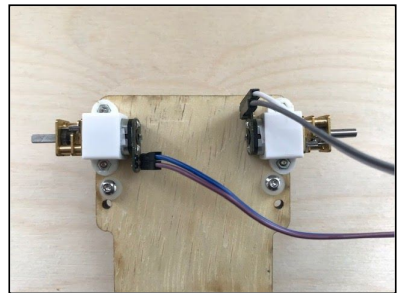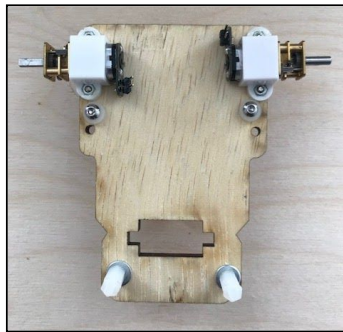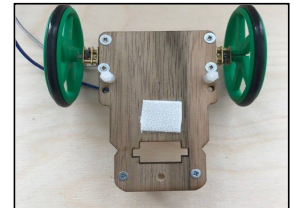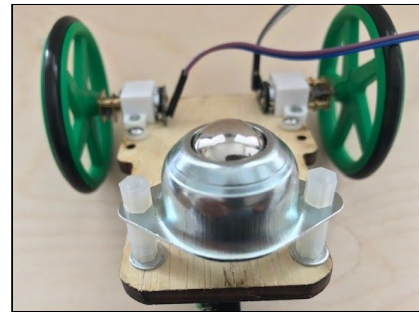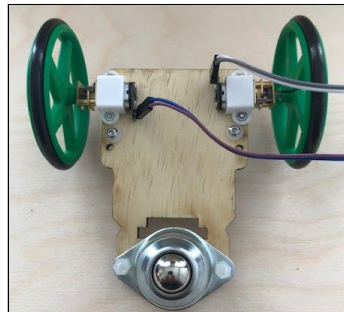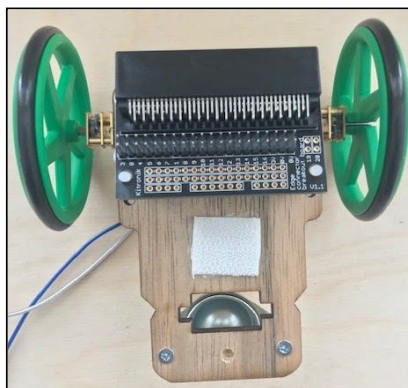| 1. | Turn the chassis over as shown in the photo. We'll start by attaching the jumper wires - by doing this first, you'll be protected from the sharp pins on the motorsl. **Make sure your wiring is exactly the same as in the photo**. | | **Double check your wiring!** |

| 2. | Attach the wheels to the motor shaft. Align the D - shape in the centre of the wheel with the D-shaped motor axel & push on firmly. | | | |

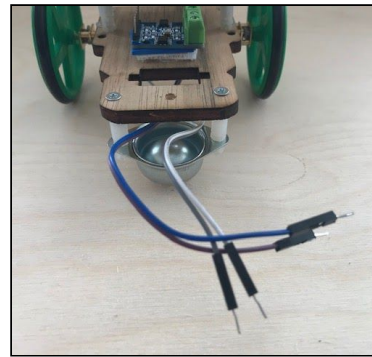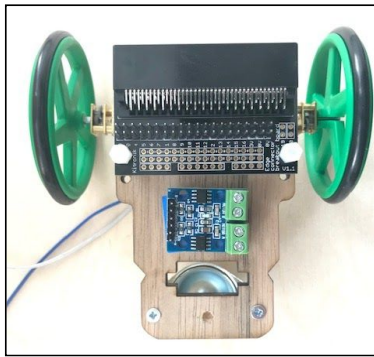| 3. | Place the castor wheel onto the plastic mounts at the front of the chassis. Then secure using two of the plastic fixings. | | |

| 4. | Place the edge connector on the standoffs at the rear of the chassis and secure using two of the plastic fixings (As shown in the diagram). | | |

5.	Position the motor driver board and press down firmly to secure with Velcro and then thread the jumper wires through the gap in the front		

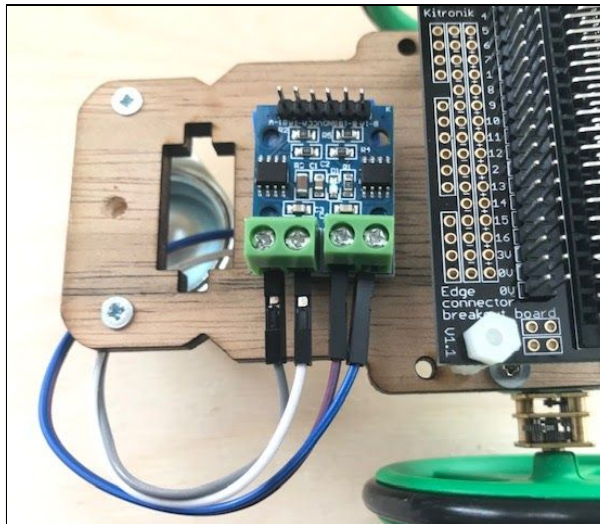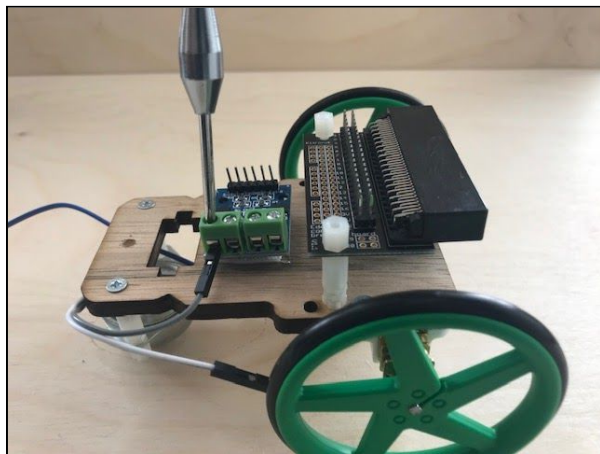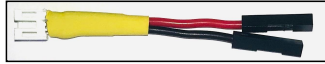| 6.	Using a ==screwdriver== connect the ==male end== of the motor jumper wires to the terminals on the motor driver board (As shown in the diagram). **Always double check your wiring before moving onto the next stage!** **Male jumper wire** **screwdriver**	

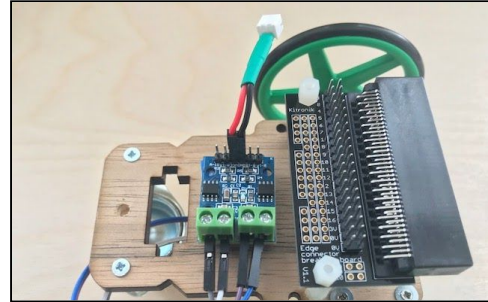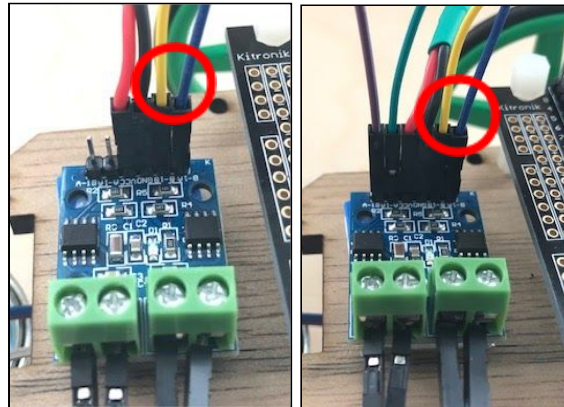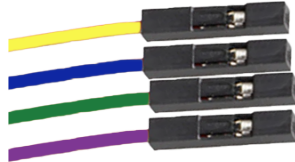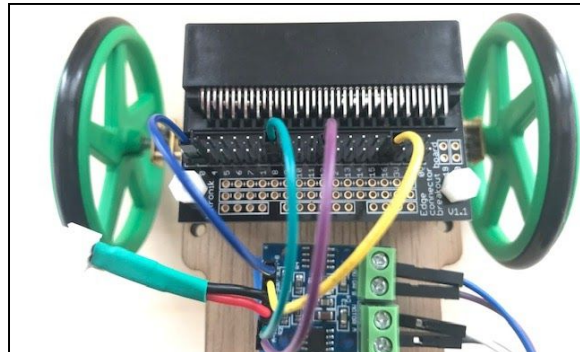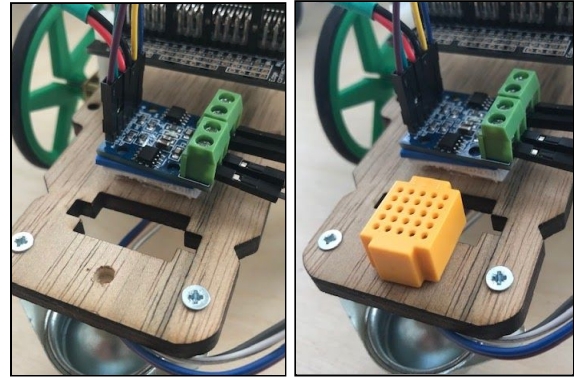|	
7. Add the <mark>small power cable</mark> to the motor driver board as shown in the photo. **Double check your wiring before moving to the next stage.** Yours will be yellow (as above) or green (shown on the right).	
8. Connect the small yellow, blue, green and purple <mark>female</mark> jumper wires to the motor driver board as shown in the photograph. **Double check your wiring before moving on to the next stage!**	

9. Now attach the other end of the jumper wires to the edge connector as follows: <mark>yellow</mark> goes to pin 16; <mark>blue</mark> goes to pin 0; <mark>green</mark> goes to pin 8; <mark>purple</mark> goes to pin 12.
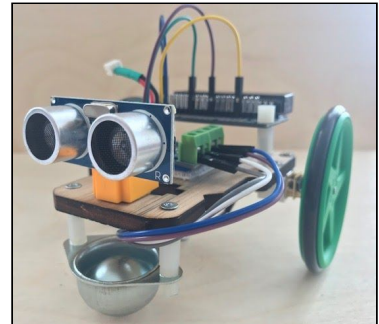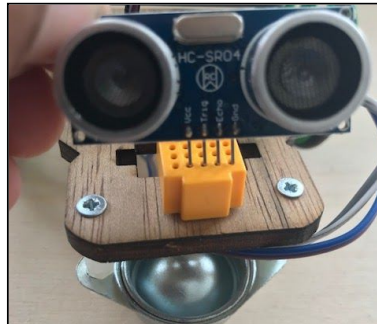
Jumper wire:	Pin number:
<mark>yellow</mark>	16
<mark>blue</mark>	0
<mark>green</mark>	8
<mark>purple</mark>	12

10. Attach the <mark>mini breadboard</mark> to the hole in the front of the chassis, pressing down firmly making sure that velcro keeps it firmly in place.	

11. Insert the <mark>sonar sensor</mark> into the mini breadboard. **Make sure that the <mark>GND</mark> pin is on the far right of the breadboard**.	

12. Now wire the sonar to the edge connector as follows: Brown from 0 volts to the ground pin on the sonar; yellow from pin 14 to the trigger; Orange from pin 13 to the Echo; red from the 3 volts pin on the edge connector to VCC of the sauna.	

13.	

14.	

15.	