

Assembling Your Car - Page 1

Attach the back wheels

1. Test your motor and gearbox with a battery. Be sure that you can make the motor turn in both directions. (How do you change the direction of the motor?)
2. Mount your gearbox to your chassis using the small nuts and bolts.
3. Adjust the axle by loosening the grub screw on the gear hub and moving the axle as necessary to ensure that the wheels will be the same distance from each side of the chassis.
4. Tighten the grub screw, making sure that the screw is against a flat side of the axle.
5. If the crank arms are attached to your gearbox, remove them. Attach the crank arms to your back wheels using the small screws.
6. Attach the crank arms to the axle.

Attach the front wheels

1. Mount the white axle brackets to your chassis using the larger nuts and bolts.
2. Insert a dowel into the axle brackets, and using your front wheels as a guide, mark the length of the dowel you will need. Be sure to allow enough space on either side of the chassis for the wheels to turn.
3. Remove the dowel from the axle brackets and saw the dowel where you marked it.
4. Check that the length of the dowel you cut is correct.
5. Sand both ends of the dowel (optional).
6. Glue one wheel to the dowel using Elmer's glue.
7. Insert the dowel into the axle brackets and glue the other wheel to the axle.

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Test your car

1. Temporarily attach a battery to your gearbox using alligator clips. Set the battery on the chassis.
2. Does your car work as you expected? If not, what do you think you should do to make it work better?

Write in your notebook

1. What speed did you choose for your gearbox? Why?
2. What size wheels did you choose? Why?
3. Draw a picture of your car. Label all the parts.
4. What are the results of your testing? Does your car work as you expected?
5. What do you still need to do to complete your car?