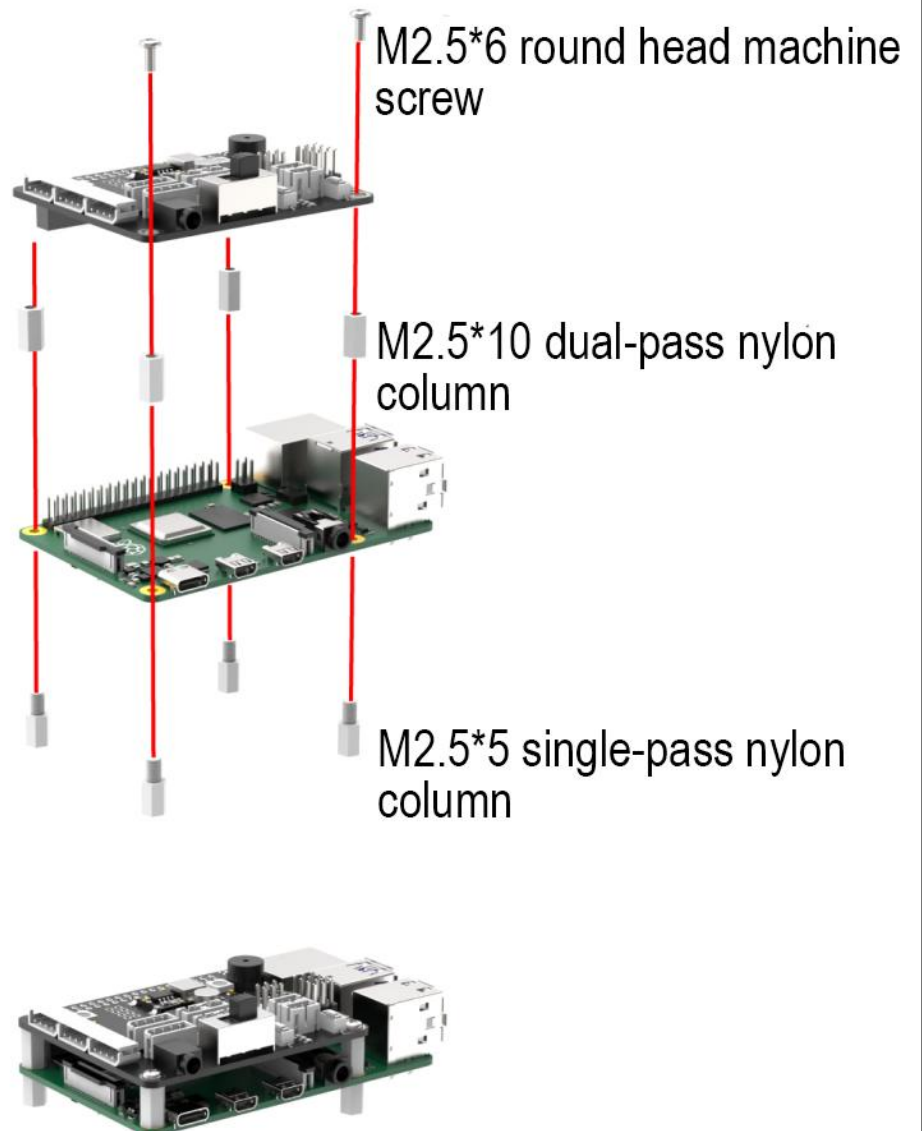


Lesson 3

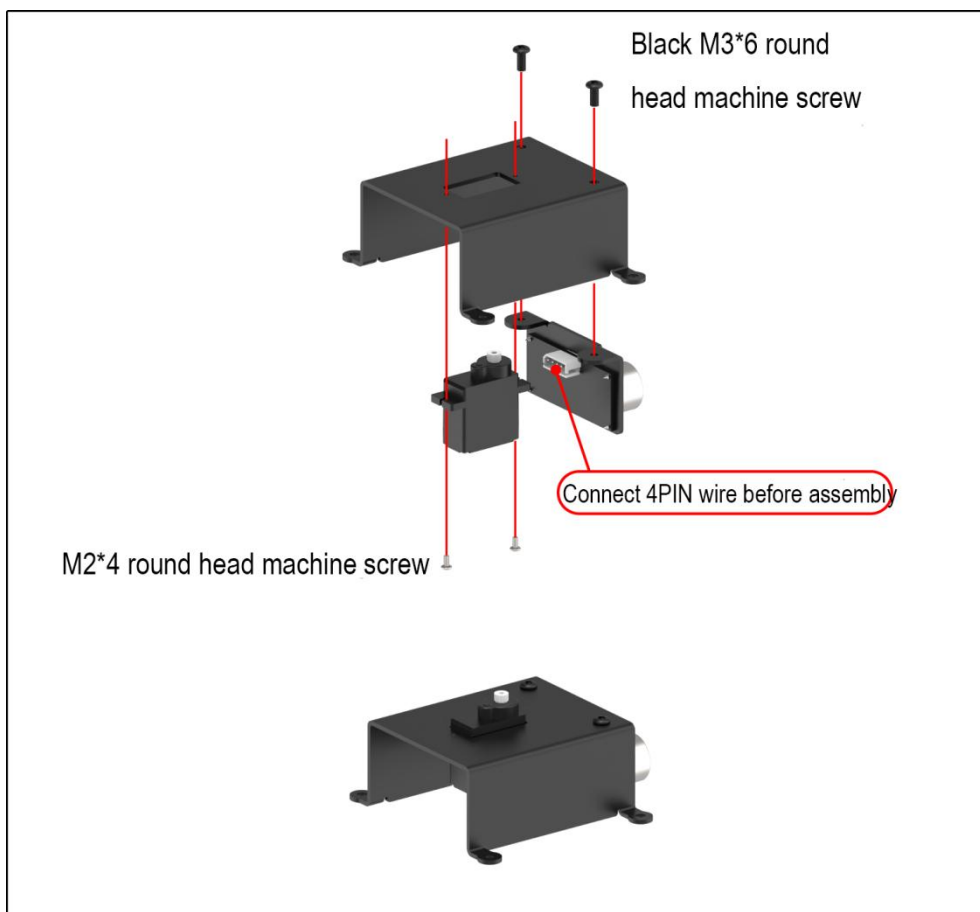
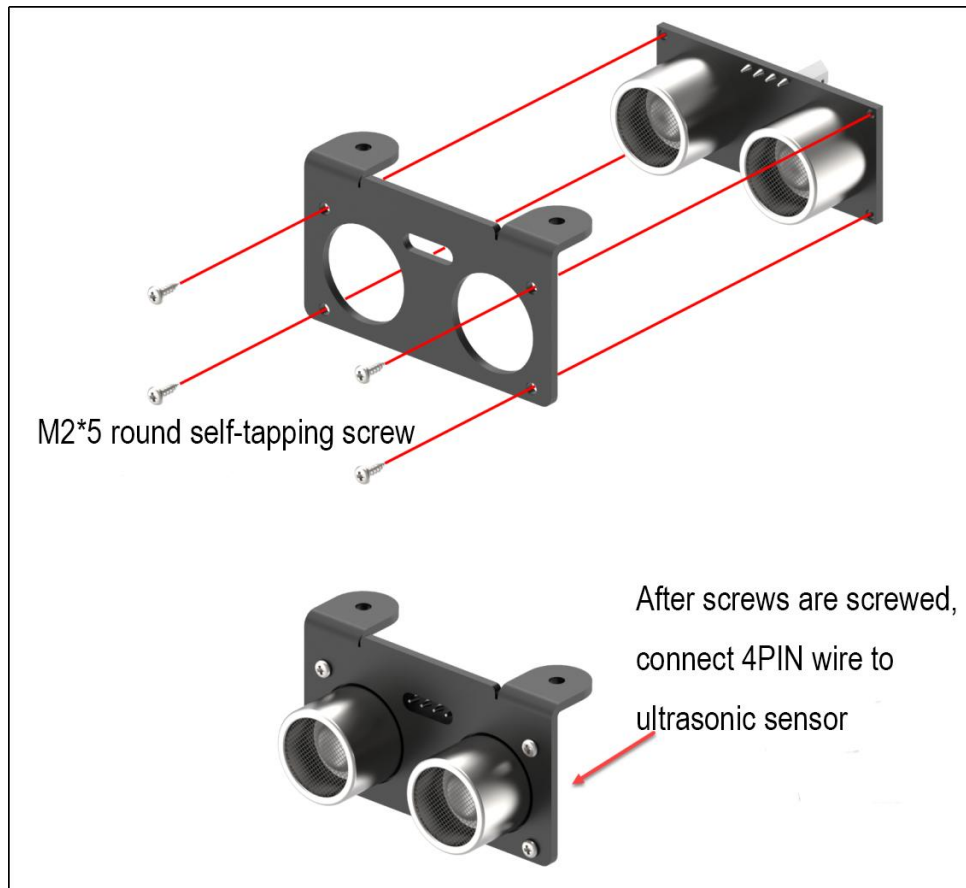
Assembling the TurboPI Bush Robot Car

1A. Assembling the rPI Board & Expansion Board

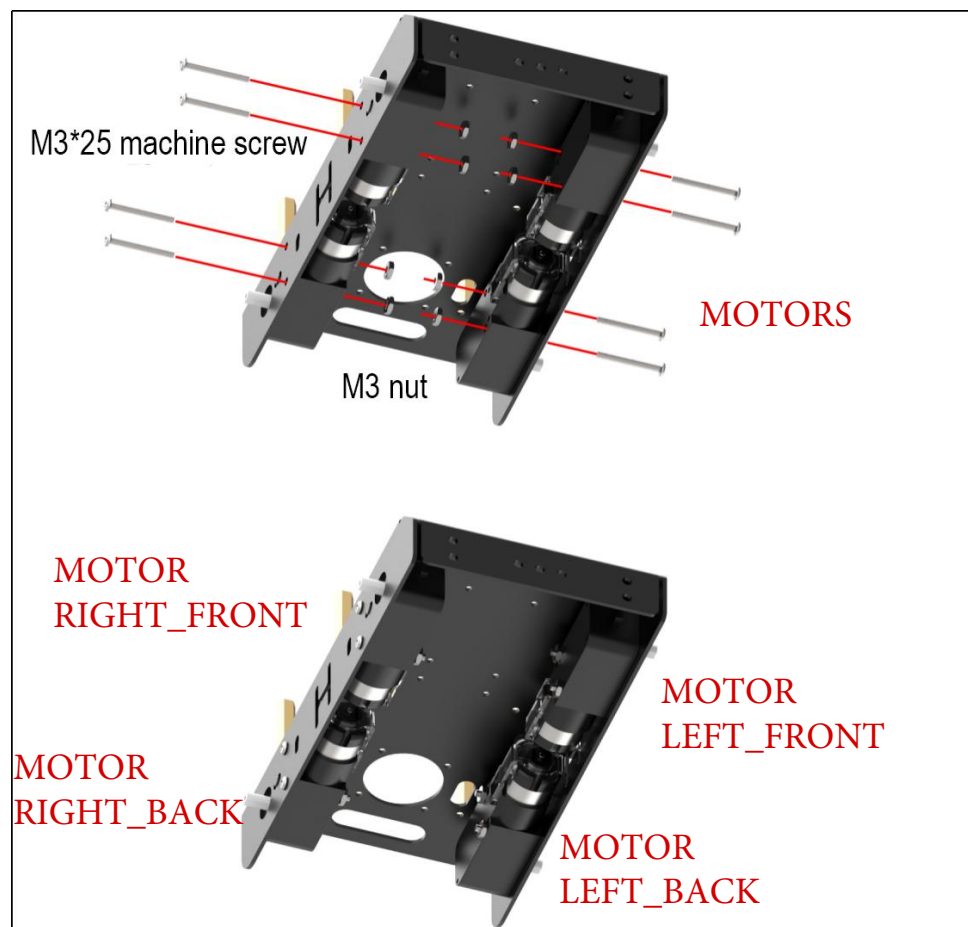
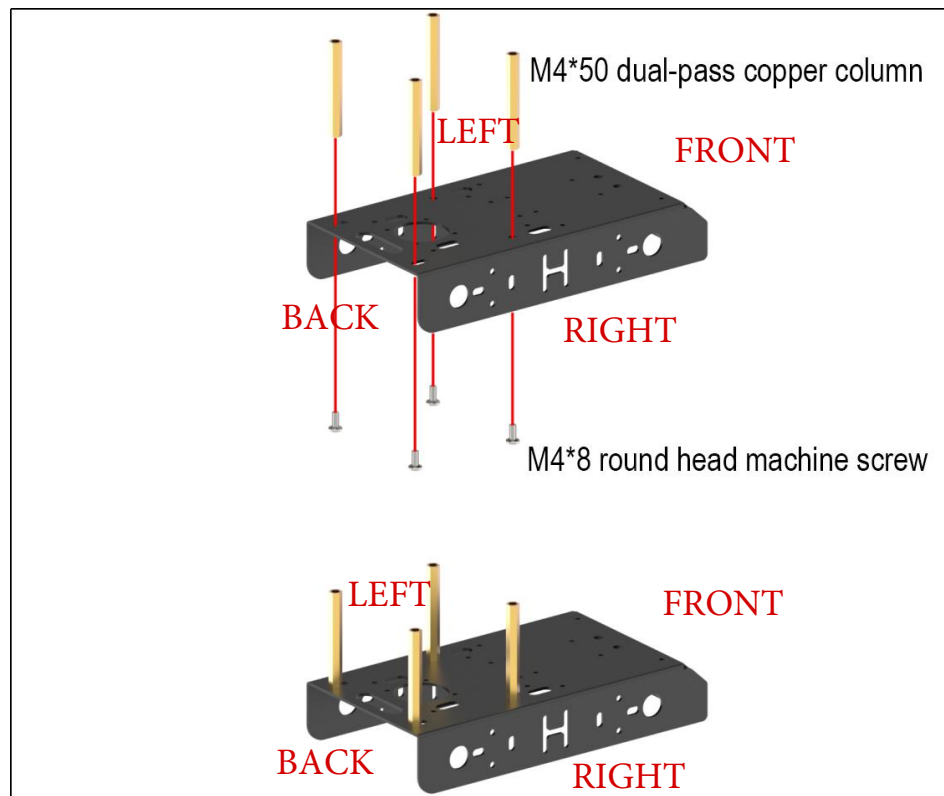


*Remember to install memory card

1B. Assembling the Ultrasonic Sensor & Servo Motor

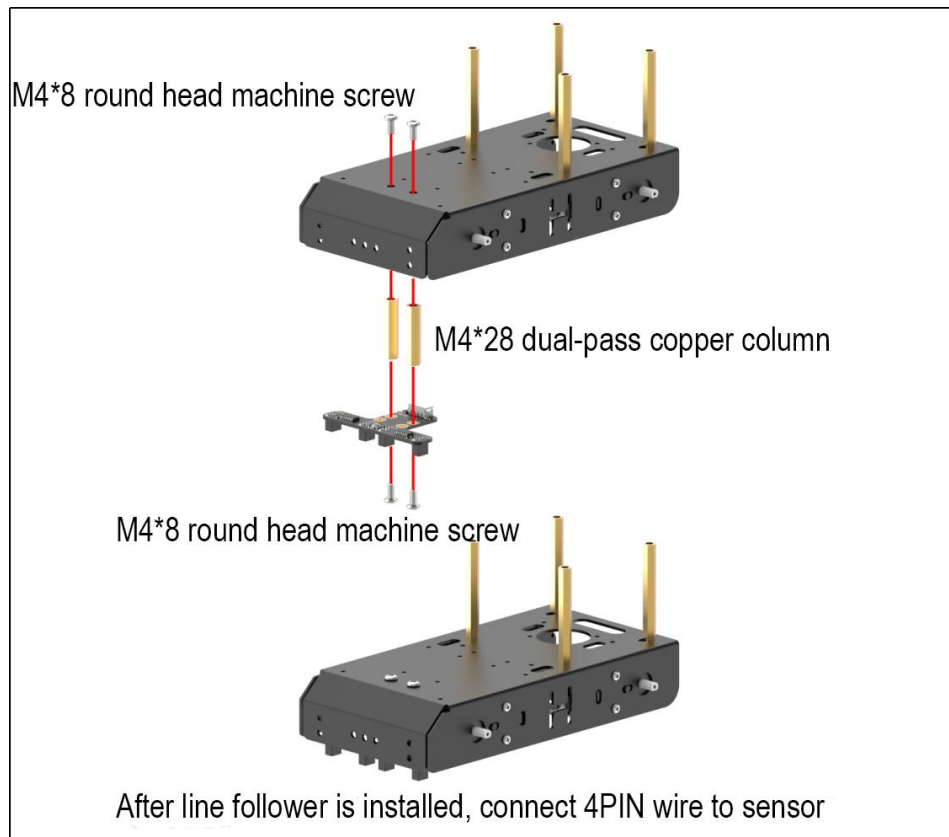


2A Assembling the TurboPI Chassis Motors & Line Follower

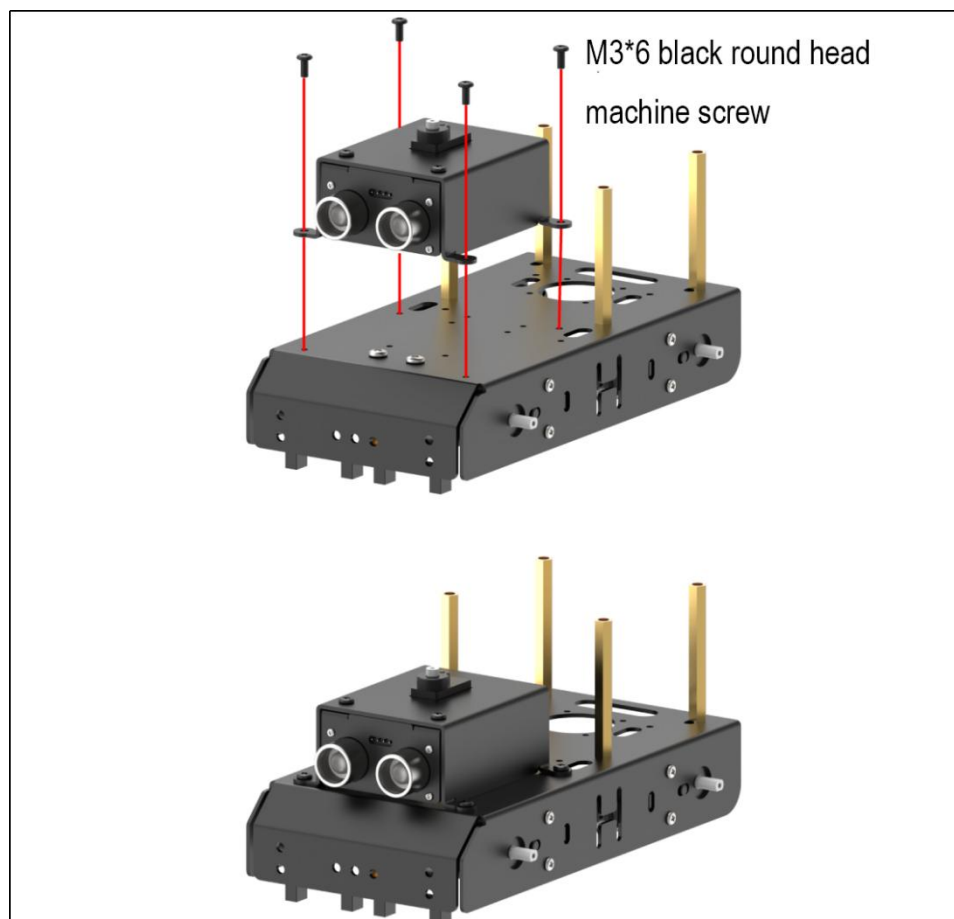


Label & Install the Motors as indicated. Feed connectors through the rectangular slot on the chassis to the top. Be very careful on this step with the orientations and positions of motors.

2B Assembling the Line Follower sensor underneath the Chassis

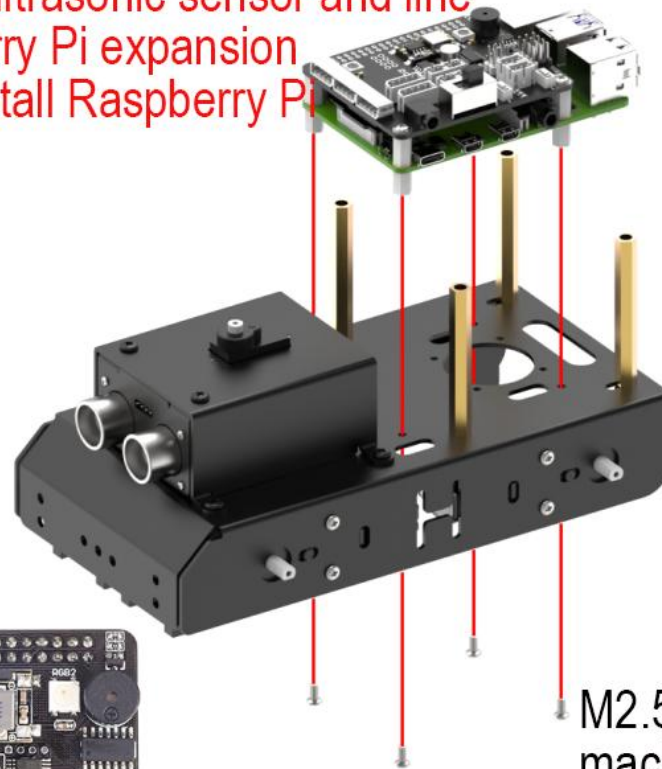


2C Assembling the Ultrasonic sensor on top of the Chassis



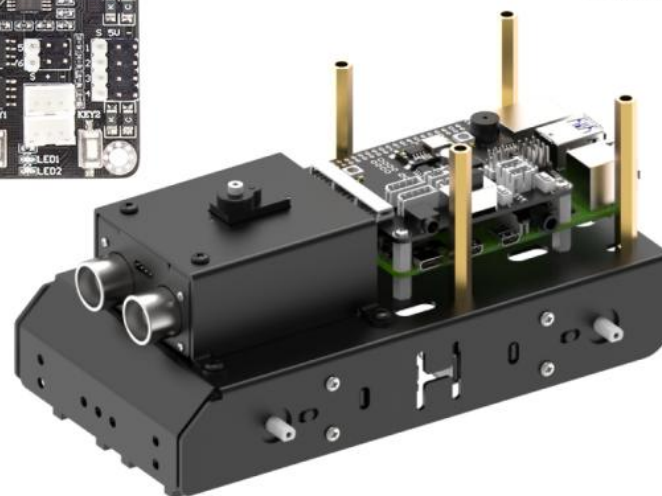
3. Install the assembled computer boards on top of the Chassis

*Connect wires of ultrasonic sensor and line follower to Raspberry Pi expansion board, and then install Raspberry Pi on the robot.

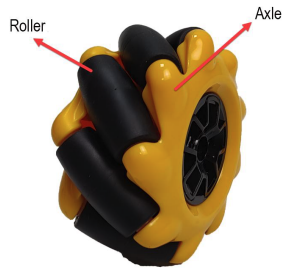


Line follower

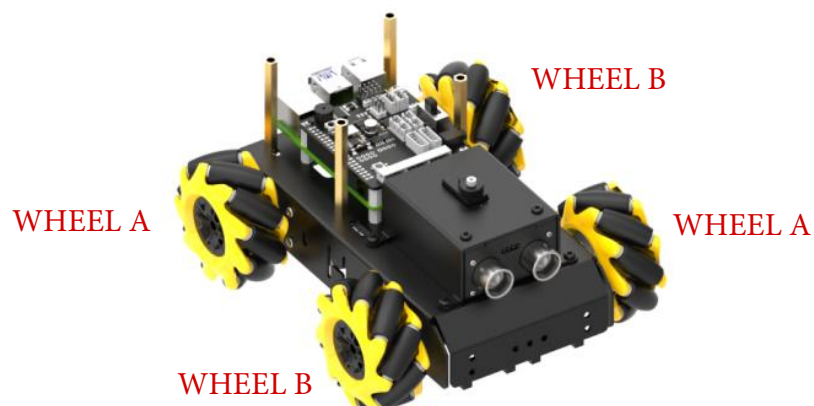
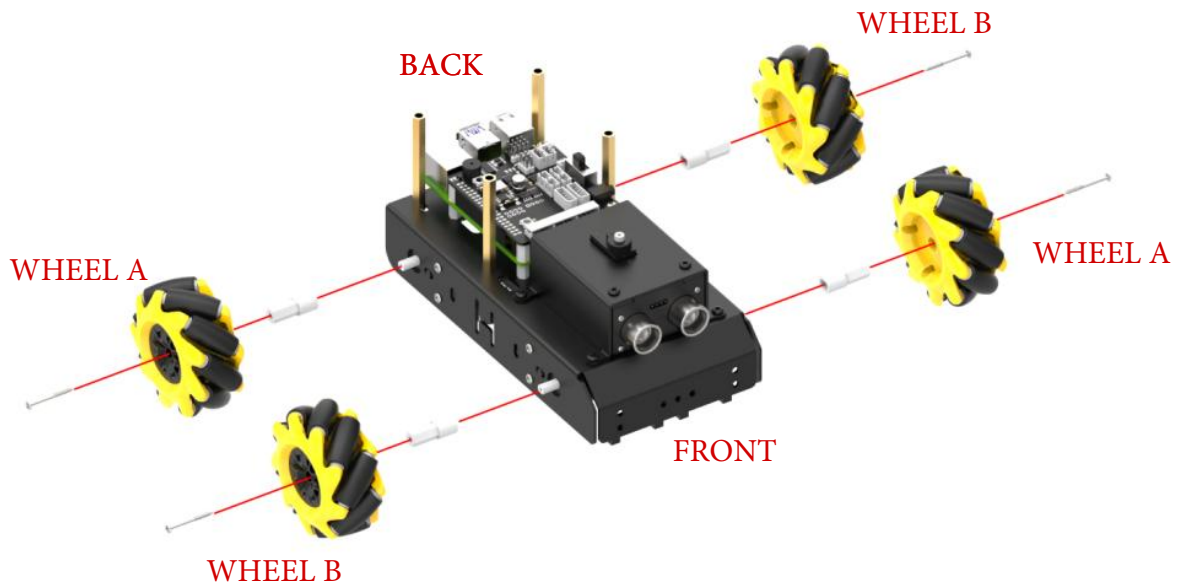
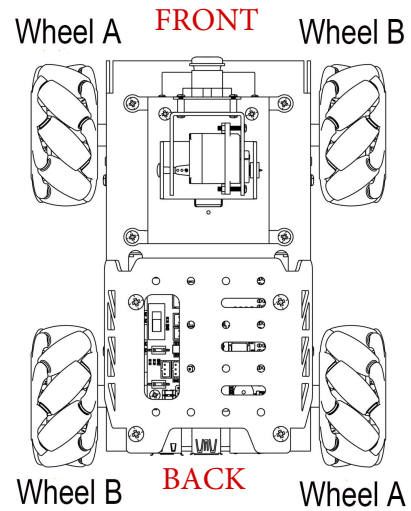
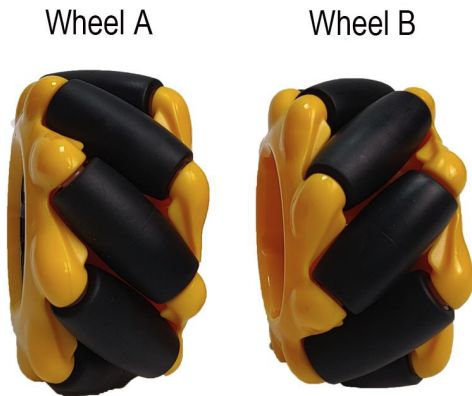
Ultrasonic sensor



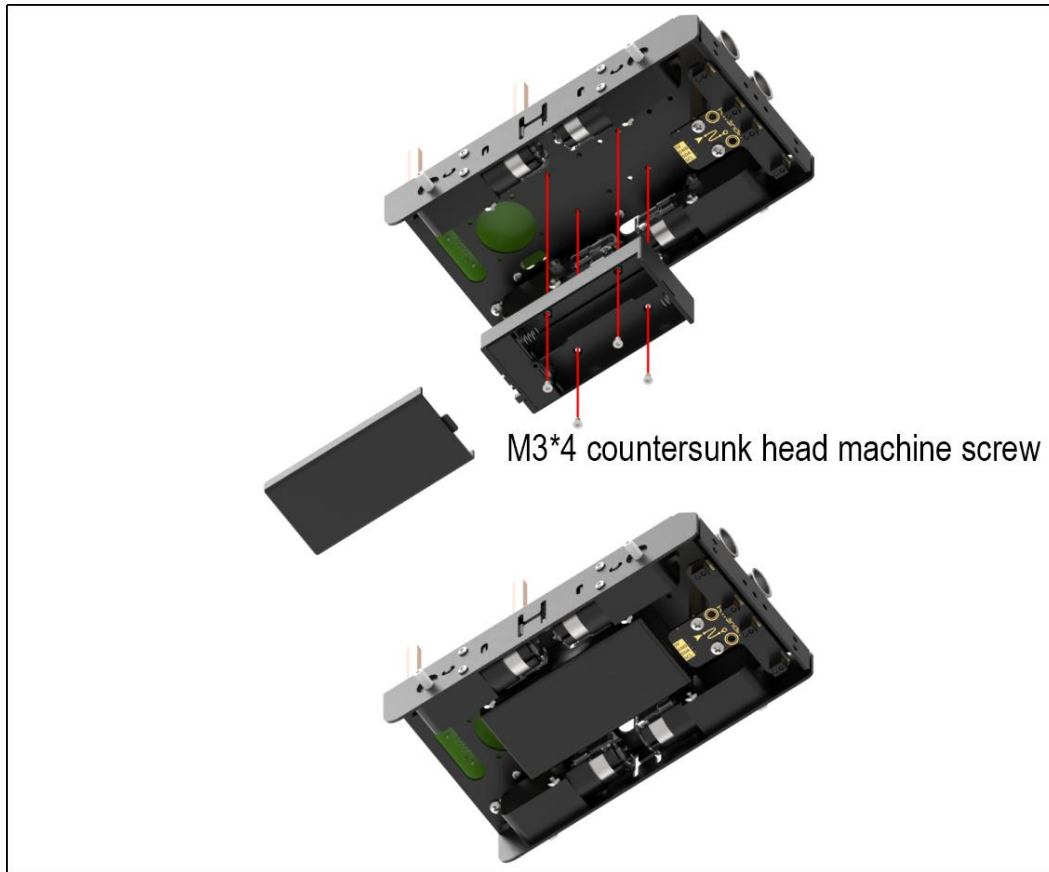
4A. Install the Mecanum wheels on the Chassis



Wheel A and Wheel B are distinguished by the angular orientation of the diagonal rollers. Be very careful in choosing the correct wheel for the respective motors as shown

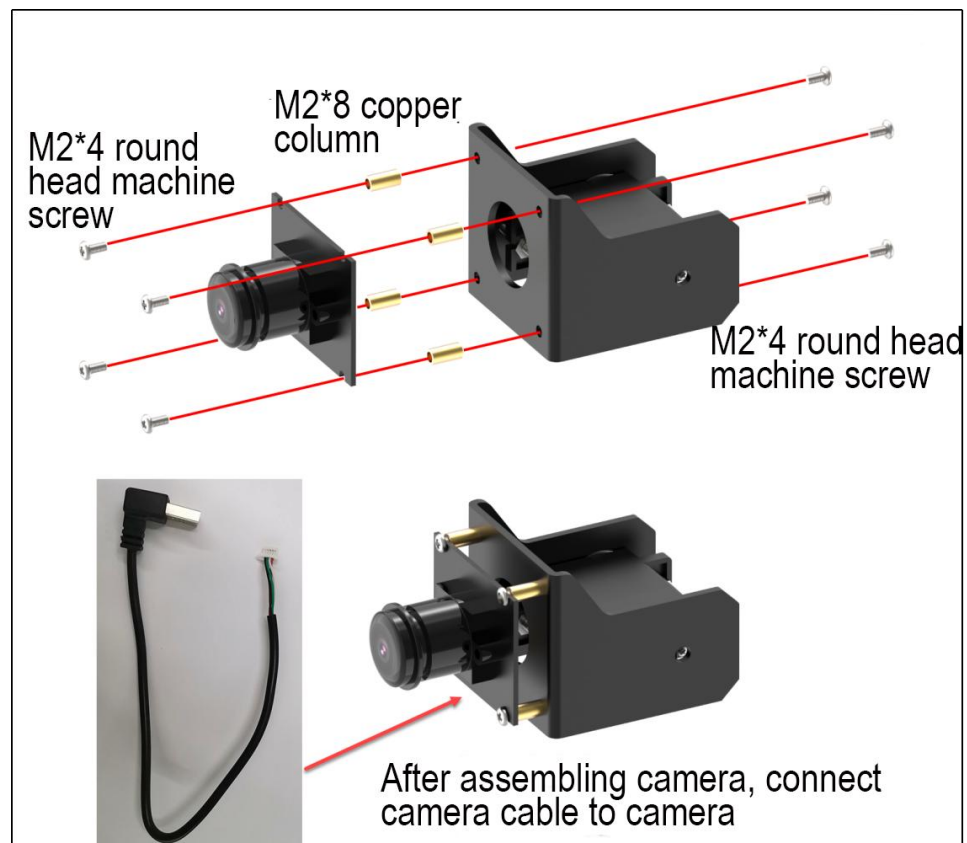


4B. Install the Battery case on the bottom on the Chassis

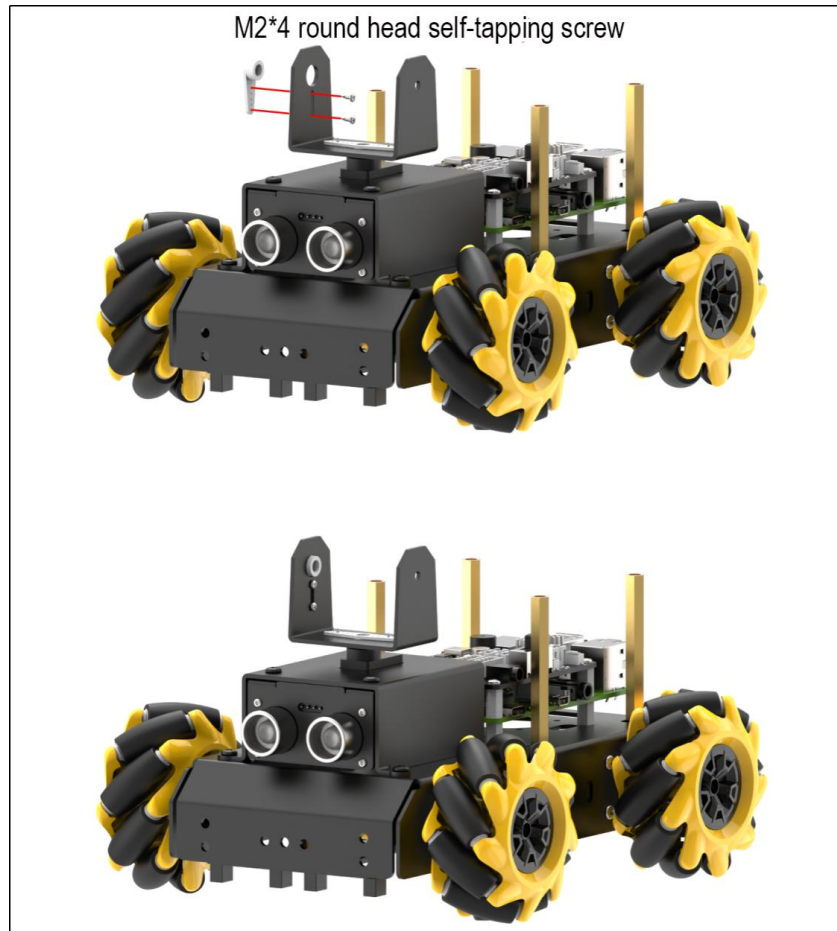


WE ARE NOW READY FOR THE ROBOT
CAR LOCOMOTION TESTING. FOLLOW
INSTRUCTIONS ON WEBSITE AND
JUPYTER NOTEBOOKS

5. Build the Camera Assembly



6. Install on top of the Ultrasonic Sensor assembly from before



FINAL STEP !!!

7. Connect Motor & Camera Servo wires & install cover

BE EXTRA CAREFUL ON THIS STEP. THE MOTOR CONNECTORS ARE HARD TO REMOVE. SO YOU NEED TO DO THE CORRECTLY THE FIRST TIME. ASK FOR VERIFICATION BEFORE YOU CONNECT !!!

