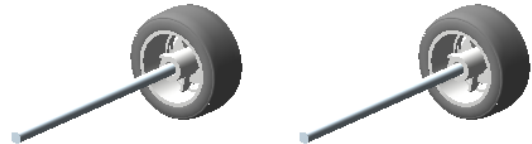


The components supplied by Scalextric for the Scalextric4Schools Challenge can be assembled to the standard chassis in the following way.

Sub assemblies

Axles

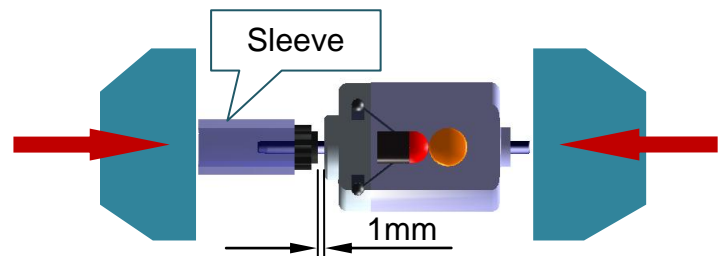
1. Use a bench vice to push a **wheel** on to an **axle**.
2. Repeat this for another wheel and axle.



Motor and pinion

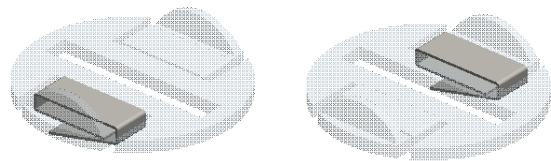
3. Use a sleeve in the vice to squeeze the small black pinion gear onto the motor shaft.

Note: A section cut from a ball-point pen barrel works well as a sleeve. Stop when the gap between the gear and motor body is 1mm.

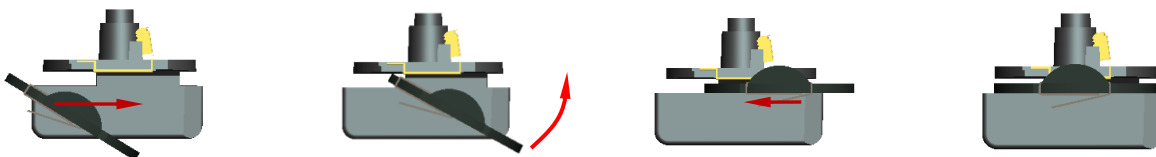
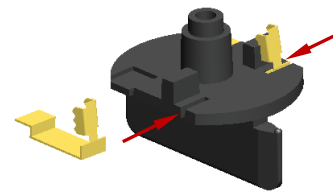


Slot guide

4. Locate the braid holder. Make sure the holder has the curved edges pointing upwards.
5. Fold the braids around the holder as shown.
6. Locate the main slot guide body.
7. Insert the contacts on either side.
8. Note: you may find it easier to solder wires to the contacts before assembly.



9. Tilt the braid holder as shown and slide it over the rear of the slot guide body.
10. When the braid holder reaches the end of the slot tilt it up until it is horizontal.
11. Gently push the braid holder towards the rear of the slot guide body until it reaches the stop

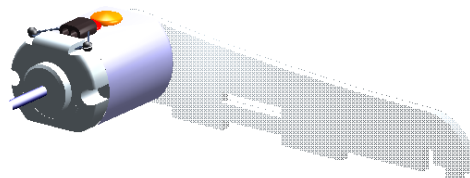


Chassis assembly

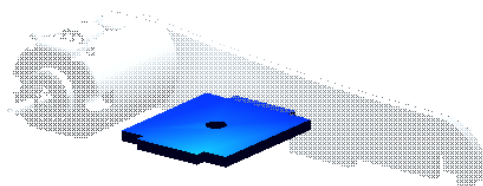
12. Locate the side frame with the small, circular motor hole.



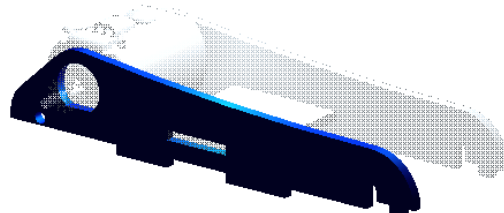
13. Insert motor into side frame.



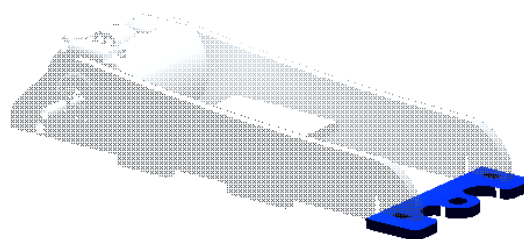
14. Insert centre plate into side frame.



15. Add second side frame.

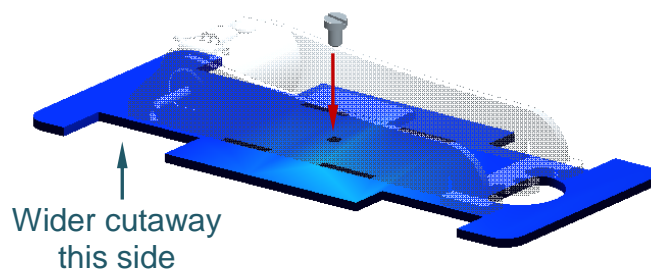


16. Add the slot guide mounting plate.

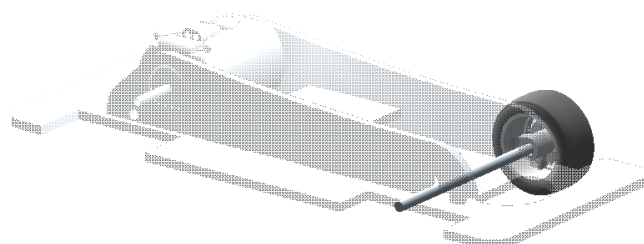


17. Add the chassis base and secure with M4 machine screw.

Note: Make sure the widest rear wheel cutaway is on the motor pinion side.

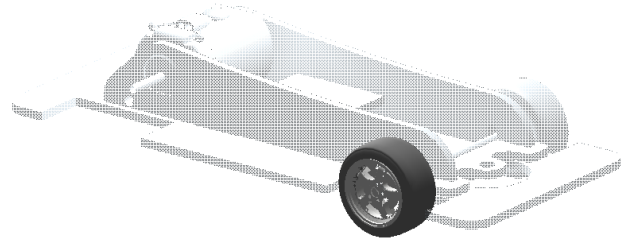


18. Insert one of the wheel/axle sub assemblies through the frames.

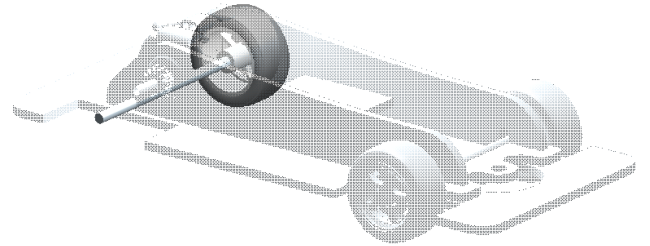


19. Use a bench vice to squeeze the second wheel onto the front axle.

Note: Stop before the wheels begin to pinch the chassis base.

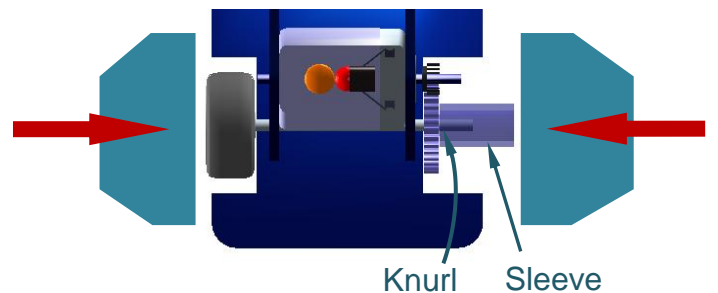


20. Insert the remaining wheel/axle sub assembly through the frames.



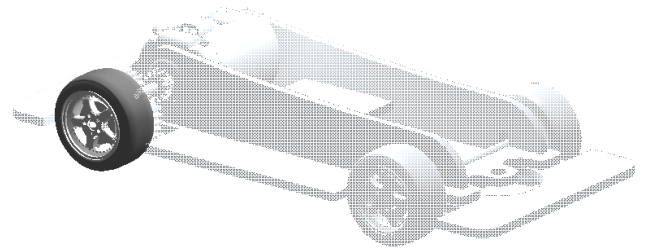
21. Use a sleeve in the bench vice to squeeze the large black spur gear onto the rear axle.

Note: Stop when the gear is still on the last bit of the knurl on the axle.

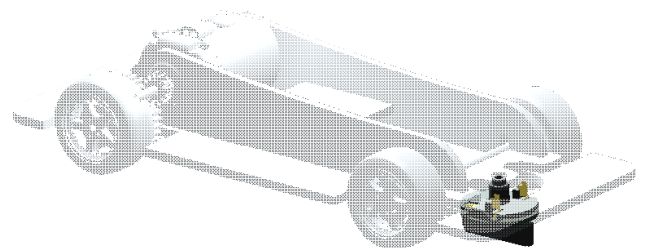


22. Use a bench vice to squeeze the second wheel onto the rear axle.

Note: Stop as soon as the wheel touches the large black spur gear.

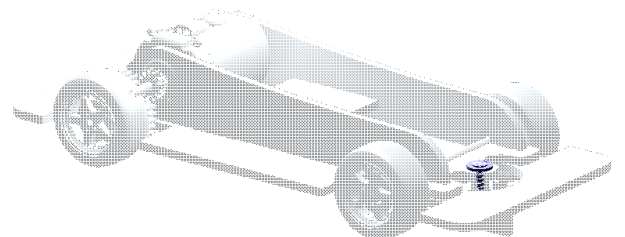


23. Insert the slot guide sub-assembly from underneath the support plate.

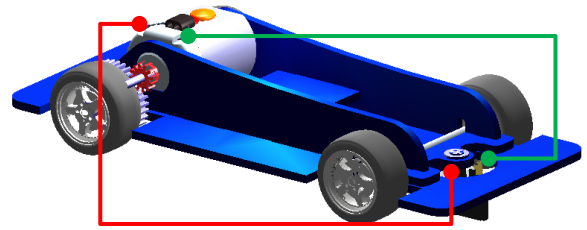


24. Insert the slot guide fixing screw making sure the slot guide can rotate freely.

Note: Do not over tighten!



25. To make sure the car goes round the track in the correct direction, solder the flexible wires between the contacts shown here.



The finished chassis should look like this.

