

Activity 1 – Worksheet B

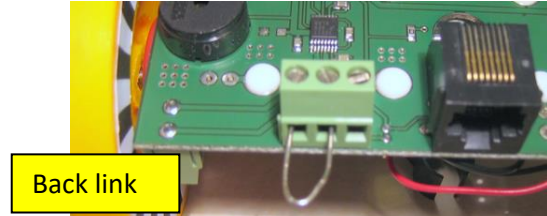
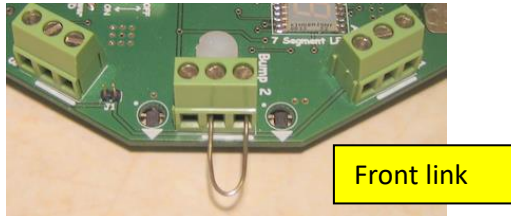
Additional Tests

Aim:

To ensure that the robot is built and wired correctly and that there are no hardware faults in the robot.



Preparation:

Add TWO wire links to the robot as follows (use paperclips):



Running the test:

Put a ✓ or ✗ in the last column if the test was successful or failed.

Test	Action	Comments	✓ or ✗
1.	Place robot on the floor and switch on.	Display should show the message tEst8	
Press any switch to continue to the next test			
2.	As each LED comes ON press the switch below 	LED A comes On → press SW-A LED B comes On → press SW-B LED C comes On → press SW-C LED D comes On → press SW-D Tests the four LEDs and the four switches	
3.	Ensure robot is on the floor then press switch A	Robot should move forward for 5 seconds	
4.	Press switch A	Robot should turn left for 3 seconds	
		Display will now show the message SEt POTs	
5.	Set all 3 POTs to point to the batteries. Then press switch A 	If successful the display will show tEst_End If there is a problem the display will show Err_Pot_1 or 2 or 3	

If you have five ✓ then robot works and is correctly wired. If any ✗ then ask your teacher for a copy of the diagnostic sheet.

Once the tests are complete, remember to remove the two wire links.