ROS STM32 版小车安装图示 ROS STM32 version car installation

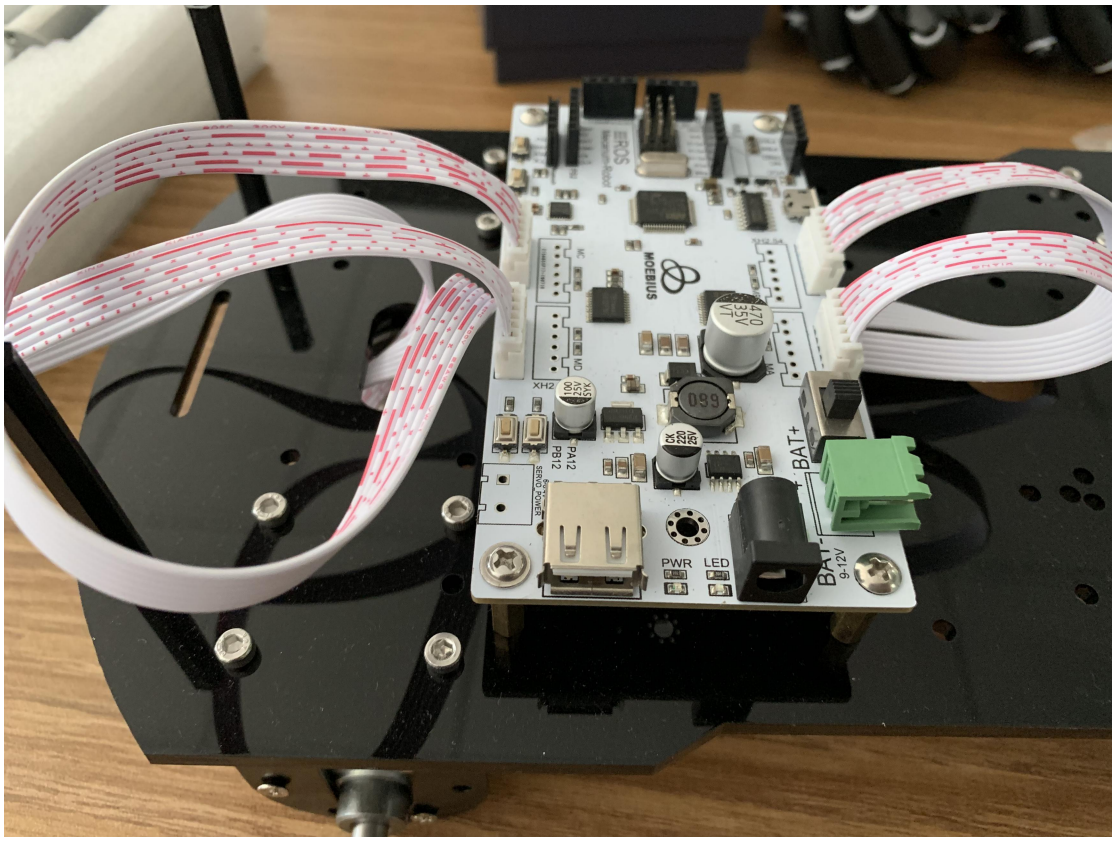
安装所需材料 Materials required for installation:

1，安装电机支架到底板上（使用螺丝：总共所需 16 颗 M3*10mm 内六角螺丝，16 颗 M3 螺母，使用工具：内六角扳手）Install the motor bracket to the bottom plate (screws: a total of 16 M3*10mm hex screws, 16 M3 nuts, and tools: hex wrench)

2，安装电机到电机支架上（使用螺丝：总共所需 24 颗 M3*5mm 圆头螺丝，使用工具：螺丝刀）Install the motor on the motor bracket (screws: a total of 24 M3*5mm round-head screws are required, tool: screwdriver)


JGB37-520
DC:12 RPM:330
CNAS
CNAS C009-
LDPE
MMA

3, 安装电路板到电机上 (使用螺丝: 总共所需 4 颗黑色 M3*15mm 铜柱, 8 颗 M3*10mm 平头螺丝) Install the circuit board on the motor (use screws: a total of 4 black M3*15mm copper pillars, 8 M3*10mm flat head screws)



4，安装轮子到电机上，(使用螺丝：4 颗 M2.5*10mm 圆头螺丝，4 颗 M2.5*6mm 螺丝) 注意顶丝要卡到电机的凹槽处 Install the wheels on the motor, (use screws: 4 M2.5*10mm round head screws, 4 M2.5*6mm screws) Note that the top wire should be stuck to the groove of the motor

注意轮子的安装方向要如图所示 Pay attention to the installation direction of the wheels as shown in the figure:

5. 安装树莓派到底板上(使用螺丝：总共所需 4 颗黑色 M3*15mm 铜柱，8 颗 M3*10mm 平头螺丝）Install the Raspberry Pi to the bottom board (use screws: a total of 4 black M3*15mm copper pillars, 8 M3*10mm flat head screws)

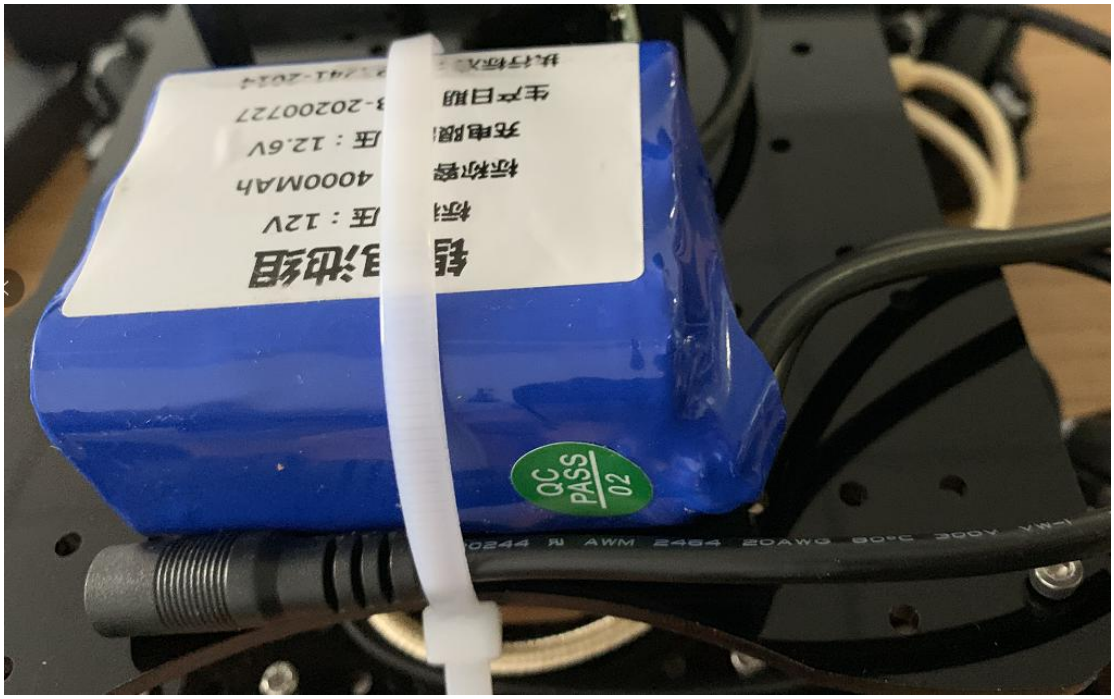
6，将激光雷达配的通讯模块安装到树莓派上Install the communication module of the lidar to the Raspberry Pi

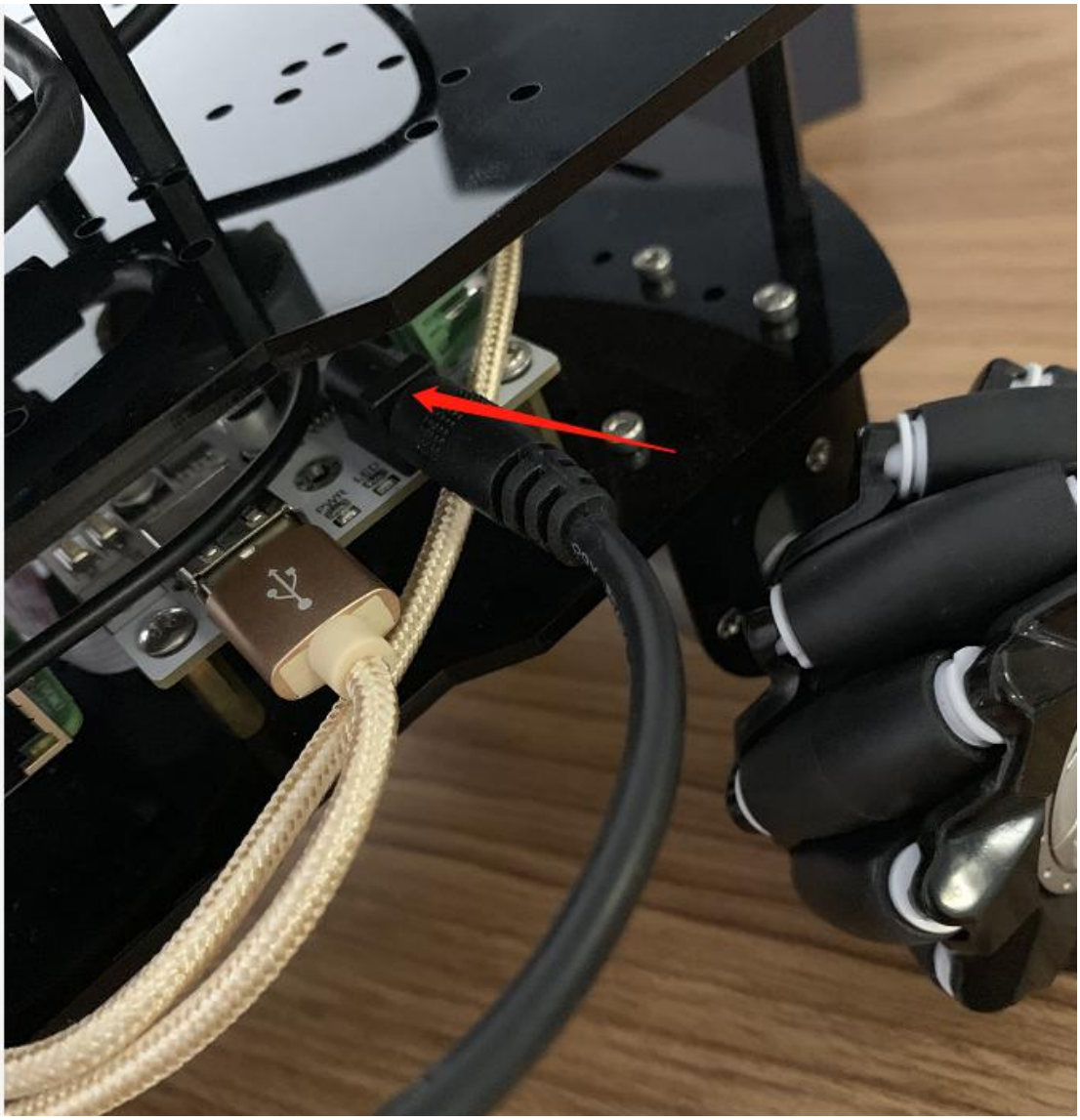
7，安装第二层亚克力板(使用螺丝:总共所需 4 颗黑色 M3*45mm 铜柱,8 颗 M3*10mm 平头螺丝） Install the second layer of acrylic board (using screws: a total of 4 black M3*45mm copper pillars, 8 M3*10mm flat head screws)

8，将激光雷达安装到底盘上（使用螺丝：总共所需 4 颗黑色 M3*45mm 铜柱，8 颗 M3*10mm 平头螺丝） Install the lidar on the chassis (using screws: a total of 4 black M3*45mm copper pillars and 8 M3*10mm flat head screws)

成品图 Finished picture:

9，安装电池 Install the battery





最终成品图 Final product drawing

MEGA2560 板子安装参考

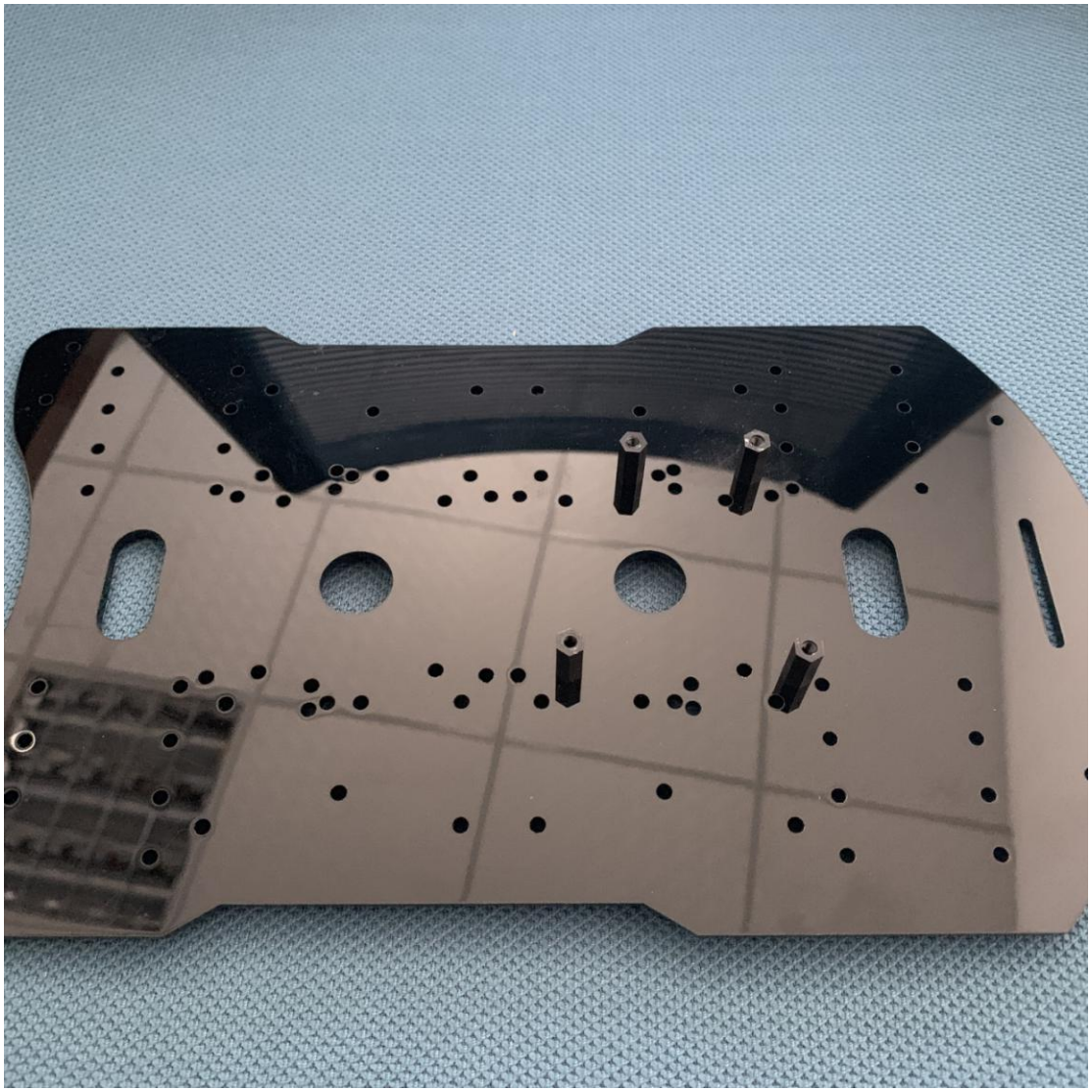
MEGA2560 board installation reference

注意：如果你是安装 mega2560 版本 ros 小车 请参考以下安装位置

固定 MEGA2560 开发板，找到对应的孔位，使用 M3 铜柱和 M3 螺丝进行固定如下图所示

Note: If you are installing the mega2560 version ros, please refer to the following installation location

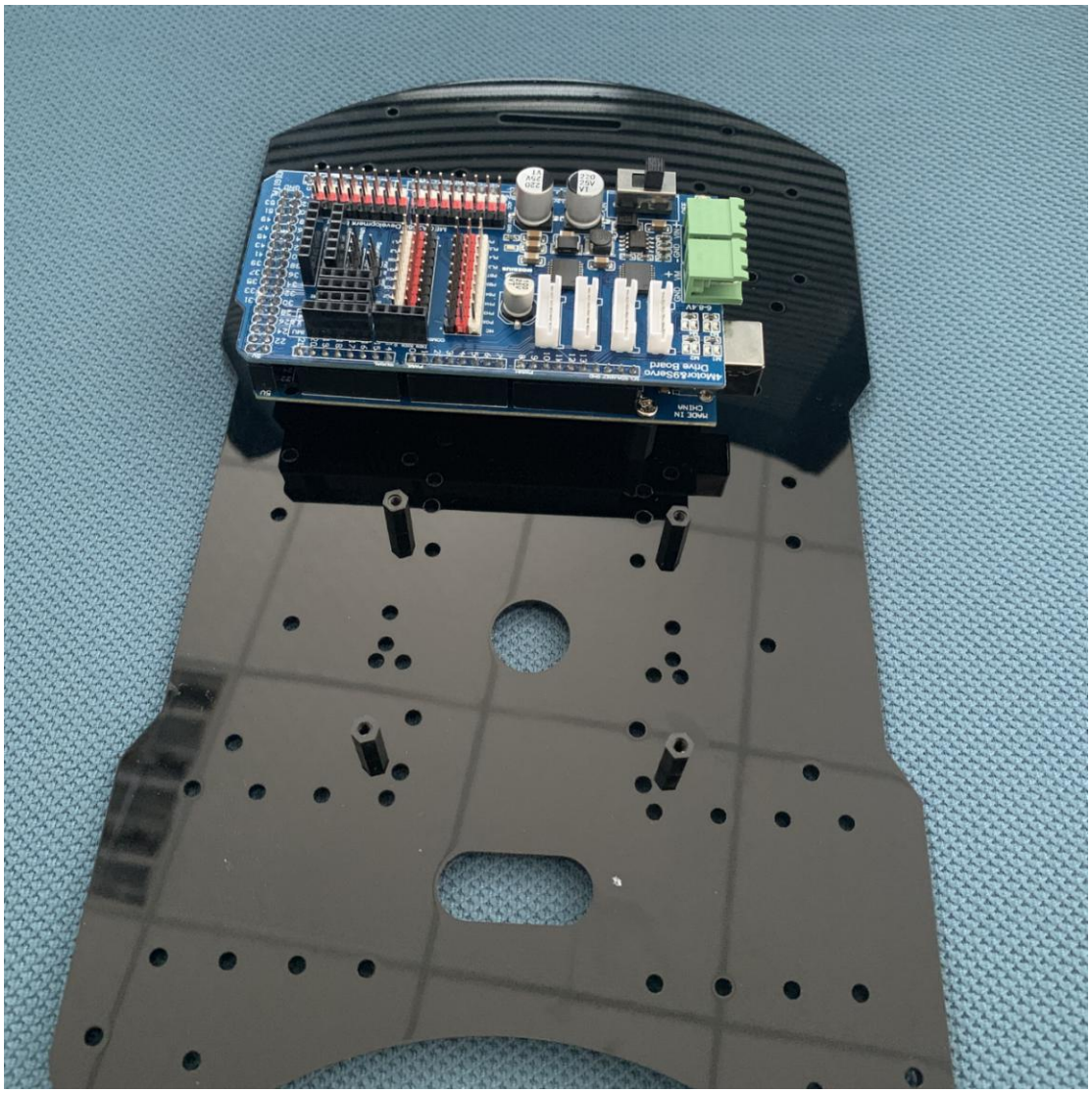
Fix the MEGA2560 development board, find the corresponding holes, and use M3 copper posts and M3 screws to fix them as shown in the figure below



使用 M3 螺丝将拓展板固定如图所示

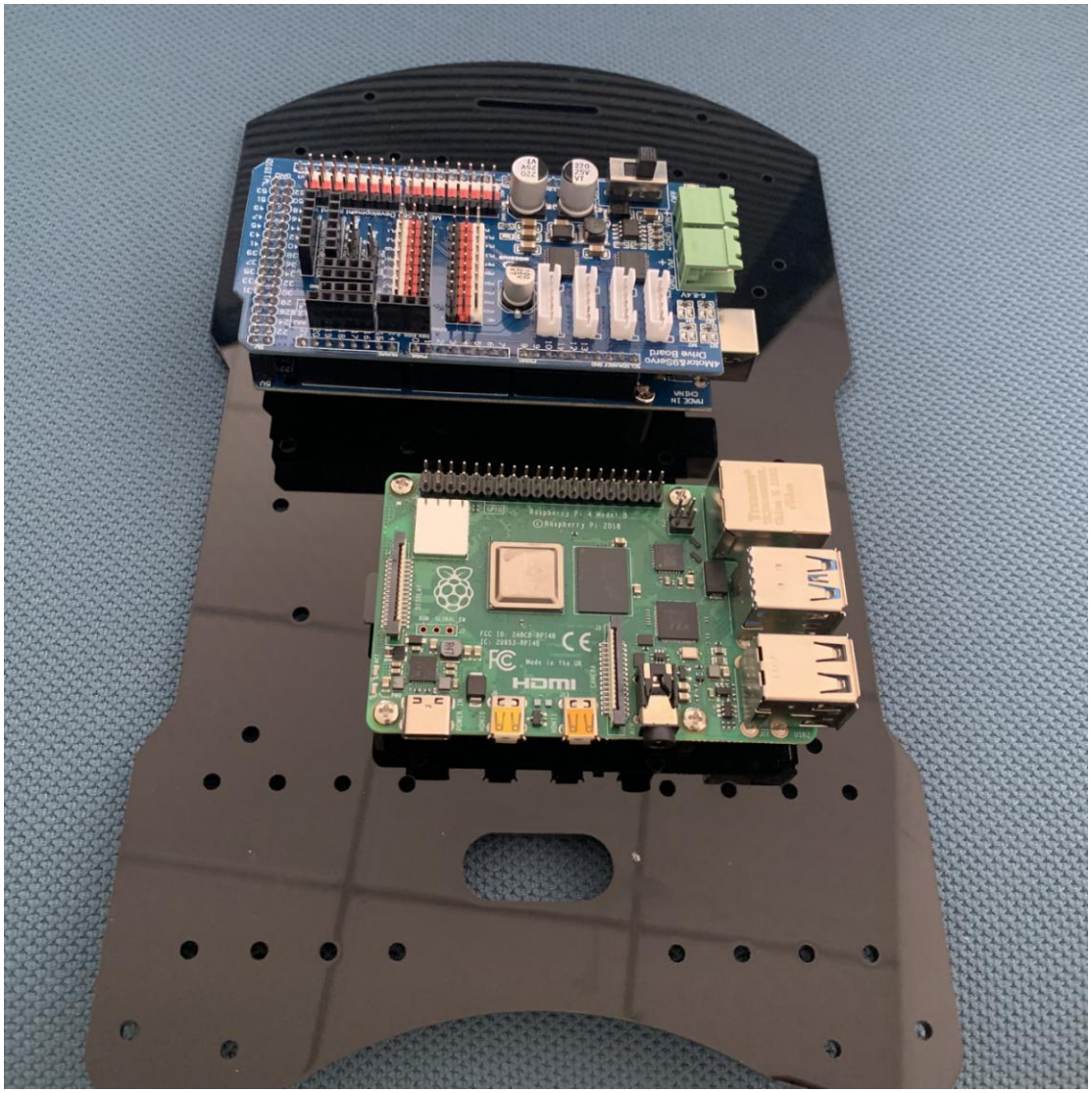
Use M3 screws to fix the expansion board as shown in the figure

将拓展板直接插到 MEGA2560 开发板上
然后用 M2.5 铜柱和 M2.5 螺丝固定树莓派，安装效果如图所示
Plug the expansion board directly into the MEGA2560 development board
Then fix the Raspberry Pi with M2.5 copper posts and M2.5 screws, the installation effect is shown in the figure

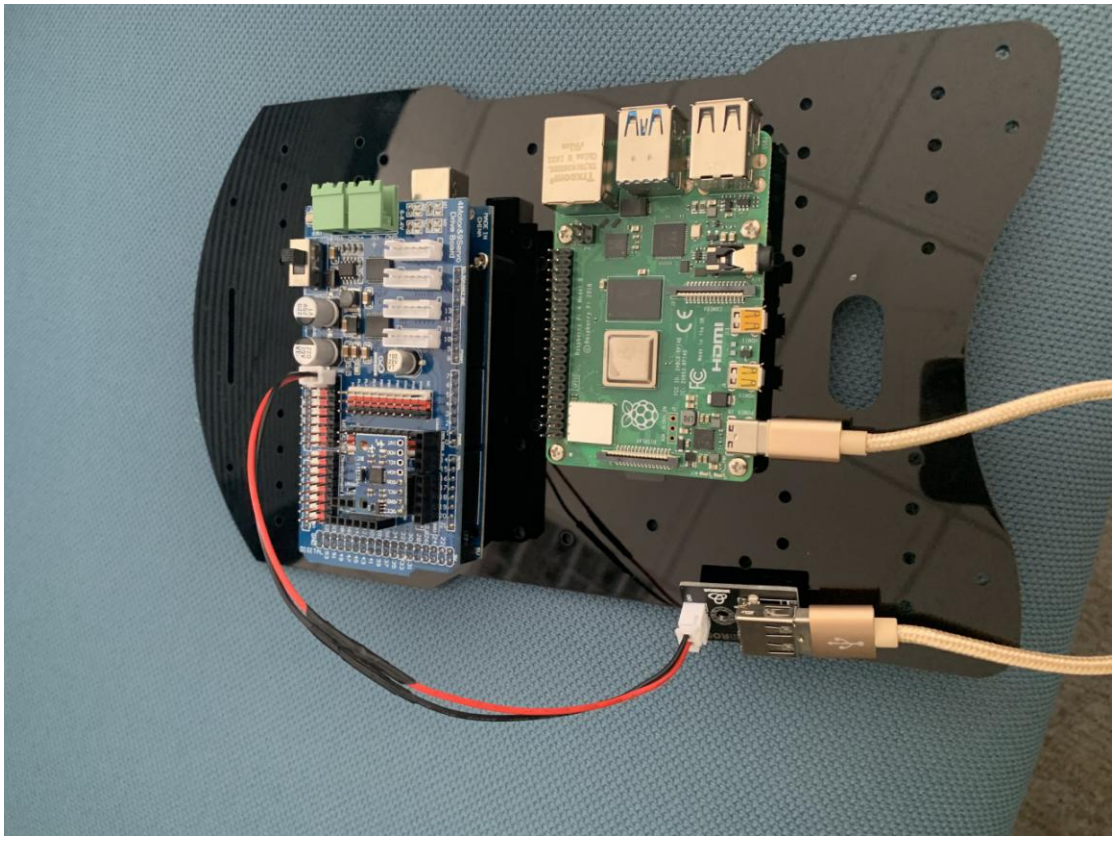


树莓派固定完成

Raspberry Pi is fixed



板子可以给树莓派 3b 和 3b+供电
The board can power Raspberry Pi 3b and 3b+



MEGA2560 板子输出为 5V2A,可以给树莓派 3b 和 3b+供电
使用树莓派供电拓展板输出的电流可能不足需要单独给树莓派 4b 供电

组装麦克纳姆轮小车和固定激光雷达步骤孔位参考前文提供的安装步骤即可
The MEGA2560 board output is 5V2A, which can power the Raspberry Pi 3b and 3b+ The output current of the Raspberry Pi power supply expansion board may not be enough. You need to power the Raspberry Pi 4b separately.

Assemble the Mecanum wheel trolley and fix the lidar, please refer to the installation steps provided above

注：此说明书仅供参考，后续如有变更，恕不另行通知

Note: This manual is for reference only and is subject to change without notice

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