

Manual transmission assembly guide

Shifter



1. Use M4 12 mm screws to secure the bottom part, where the ball rests, to the mounting part of the shifter.

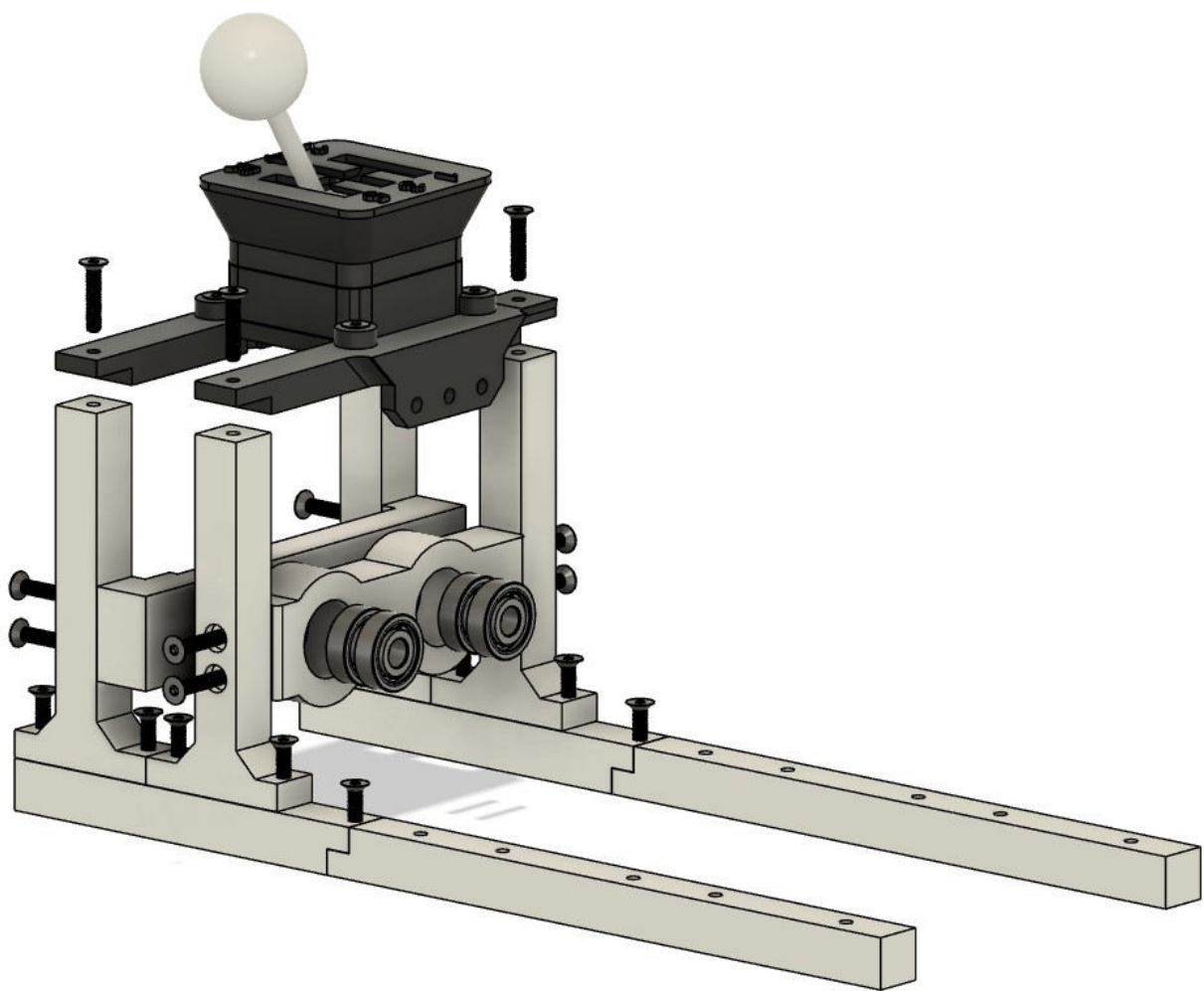
2. Pass the shifter stick through the ball and glue it in place.

3. Position the ball in its designated place. Secure it using the middle piece by passing M3 screws through their holes and

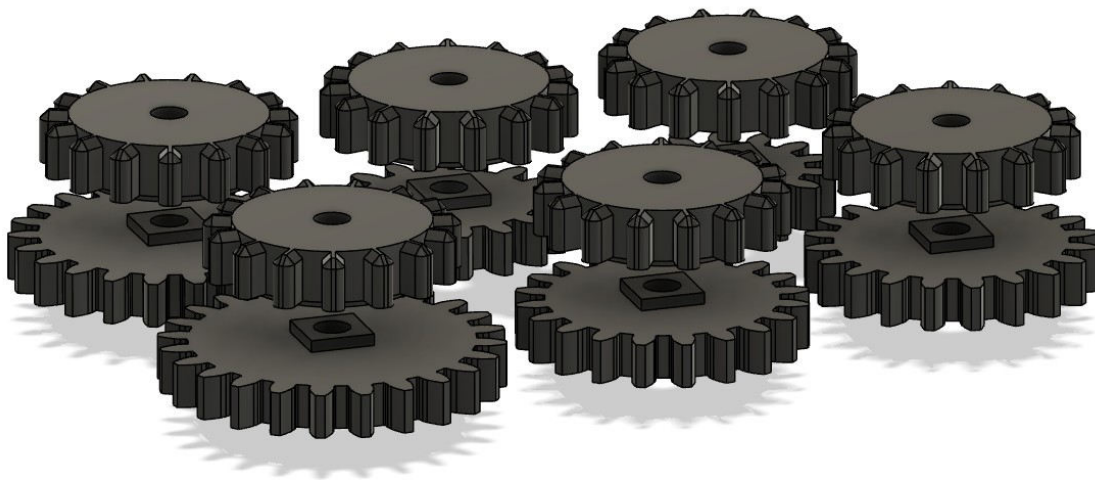
tightening them. Use nuts on the underside of the mounting part to secure these screws.

4. Glue the top plate to the part beneath it. Then glue this assembly to the rest of the transmission.

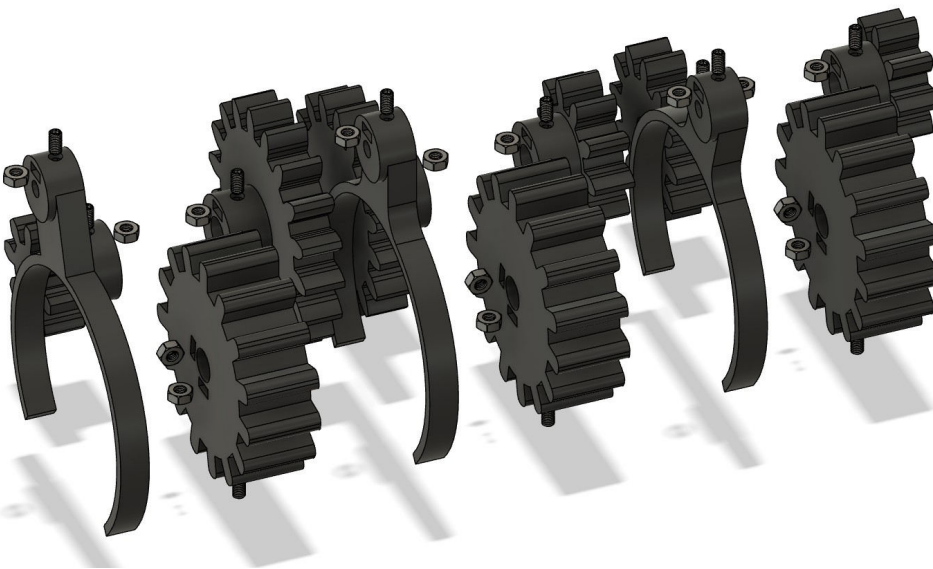
5. Glue the shifting knob in place on the shifter stick.



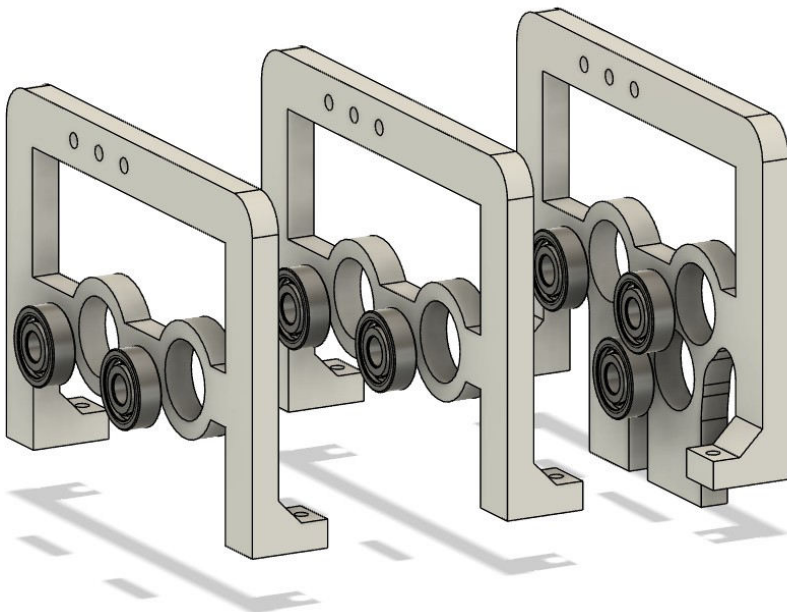
- 1.** Connect the feet together using one M4 15mm screw each.
- 2.** Screw the pillars in place using M4 20 mm screws.
- 3.** Insert the 608 bearings into their designated holes in the front shaft holder.
- 4.** Screw the motor mount and the rod holder in place using M4 20 mm screws. Ensure you position the motor mount between these two parts at this step to avoid any fitting issues.
- 5.** Secure the shifter assembly to the main structure with M4 20 mm screws.



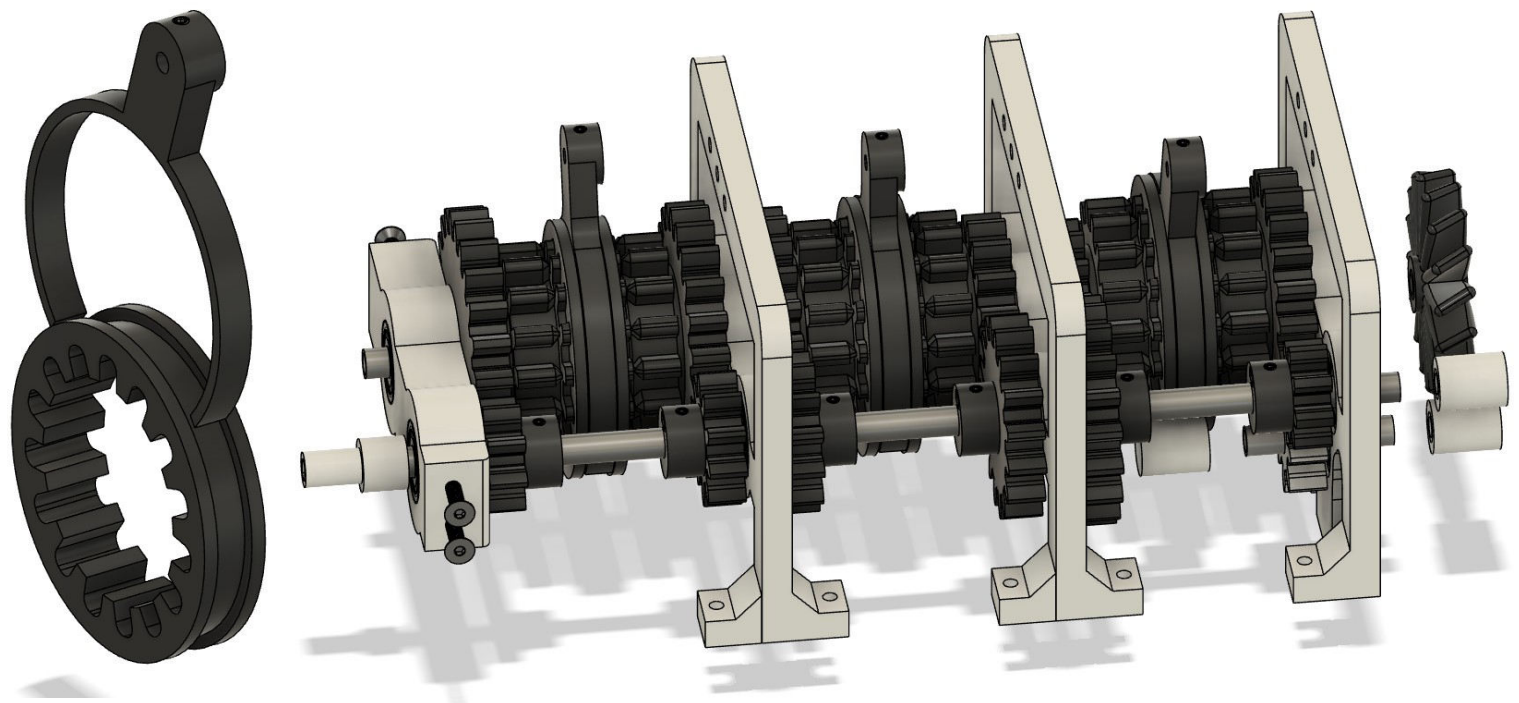
6. Glue the gears with the square extrusion to the gear dog teeth.



7. Insert all the nuts and grub screws into their designated parts as shown in the reference picture.



8. Insert the 608 bearings into their corresponding holes in the assembly.

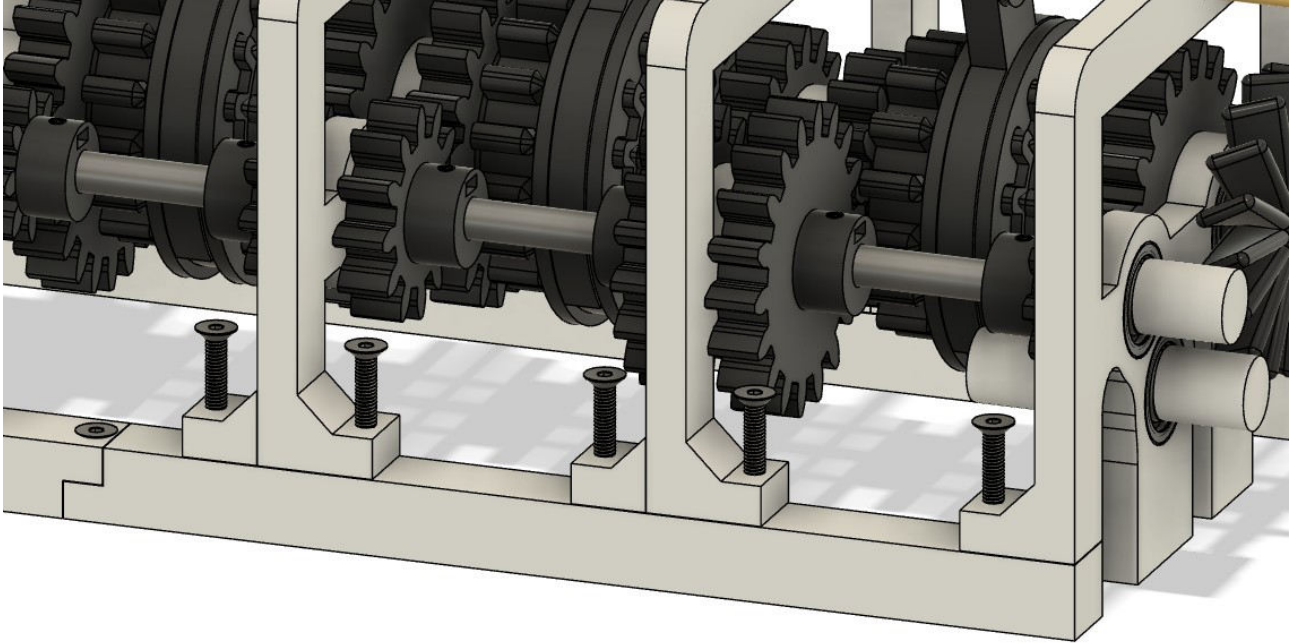


9. Slide the shift forks onto the synchronizers

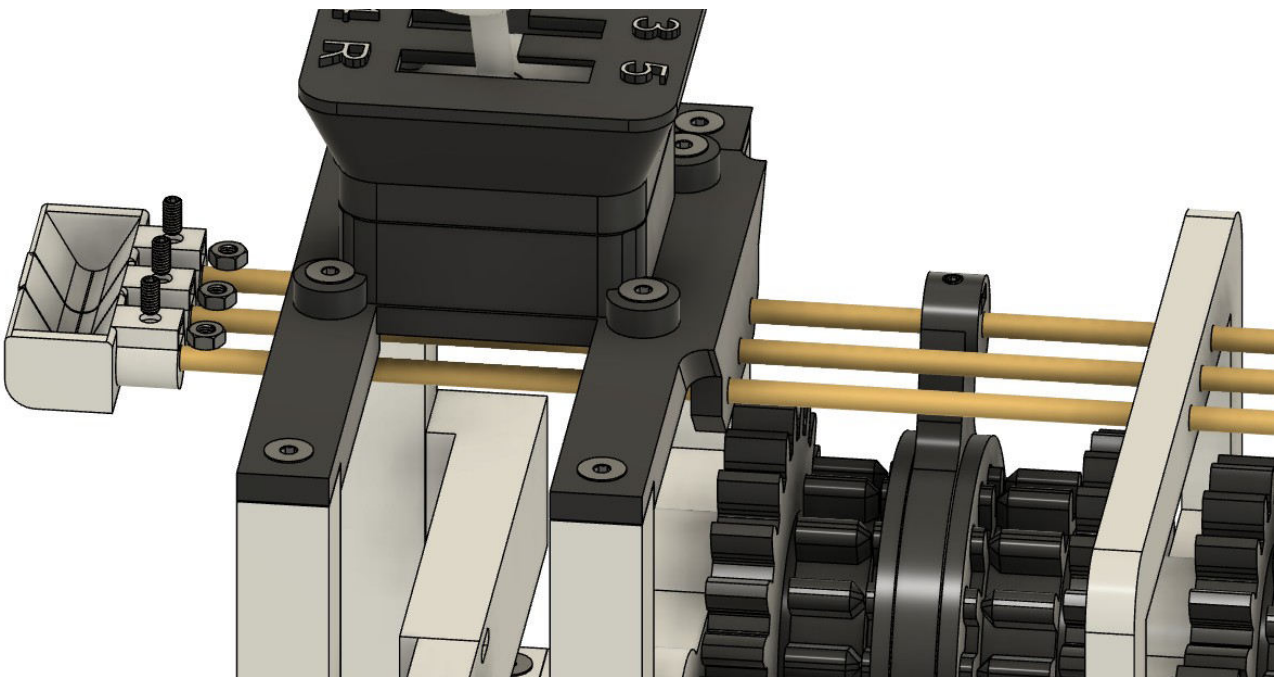
10. Pass the rods through the front shaft holder. Slide on the components as shown in the reference photo. Ensure the gears on the output shaft get progressively smaller, with the last one being as big as the 2nd one. The gears on the input shaft should get bigger, with the last one being as big as the 1st one but trimmed down a bit.

11. Insert the small rod with the reverse gear into its designated hole on the end shaft holder.

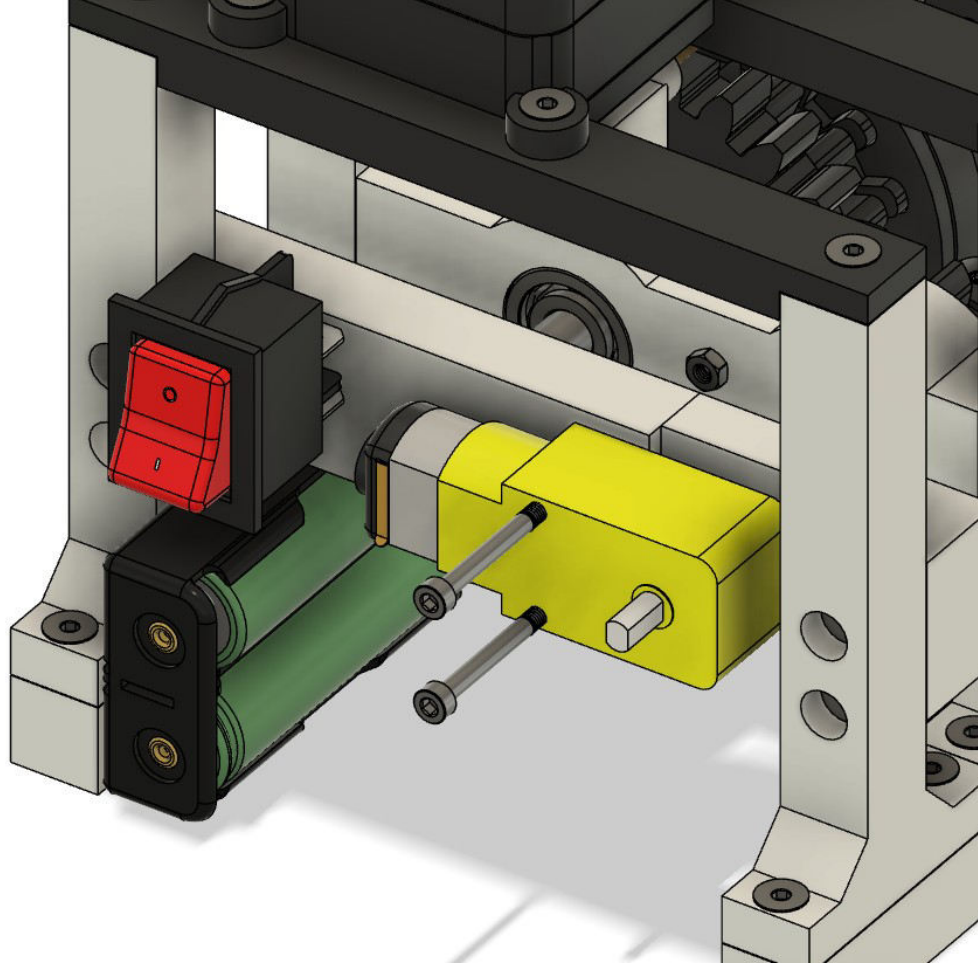
12. Place end caps on the exposed rods and attach the output wheel to the output shaft, following the reference picture.



13. Screw the rod supports and their small braces in place using M4 20 mm screws.



14. Slide a shifting rod through its holes and the shifting fork (1st fork on the left rod, 2nd on the middle rod, and 3rd on the right rod). Connect the shifting rod connector to the shifting rod and slide it into place under the shifting stick. Repeat this process two more times to ensure the shifting rods do not interfere with the shifting stick.



15. Glue the motor to the motor connector and screw it in place with 2 M3 40 mm screws and 2 M3 nuts. Place the switch and battery holder, as in the reference picture. Wire them up

16. Grease the transmittion, so that the small moter is able to spin.

Final Check

- Ensure all components are securely fastened.
- Verify that the shifting mechanism operates smoothly and that all gears engage properly.

Your manual transmission assembly is now complete!