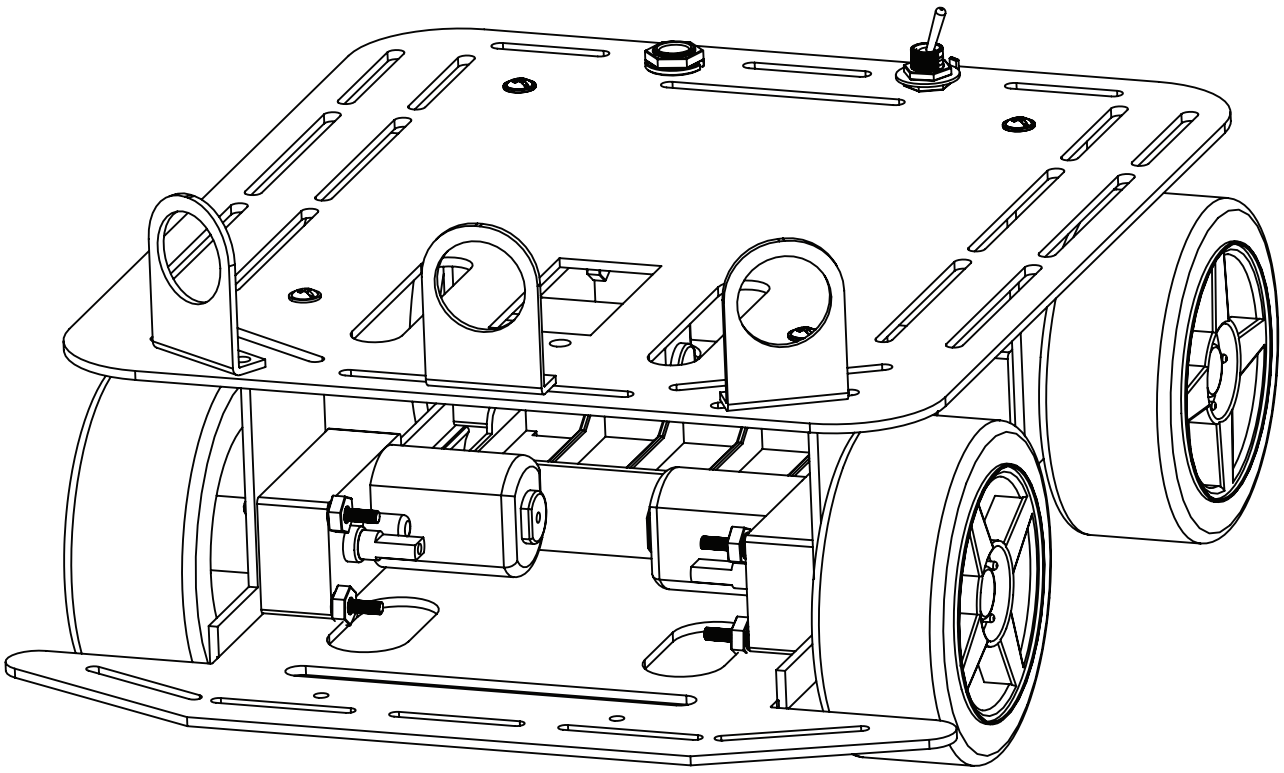
DFROBOT DRIVE THE FUTURE

Instruction Manual

Baron - 4WD Moblie Platform

安装说明书



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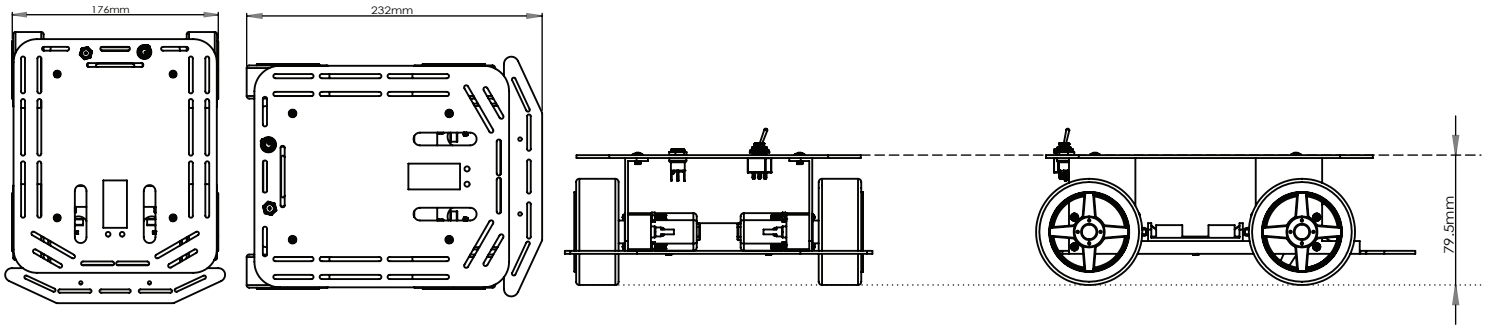
产品特性 Features

整机尺寸：



简介：

Baron-4WD Mobile Platform四轮驱动机器人是DFRobot研制的机器人实验平台，该平台不但可以用51控制、STC控制器、AVR控制器控制外，更适合使用世界上广泛推广的Arduino控制器，Arduino开放平台拥有全球众多使用者，有丰富的使用例子程序。机身采用高强度铝合金材料，高速电机加优质橡胶轮运动灵活快速，适合室内的平坦路面行进。 使用Arduino控制器编程简单，控制起来非常有趣。适合机器人比赛，及其相关研究项目。本小车安装孔兼容多种传感器。

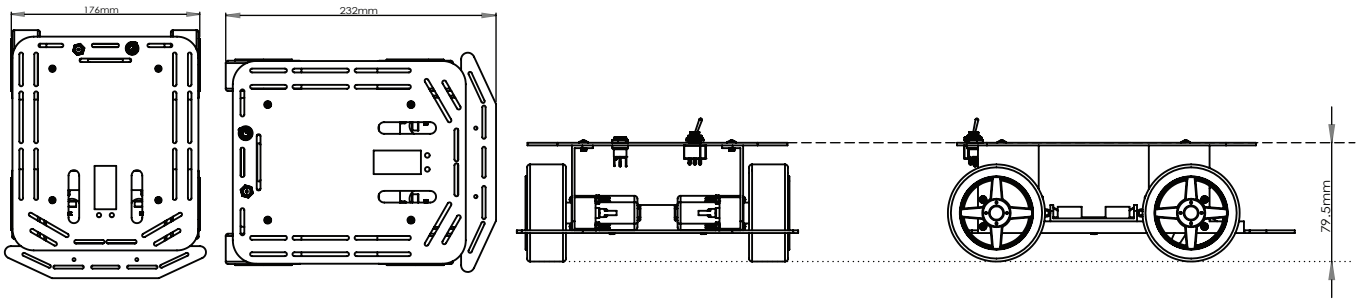
整机重量：614克
车轮直径：65mm
最大行驶速度:61cm/s

电机参数：

- ●电机供电电压：3-6V
- ●减速比：1：120
- ●无负载转速(3V):100RPM
- ●无负载转速(6V):200RPM
- ●无负载运行电流(3V):60mA
- ●无负载运行电流(6V):71mA
- ●堵转电流(3V):260mA
- ●堵转电流(6V):470mA
- ●力矩(3V): 1.2Kgcm
- ●力矩(6V): 1.92Kgcm
- ●重量:45g

产品特性 Features

Dimensions：



Introduction：

The Baron four-wheel-drive robot is a DFRobot original design and widely used as self - developed control panel for the Arduino platform. The platform can be controlled by a wide variety of microcontrollers including the widely popular Arduino. The Arduino platform has a large user base which provides a vast amount of resources and sample programs on the internet. The four different drives , powered by high - quality high - speed motors and flexible rubber wheels are mounted on a high - strength aluminum alloy body. This robotic platform is suitable for indoor use or flat road surfaces.

Complete Machine Weight：614g
Wheel Diameter : 65mm
Highest Speed: 61cm/s

Motor Feature：

- ●Gear Ratio : 1:120
- ●No-load speed (3V): 100RPM
- ●No-load speed (6V): 200RPM
- ●No-load current (3V): 60mA
- ●No-load current (6V): 71mA
- ●Stall current (3V): 260mA
- ●Stall current (6V): 470mA
- ●Torgue (3V): 1.2Kgcm
- ●Torque (6V): 1.92Kgcm
- ●Weight : 45g

产品安装说明 Notice for Assembly

以下设备不包括在ROB0025的部件清单内，用户需自行配备：

1. 5节AA电池。
2. 控制器以及电机驱动器。

您还需要准备以下工具，并参考零部件清单进行ROB0025的安装：

1. 十字螺丝刀（适用于M2.5，M3，M4的螺丝）。
2. 尖嘴钳。

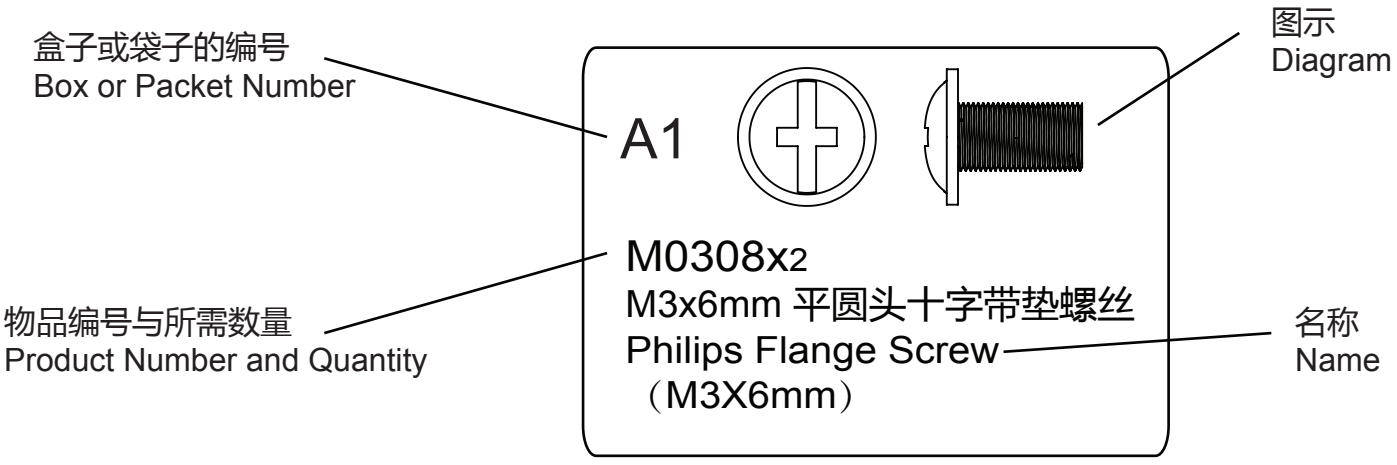
The following parts are not included in the kit :

1. AA battery (5 pieces).
2. Micro-controller and Motor driver.

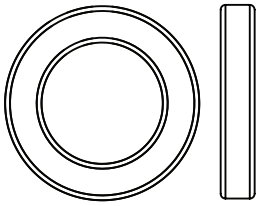
When beginning assembly, prepare tools below and pick out the parts from the Parts List:

1. Phillips screwdriver (for screws of M2.5，M3，M4) .
2. Needle nose pliers.

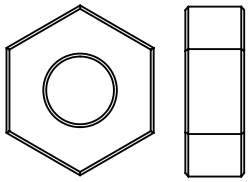
标志含义 Symbol Definition



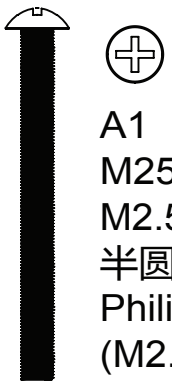
电机安装 Motors Assembly



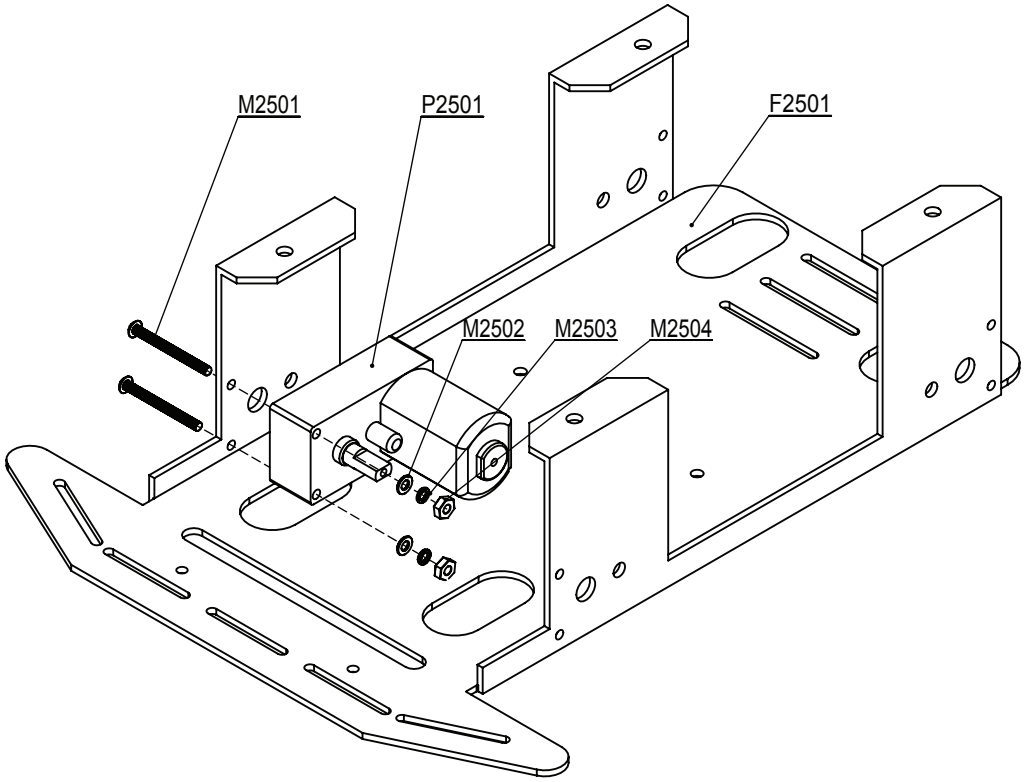
A1
M2502x2
M2.5mm 垫圈
M2.5mm Washer

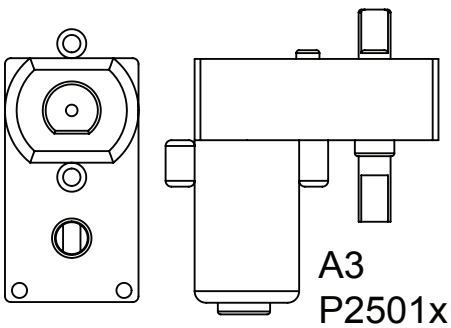


A1
M2504x2
M2.5mm 螺母
M2.5mm Nut

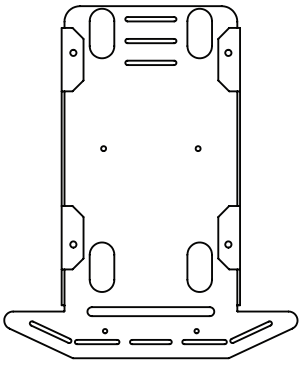


A1
M2501x2
M2.5x25mm
半圆头十字螺丝
Philips Truss Screw
(M2.5X25mm)

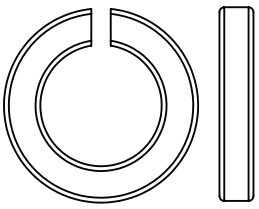




A3
P2501x1
电机
Motor

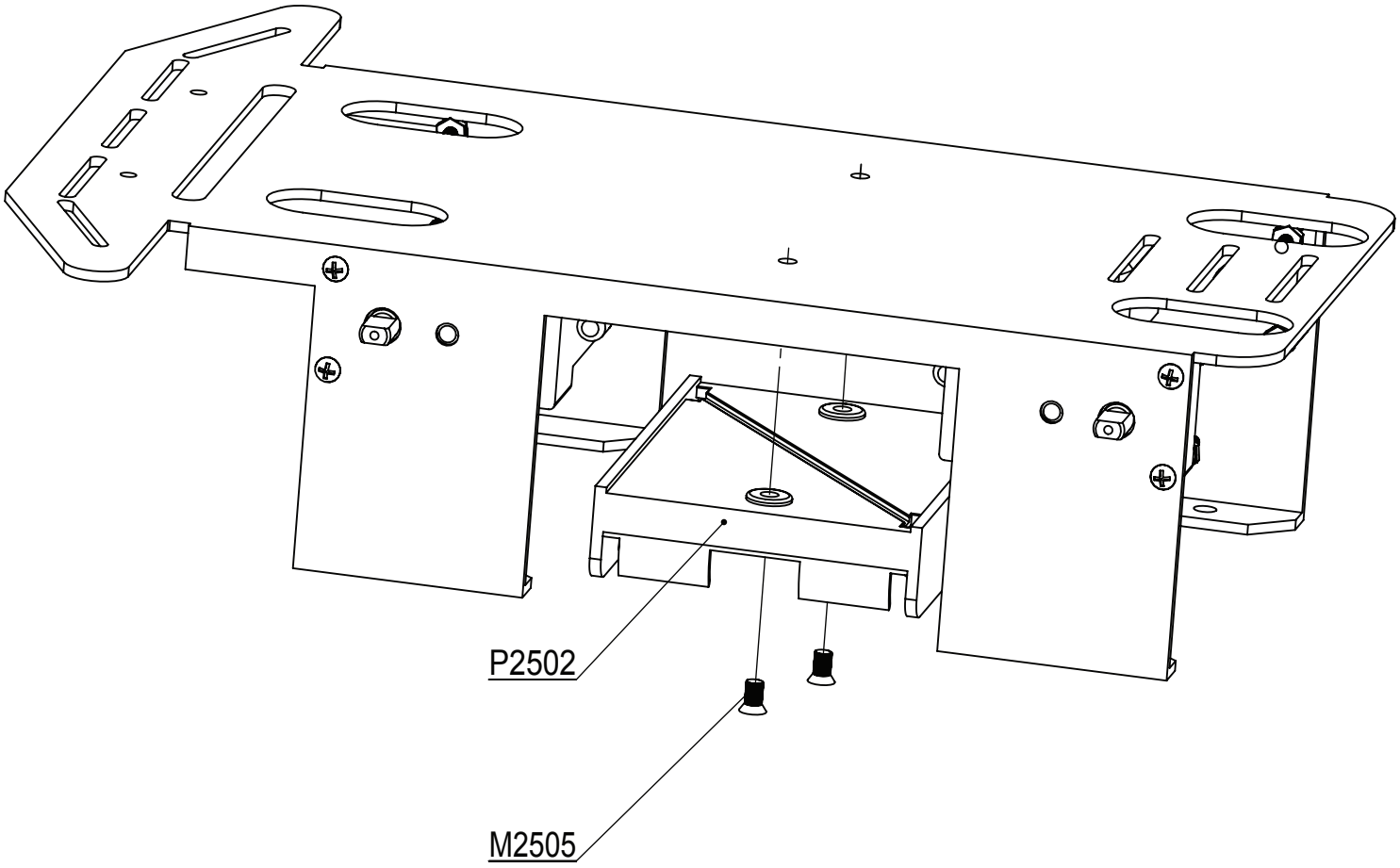


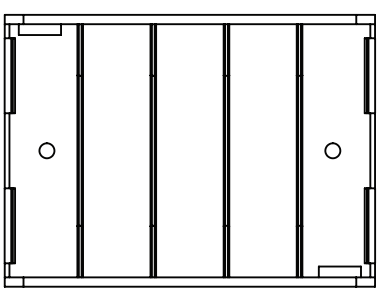
A0
F2501x1
车身下板
Fuselage Base Plate

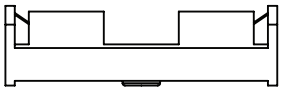


A1
M2503x2
M2.5 弹簧垫圈
M2.5 Spring Washer

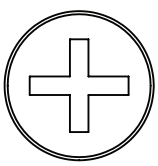
电池盒安装 Battery Holder Assembly

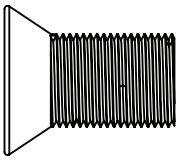






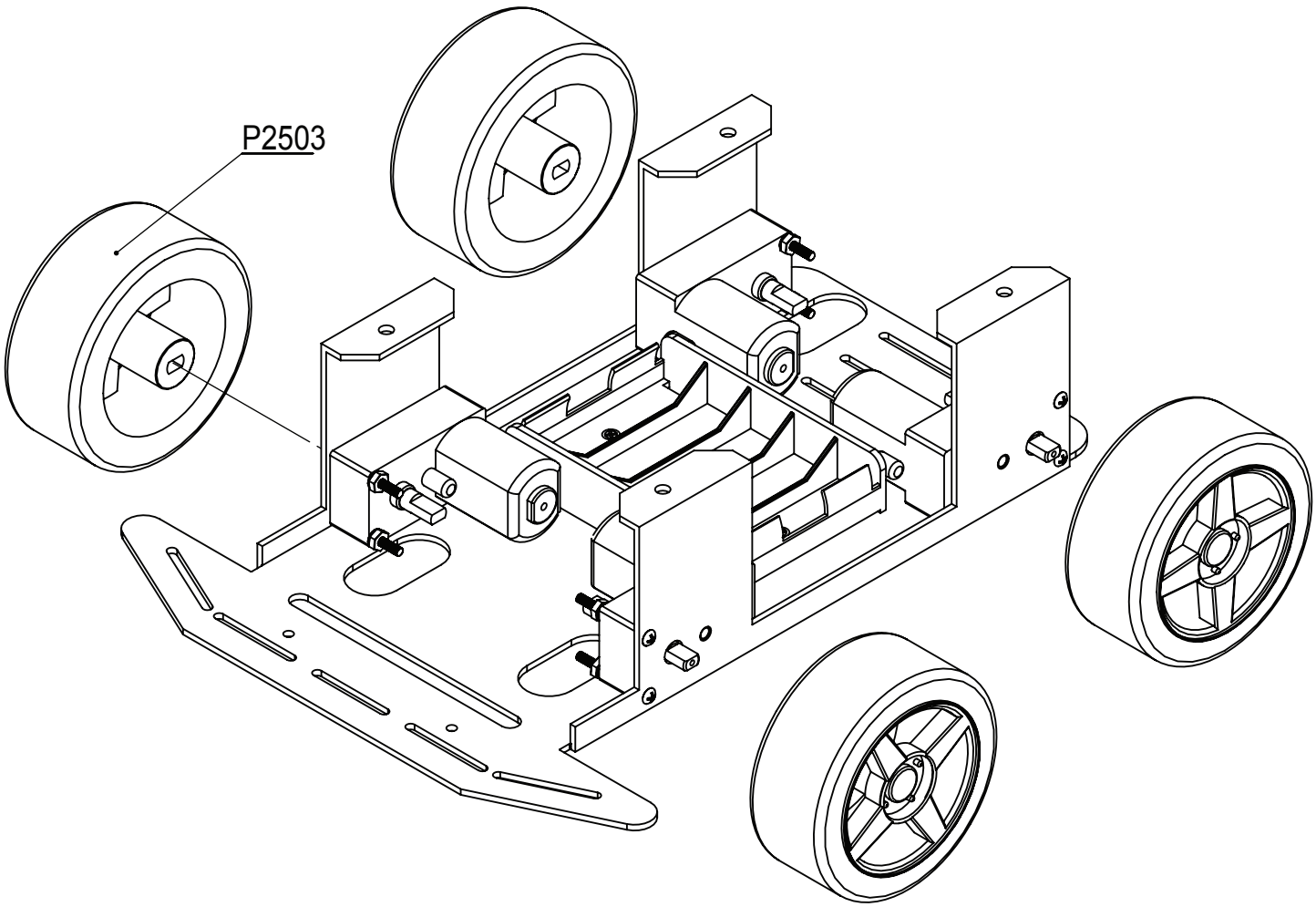
A1
P2502x1
电池盒
Battery Holder

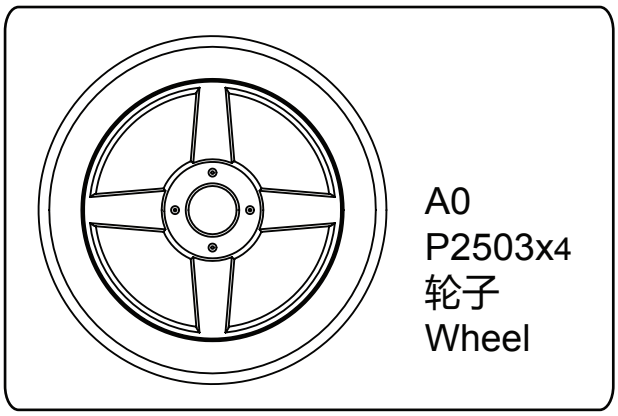




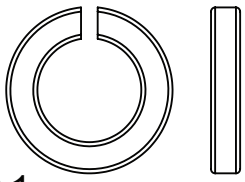
A1
M2505x2
M3x4mm 沉头十字螺丝
Philips Countersunk Screw(M3x4mm)

轮子安装 Wheels Assembly

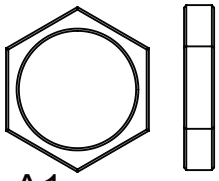




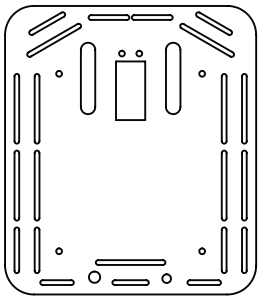
开关及插座安装 Power Jack and Switch Assembly



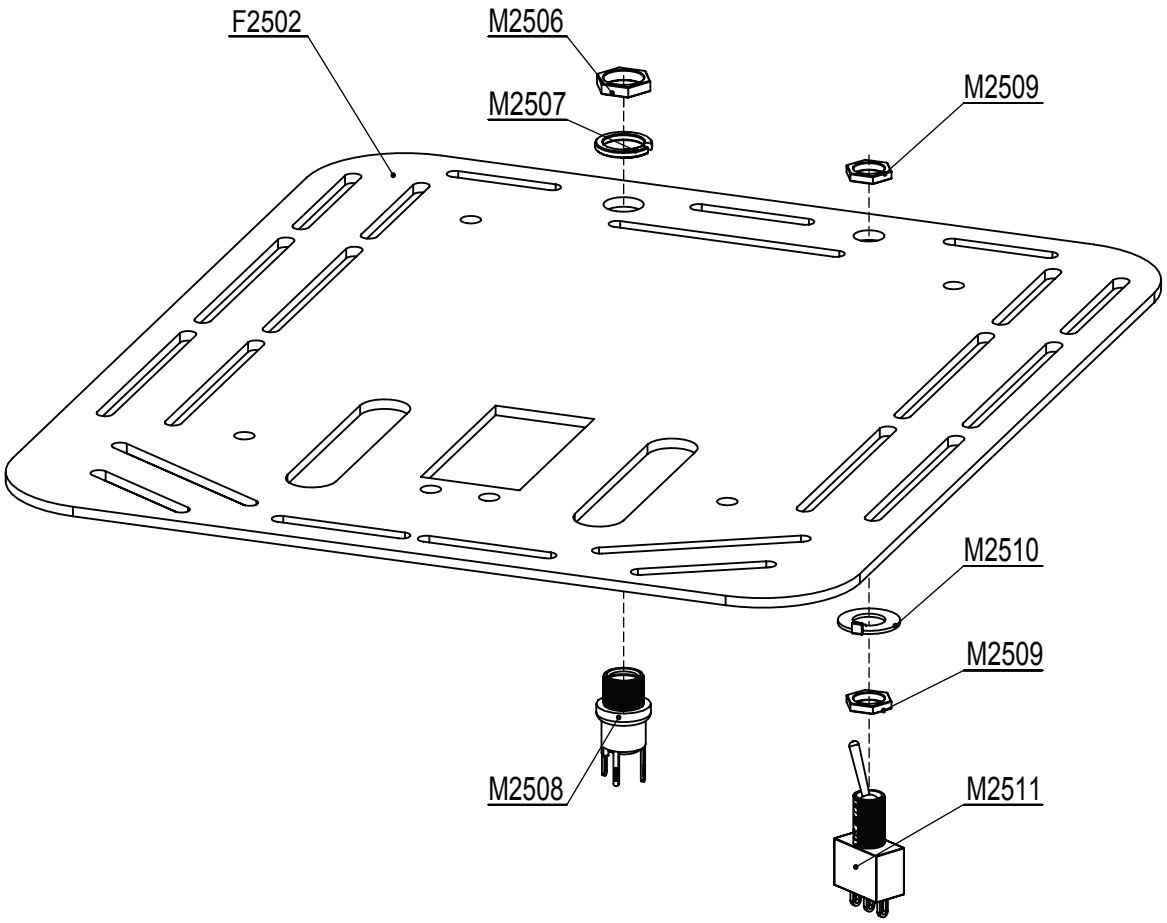
A1
M2507x1
M8 弹簧垫圈
M8 Spring Washer

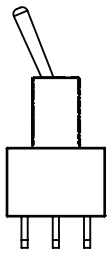


A1
M2506x1
M8 螺母
M8 Nut

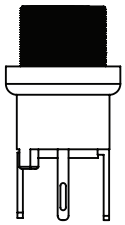


A0
F2502x1
车身上板
Fuselage upper plate

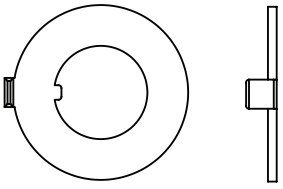




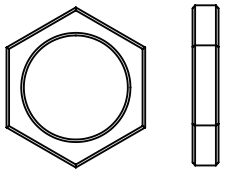
A1
M2511x1
电源开关
Power Switch



A1
M2508x1
电源插口
Power Jack

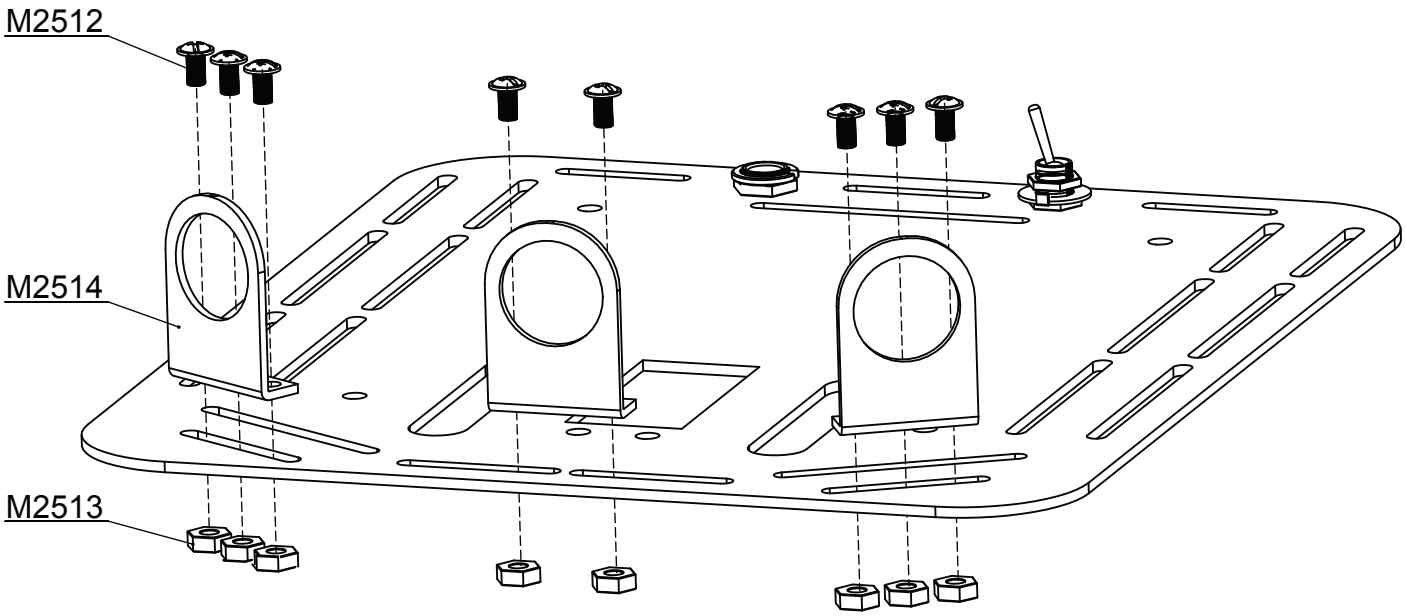


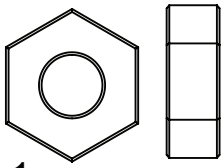
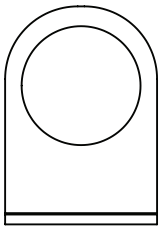
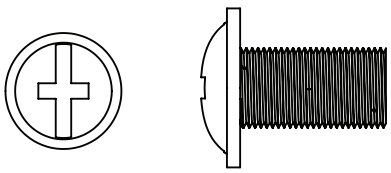
A1
M2510x1
M6 专用垫片
M6 Special Washer



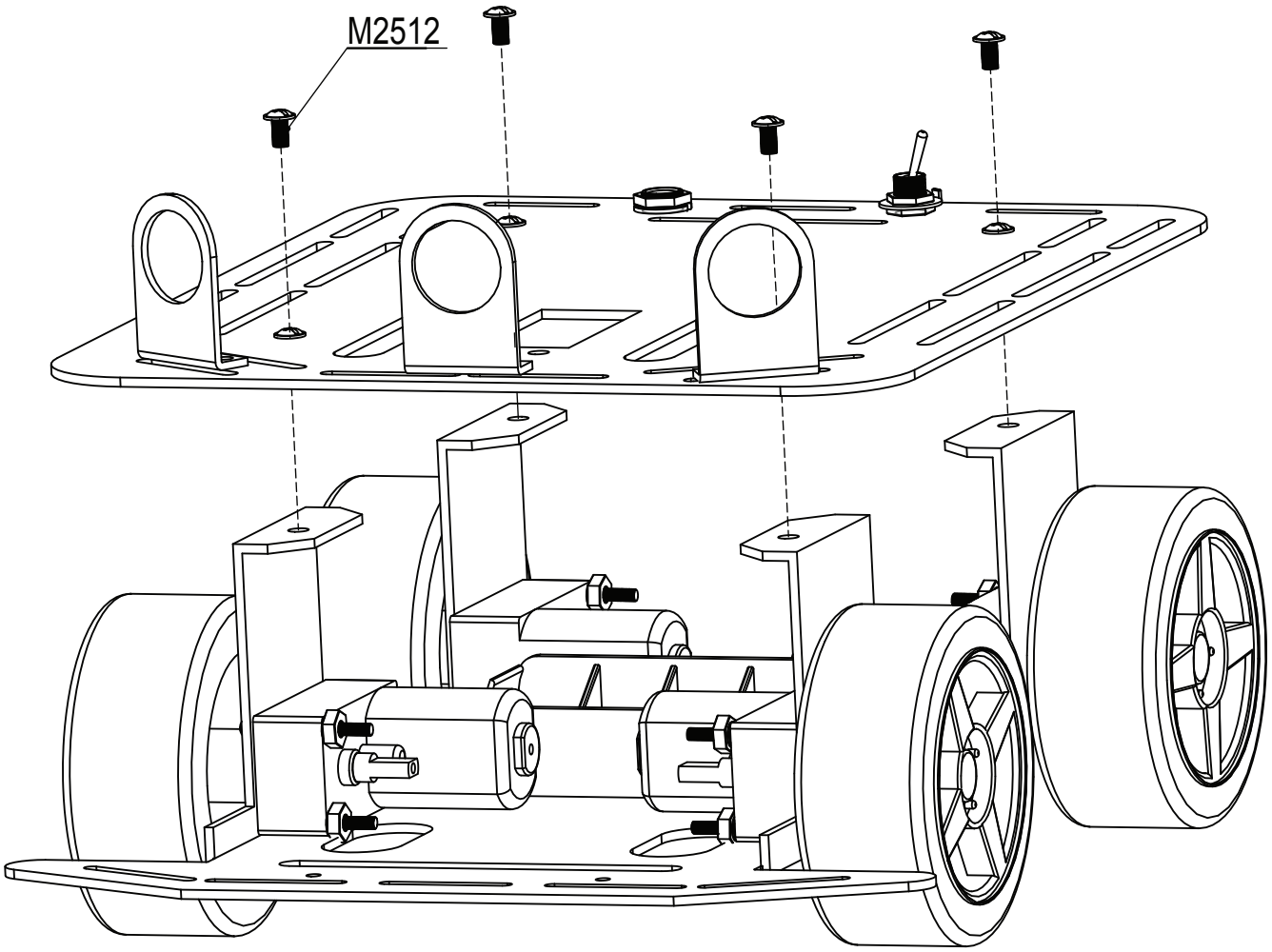
A1
M2509x2
M6 螺母
M6 Nut

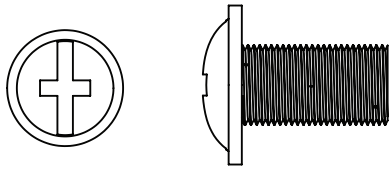
红外传感器支架安装 IR Sensor Brackets Assembly



 A1 M2513x8 M3 螺母 M3 Nut	 A1 M2514x3 红外传感器支架 IR Sensor Mounting Bracket	 A1 M2512x8 M3x6mm 平圆头十字带垫螺丝 Philips Flange Screw (M3x6mm)

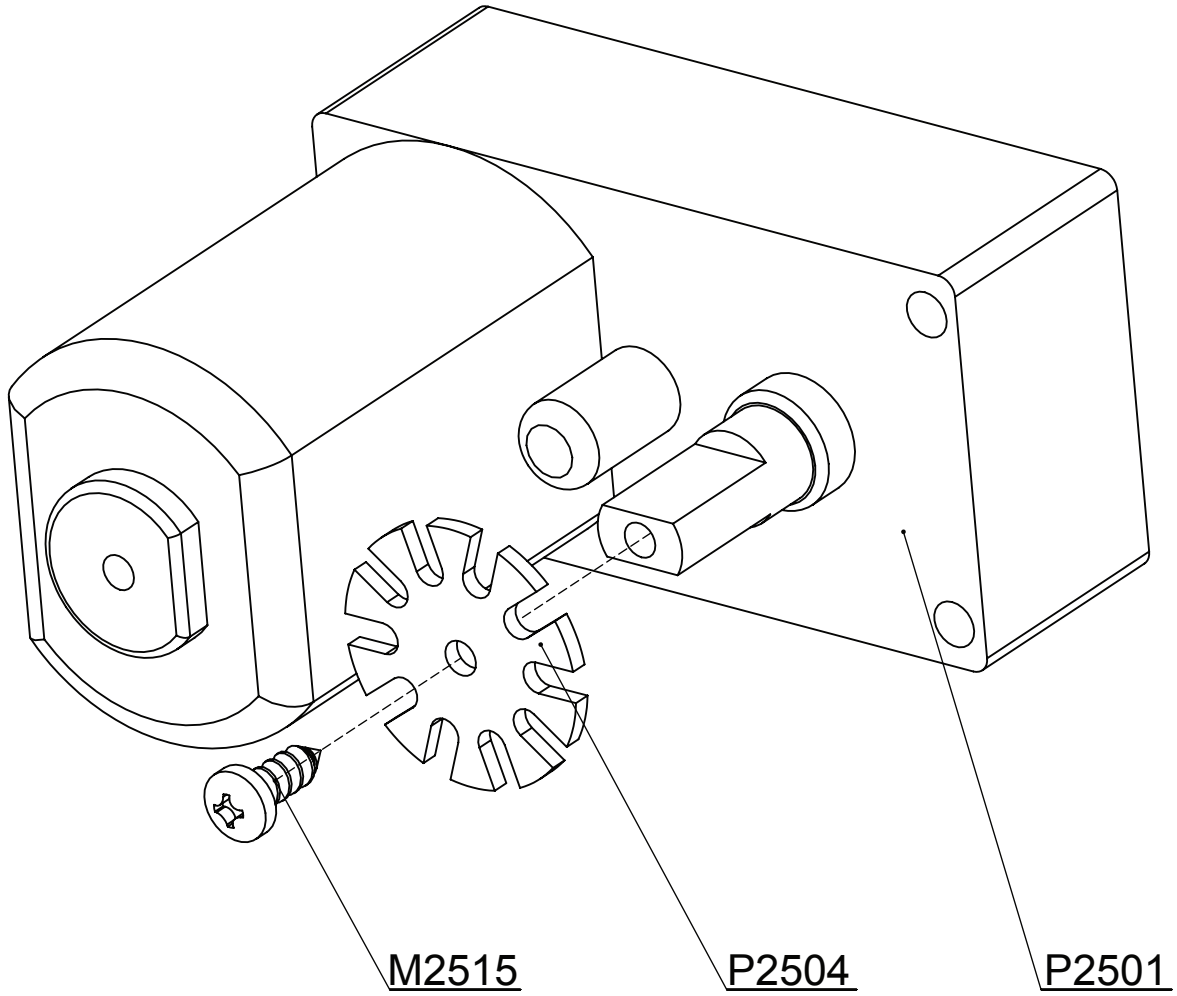
车身上板安装 Upper Deck Assembly

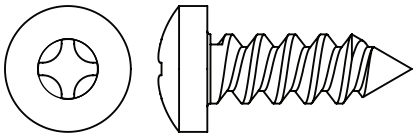
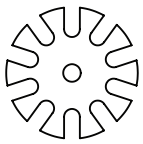
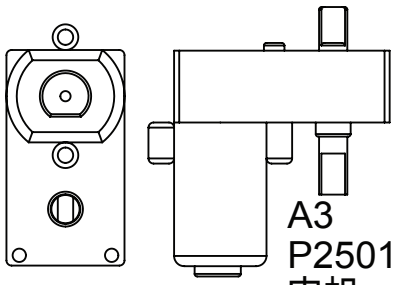




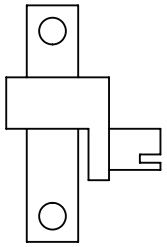
A1
M2512x4
M3x6mm 平圆头十字带垫螺丝
Philips Flange Screw (M3x6mm)

编码盘安装 Encoder Wheel Assembly

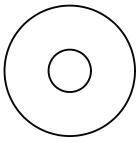


 A2 M2515x1 M2.5mm 自攻螺丝 M2.5mm Self-tapping Screw	 A2 P2504x1 编码盘 Encoder Wheel	 A3 P2501x1 电机 Motor

编码器安装 Encoder Sensor Assembly

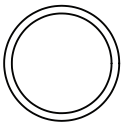


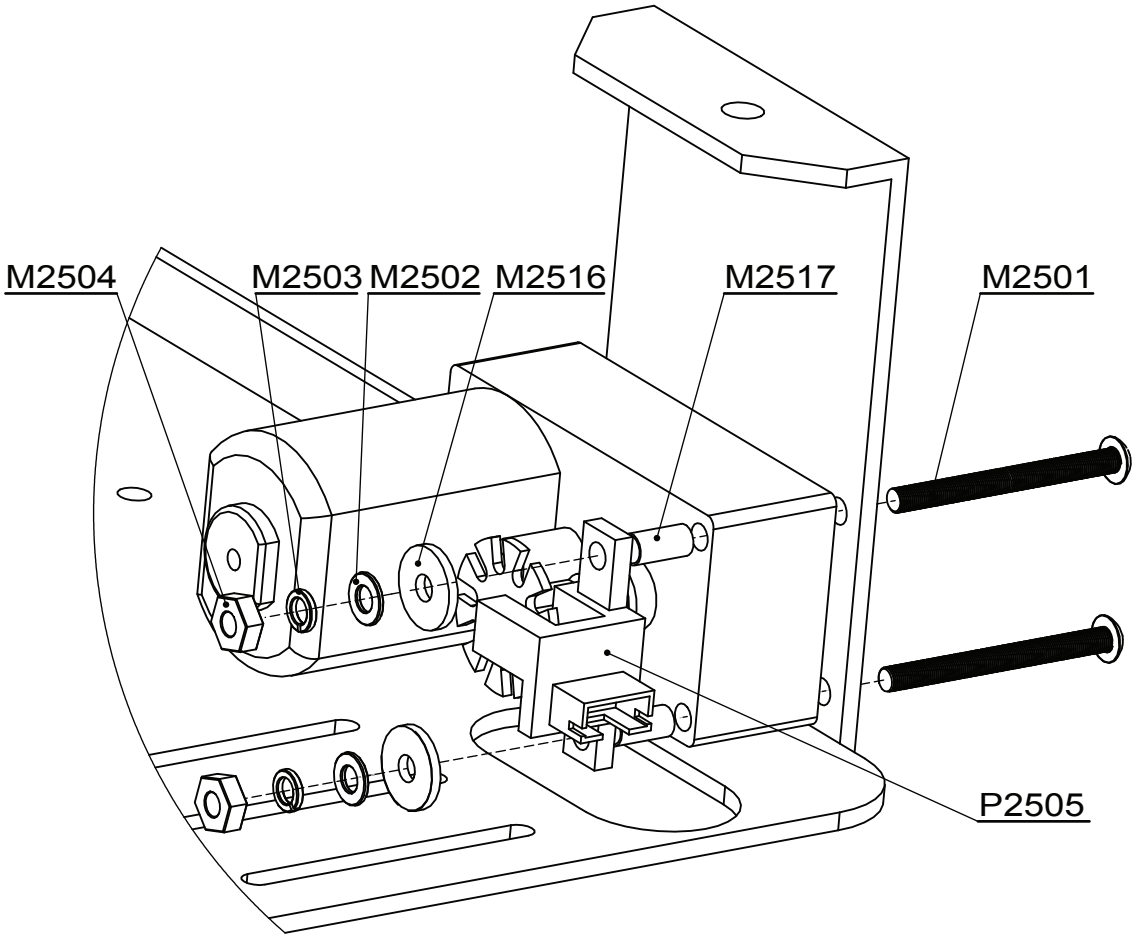
A2
P2505x1
编码器
Encoder Sensor

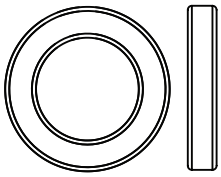


A1
M2516x2
M3 垫片
M3 Washer

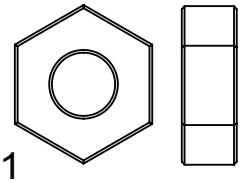
A2
M2517x2
塑料套管
Plastic Tube



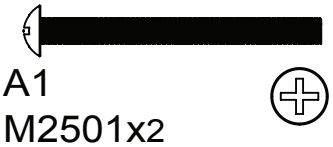




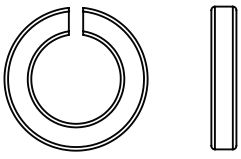
A1
M2502x2
M2.5 垫圈
M2.5 Washer



A1
M2504x2
M2.5 螺母
M2.5 Nut



A1
M2501x2
M2.5x25mm
半圆头十字螺丝
Philips Truss Screw
(M2.5X25mm)



A1
M2503x2
M2.5 弹簧垫圈
M2.5 Spring Washer

零部件清单(A) Parts List(A)

编号 Product NO.	盒编号 BOX	袋编号 Packet	名称 Name	数量 Amount	备注 Remark
F2501	A0		车身下板 Fuselage Base Plate	1	
F2502	A0		车身上板 Fuselage upper plate	1	
M2501	A1		M2.5X25mm 半圆头十字螺丝 Philips Truss Screw(M2.5X25mm)	8	
M2502	A1		M2.5 垫圈 M2.5 Washer	8	
M2503	A1		M2.5 弹簧垫圈 M2.5 Spring Washer	8	
M2504	A1		M2.5 螺母 M2.5 Nut	8	
M2505	A1		M3X4mm 沉头十字螺丝 Philips Contersunk Screw(M3X4mm)	2	
M2506	A1		M8 螺母 M8 Nut	1	
M2507	A1		M8 弹簧垫圈 M8 Spring Washer	1	
M2508	A1		电源插口 Power Jack	1	
M2509	A1		M6 螺母 M6 Nut	1	

零部件清单(B) Parts List(B)

编号 Product NO.	盒编号 BOX	袋编号 Packet	名称 Name	数量 Amount	备注 Remark
M2510	A1		M6 专用垫片 M6 Special Washer	1	
M2511	A1		电源开关 Power Switch	1	
M2512	A1		M3x6mm 平圆头十字带垫螺丝 Philips Flange Screw (M3x6mm)	12	
M2513	A1		M3 螺母 M3 Nut	8	
M2514	A1		红外传感器支架 IR Sensor Mounting Bracket	3	
P2501	A3		电机 Motor	4	
P2502	A1		电池盒 Battery Holder	1	
P2503	A0		轮子 Wheel	4	

零部件清单(C) Parts List(C)

编号 Product NO.	盒编号 BOX	袋编号 Packet	名称 Name	数量 Amount	备注 Remark
M2501	A1		M2.5X25mm 半圆头十字螺丝 Philips Truss Screw(M2.5X25mm)	4	
M2502	A1		M2.5垫圈 M2.5Washer	4	
M2503	A1		M2.5 弹簧垫圈 M2.5 Spring Washer	4	
M2504	A1		M2.5 螺母 M2.5 Nut	4	
M2515	A2		M2.5 自攻螺丝 M2.5 Self-tapping Scre	2	
M2516	A1		M3 垫片 M3 Washer	4	
M2517	A2		塑料套管 Plastic Tube	4	
P2504	A2		编码盘 Encoder Wheel	2	
P2505	A2		编码器 Encoder Sensor	2	

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