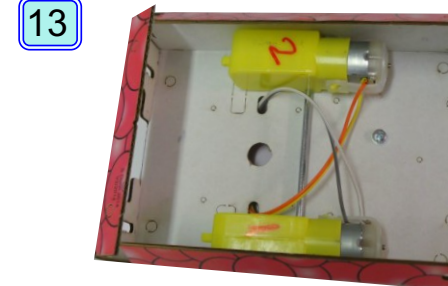
10 Twist and waggle the motors until they are 93 mm apart.



11 Slide motors into place as shown with axles through holes.

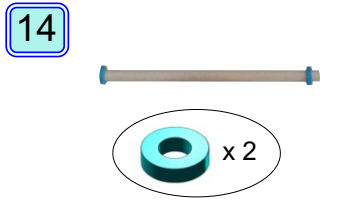


12 Number motors 1 and 2 as shown.

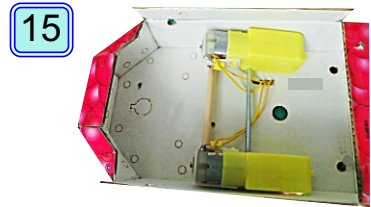


13

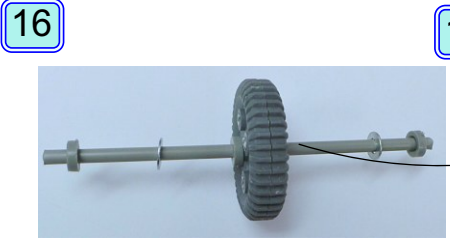
(Note - Raspberry Pi B model uses 2 larger bolts instead of the 4 smaller shown here)



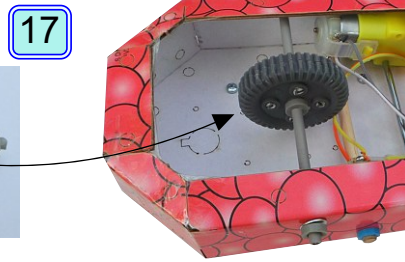
Get the **dowel rod** and two **blue collars** ready then



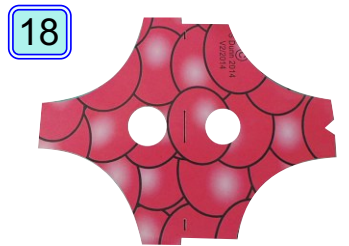
... slide **rod under the electric motors** and fix in place with one collar at each end.



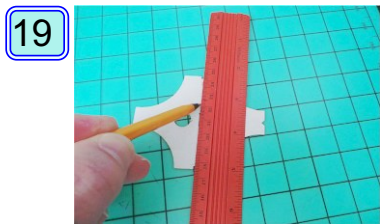
Assemble ball wheel parts as shown then



... add **front ball wheel** as shown and fix with the **blue collars**.



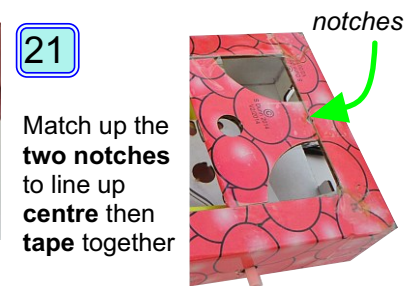
Push out the **holes covers** as shown in the **pen holder piece**



On the back **score line** by joining the fold **guide marks**.



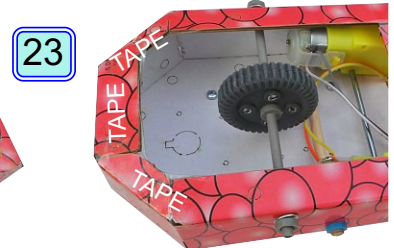
Fold in half and hold together with a piece of **clear tape**.



Match up the **two notches** to line up **centre** then **tape** together



Join **pen holder** to sides as shown. (you may need to **squeeze sides** in a little so it fits properly)



Complete **taping** and add **extra pieces of tape** where needed.

24

Fix the Raspberry Pi using nuts and bolts

OR see other pages for alternatives.

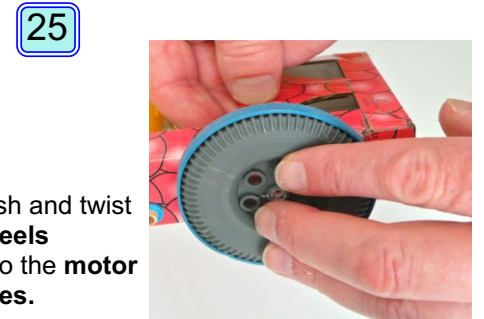
2

3

two bolts used

a) Place the **washer** on the **bolt** then pass up from underneath then
 b) add **spacer** on top then c) add **Raspberry Pi** and fix with the two **nuts**.

Model B bolted on top of the **HapPi-Robot**

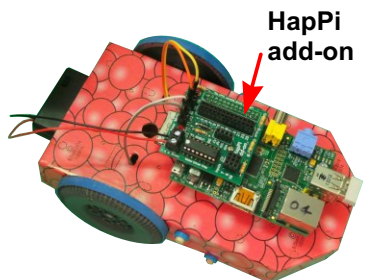


Push and twist **wheels** onto the **motor axes**.

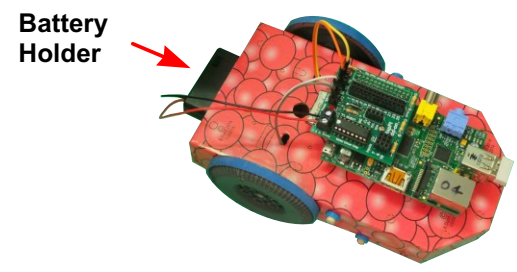
26

(a) Carefully **add the HapPi add-on** to the **Raspberry Pi**

(b) Add **4 AAA batteries** in the **battery holder** then connect **red wire** to **+** connection and **black wire** to **negative**.



(c) Push **battery holder** into the back of the robot
 (d) Connect **wires** from **motor 1** to **motor 1** on **HapPi add-on**.
 (e) Repeat likewise for **wires** to **motor 2**.



Add stickers if wanted

Also needed a 5V Power pack for the Raspberry Pi Options to consider (on pi-school website)