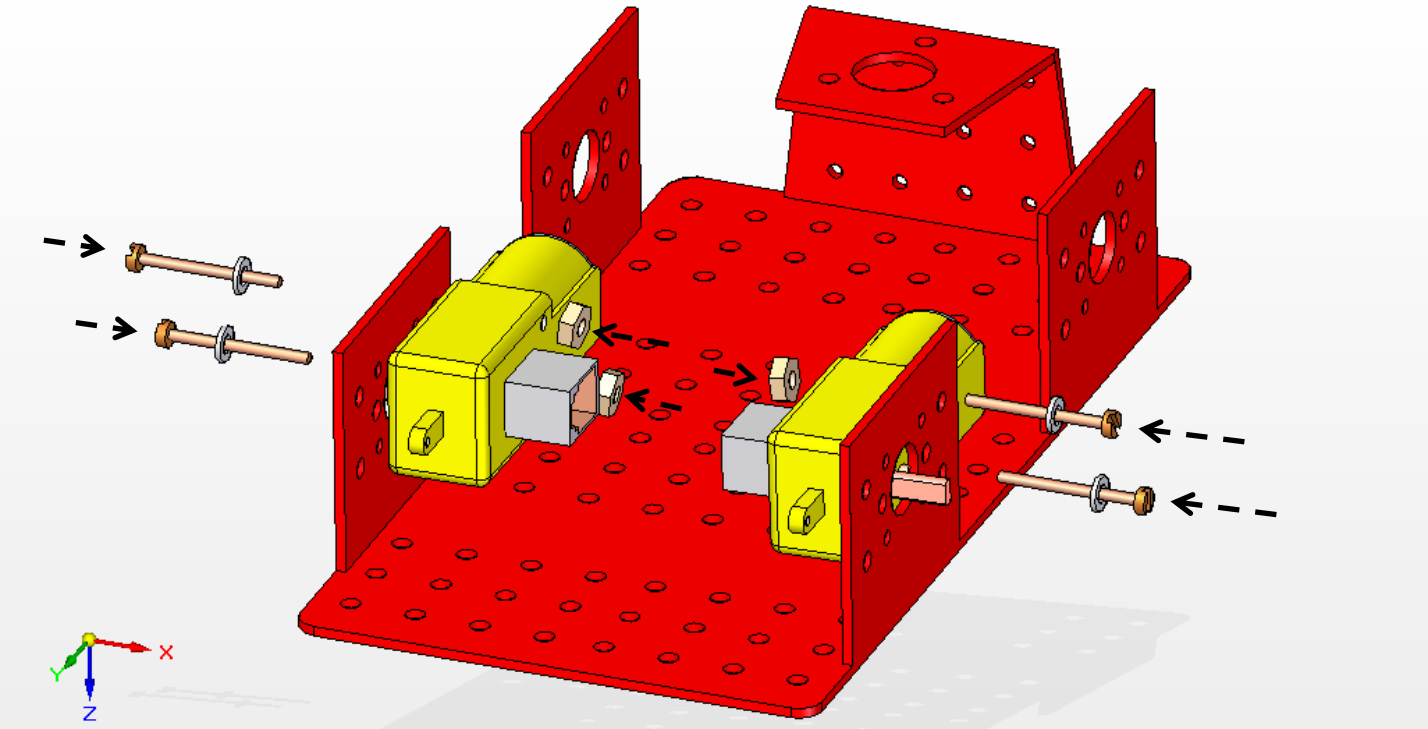
Bumper Car

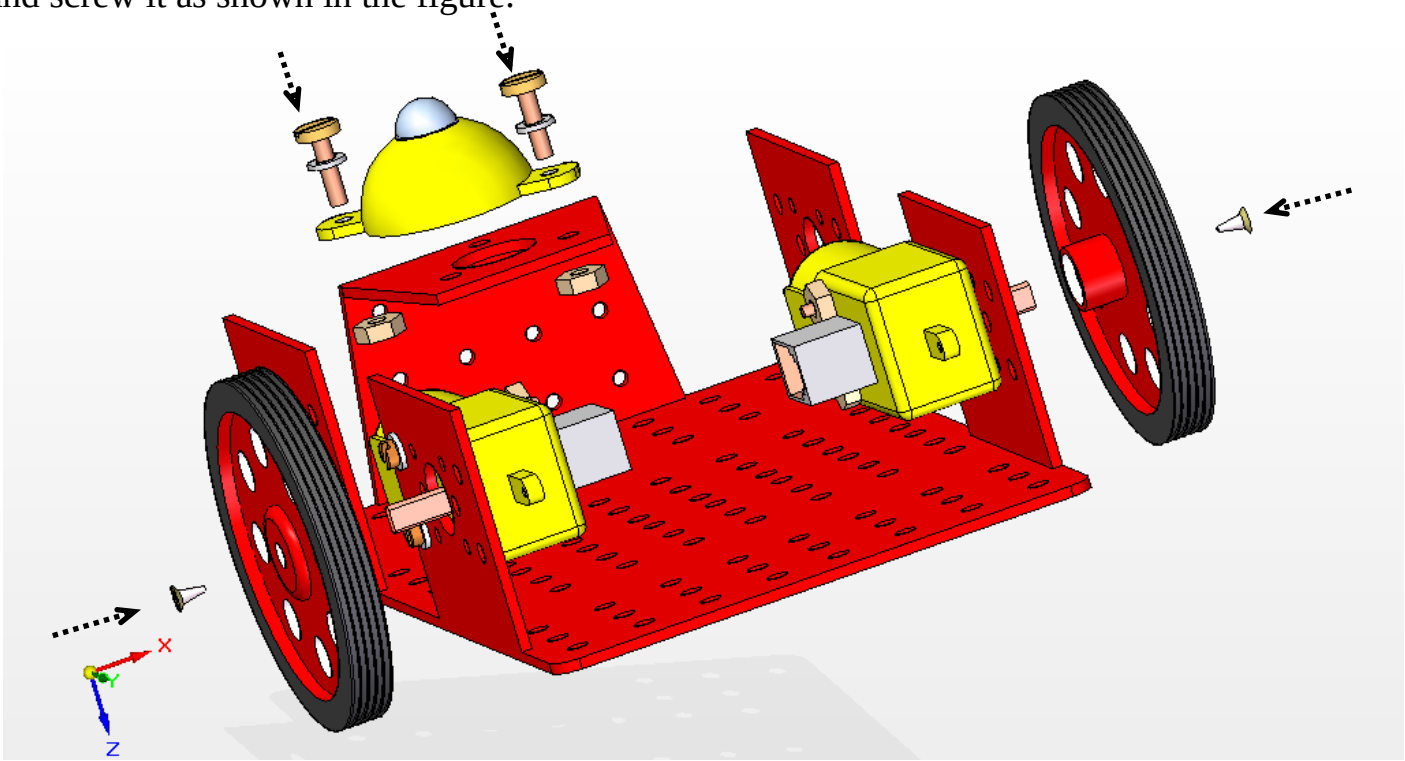
This robot has a bumper in front that triggers a touch sensor to tell the robot when it has run into something. The program will make the robot drive around the room, turning each time it bumps into something. Start it anywhere, and see where it goes. Will it get stuck or keep going and going?

Constructions:

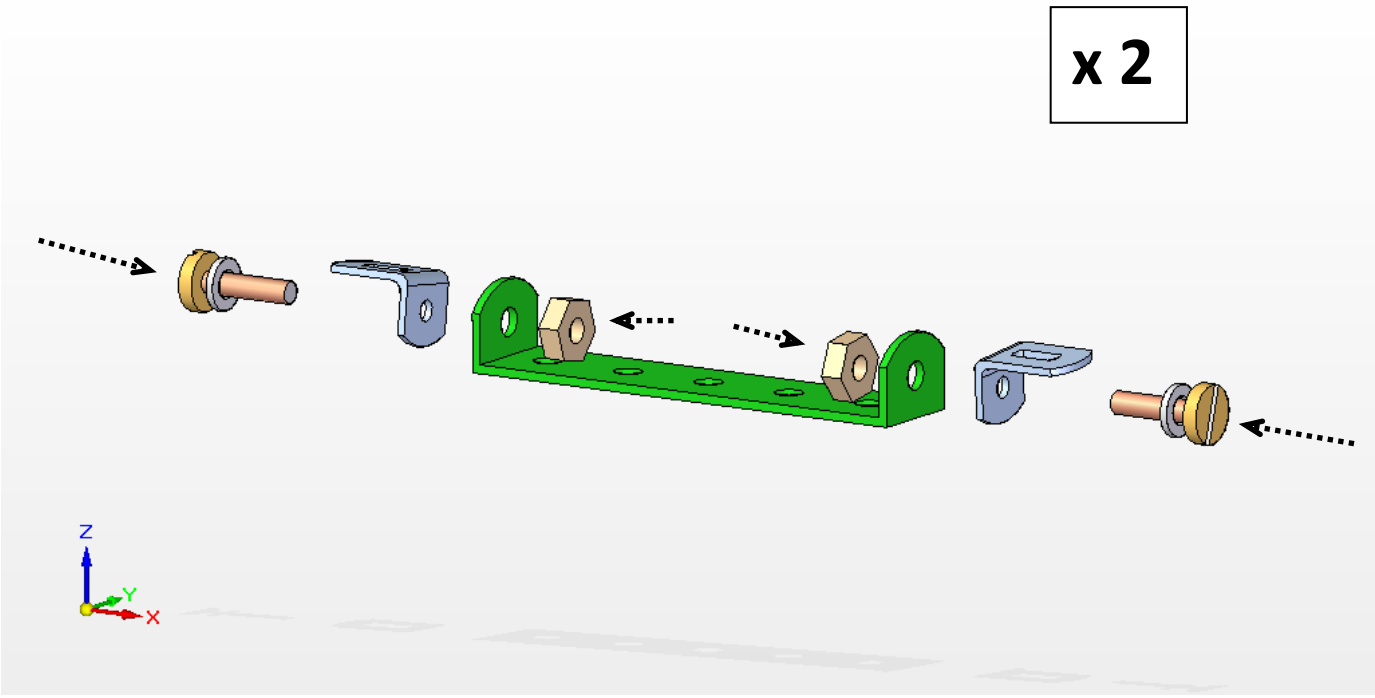
Step 1: Take a chassis and connect the two DC motors with the help of four M3M screws as shown in the figure.



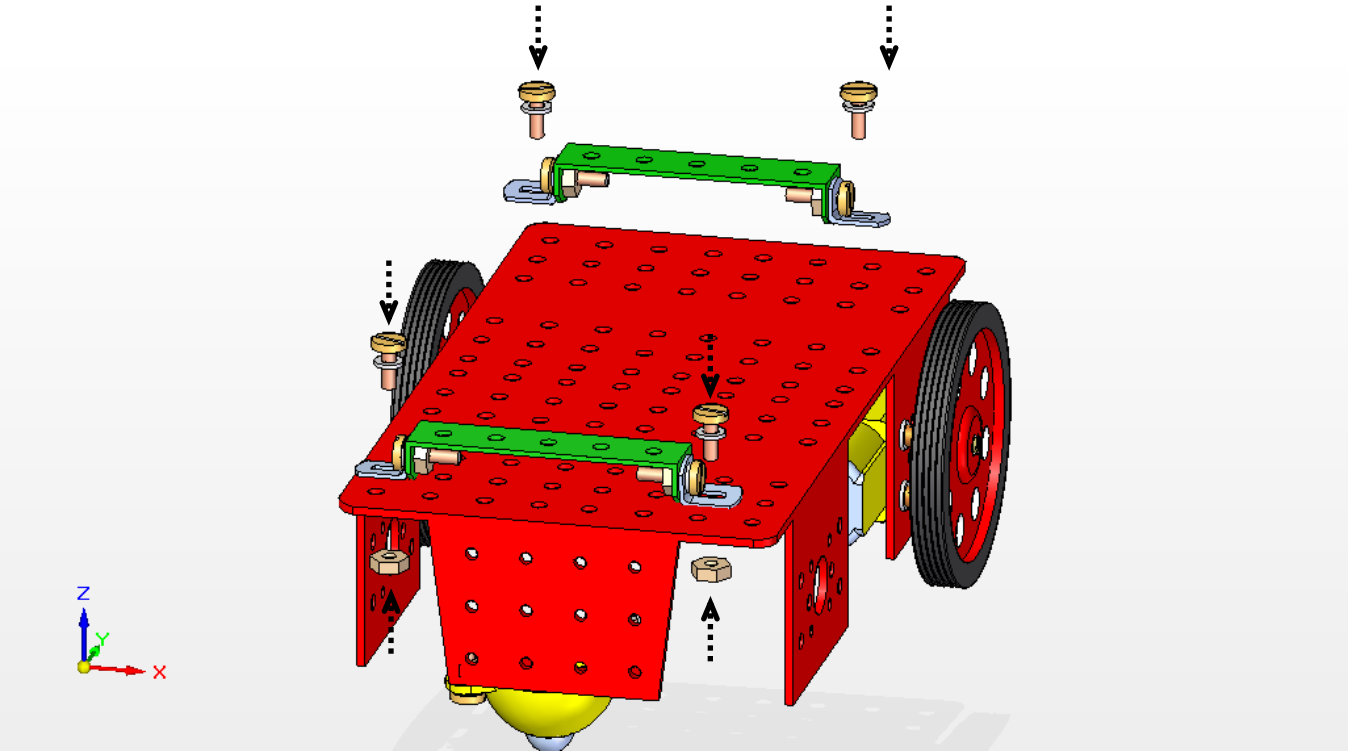
Step 2: Fix the Mono Wheel with the help of M3S Screws. Also fix the Wheels to the motors and screw it as shown in the figure.



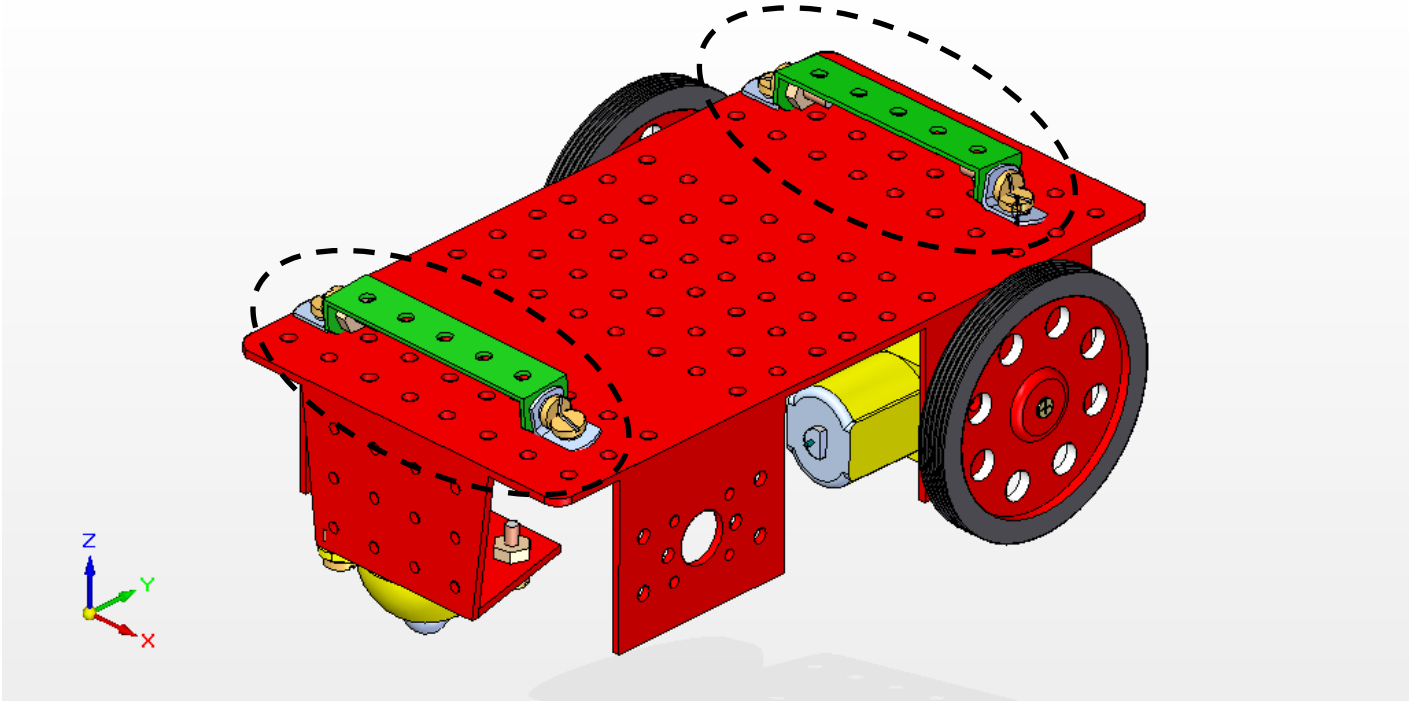
Step 3: Take one UC5*1*1, two UC1*1 and connect both with M3S screws as shown in the figure. Repeat this step for two times.



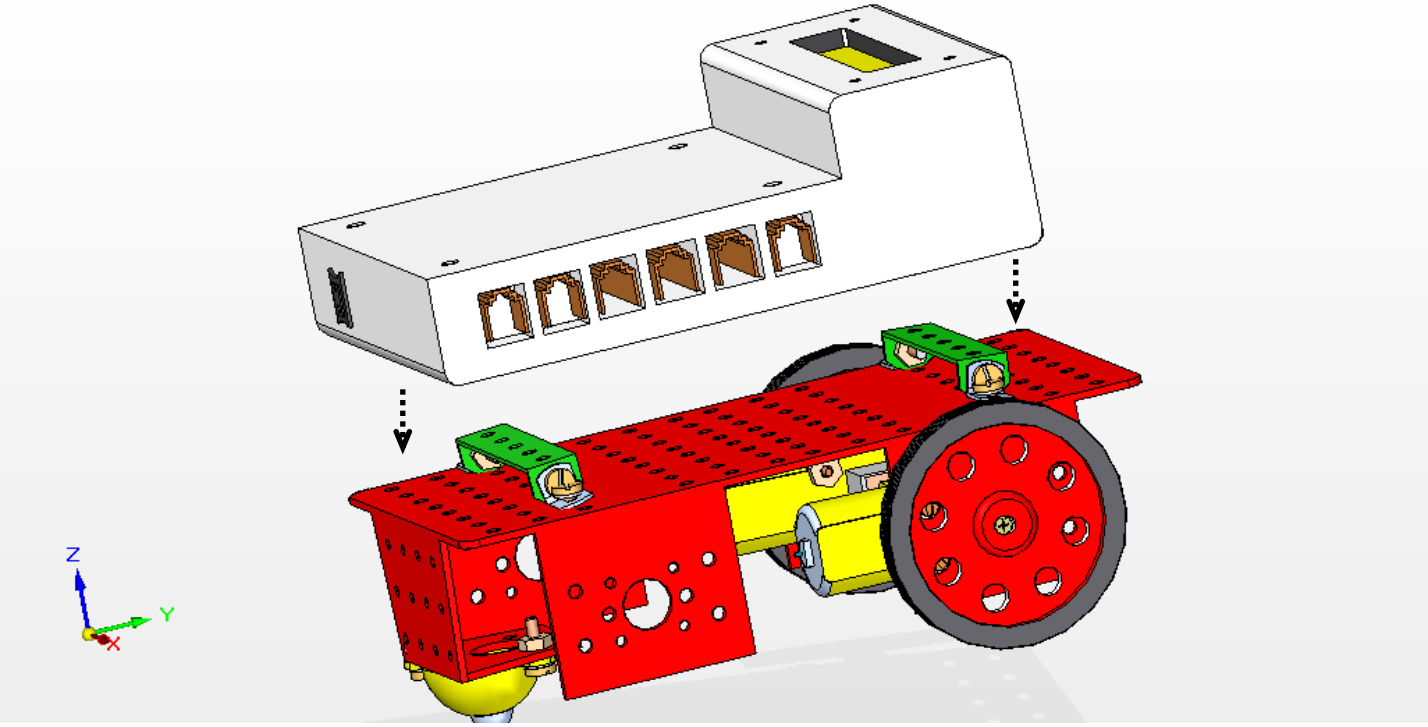
Step 4: Connect these two components on the top of the chassis with M3S screws as shown in the figure.

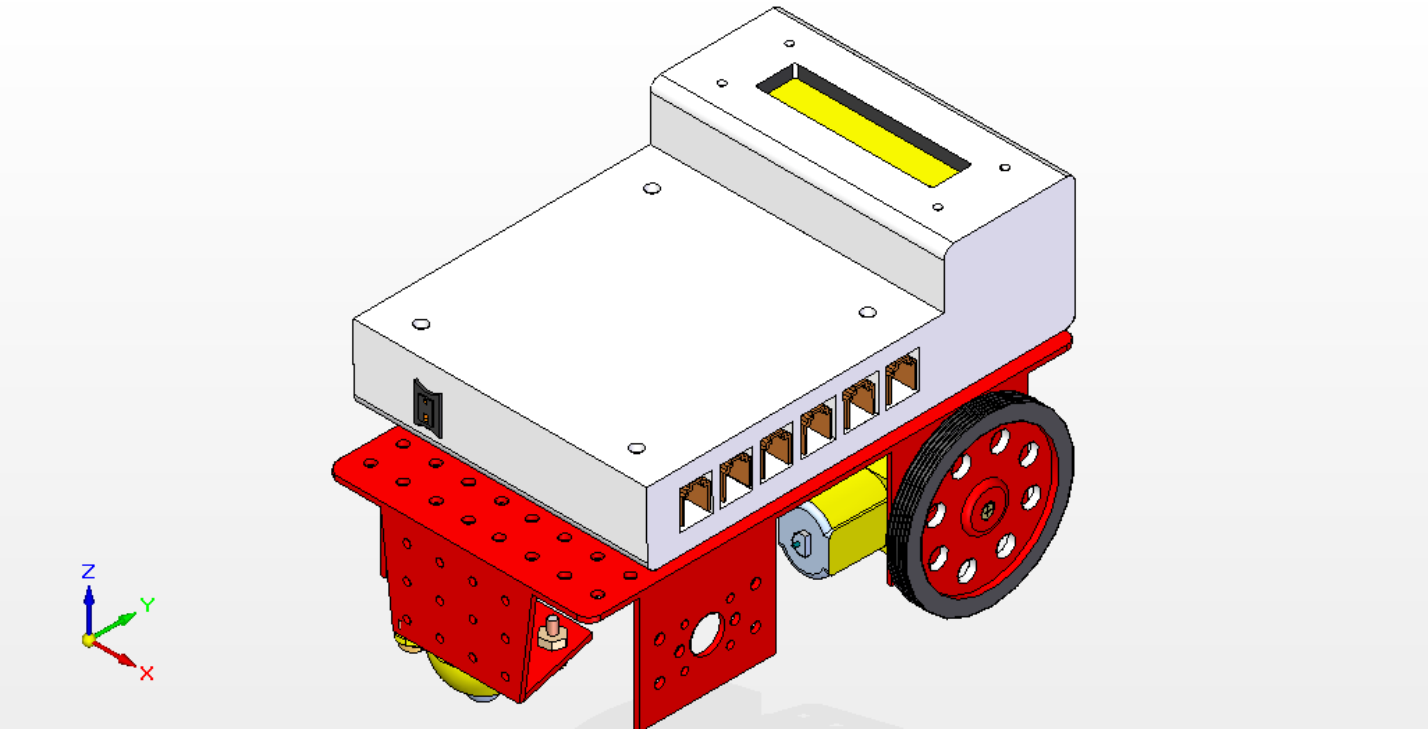


Step 5:

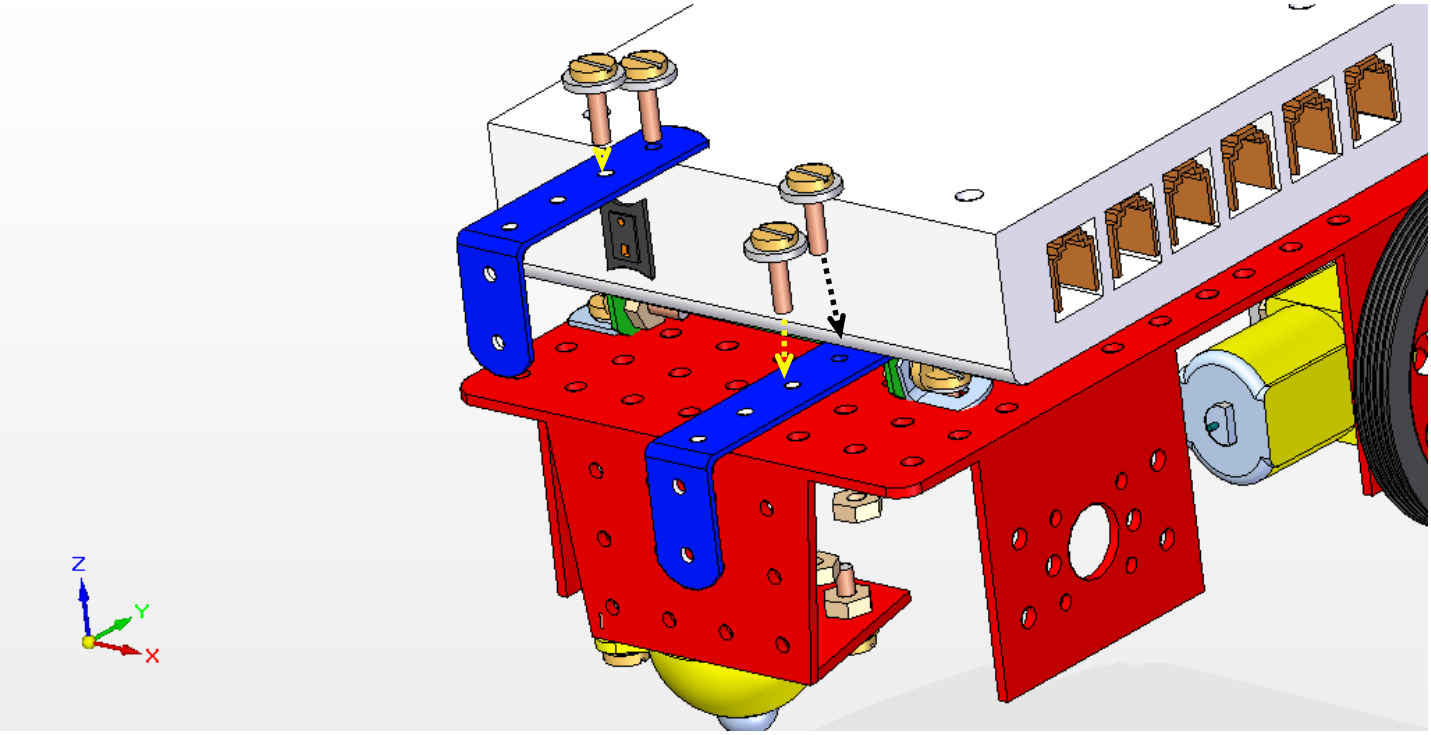


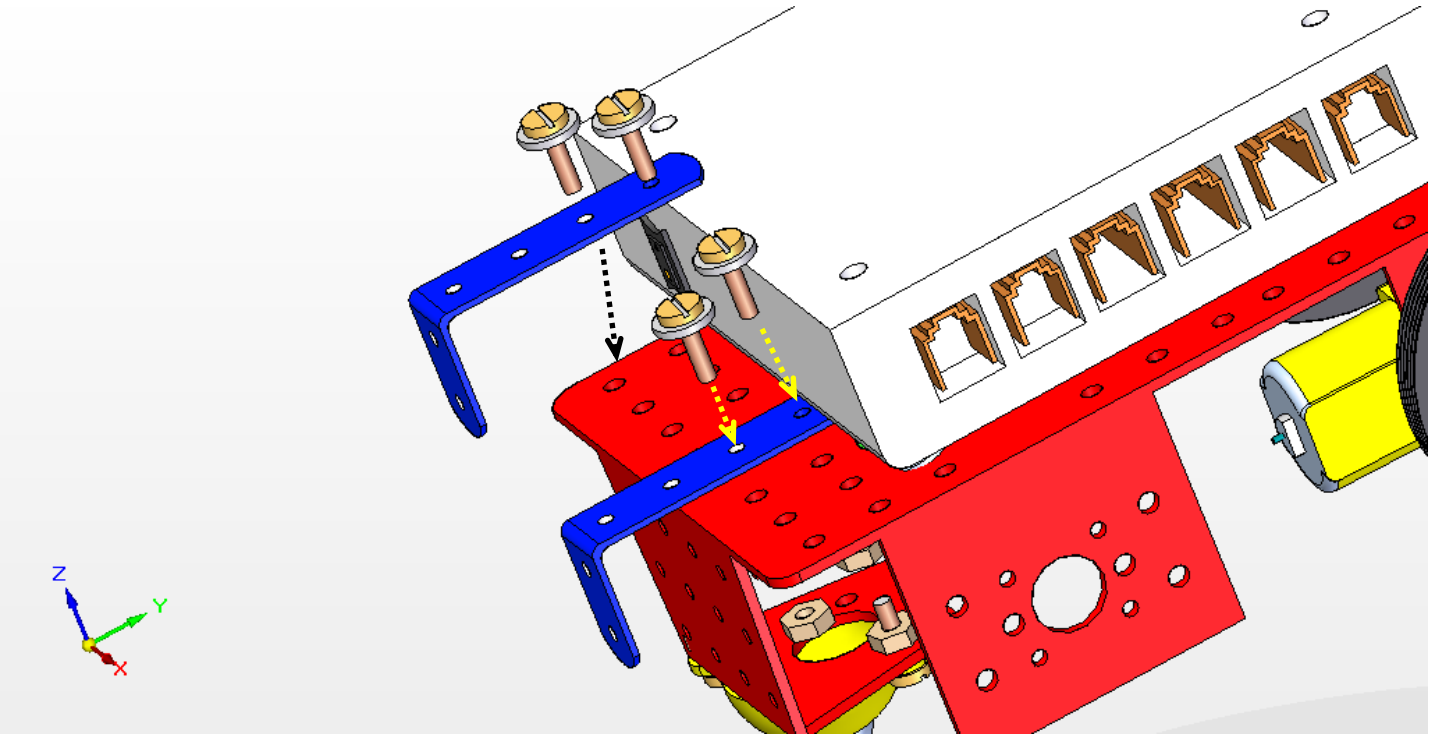
Step 6: Fix the Novabot on the chassis as shown in the figure.

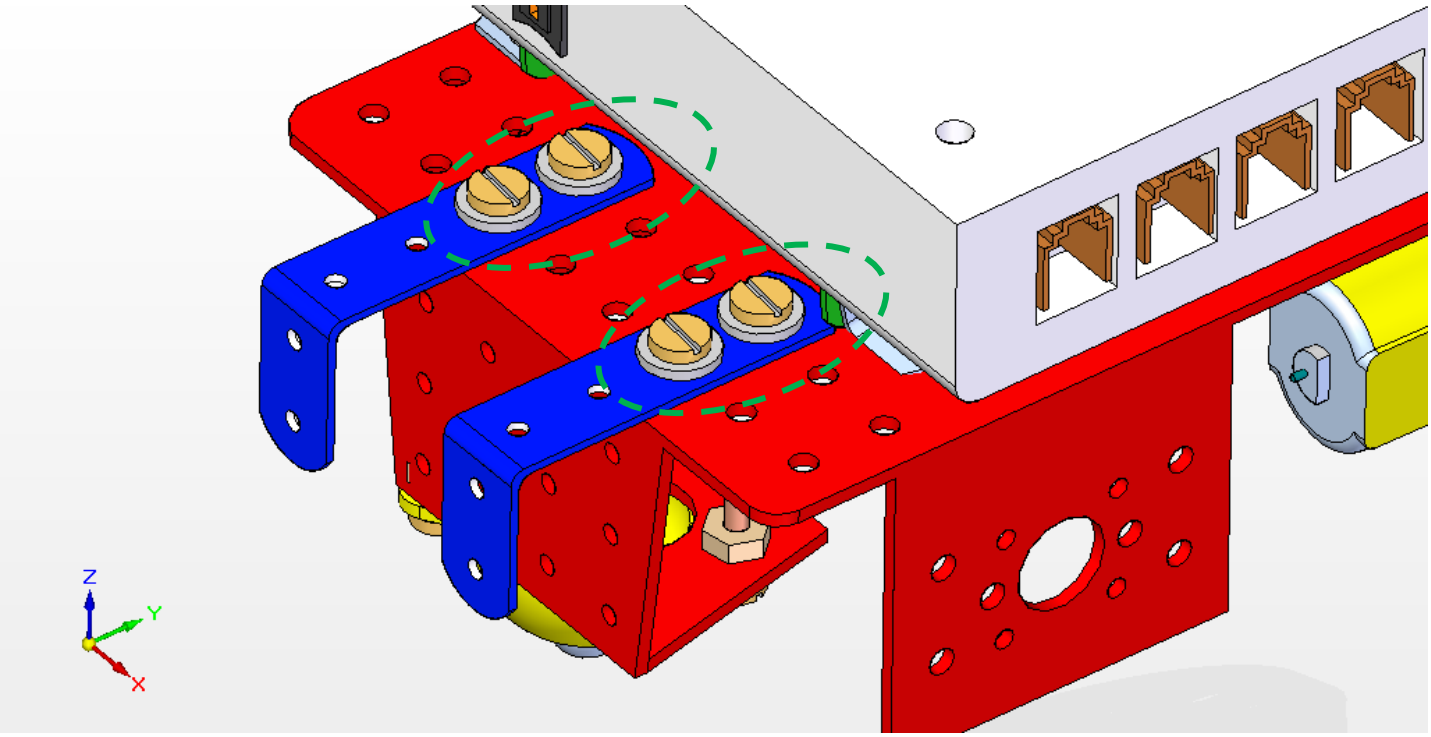




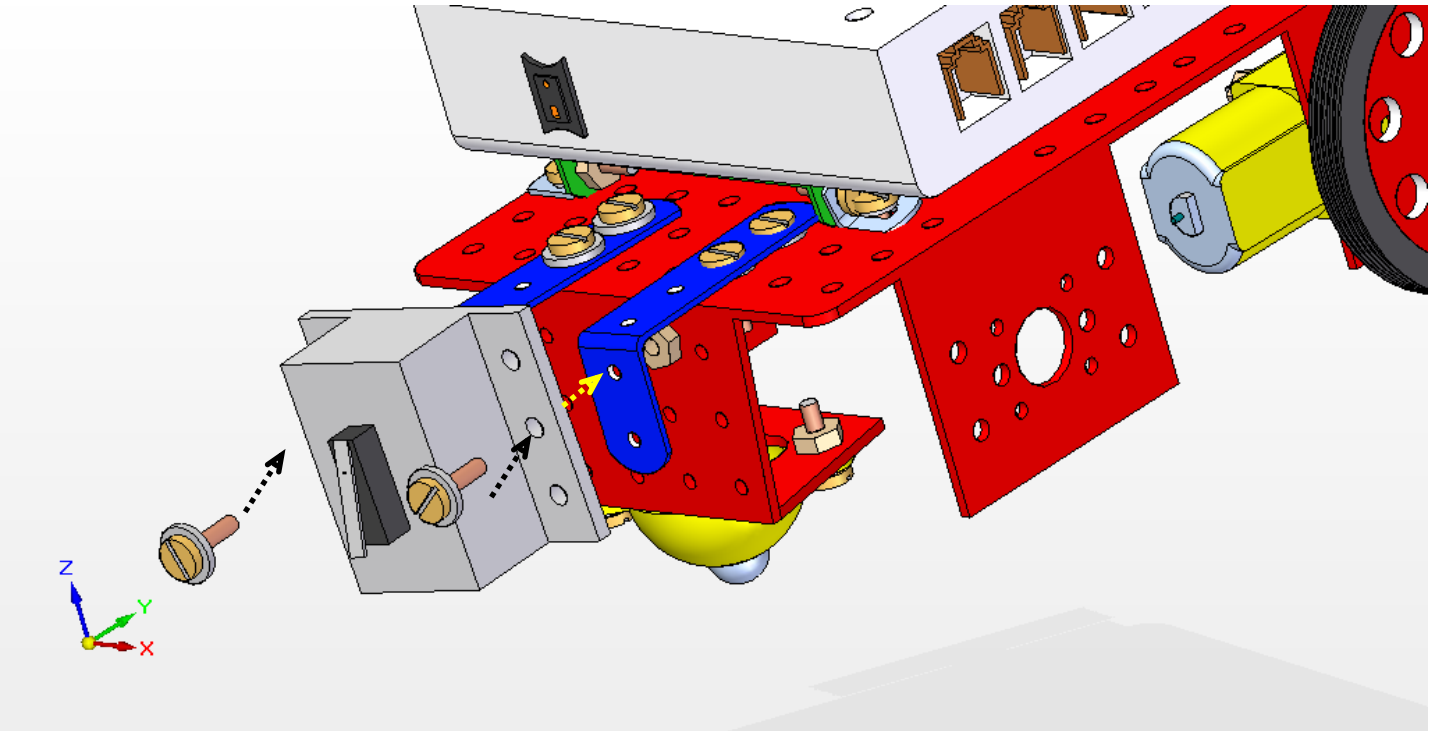
Step 7: Take LC4*2 and connect to front of the chassis with the help of four M3S screws.

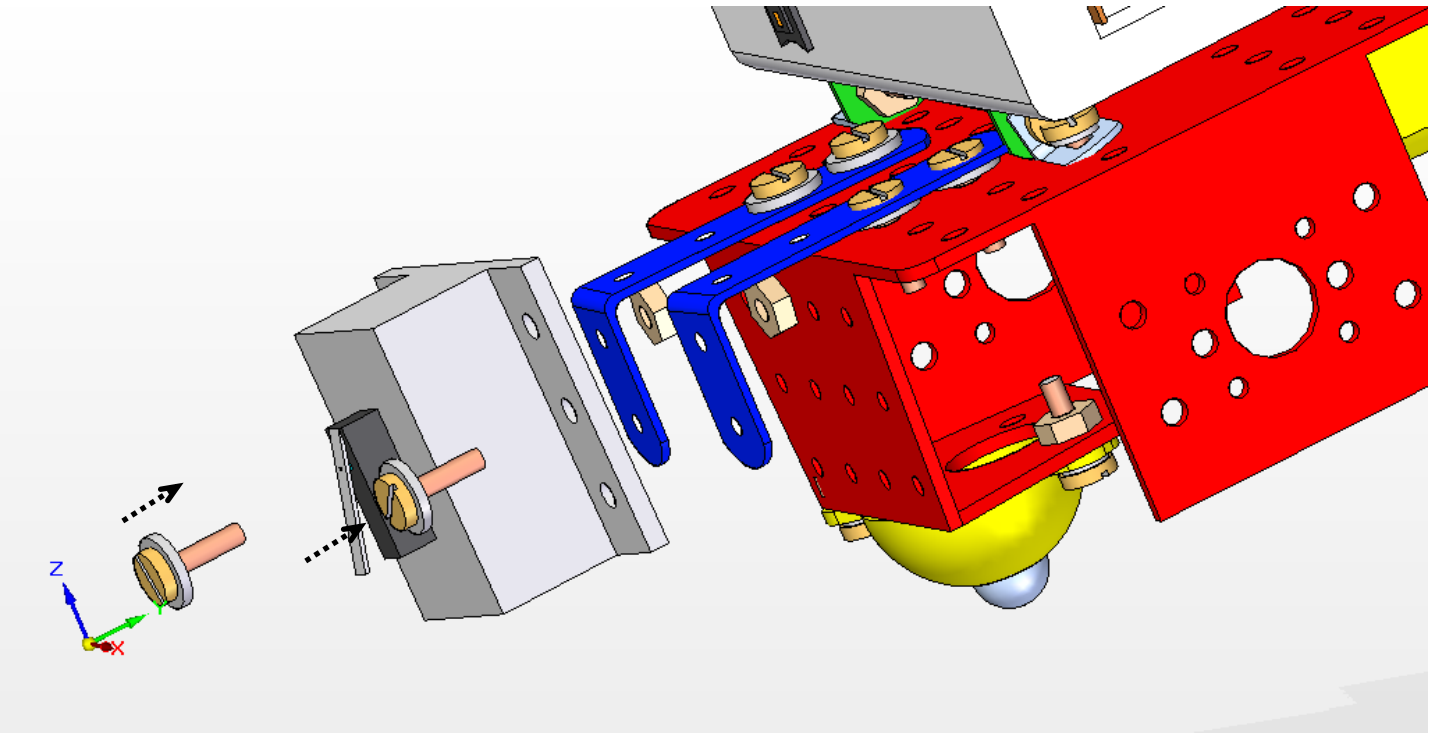


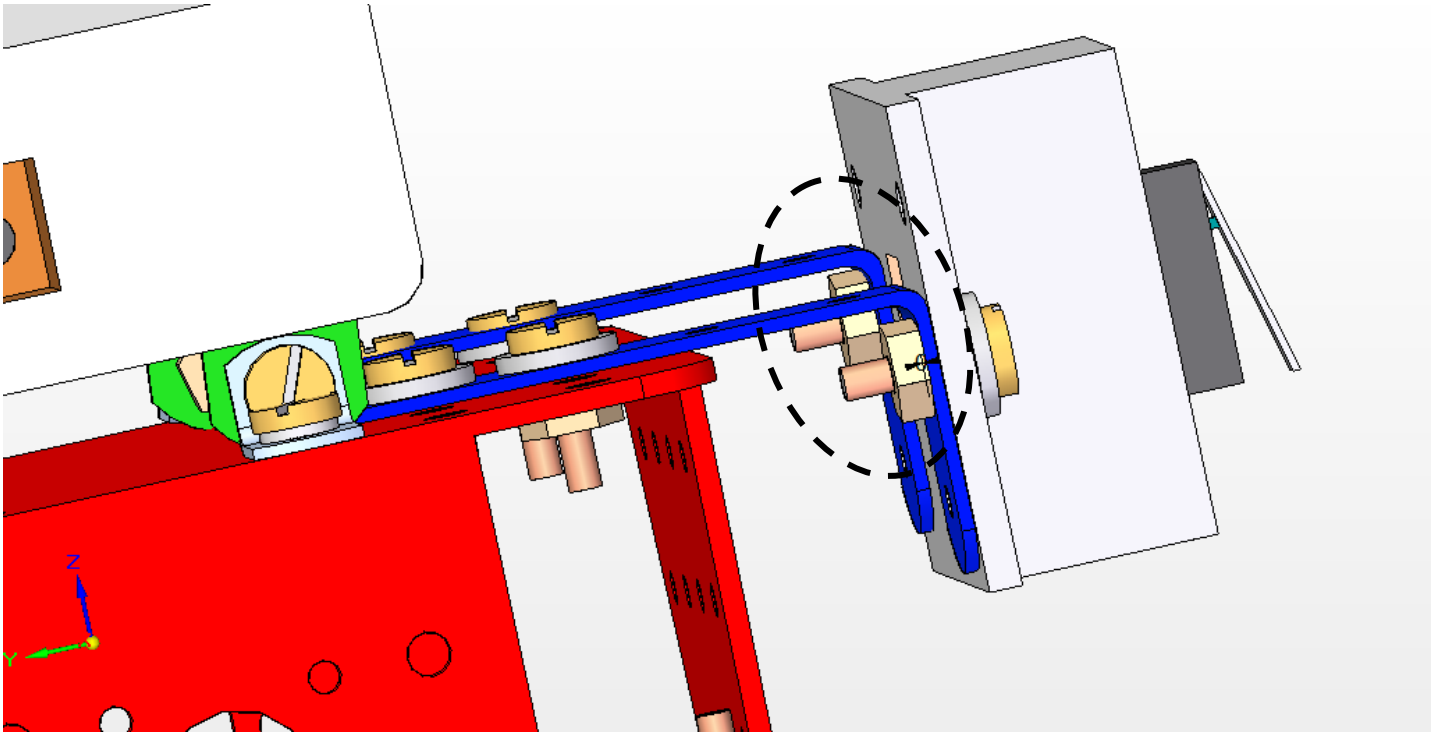




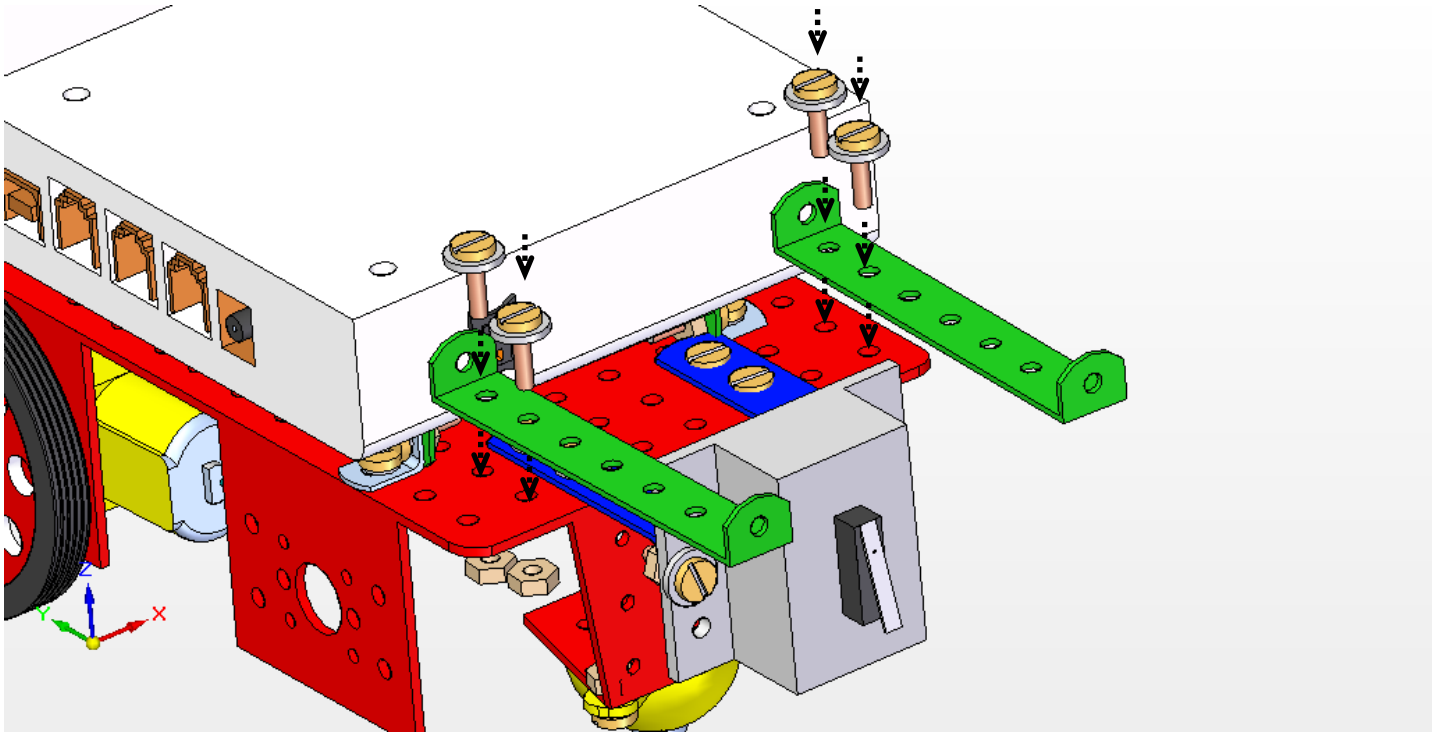
Step 8: Connect the Touch sensor to the LC4*2 with the help of two M3S screws.

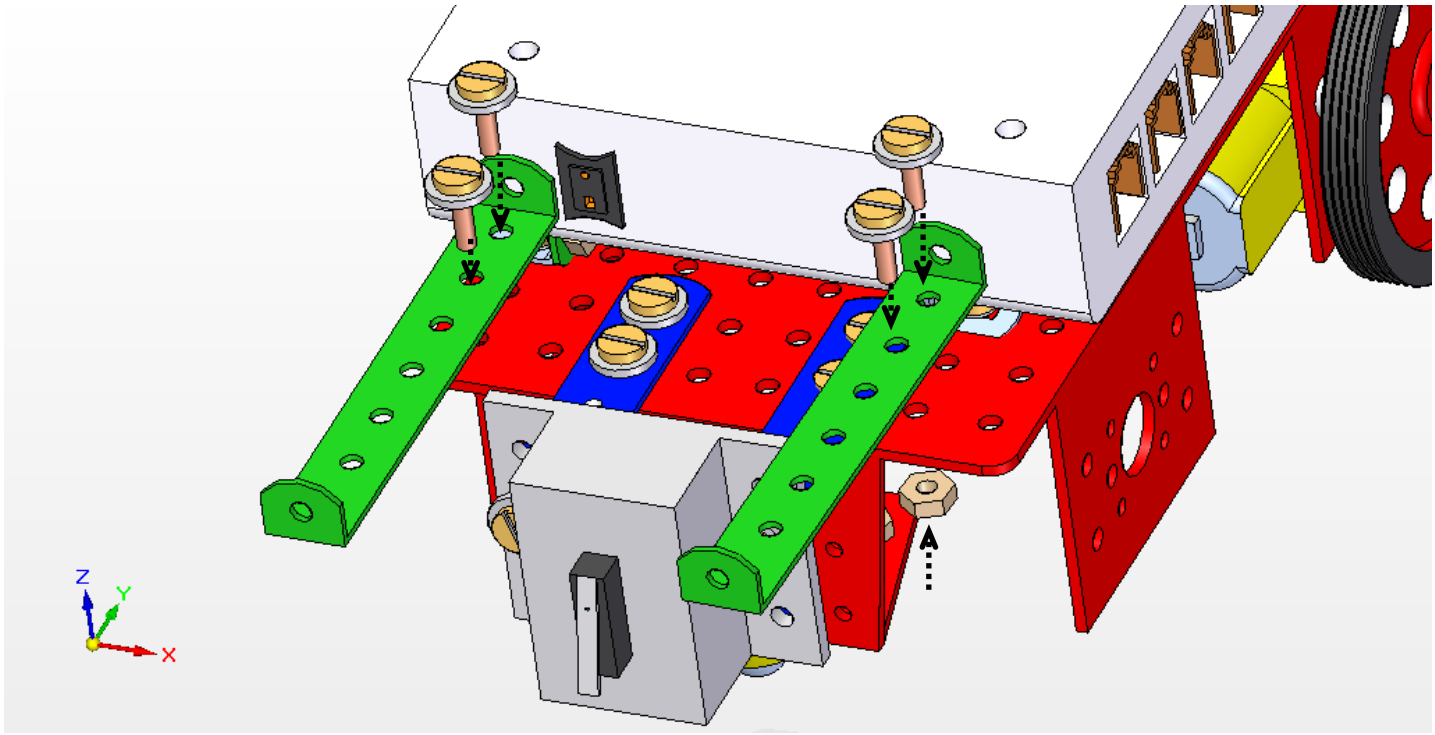


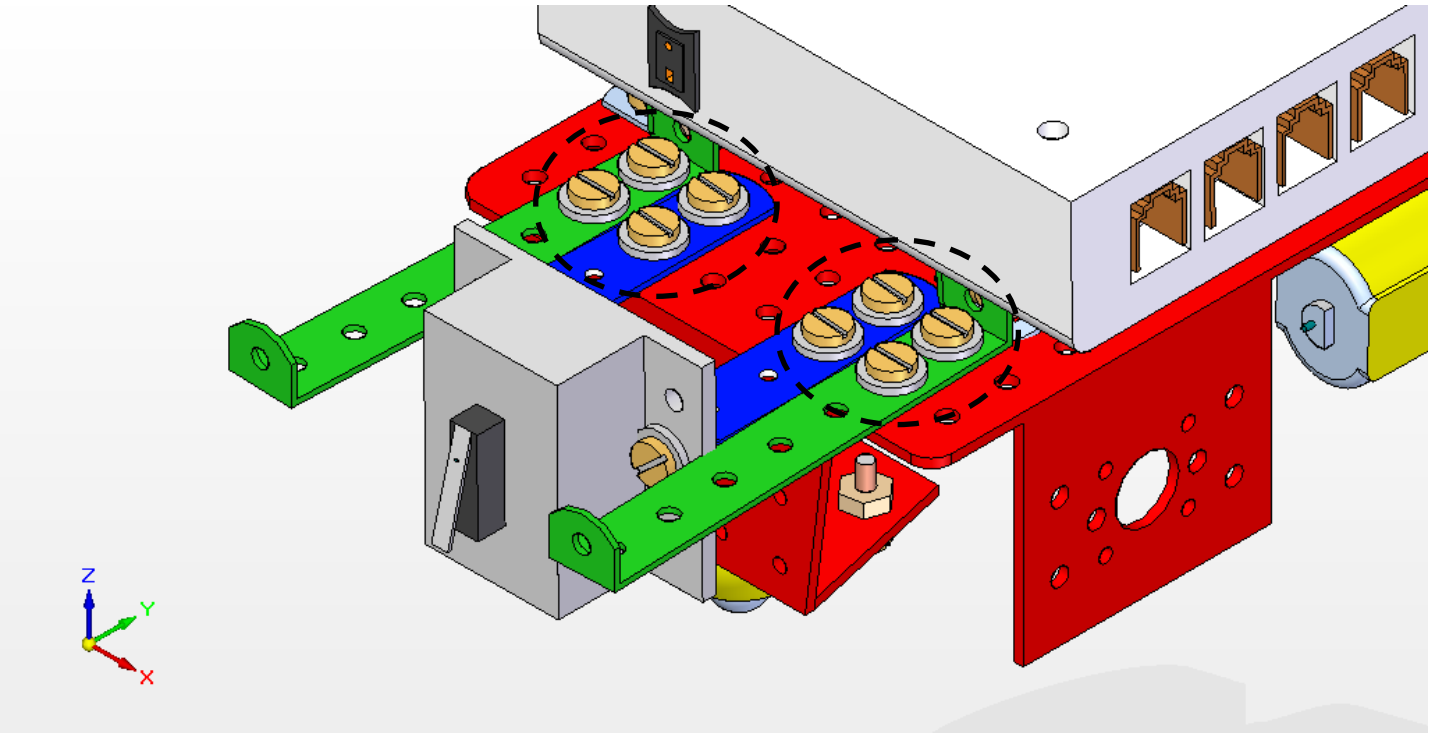

Z
Y
X


Z
Y

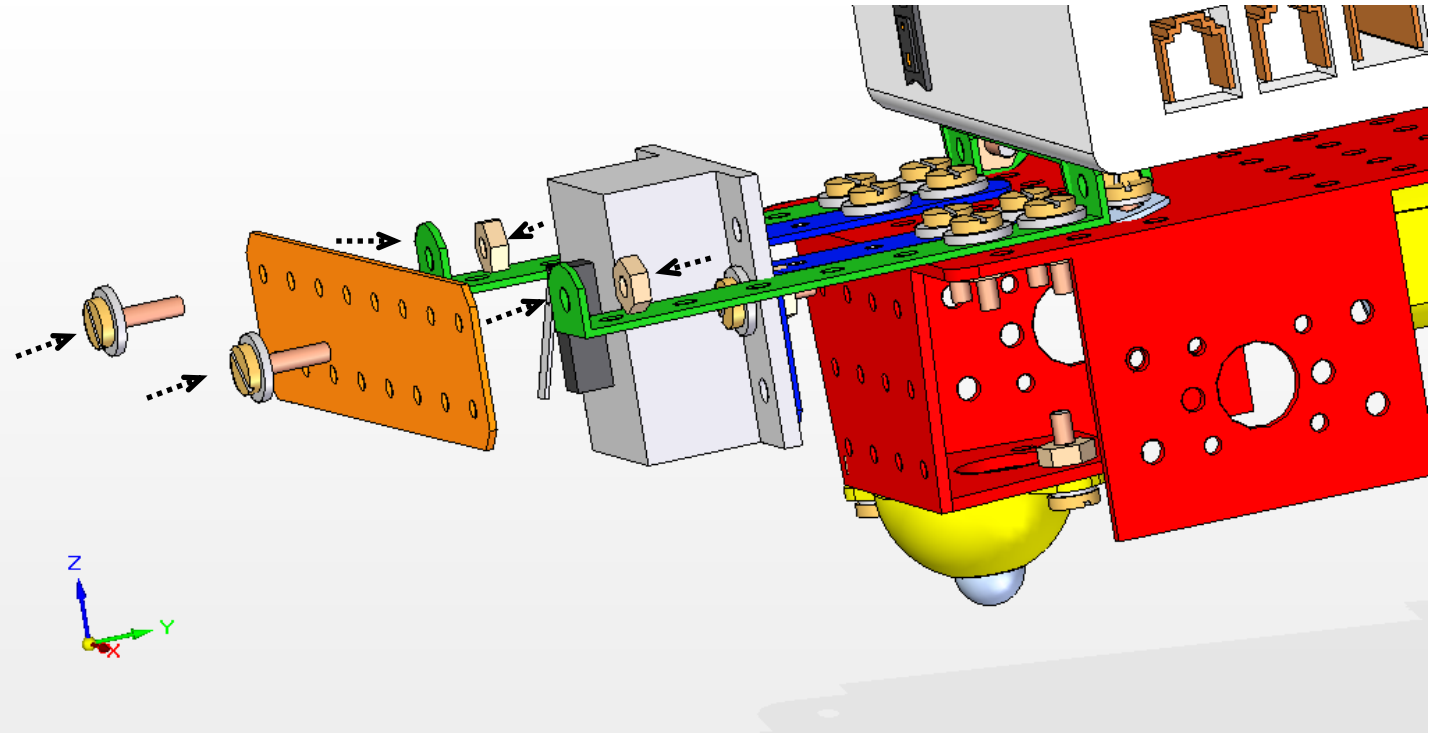
Step 9: Take two UC7*1*1 and connect to front of the chassis as show in the figure.

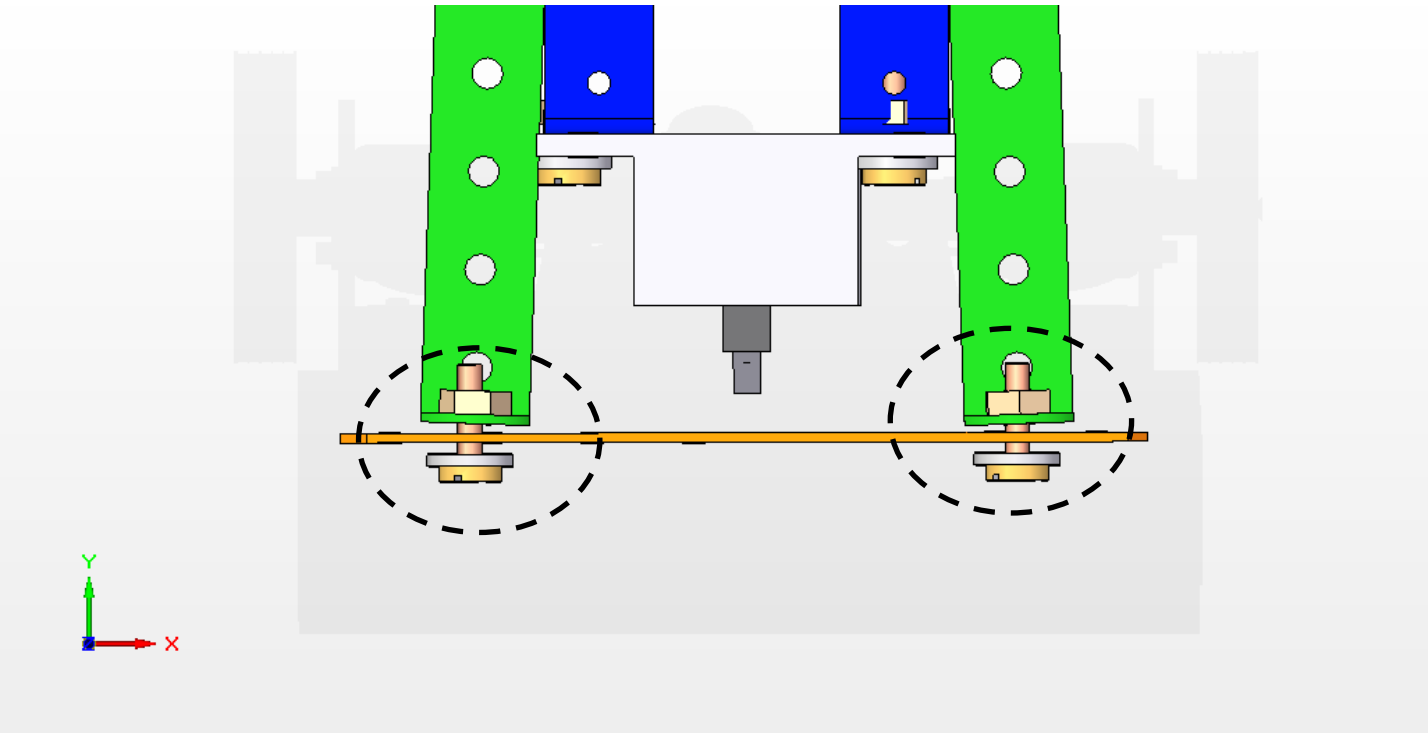


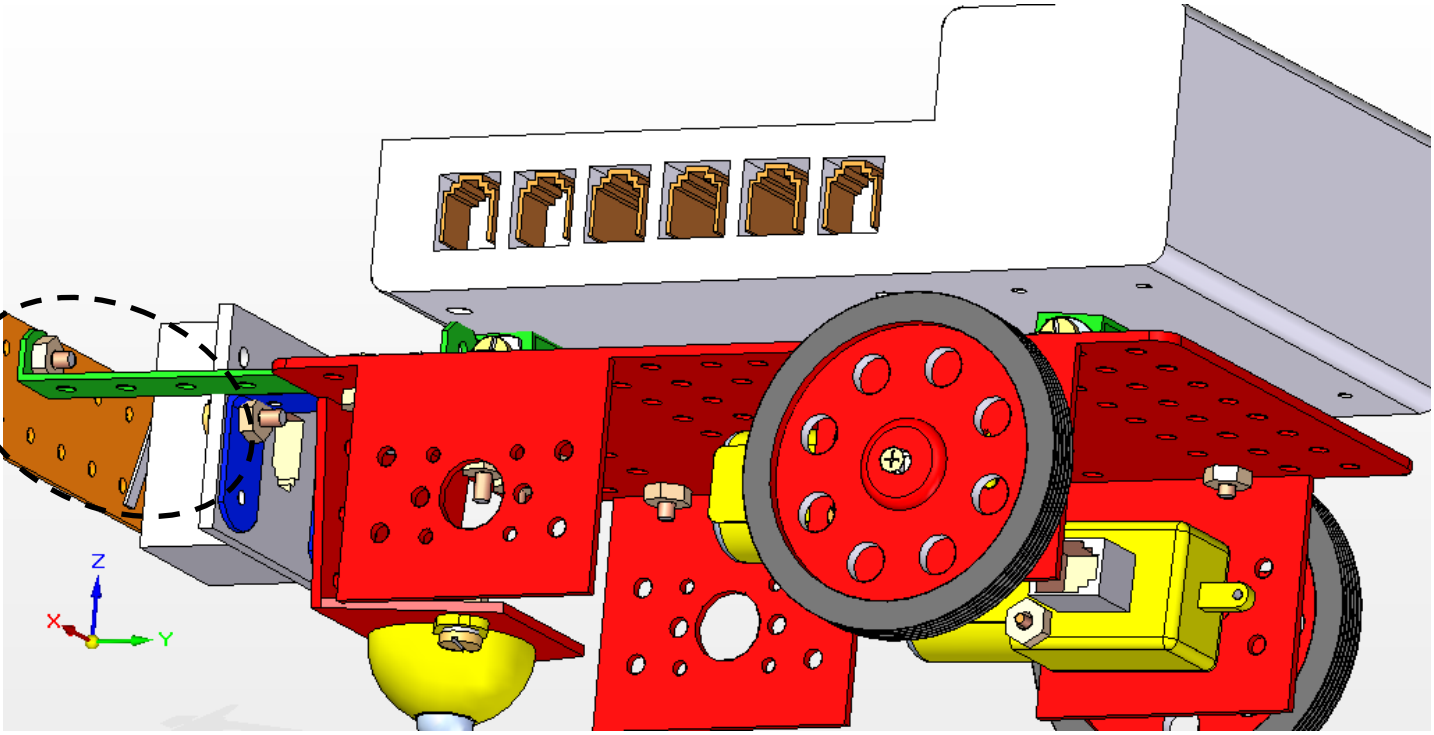




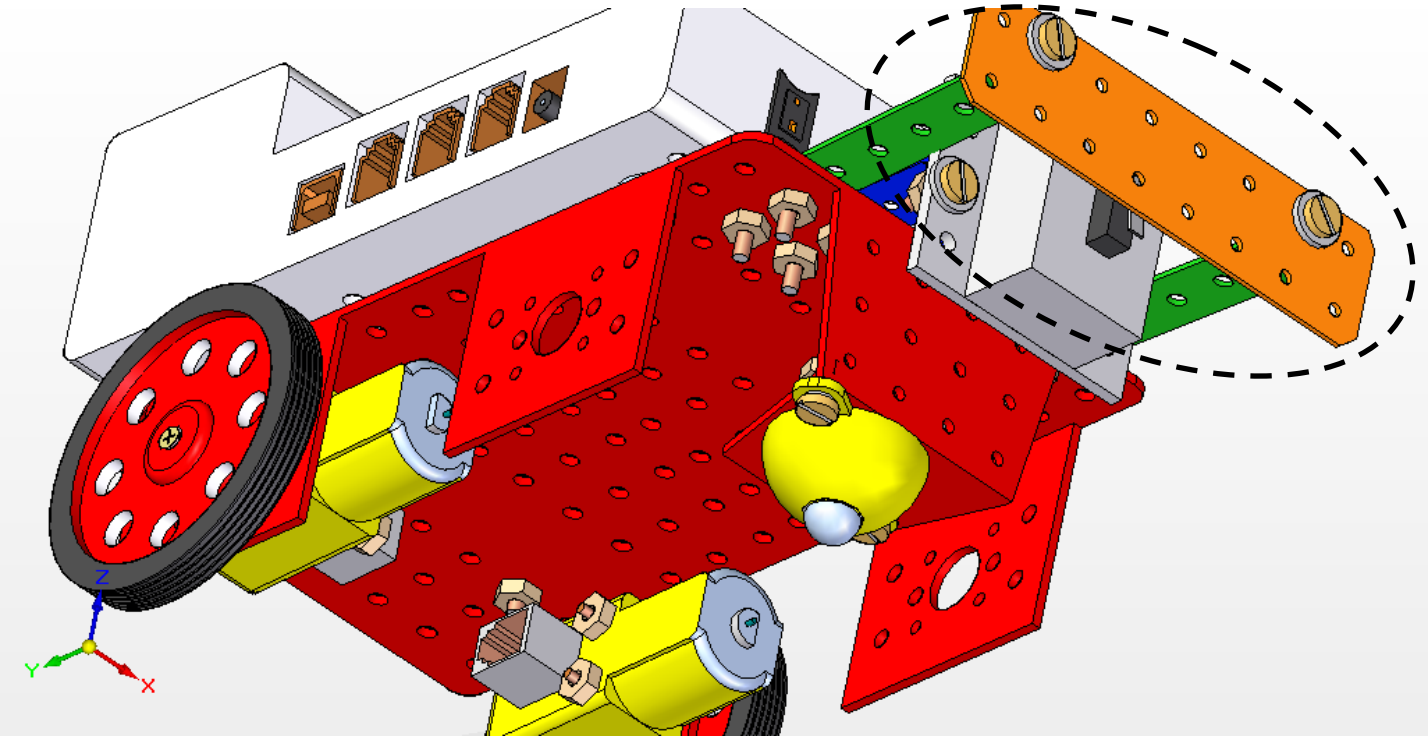
Step 10: Take DB8 beam and connect to the UC7*1*1 with the help of two M3S screws as shown in the figure.







Note: See that DB8 beam should be in contact to the touch sensor.



Step 11: Final model view is here. Connect the DC motor and Sensor to the NovaBot with the help of connecting cables to the respective ports.