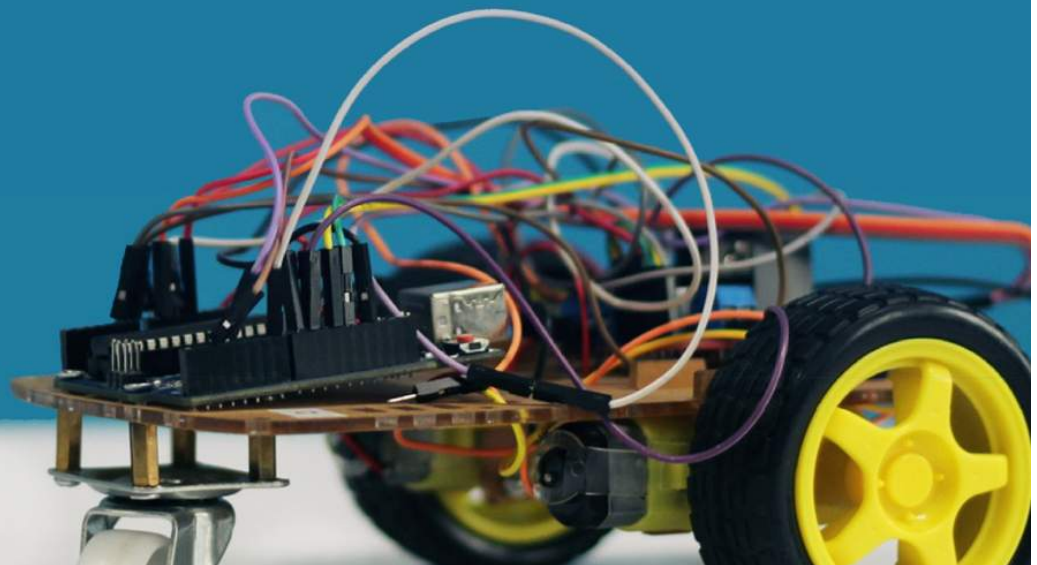




ROBOTIC CAR KIT

MAKE YOUR OWN ROBOTIC CAR
WITH FUN & INTERACTIVE LEARNING

TUTORIAL ASSEMBLING THE CAR CHASSIS



What you will need to assemble the car chassis?

Following are the parts that you will need to assemble your car chassis:

1. Robot chassis: Laser-cut clear plastic. It has a stick-on paper covering. We will use it with covering so that it is more visible in pictures, you can remove it if you want clear plastic to be shown
2. Wheels
3. Motors
4. Motor Mounting Brackets, that will hold the motors to the chassis
5. Caster Wheel (Uni-Wheel)
6. Screws and nuts
7. Encoder Discs
8. Screw Driver
9. Wires
10. Power Switch (Optional to be used)
11. Batteries Holder (Optional to be used)

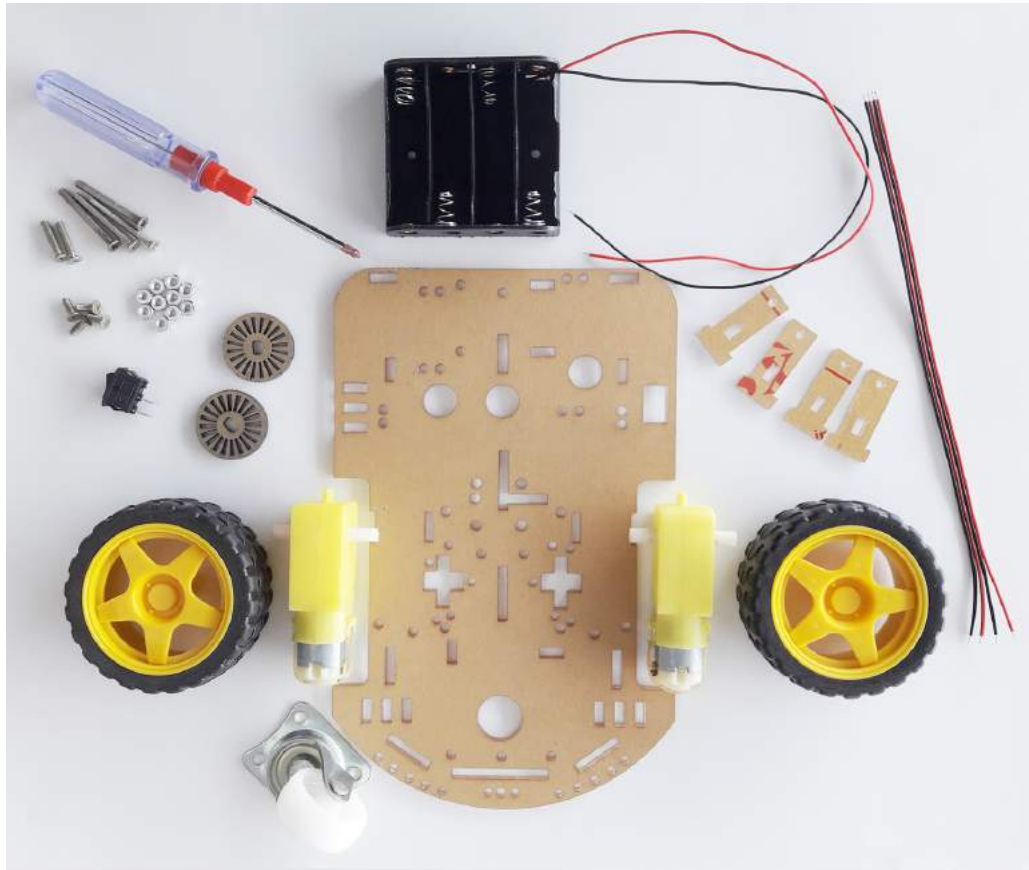


Figure 1

1. Putting The Motors on Car Chassis

Step 1:

The first step will be to put the **Motors** on the car chassis. For this purpose, we will need the following parts:

1. Robot chassis
2. 2 Motors
3. 4 Motor Mounting Brackets
4. 4 Long Screws
5. 4 Nuts

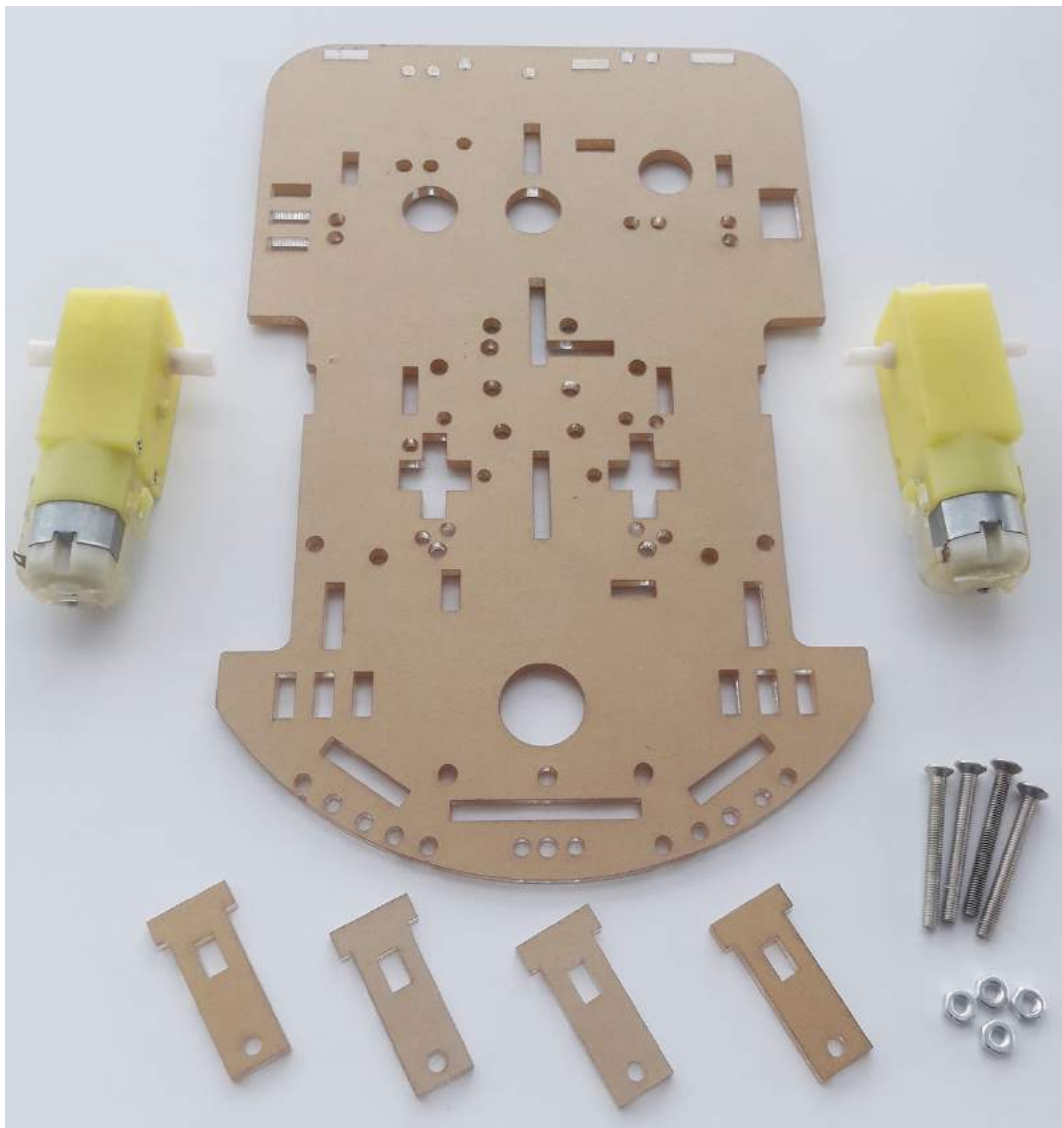


Figure 2

Step 2:

Take one **Motor Mounting Bracket** and insert it in the rectangular cut on the car chassis.

Note: You will need to hold the Bracket with your finger until we are done with attaching our motor on the chassis with screws.

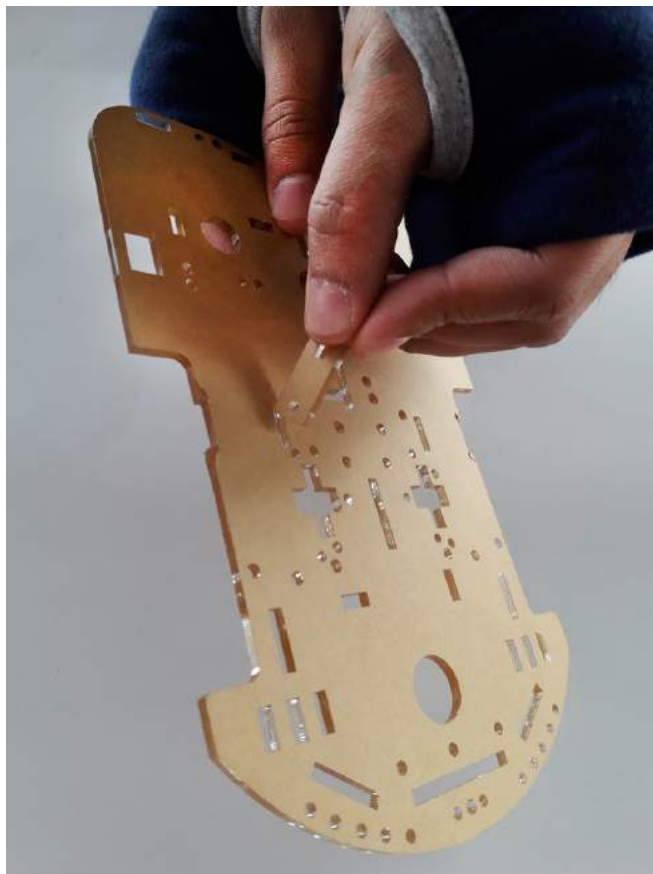


Figure 3

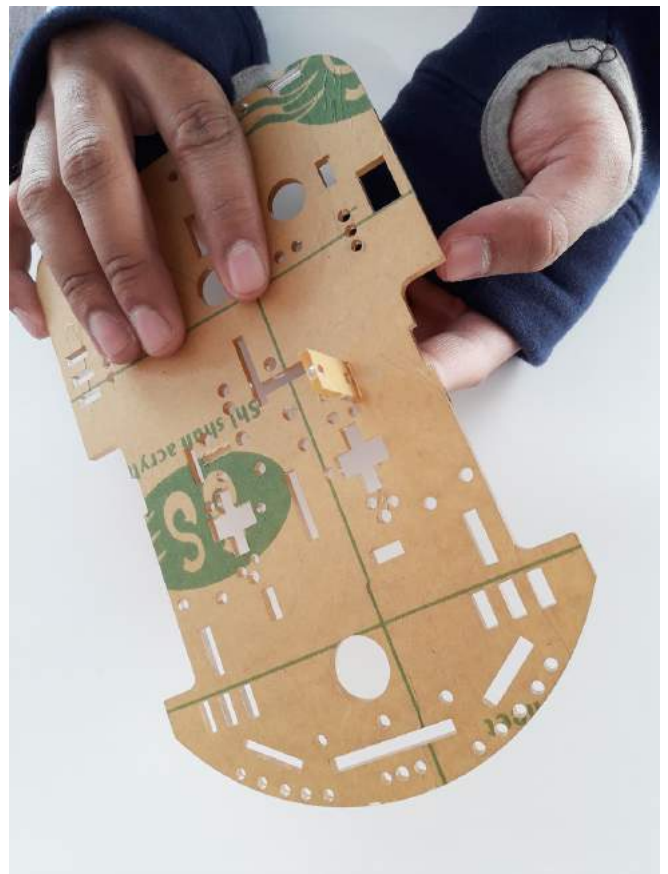


Figure 4

Step 3:

Now take another **Motor Mounting Bracket** and hold it in the rectangular cut on the edge of the car chassis, as shown in the images below.



Figure 5



Figure 6

Step 4:

Now put the **Motor** between these two **Motor Mounting Brackets** that we just put together on the car chassis.

Note: Make sure that you put the Motor in the exact same direction as shown in the images below. Also make sure that terminals of the Motor are towards inside of the car chassis. If you put the motor in wrong direction, you will not be able to attach the Wheel on it later on.

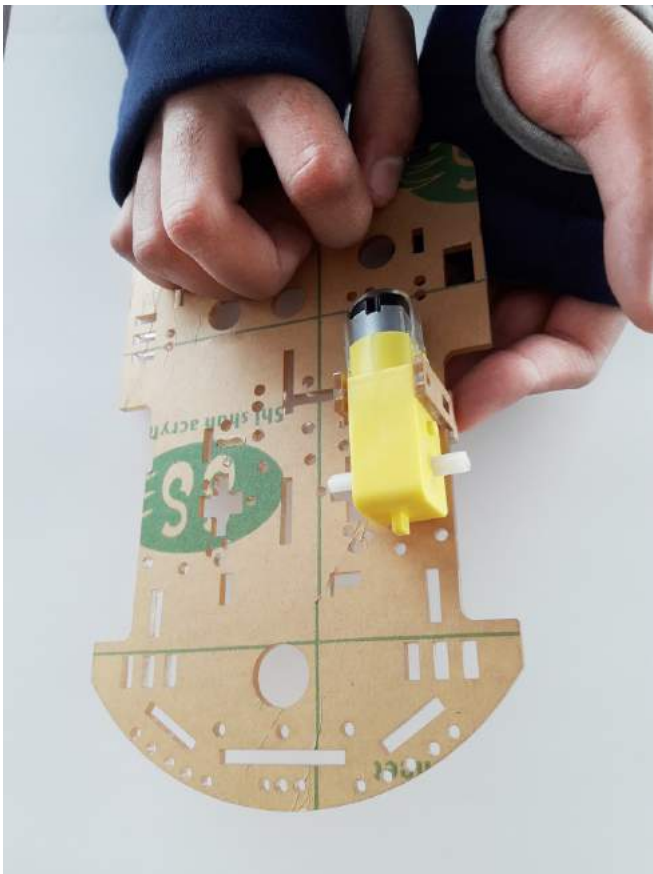


Figure 7

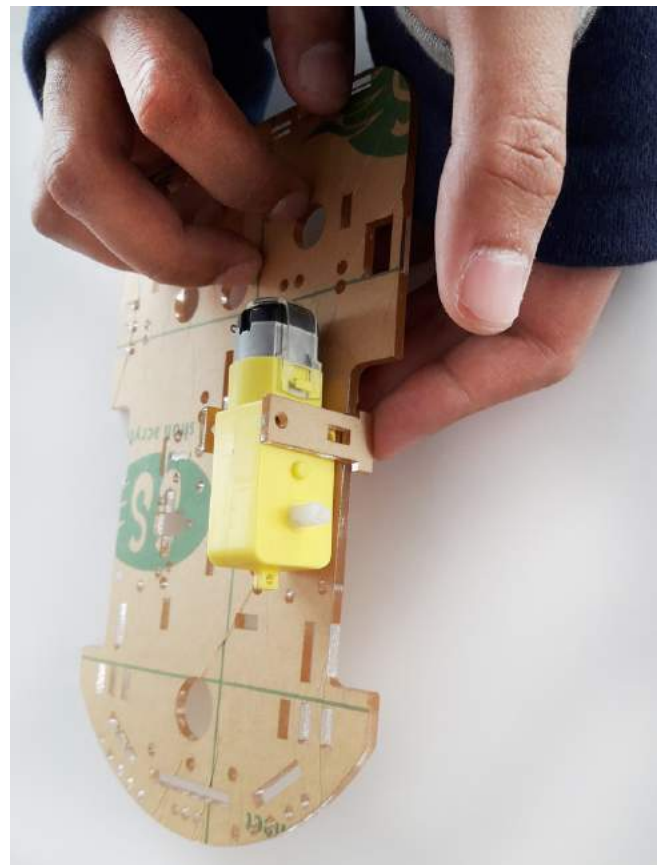


Figure 8

Step 5:

Take one **Long Screw** and insert it through the upper hole of the **Motor Mounting Brackets** and the **Motor**.

Note: Be careful with the Brackets while doing this step. You can first insert the screw through Brackets and the Motor and then can adjust Brackets with car chassis.

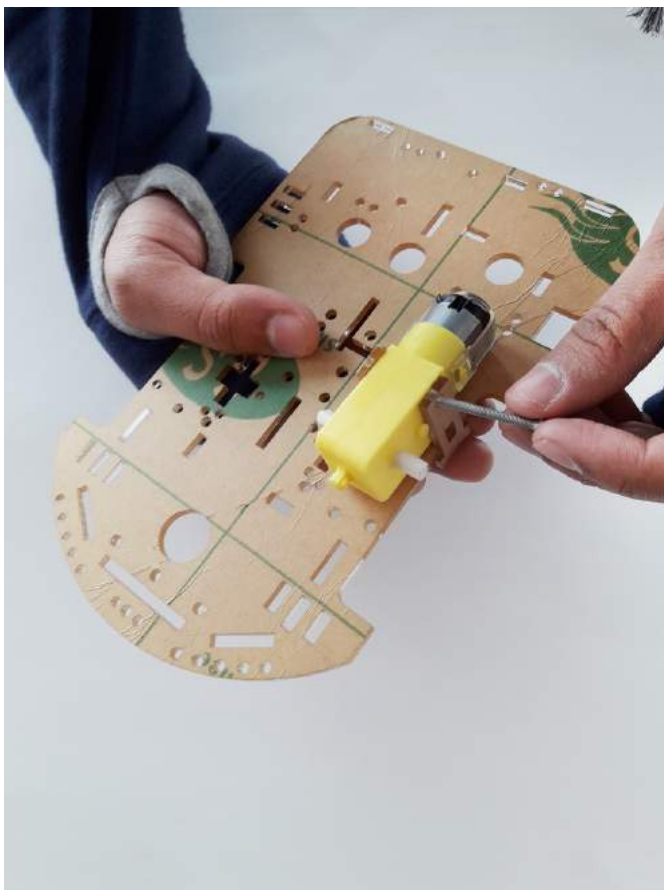


Figure 9

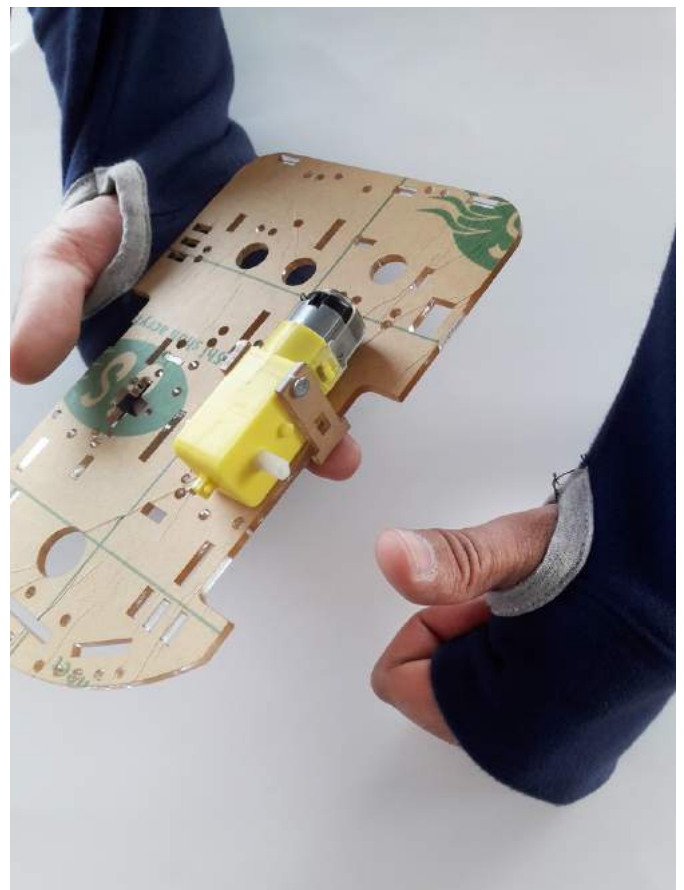


Figure 10

Step 6:

Now take one **Nut** and put it on the end of the **Screw** that came out through the hole. Use **Screw Driver** to tighten the Screw. Repeat the same for the lower hole of the **Brackets** and **Motor** and insert the **Screw** through it as well.

Note: It can be a little tricky to put the Nut through the lower **Screw**. You can simply hold the **Nut** on the other end first and then put the **Screw** through the hole, then use **Screw Driver** to tighten the **Screw**.



Figure 11



Figure 12

Step 7:

Repeat the same for the second **Motor** and then we are done with putting the motors on the car chassis.



Figure 13

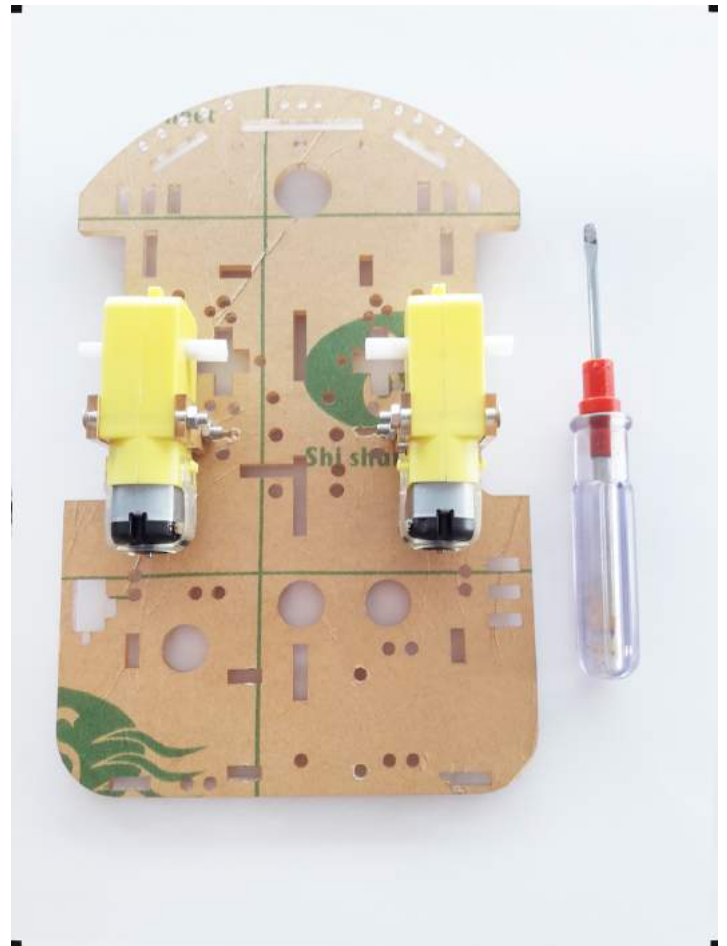


Figure 14

2. Putting The Caster Wheel on Car Chassis

Step 1:

Next we will put the Caster Wheel on the car chassis. For this we need the following parts:

1. Caster Wheel
2. 4 Small Screws
3. 4 Nuts
4. Screw Driver

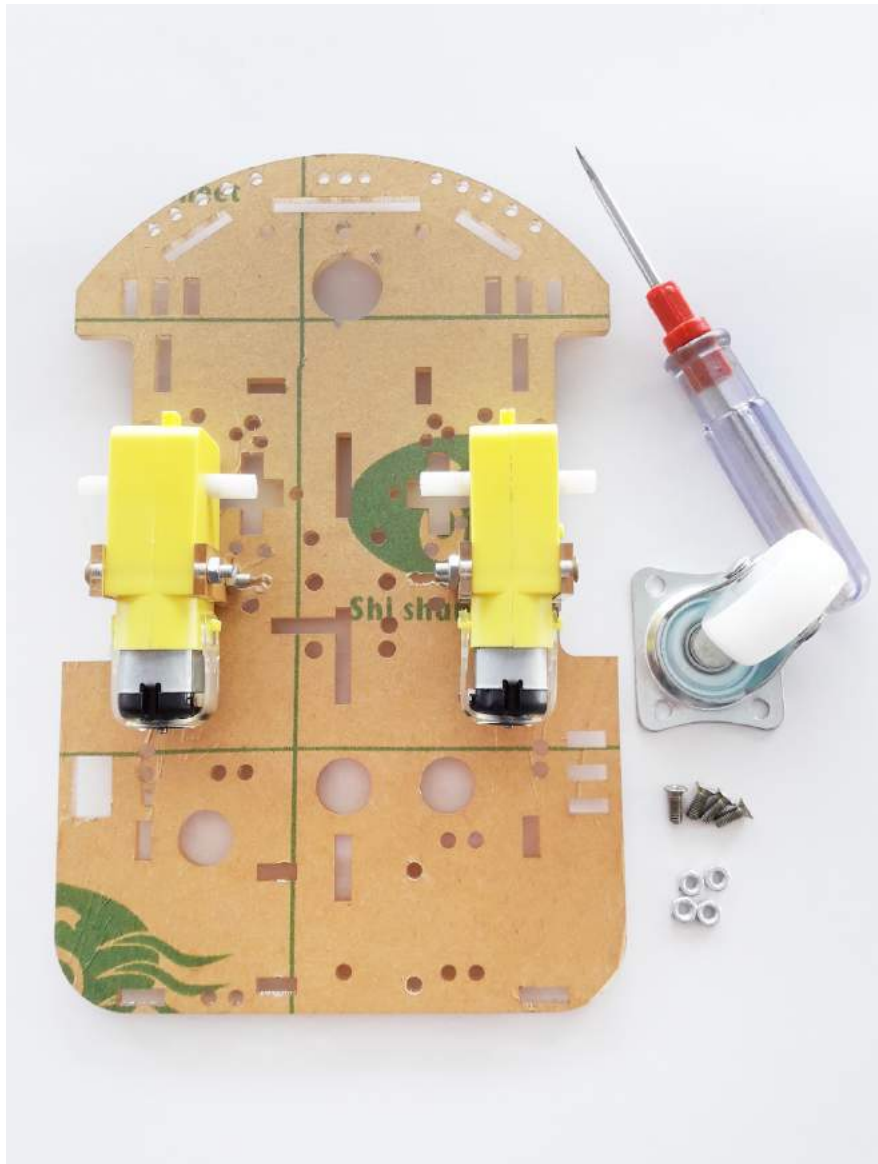


Figure 15

Step 2:

Put the **Caster Wheel** on the four points on the bottom of the chassis, two rectangular cuts and two circular cuts will be used for this purpose as shown in the Figure 16,



Figure 16



Figure 17

Step 3:

Now put the **Screws** and **Nuts** together to tighten the **Caster Wheel** on the car chassis.

Figure 18 & 19 shows how it will look after it is done.



Figure 18

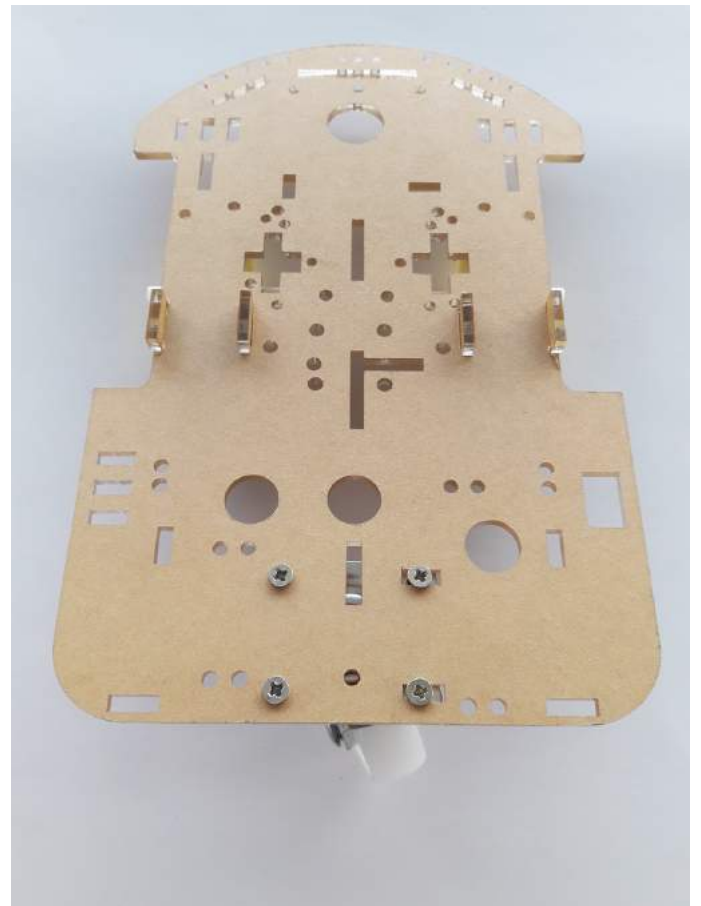


Figure 19

3. Attaching Wheels on Motors

Step 1:

Take one **Wheel** and attach it to the **Motor** as shown in images below.

Note: Be careful while pushing the wheel, hard push can break the Brackets.

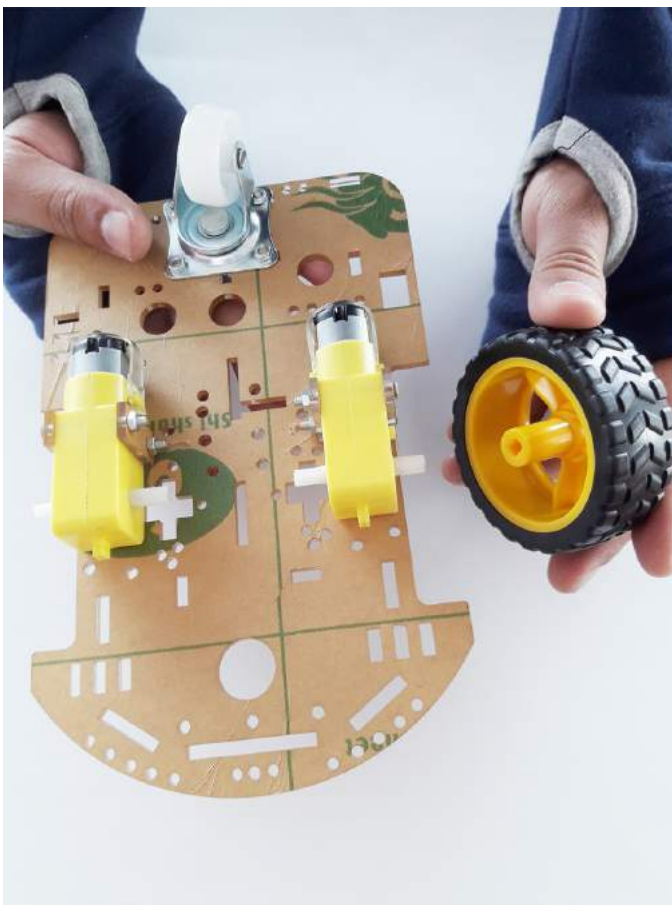


Figure 20

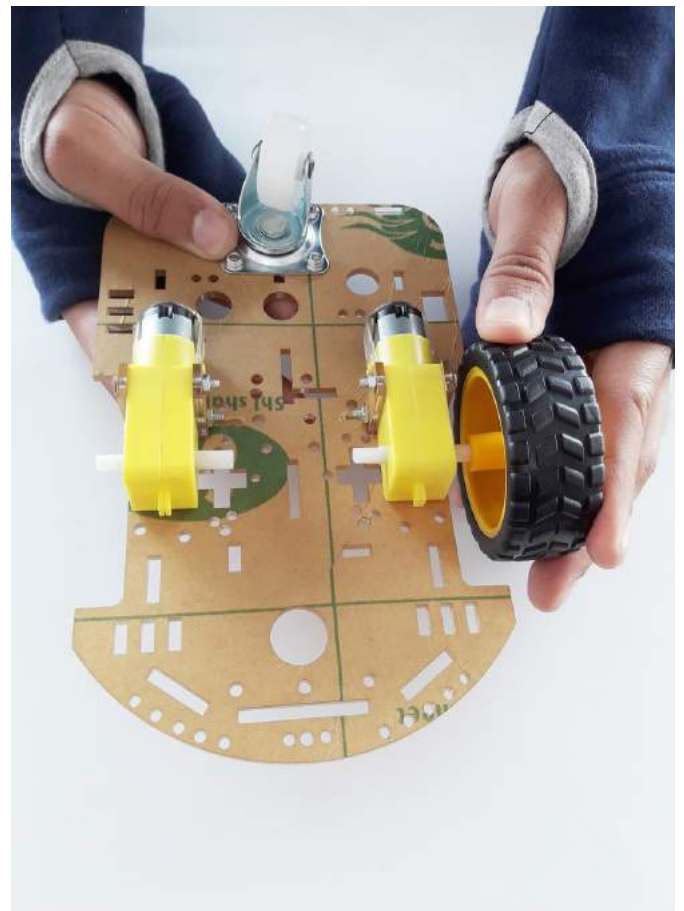


Figure 21

Step 2:

Repeat the same for the second **Wheel** and you are done with attaching the Wheels together on the **Motors**.

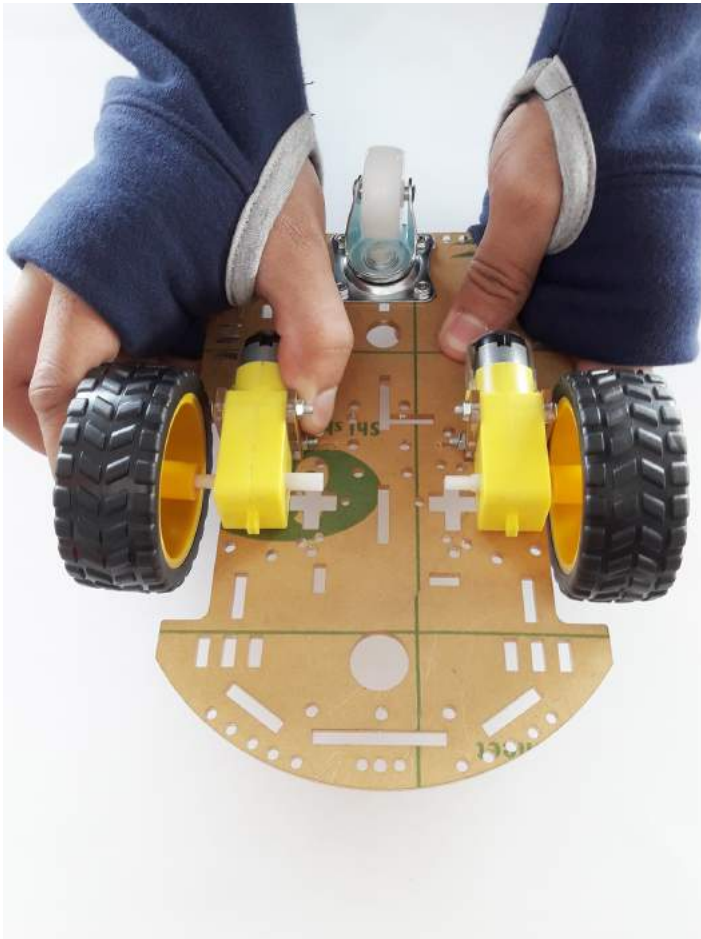


Figure 22

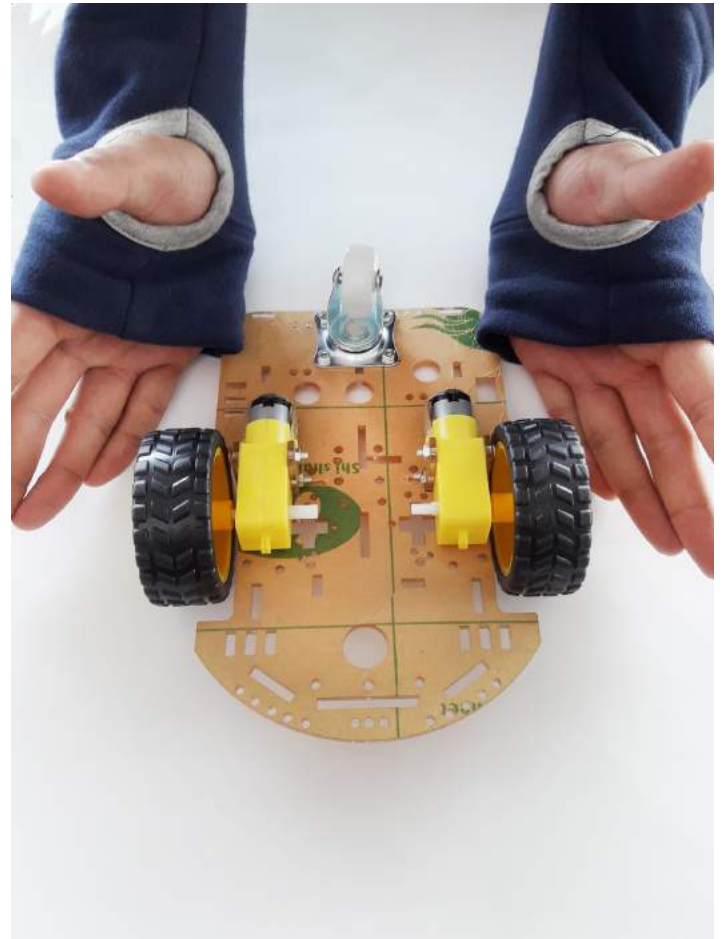


Figure 23

3. Attaching Encoder Discs on Motors

Step 1:

Just as we attached the **Wheels** on the **Motors**, we will now attach the **Encoder Discs** with **Motors** in the same way. Take one **Encoder Disk** and attach it the **Motor** as shown in images below.



Figure 24

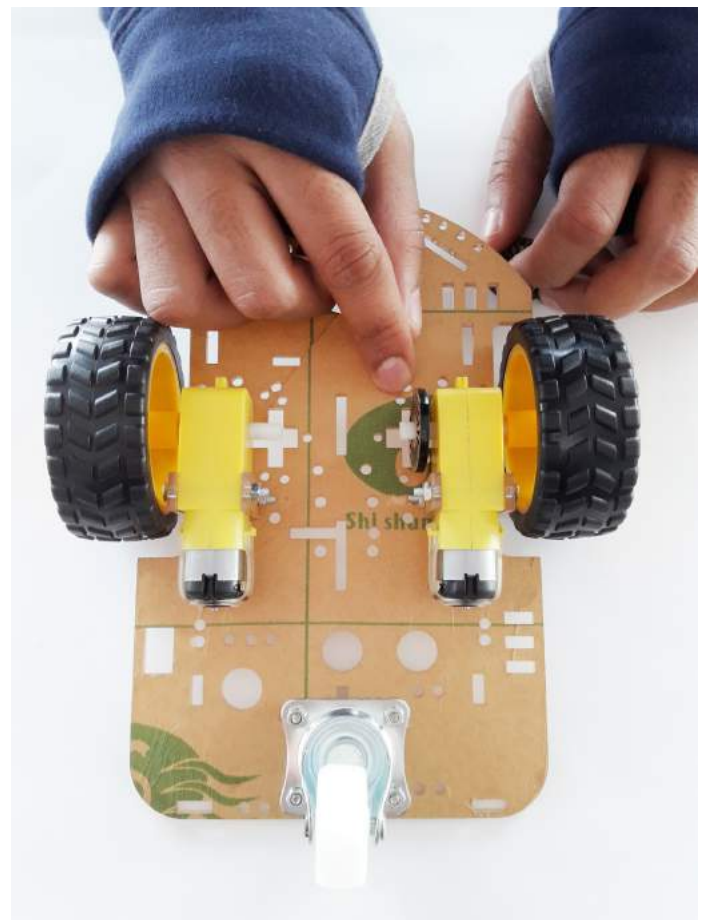


Figure 25

Step 2:

Repeat the same for the second **Encoder Disk** and you are done with attaching the **Encoders on Motors**.

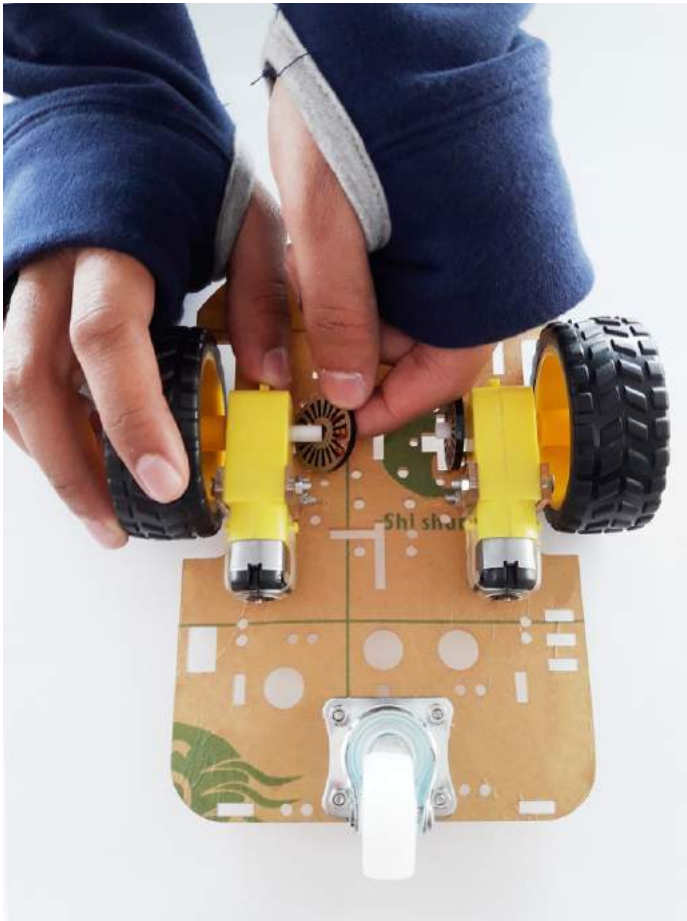


Figure 26

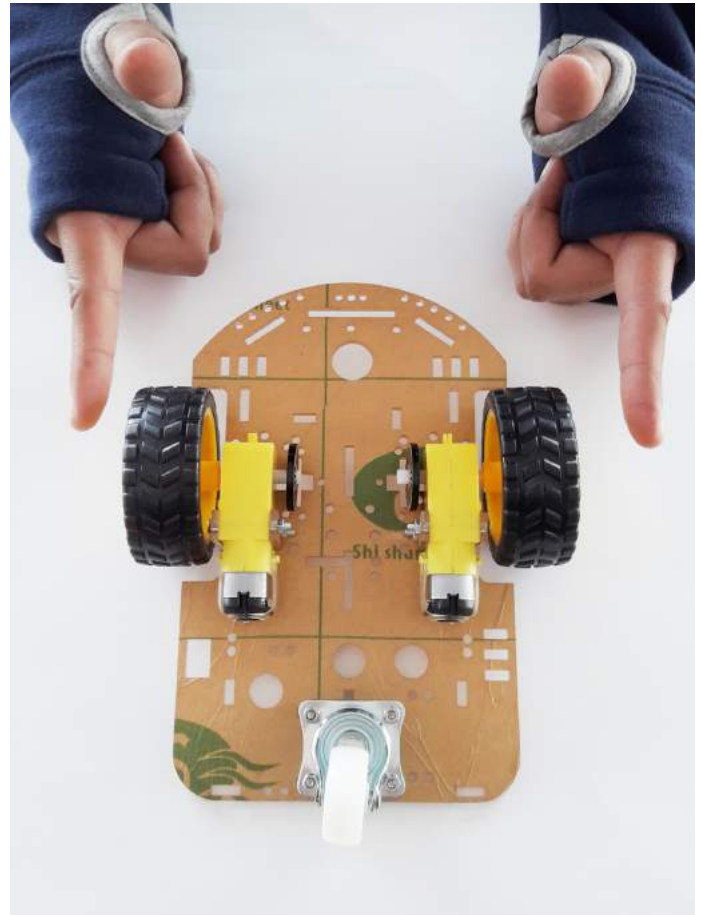


Figure 27



Great Job, You're Done!