

UP Xtreme i11 Robotic Development Kit HW Assembly Guide

1. What's in your kit

i. UP Xtreme i11 Robotic Development Kit



UP Xtreme i11 board



8G DDR4 x 2



128G SSD



Wi-Fi kit



RealSense camera(D435i)



96w(12V/8A) power adapter
for UP Xtreme i11



Mecanum Robot plates



Motor Bracket x 4



motors x 4



Wheels x 4



Motor control board
Cables x 4



ST link V2



Micro USB cable



screw set
For motor & wheel assemble



screw set
for bracket & motor assemble



screw set
for board, camera, SSD assemble



screw set
for top plastic plate
motor control board assemble

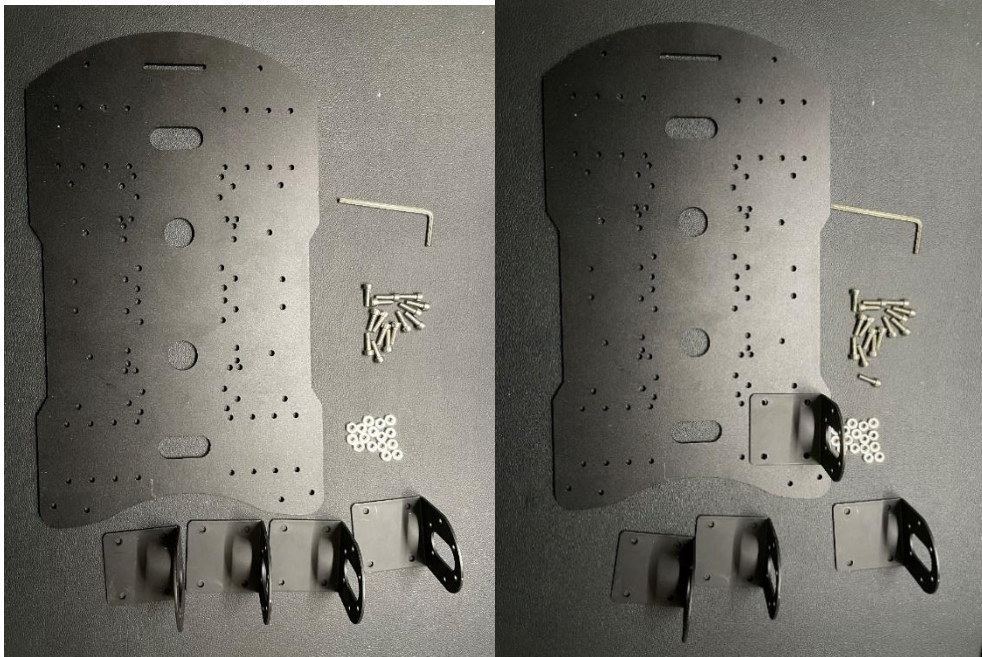


60w(12V/5A) power adapter
for motor control board

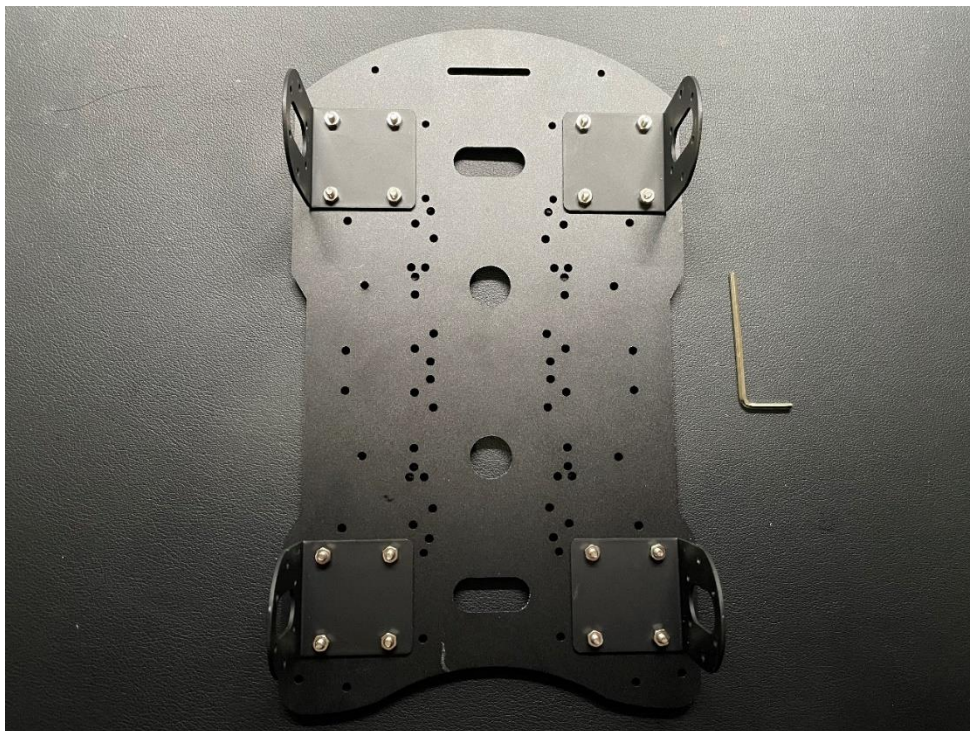
Robot Bottom Part Installation Guide

1. Install 4pcs motor bracket to the metal plate.

Need: 16pcs M3*10mm hexagon screws, 16pcs m3 nut, 1pcs M3 hexagon wrench.

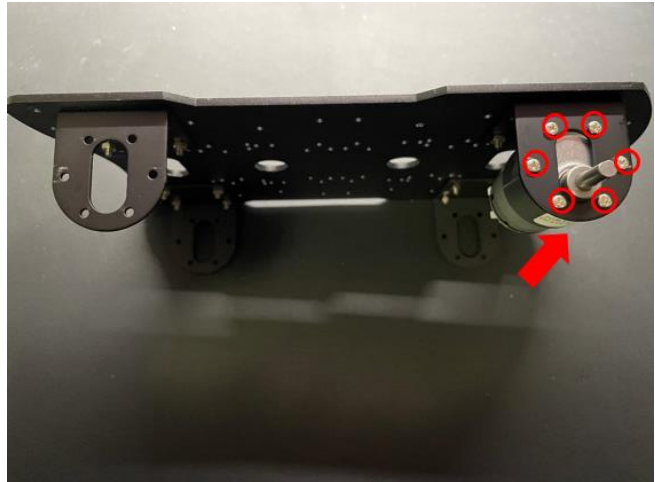


After Installation

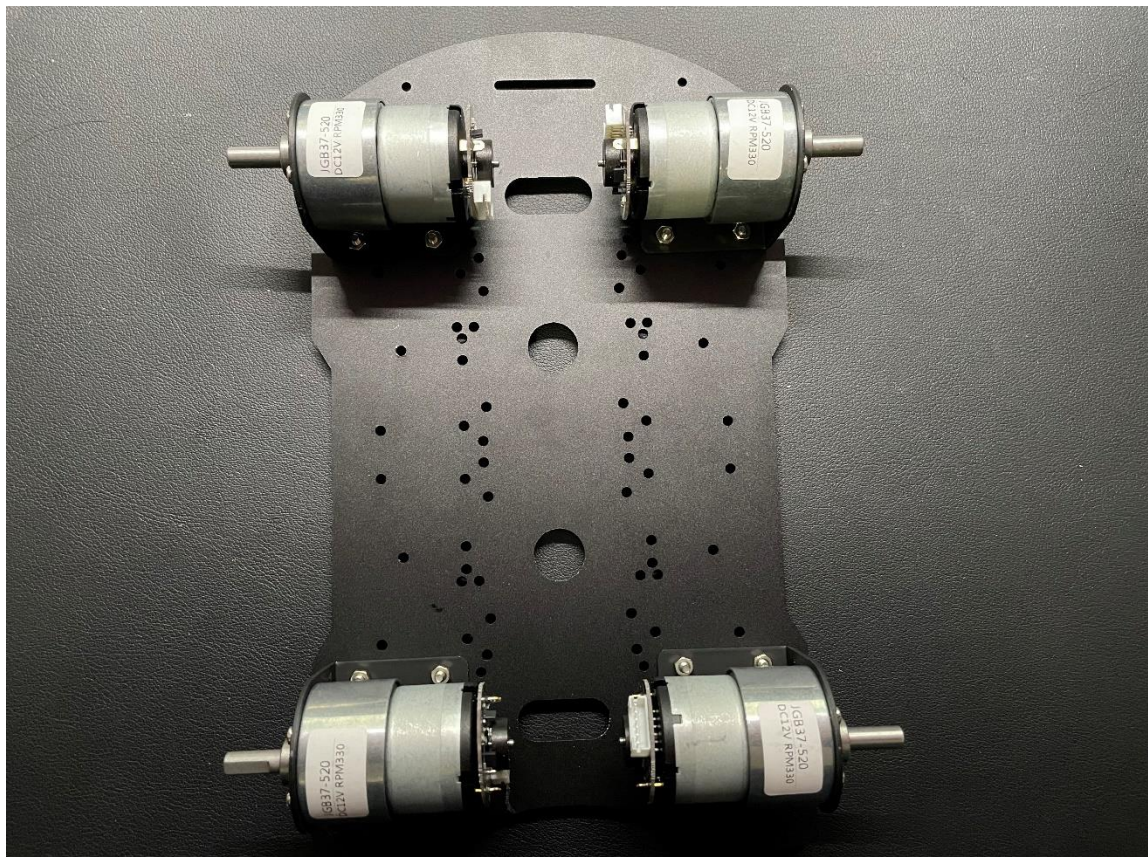


2. Install the motor into the motor bracket.

Need: 24pcs M3*6mm flat head screws. Follow the same way as below right picture to fix the motor to bracket



After Installation



3. Install the coupling into the wheel and use the M3x8mm flat head screw to fix coupling with wheels
Need: 4pcs inner size couplings, 4pcs M2.5*8mm flat head screws, 4pcs M3*6mm hexagon screws.



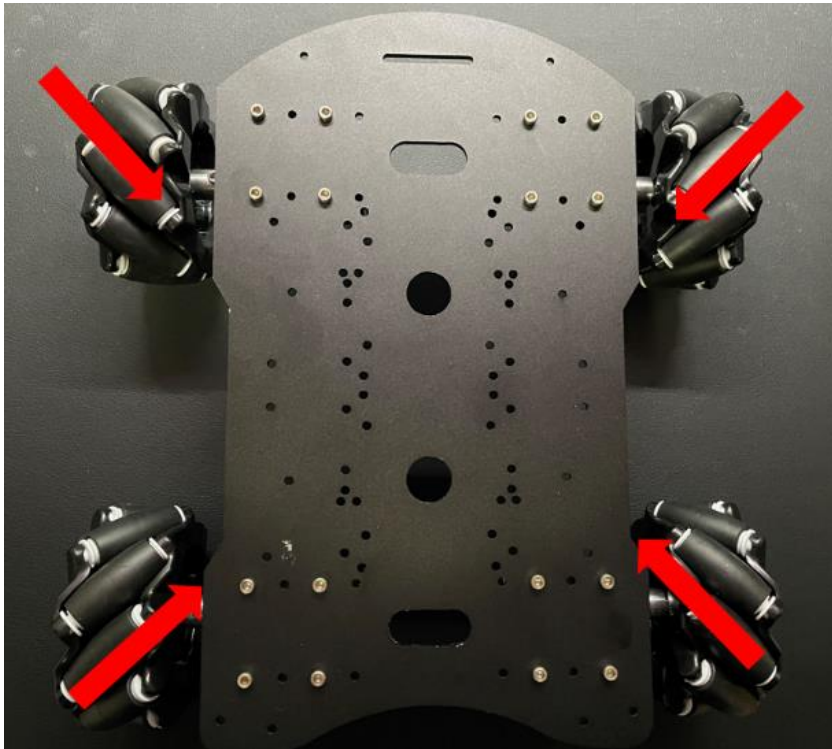
After Installation



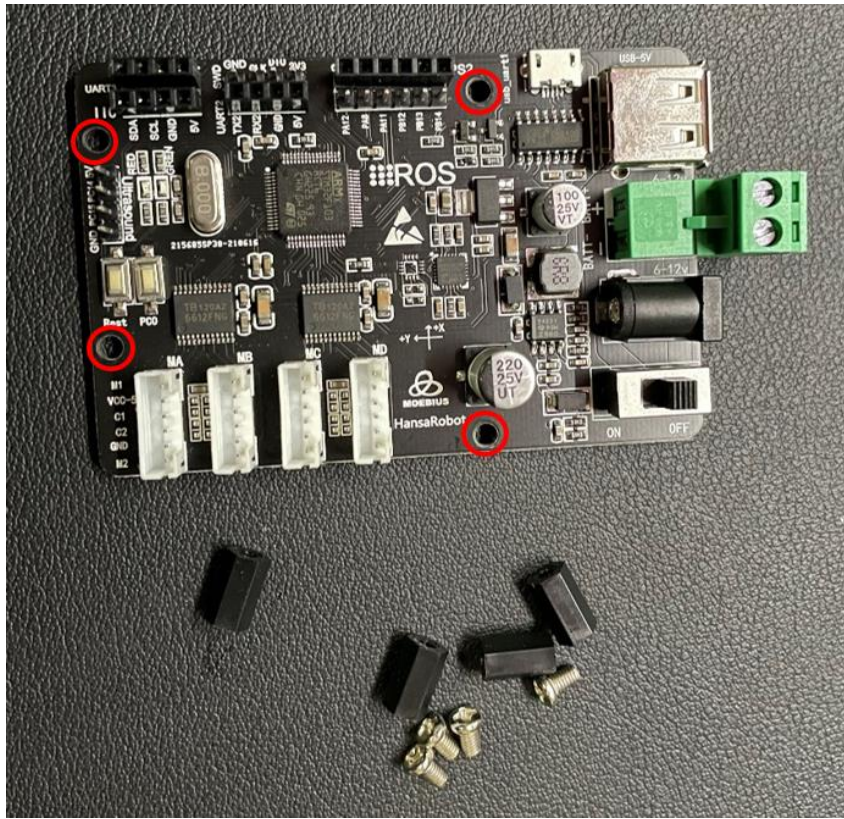
4. Install the wheel into the motor. Note that the coupling is screwed onto the concave end of the motor.



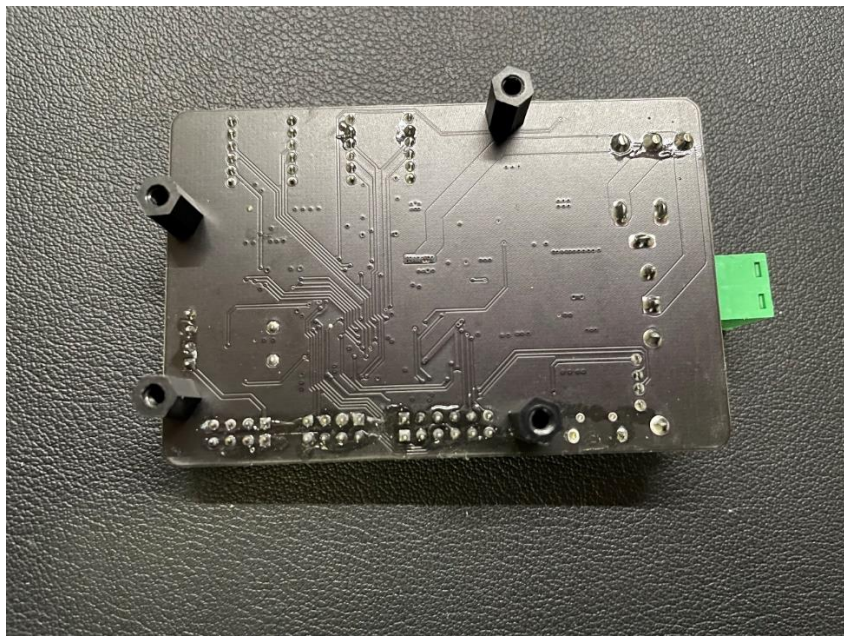
After Installation. Note the installation direction of the wheels as shown in the picture



5. You need to install spacer to motor control board before install the controller on the chassis to prevent short circuits
Need: 4pcs short plastic pillars, 4pcs M3*6mm screws

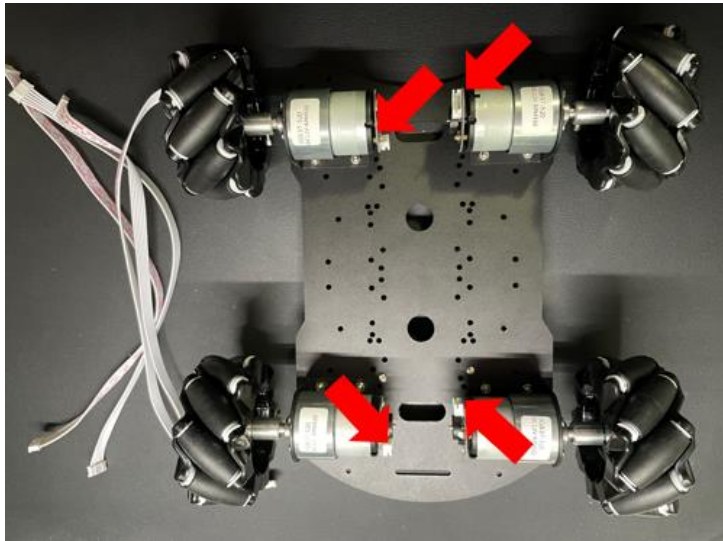


After Installation



6. Assemble 4pcs cables to motor control board

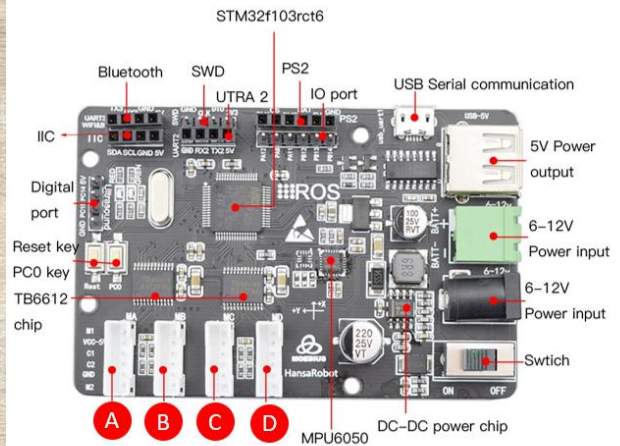
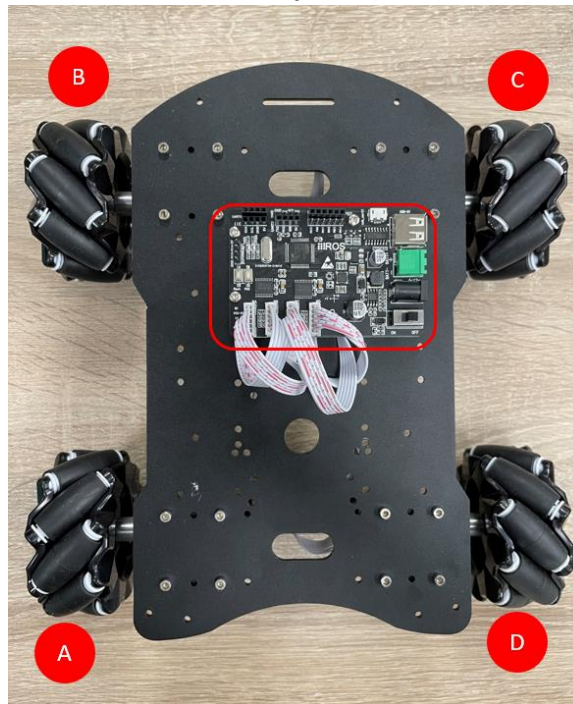
a. Connect 4 cables to 4 Motors



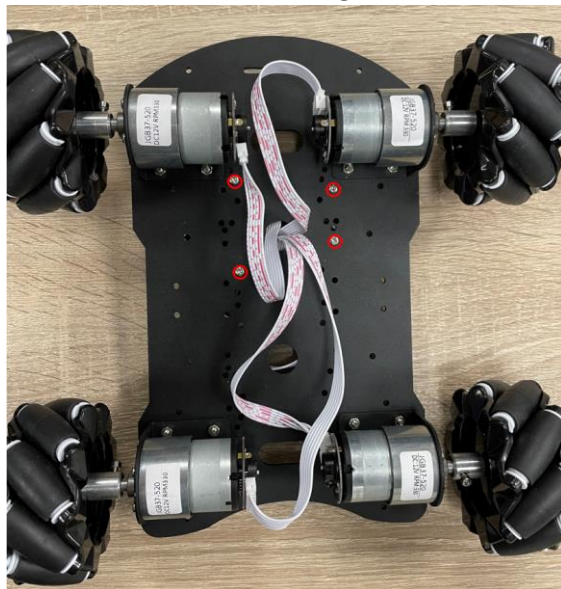
b. Pass the cable through the hole indicated in below picture



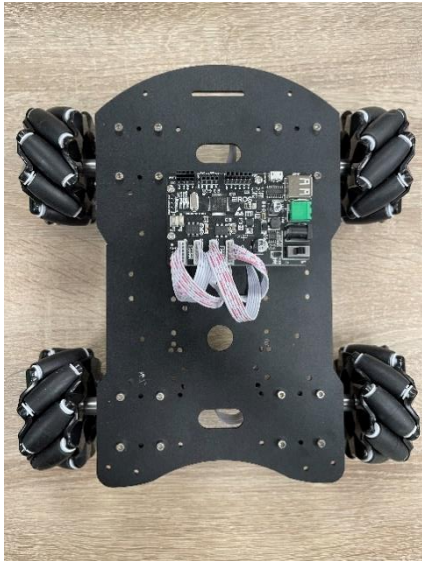
- Follow below details to connect the other side of cable to motor control board and place motor control board in position indicated in below image left part.



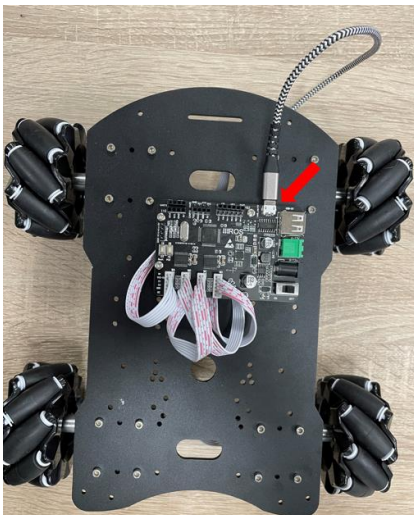
- Use 4pcs m3*8mm screw to fix motor control board through locations indicated by red circle indicated within below image.



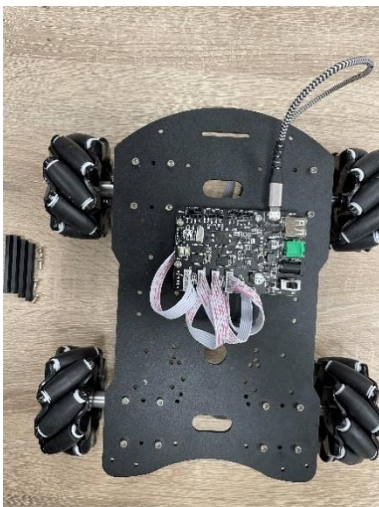
After Installation



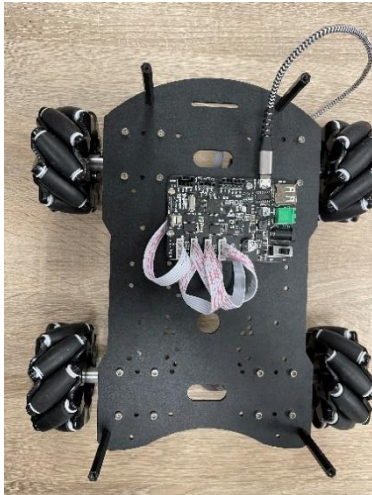
9. Assemble Micro USB cable to motor control board



10. Install long pillar to metal plate
Need: 4pcs Long plastic pillar, 4pcs m3*8screw



After installation

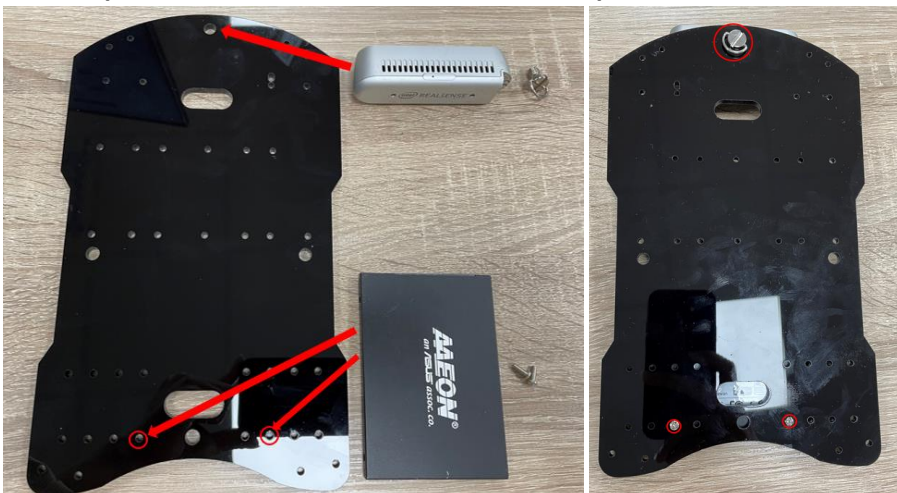


Robot Top Part Installation Guide

1. Get the plastic plate (It depends on you if remove sticker on top of the plastic plate or not.)



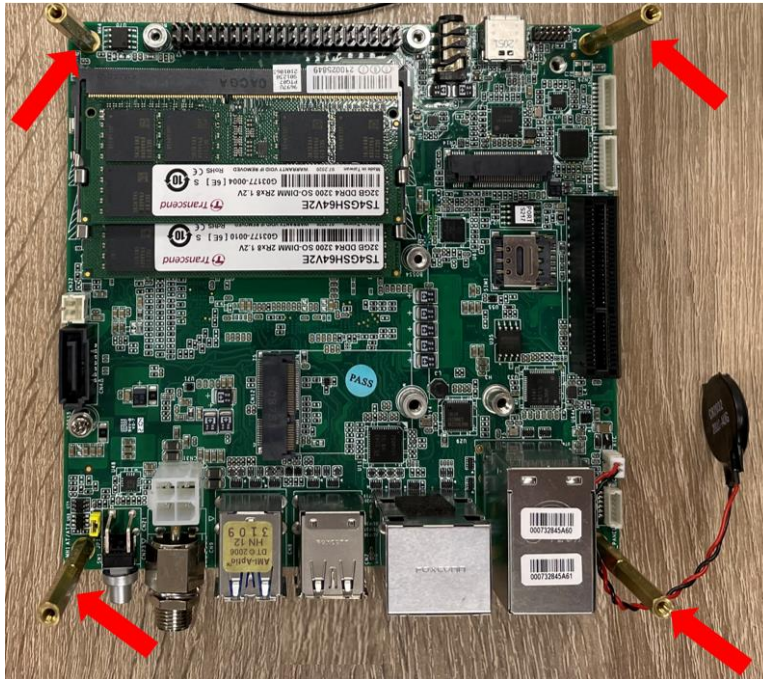
2. Install RealSense D435i Camera and SSD
Need: 1 pcs ¼" screw for realsense camera and 2pcs m3*8mm screws for SSD



Installation Guide For UP Xtreme i11

1. Install pillars to UP Xtreme i11 board

Need: 4pcs m2.5 nuts, 4pcs pillars



2. Install Wi-Fi module & RF cable



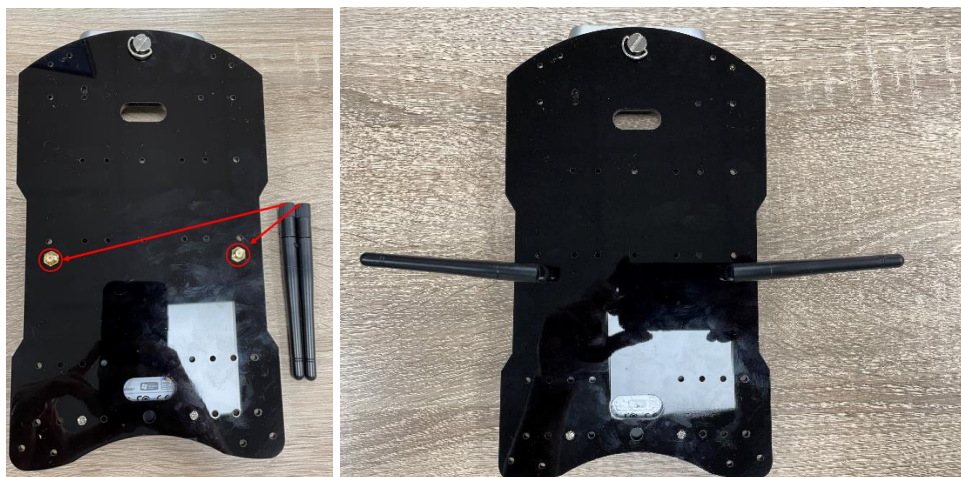
3. Connect SATA and SATA power cable



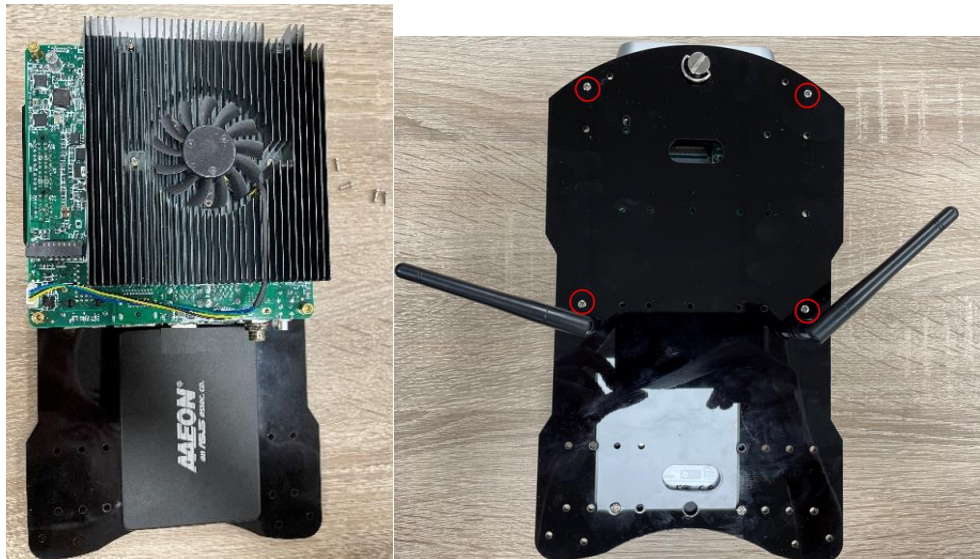
4. Install RF cable to top plastic plate



5. Install the antennas



6. Put UP Xtreme i11 board on top of plastic plate and use 4pcs m2.5*8 screw to fix



7. Pass through the micro usb cable to top plastic plate and underneath UP Xtreme i11 board. Then, put back the plastic plate and use 4pcs m3*8mm screws to fix the mechanical plate to bottom part of robot



8. Connect Micro USB cable from motor control board and USB type C cable from RealSense D435i camera to UP Xtreme i11



