

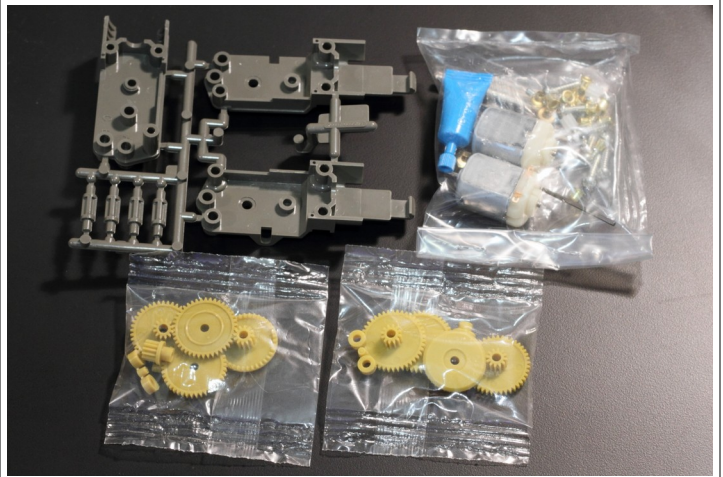
Assembly Instructions for Tamiya Twin-Motor Gearbox

Step 1: Check that you have all the needed parts

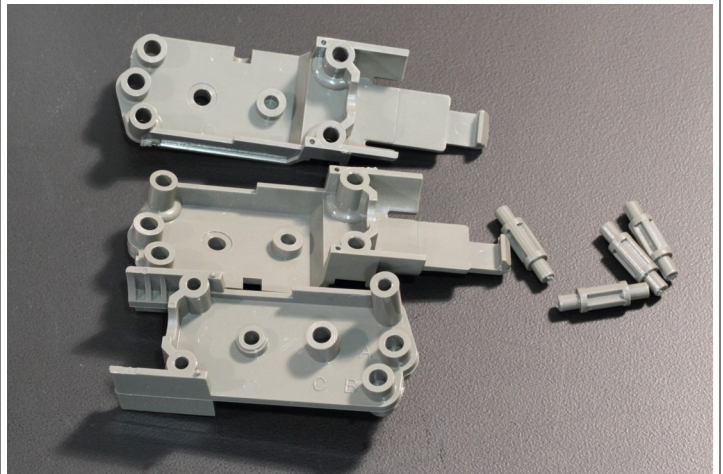
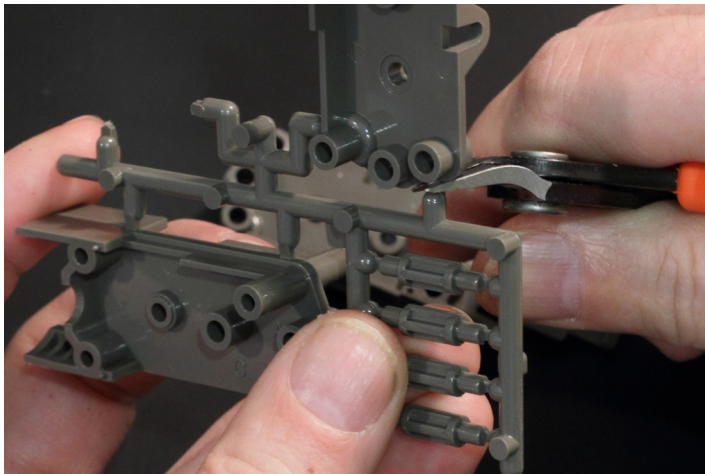
Gearbox middle and side pieces.

Two bags of gears.

Bag with axles, screws, eyelets, motors, grease, allen key and nuts



Step 2: Separate the gearbox sections from the sprue.

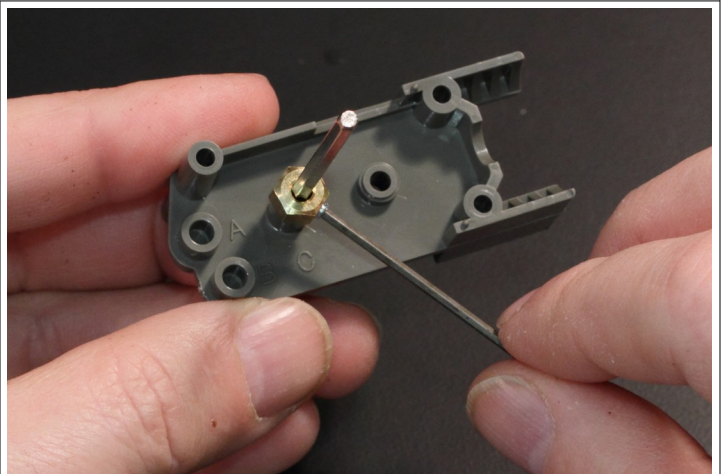
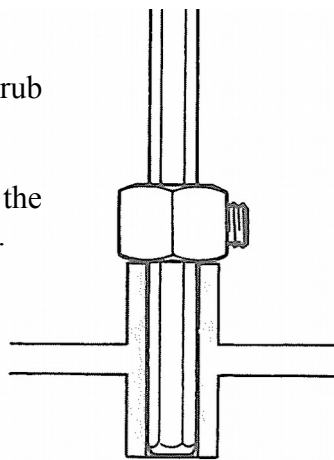


Step 3: Put the large nuts on the hex shafts

Attach the nuts using the grub screws and allen key.

Use the hole marked 'C' in the gearbox side as a depth jig.

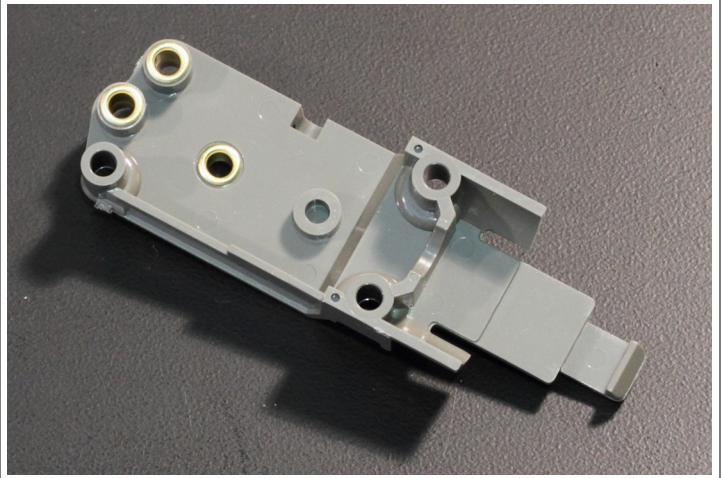
Make two sets.



Step 4: Put eyelets into the side of the gearbox

Place 3 eyelets into the holes in the gearbox side as shown.

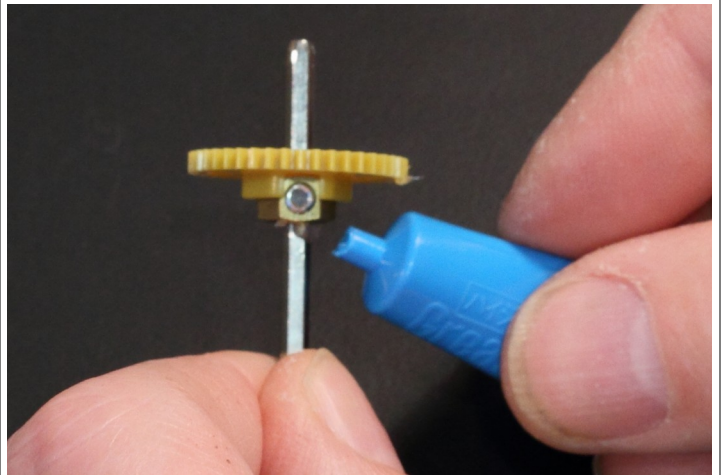
Make sure you have the correct side.



Step 5: Put a gear G3 onto a hex shaft

Place gear marked G3 (the one with the hole for the nut) onto one of the hex shafts as shown.

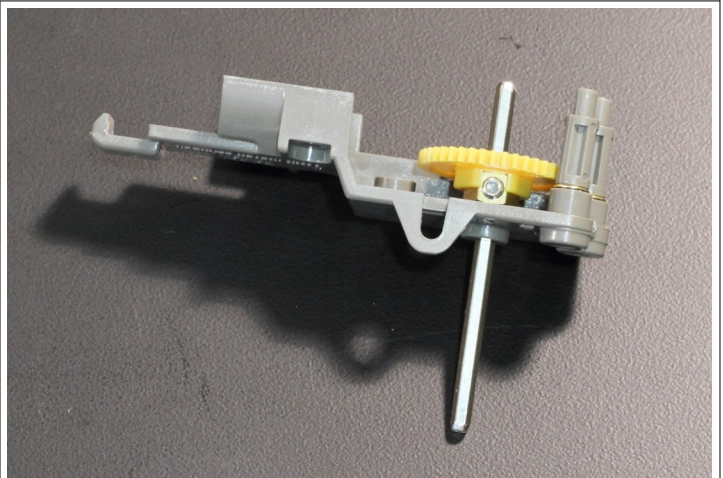
Put a small amount of grease on the shaft just under the nut and also a small amount onto the gear teeth.



Step 6: Put Gear and shaft into gearbox side

Insert the hex shaft with the gear into the hole in the middle of the gearbox side with the eyelet in it.

Also insert two spacers into the other two eyelets.

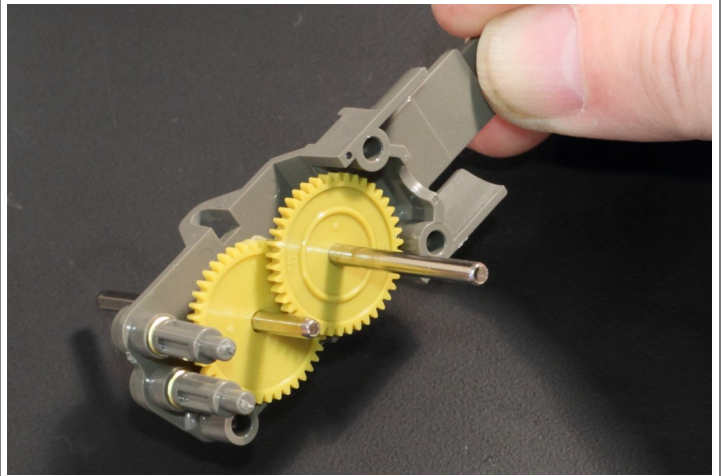


Step 7: Add the round shaft and second gear

Insert the round shaft into the remaining hole in the gearbox side.

Place a gear marked G2 over the round shaft with the smaller side facing in, as shown.

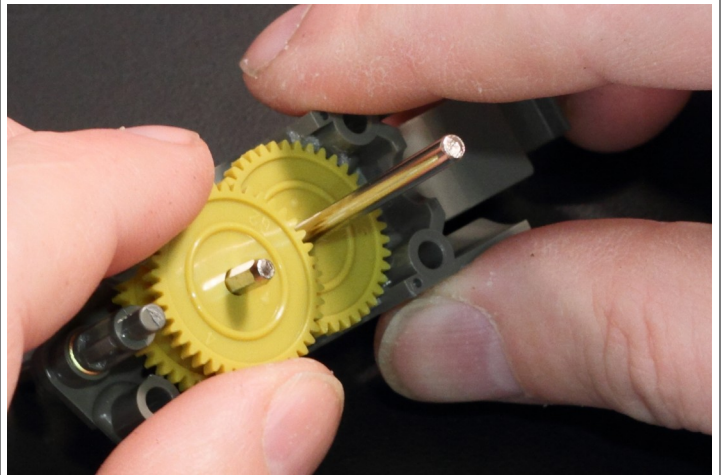
Place a small amount of grease onto the outer teeth of the gear.



Step 8: Add the next gear

Place another gear marked G2 over the hex shaft with the smaller side facing in, as shown.

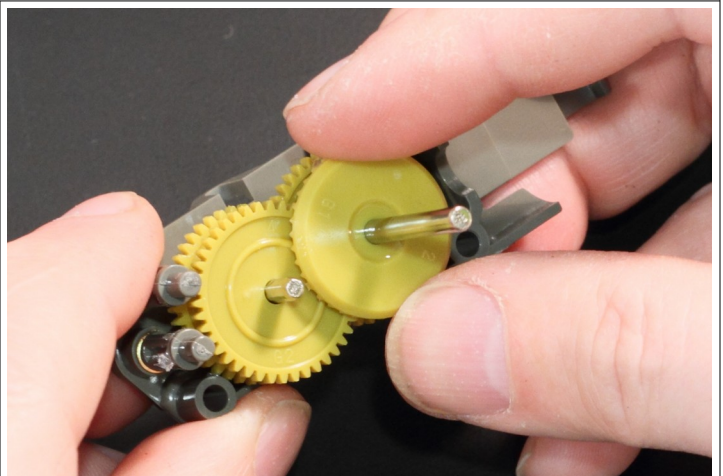
Place a small amount of grease onto the outer teeth of the gear.



Step 9: Add the last gear

Place the gear marked G1 over the round shaft with the smaller side facing in, as shown.

Place a small amount of grease onto the outer teeth of the gear.

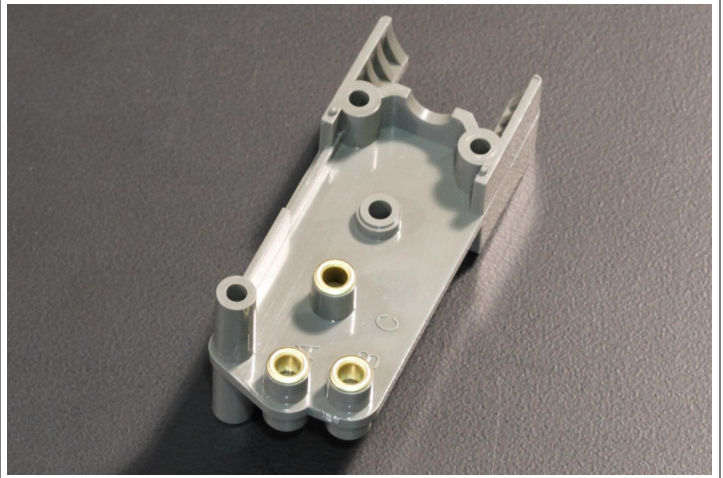


Step 10: Add eyelets to the middle

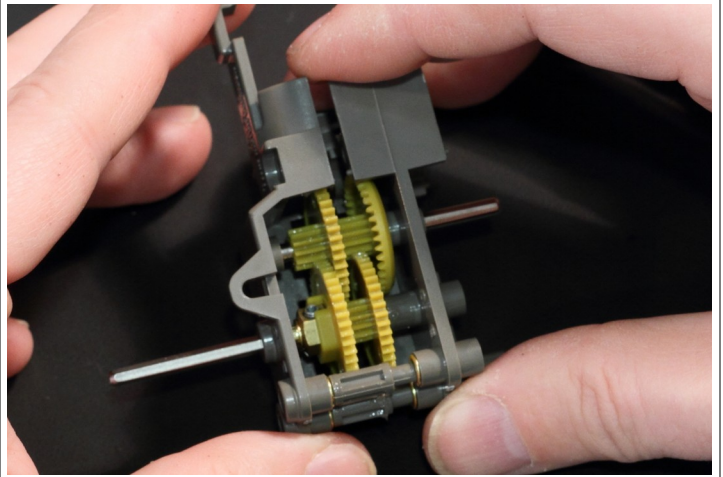
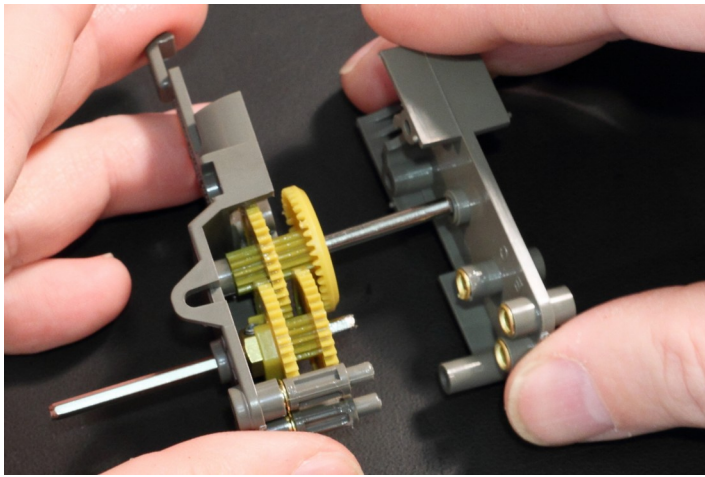
Place three eyelets into the holes in the middle section of the gearbox as shown.

Make sure you use the correct side.

Place a small amount of grease onto the eyelet in the middle hole 'C'.



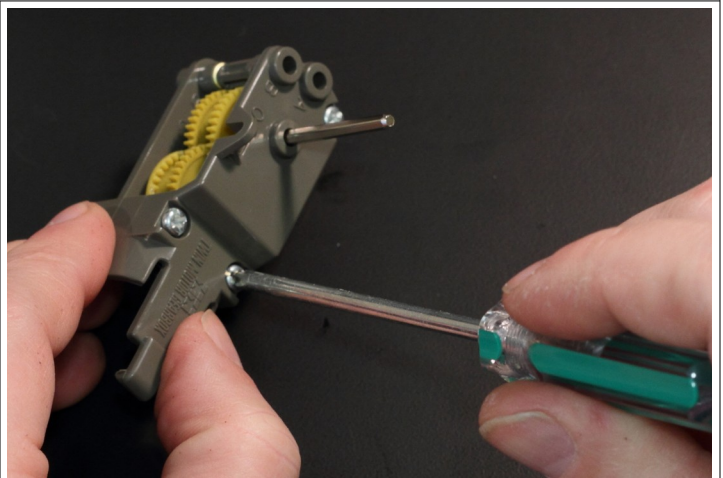
Step 11: Assemble the gearbox sections as shown



Step 12: Screw the parts together

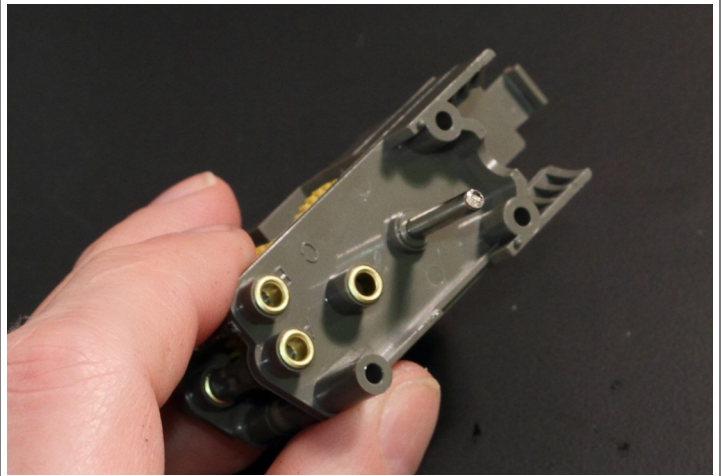
First make sure the pieces are sitting flush to each other.

Use 3 of the self tapping screws to fasten the pieces as show.



Step 14: Add eyelets

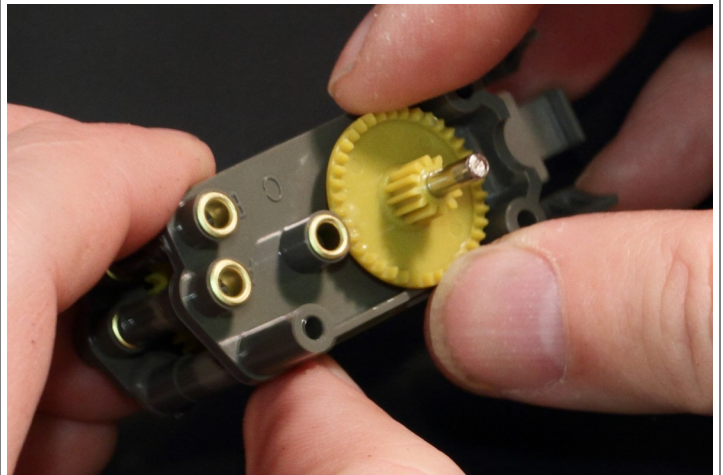
Insert 3 eyelets into the holes in other side of the middle gearbox piece as shown.



Step 15: Add gear G1

Place gear G1 on the round shaft with the small side facing out as shown.

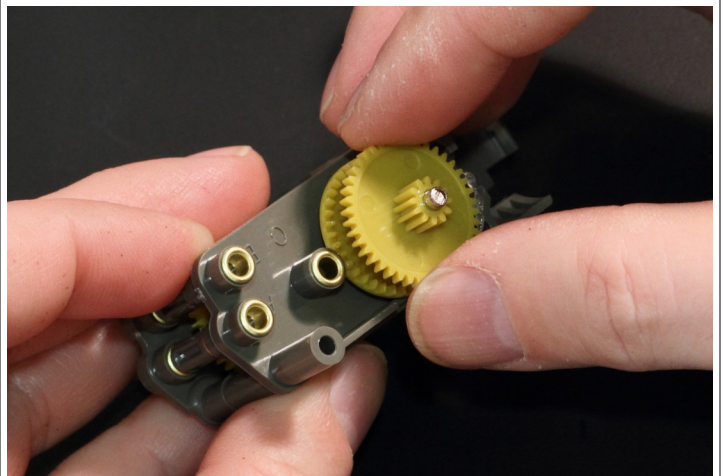
Put a small amount of grease onto the outer gear teeth.



Step 16: Add another gear

Add a gear G2 with the small side facing out onto the round shaft on top of gear G1.

Put a small amount of grease onto the outer teeth.

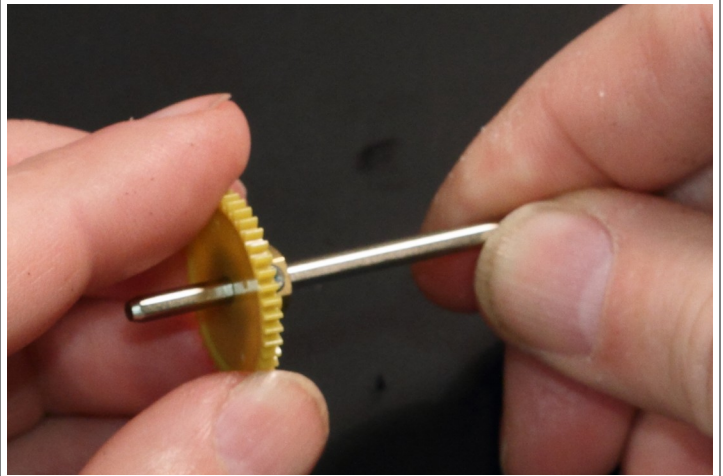


Step 17: Put a gear onto the hex shaft

Put a gear G3 (the one with the hole for the nut) onto the remaining hex shaft.

The grub screw goes into the slot.

Make sure the short end of the shaft sticks thru the flat side of the gear as shown.



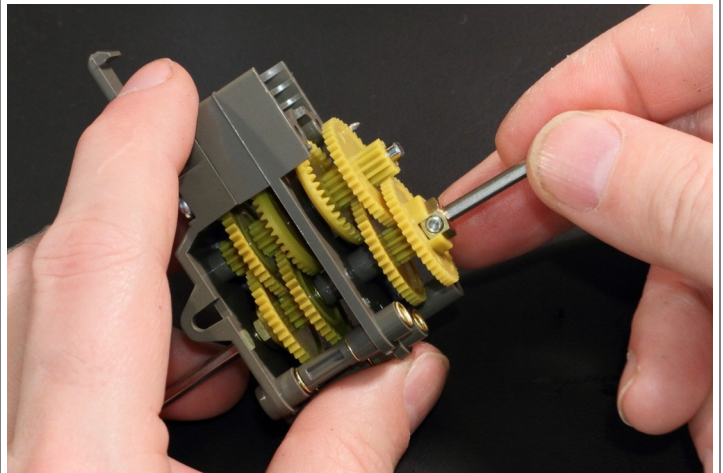
Step 18: Add the last gear

Put a small amount of grease onto the eyelet in hole 'C' in the middle of the gearbox.

Put a small amount of grease onto the outer teeth of the last gear G2 and then support it over the hole 'C' with the small side facing out as shown.

While holding gear G2 in place, insert the short side of the hex shaft thru gear G2 into the eyelet in hole 'C'.

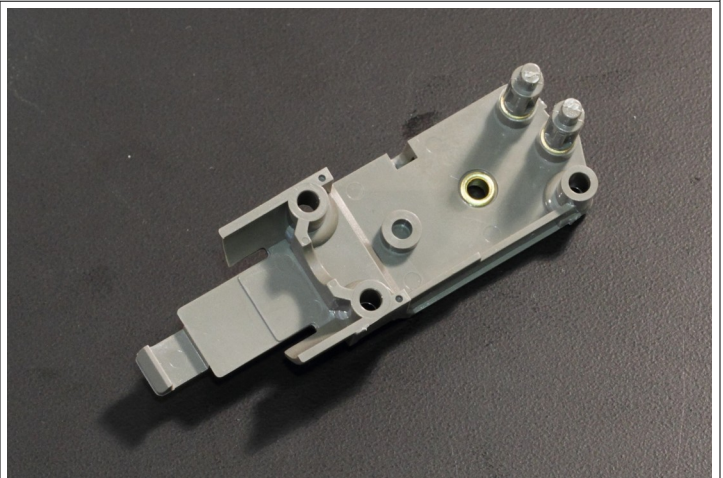
The gearbox should now look as shown.



Step 19: Add more eyelets

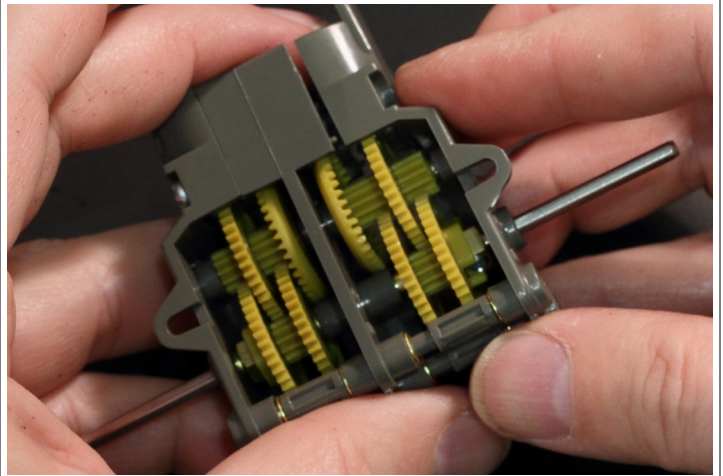
Place three eyelets into the holes in the remaining gearbox side as shown.

Place 2 spacers into the eyelets in the outside holes as shown.



Step 20: Attach last side

Place the remaining side onto the gearbox as shown.



Step 21: Final Assembly

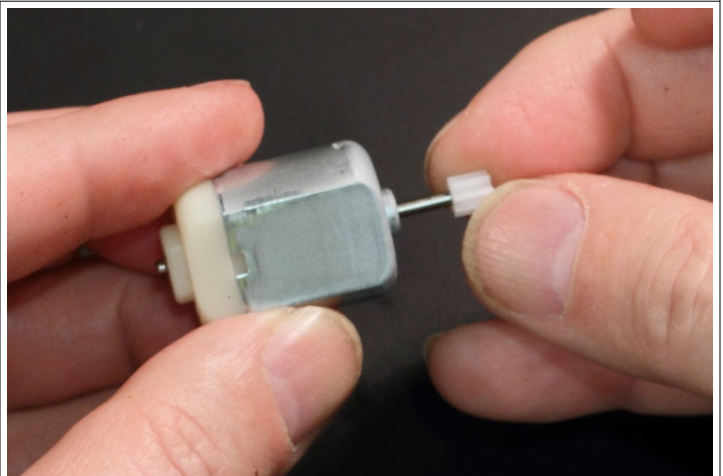
First make sure the pieces are sitting flush to each other.

Use 3 of the self tapping screws in the locations shown to fasten the pieces together.



Step 22: Put the pinion gears on the motors

Place a small white pinion gear onto the shaft of one of the motors as shown.

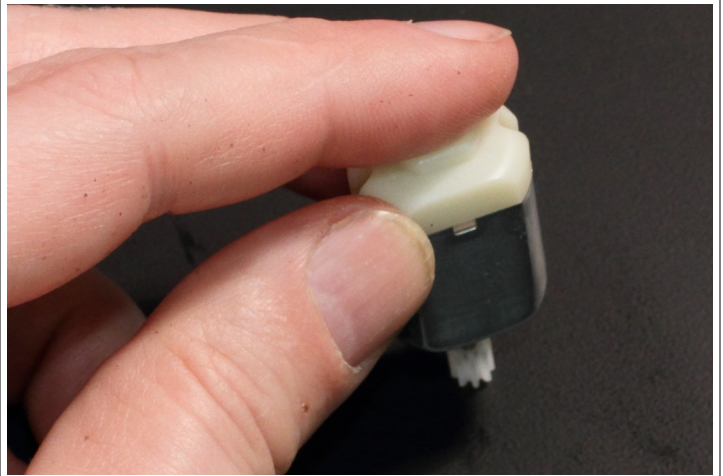


Step 23: Press pinion onto shaft

Place the pinion gear flat on the table and then press straight down on the motor shaft as shown.

Press down until the motor shaft is even with the end of the pinion gear.

Repeat for the second motor.



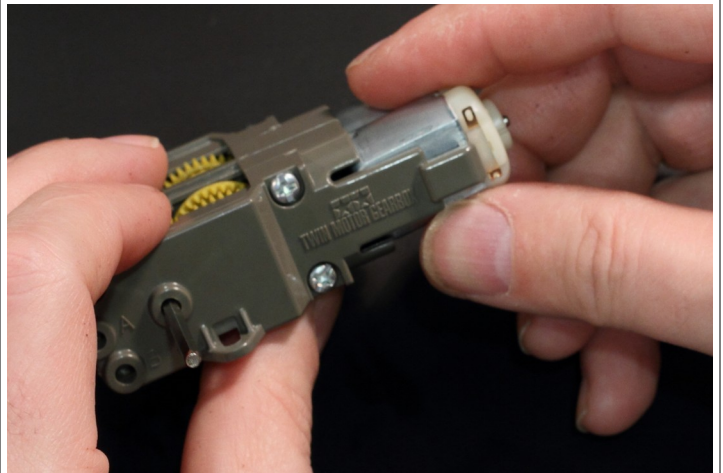
Step 24: Insert Motor

Insert a motor into the gear box as shown. Please note the position of the motor power leads. They must face the outside as shown!

You may need to wiggle the gear G1 (the one with the rounded bottom near the middle of the gearbox) to get it to mesh with the pinion gear. Do not force it!

When the motor is fully inserted the end of the gearbox side will snap into place between the motor power leads.

Repeat for the second motor.



All Done!

Your gearbox should look like the one shown,

