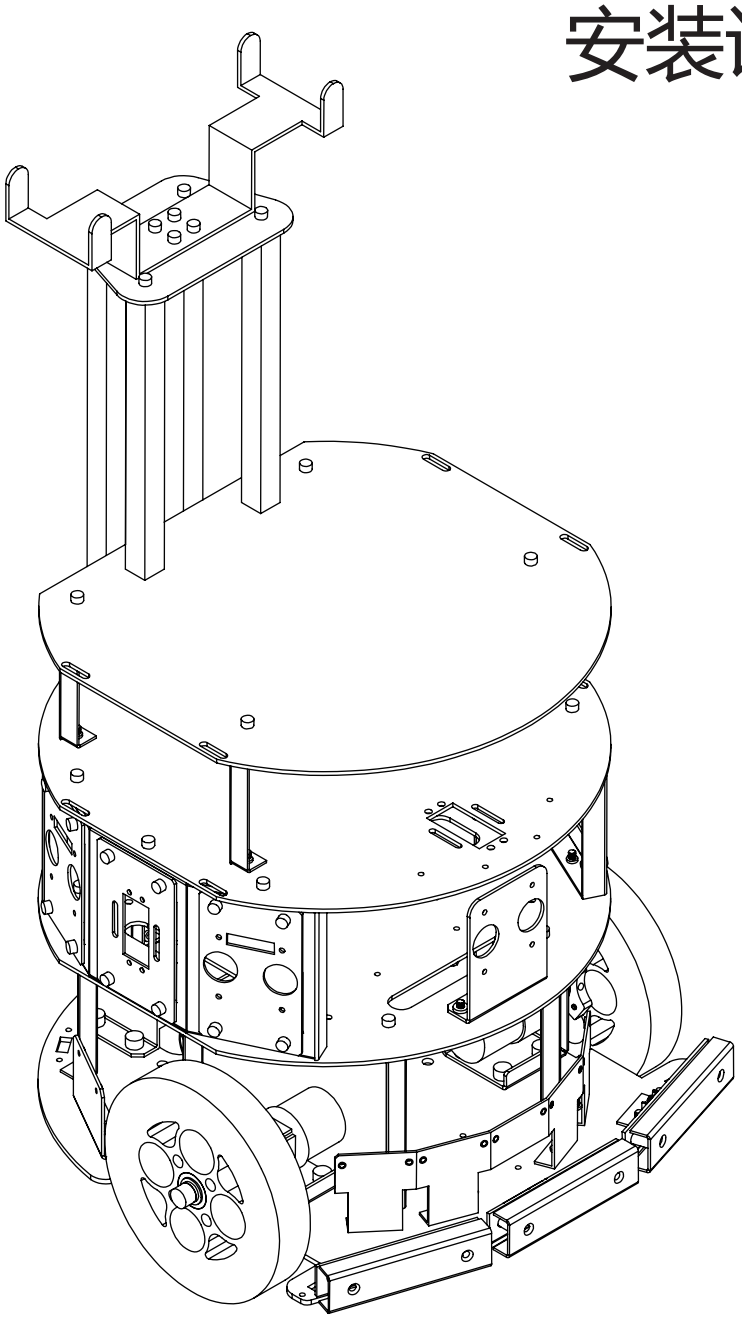
DFROBOT DRIVE THE FUTURE

Instruction Manual

HCR - Home Care Robot

安装说明书



在使用HCR - Home Care Robot之前，请仔细阅读此说明书。
Read the manual carefully before using HCR - Home Care Robot.

Ver 1.1

DFROBOT
DRIVE THE FUTURE

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服务支持 (Service)：Techsupport@dfrobot.com

网站：www.DFRobot.com.cn

Website：www.DFRobot.com

◎ 本说明书最终解释权归DFRobot所有
DFRobot has the final authority of interpretation on this manual.

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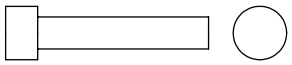
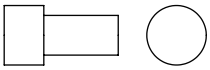
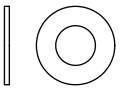
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The Third Level Assembly

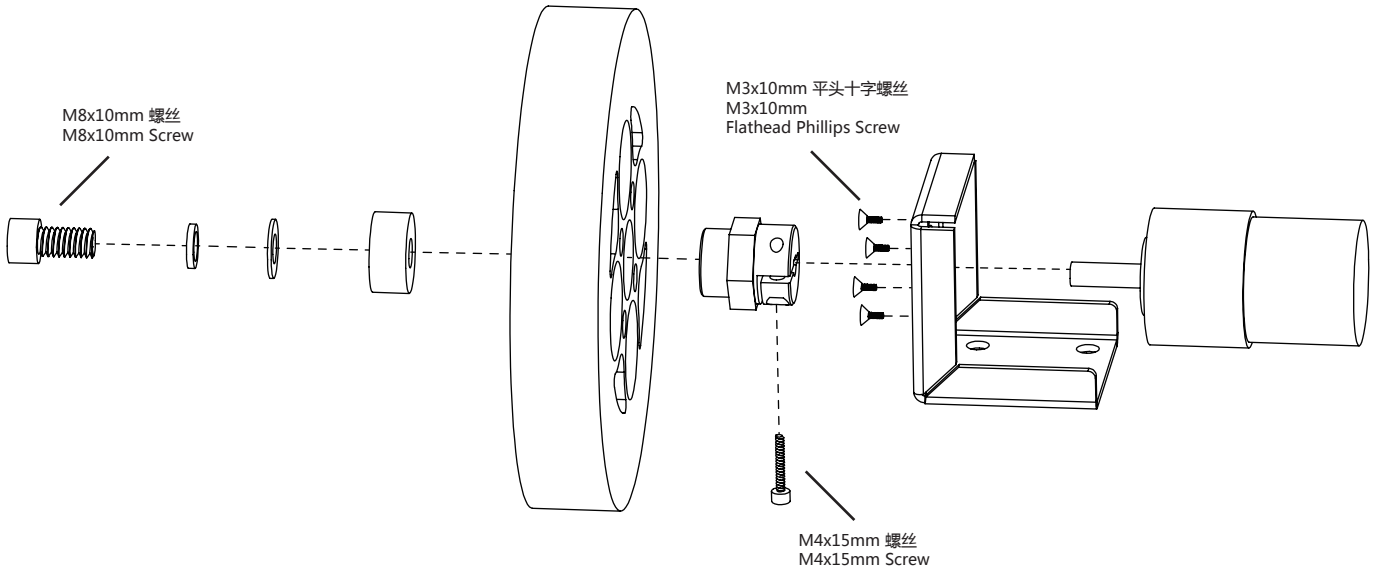
Kinect支架装配.....11
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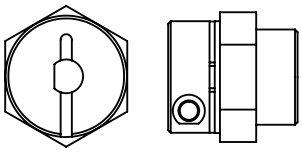
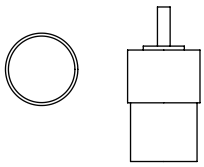
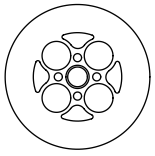
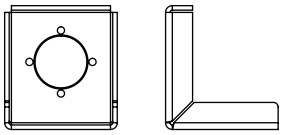
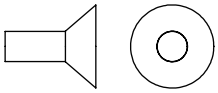
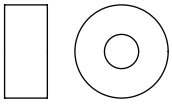
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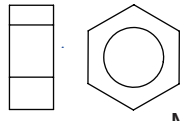
电机装配 (a) Motor Assembly (a)

 M4x15mm 螺丝 M4x15mm Screw	 M8x10mm 螺丝 M8x10mm Screw	 M8 弹片 M8 Stainless Steel Spring Washer	 M8 垫片 M8 Washer

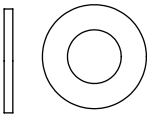


 联轴器 Coupler	 电机 Motor	 轮子 Wheel
 电机固定板 Motors mounting bracket	 M3x10mm 平头十字螺丝 M3x10mm Flathead Phillips Screw	 挡圈 Retaining Ring

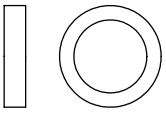
万向轮装配 Caster Assembly



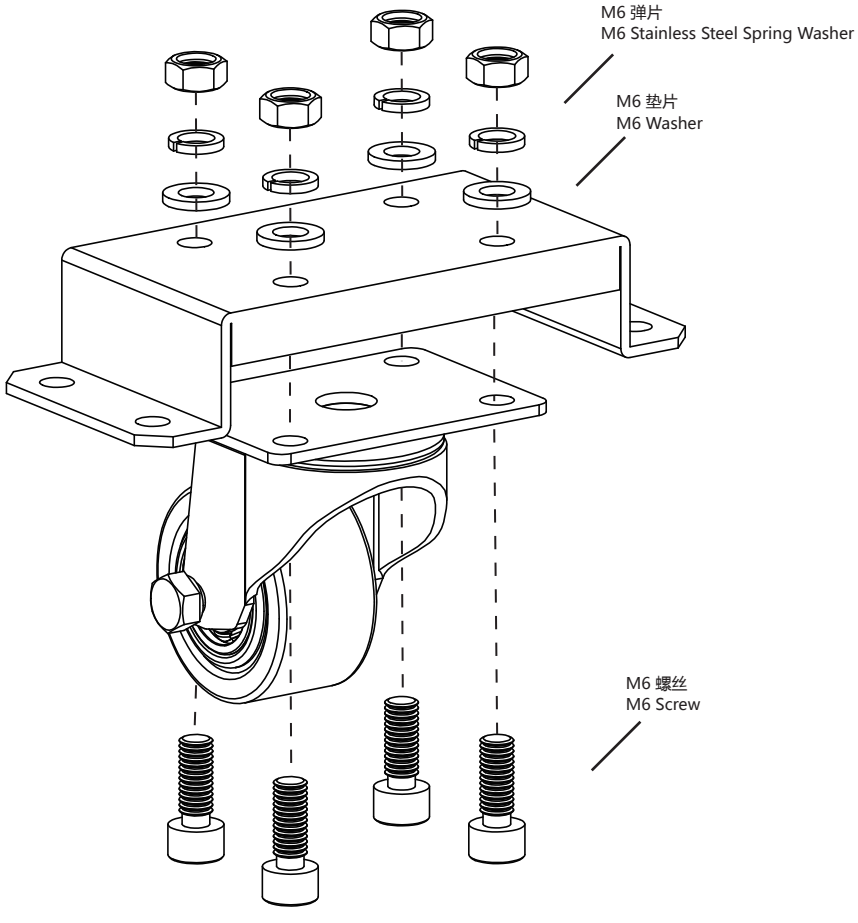
M6 内六角螺母
M6 Nut

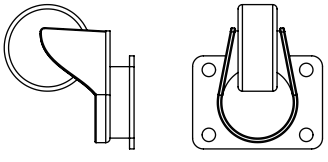


M6 垫片
M6 Washer

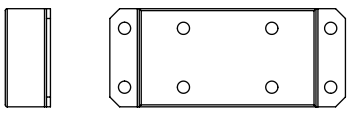


M6 弹片
M6 Stainless Steel Spring Washer

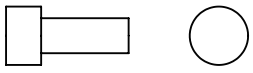




万向轮
Castor

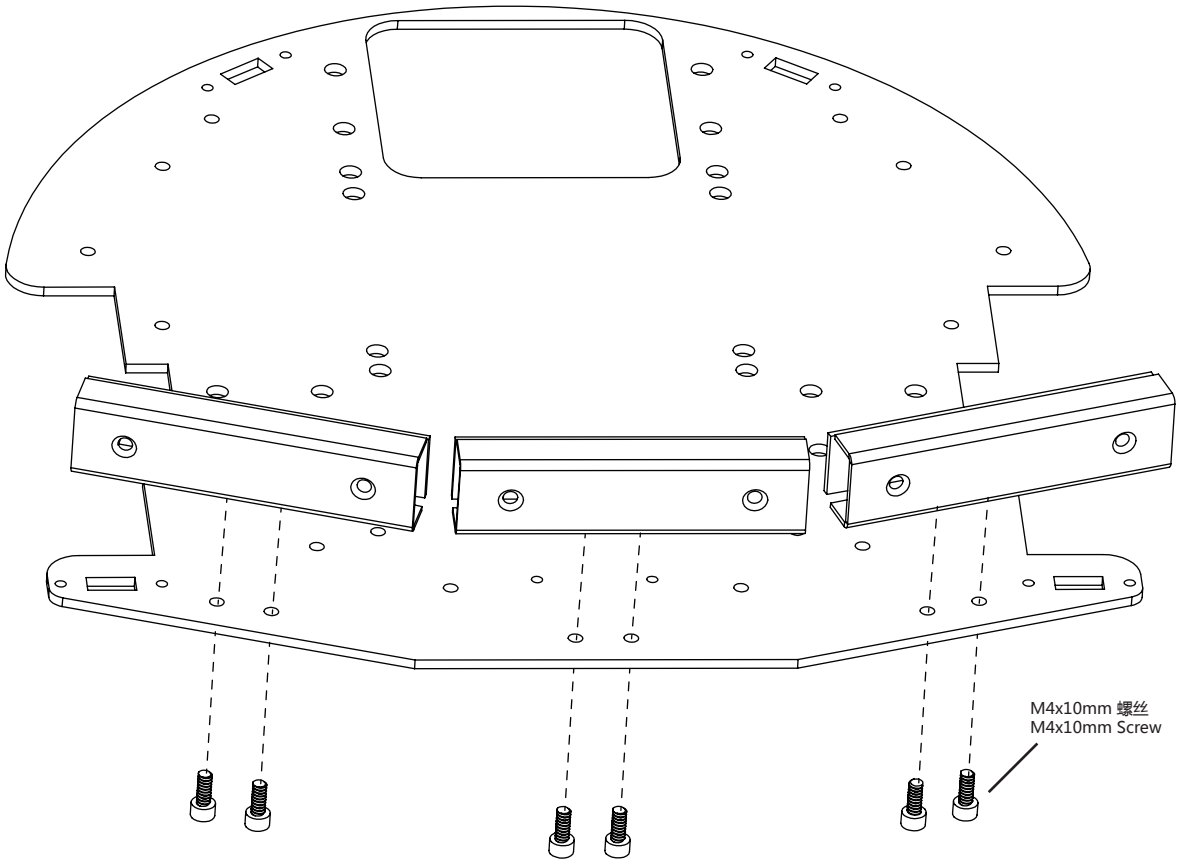


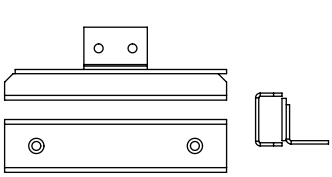
万向轮安装支架
Castor Mounting Bracket



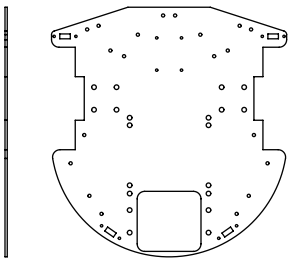
M6 螺丝
M6 Screw

底层装配 (a) Bottom Assembly (a)

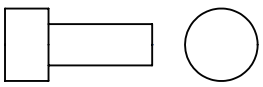




碰撞传感器
Bumper

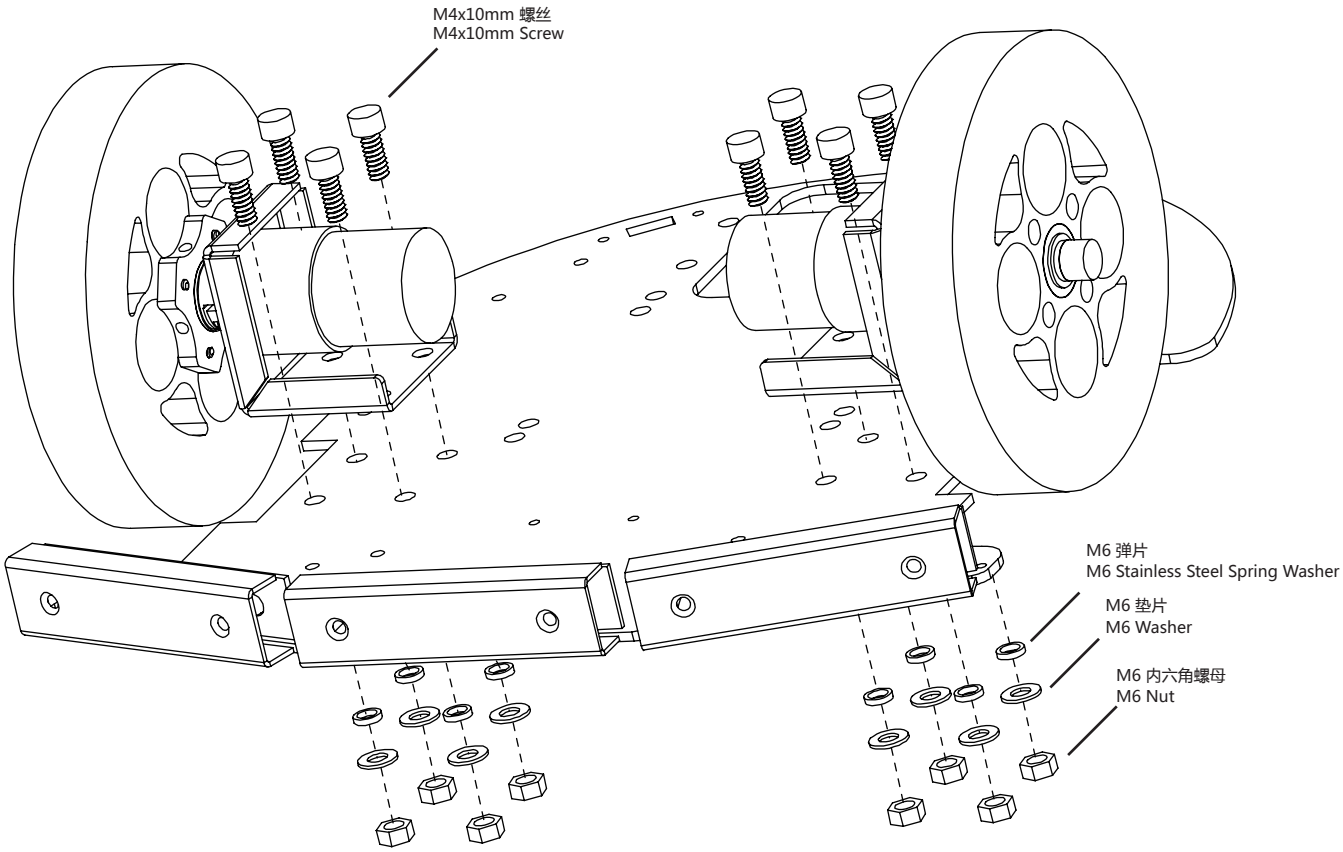


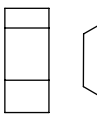
底板
bottom level



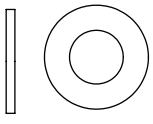
M4x10mm 螺丝
M4x10mm Screw

底层装配 (b) Bottom Assembly (b)

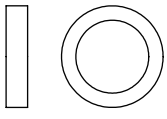




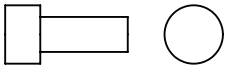
M6 内六角螺母
M6 Nut



M6 垫片
M6 Washer

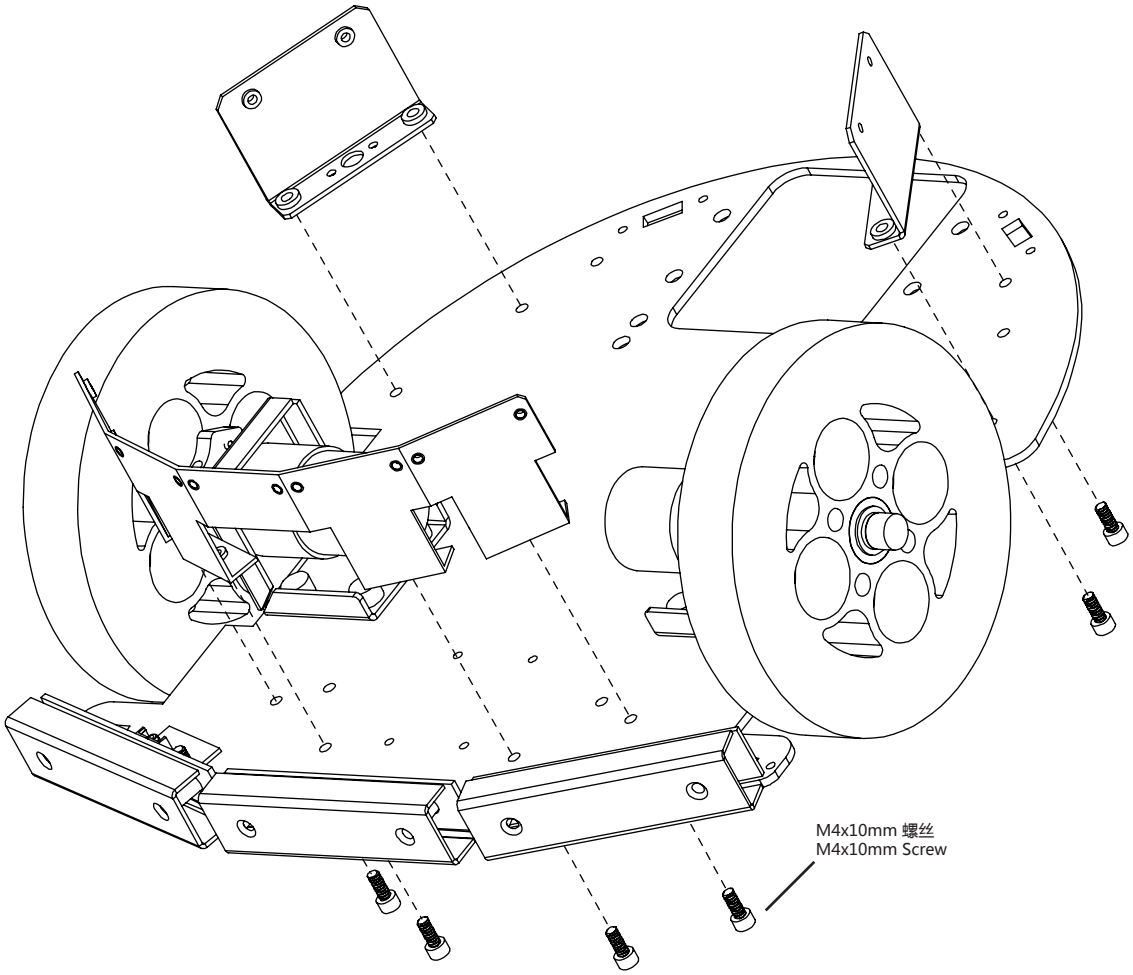


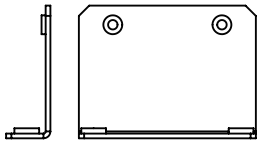
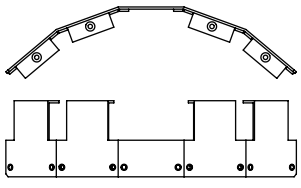
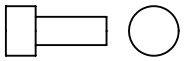
M6 弹片
M6 Stainless Steel
Spring Washer



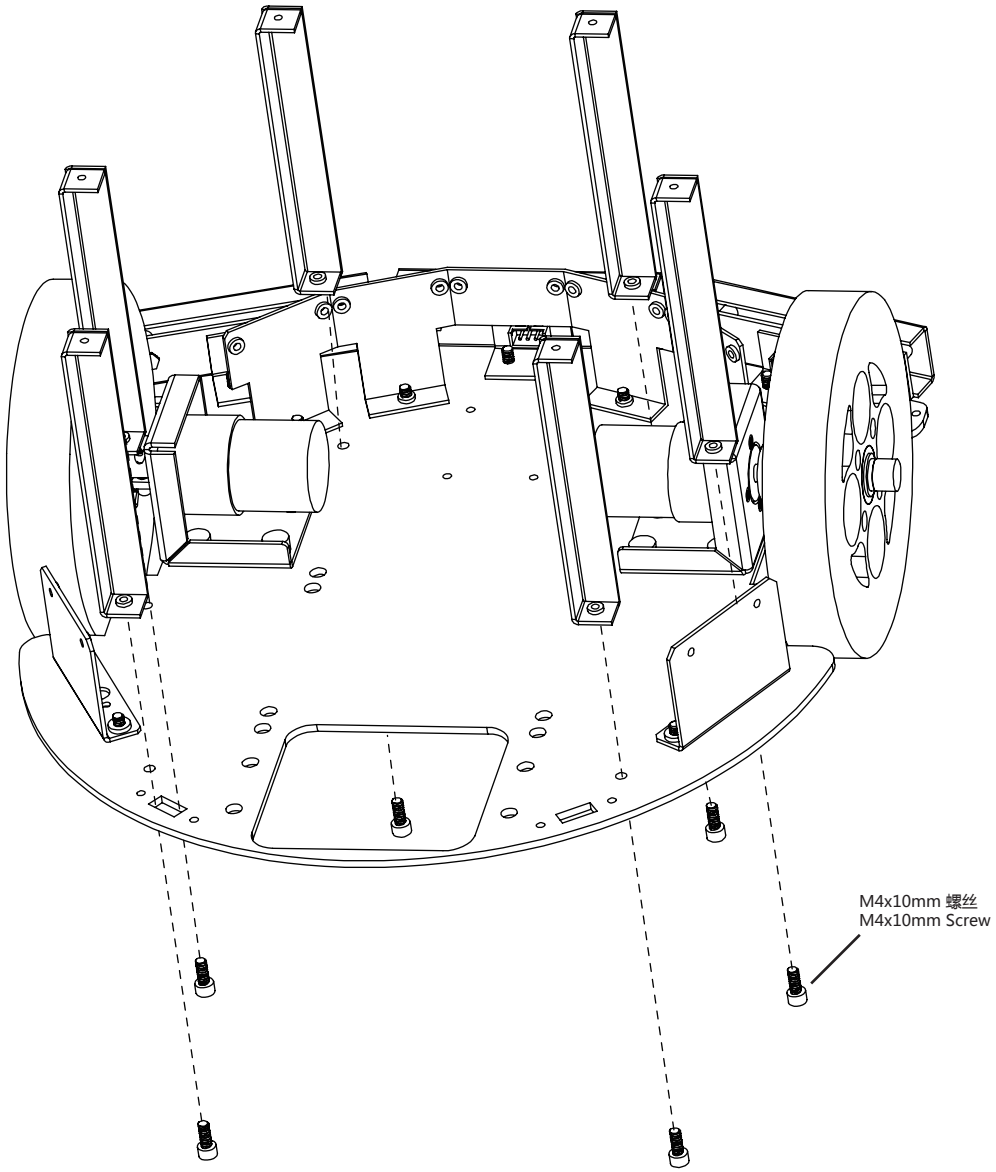
M6 螺丝
M6 Screw

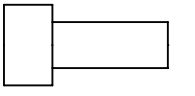
底层装配 (c) Bottom Assembly (c)



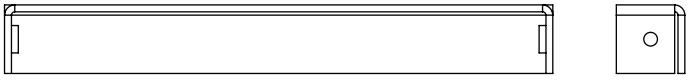
		
后红外安装支架 near IR mounting bracket	前红外安装支架 front IR mounting bracket	M4x10mm 螺丝 M4x10mm Screw

底层装配 (d) Bottom Assembly (d)



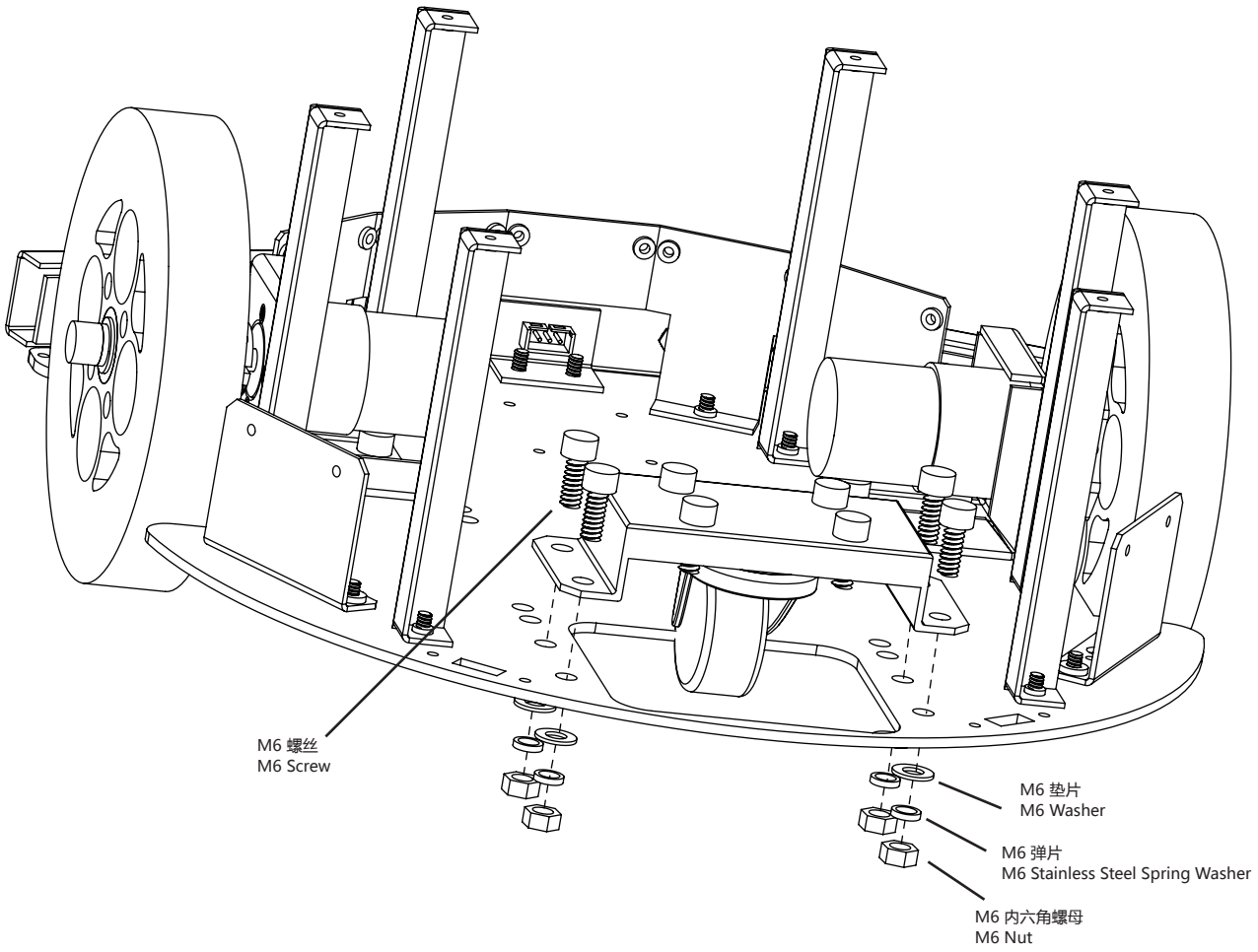


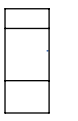
M4x10mm 螺丝
M4x10mm Screw



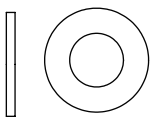
立柱 12cm
Supporting Pillars

底层装配 (e) Bottom Assembly (e)

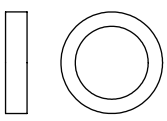




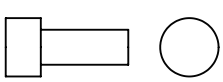
M6 内六角螺母
M6 Nut



M6 垫片
M6 Washer

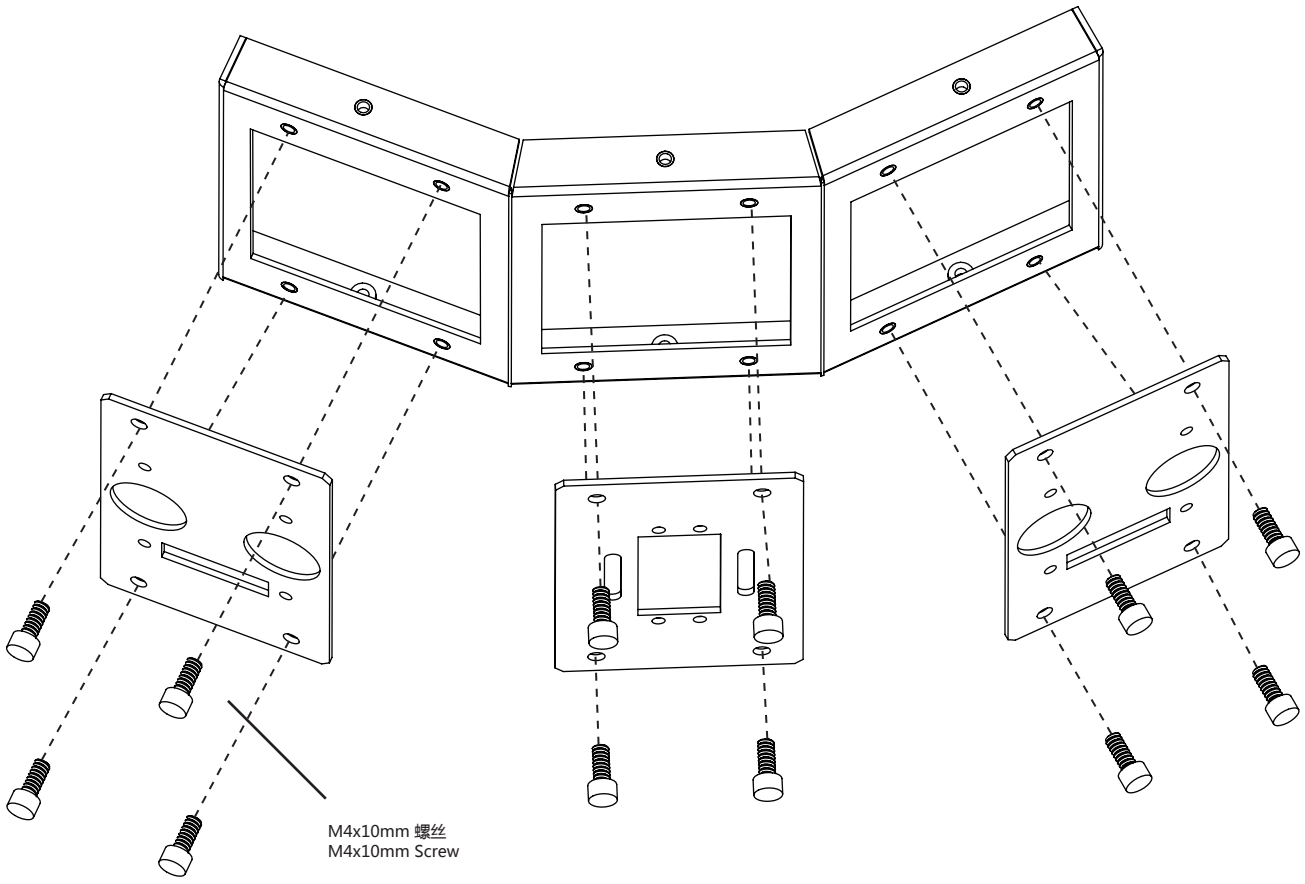


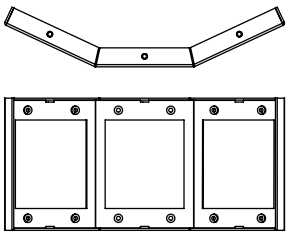
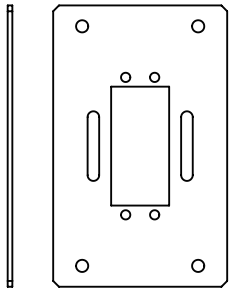
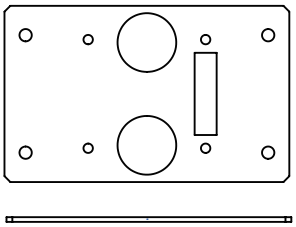
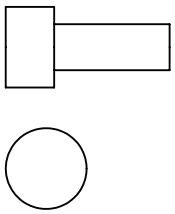
M6 弹片
M6 Stainless Steel Spring Washer



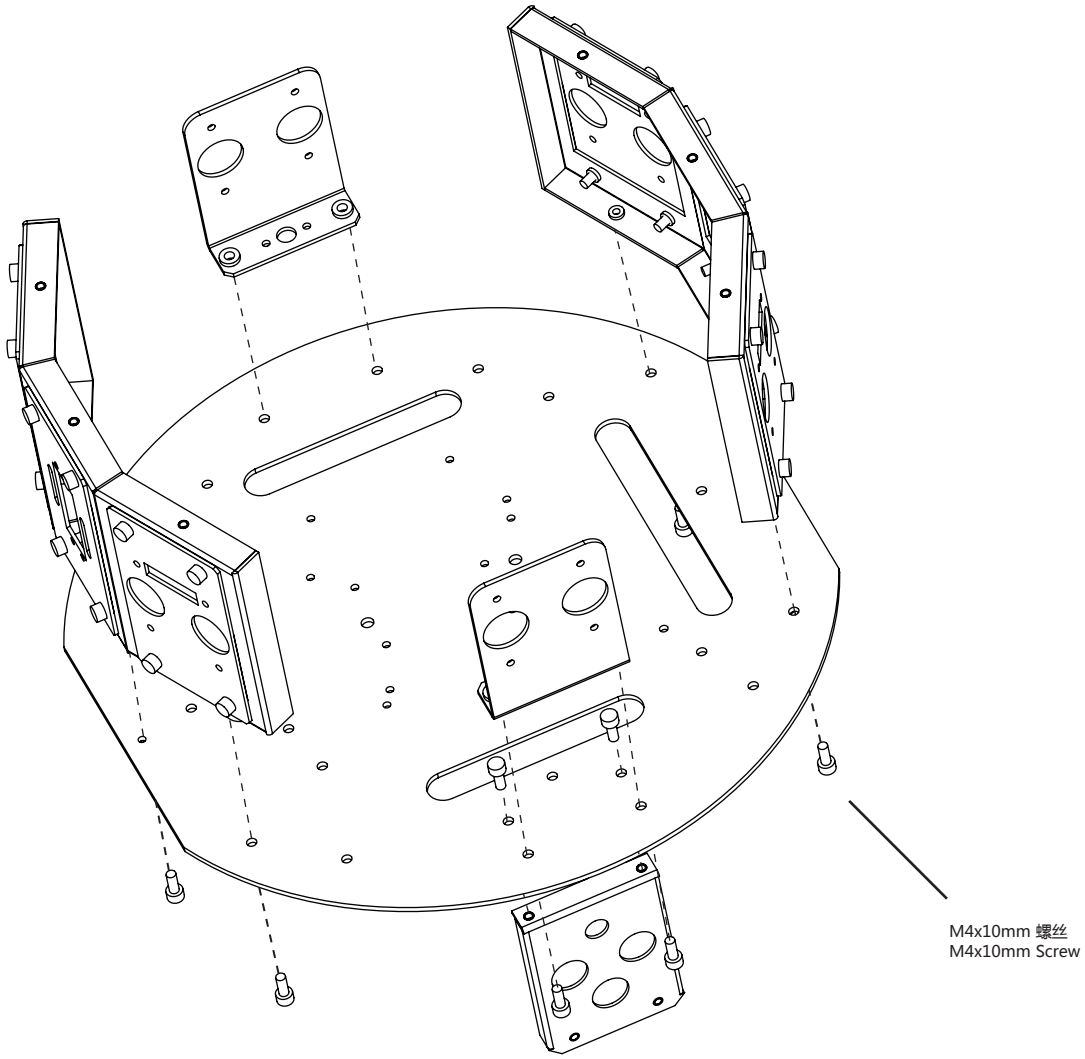
M6 螺丝
M6 Screw

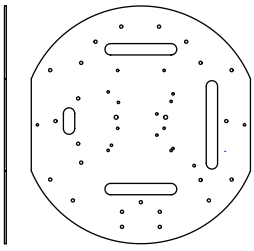
中层侧板装配 The Second Level Side Assembly



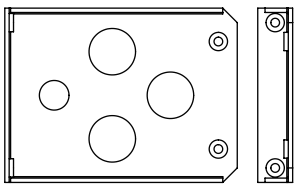
			
侧板支架 The Second Level Side Bracket	舵机扩展板 Servo Pan/Tilt Bracket	超声波安装板 URM04 Ultrasonic Mounting Bracket I	M4x10mm 螺丝 M4x10mm Screw

中层装配 The Second Level Assembly

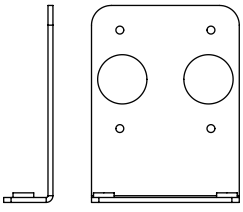




中层板
The Second Level

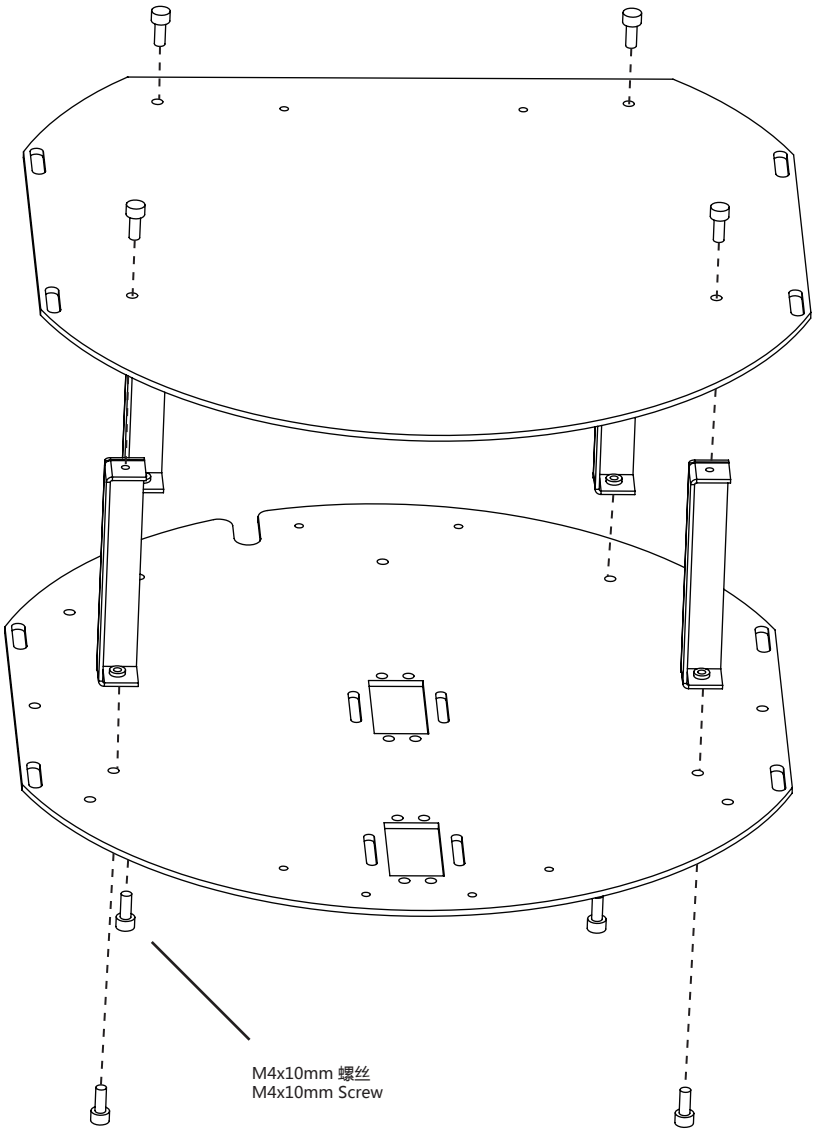


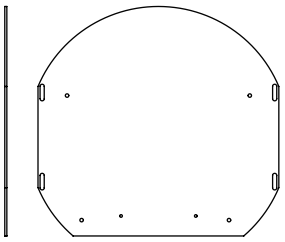
开关安装板
Switch mouting bracket



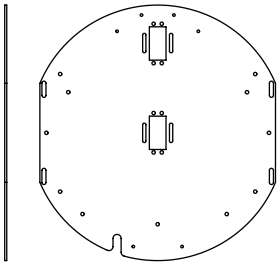
超声波安装板
URM04 Ultrasonic mounting bracket I

kinect支架装配 Kinect Level Assembly

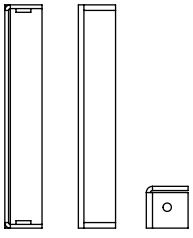




上层版1
The Third Level I

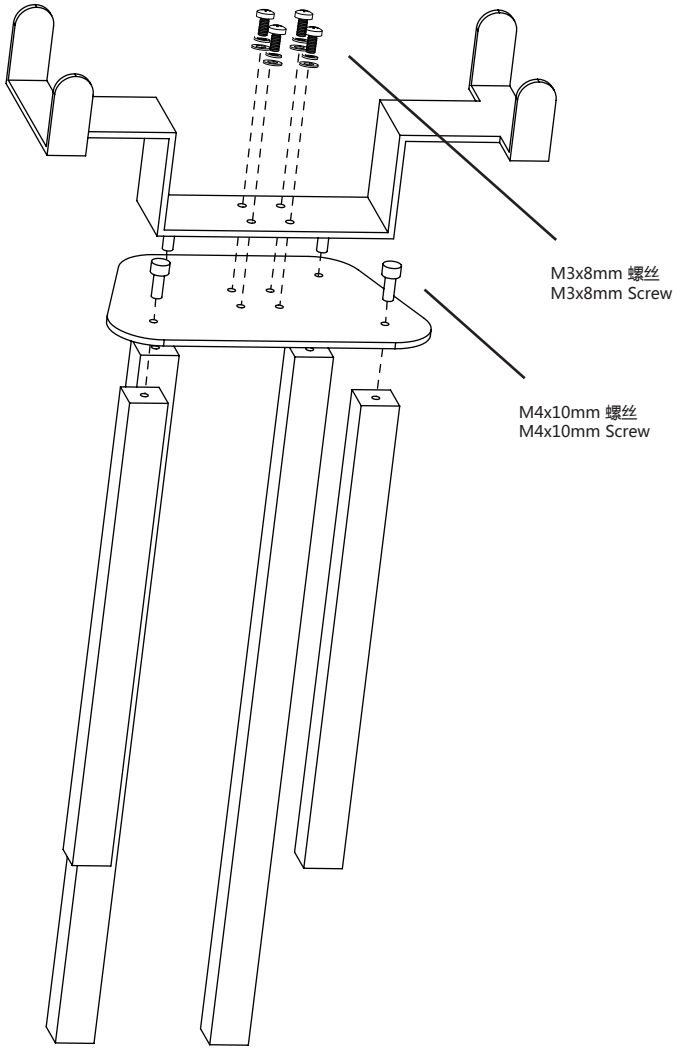


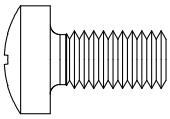
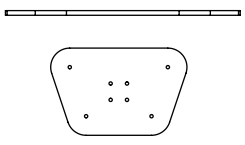
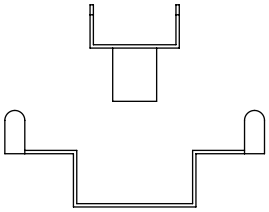
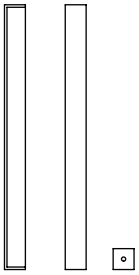
上层版2
The Third Level II



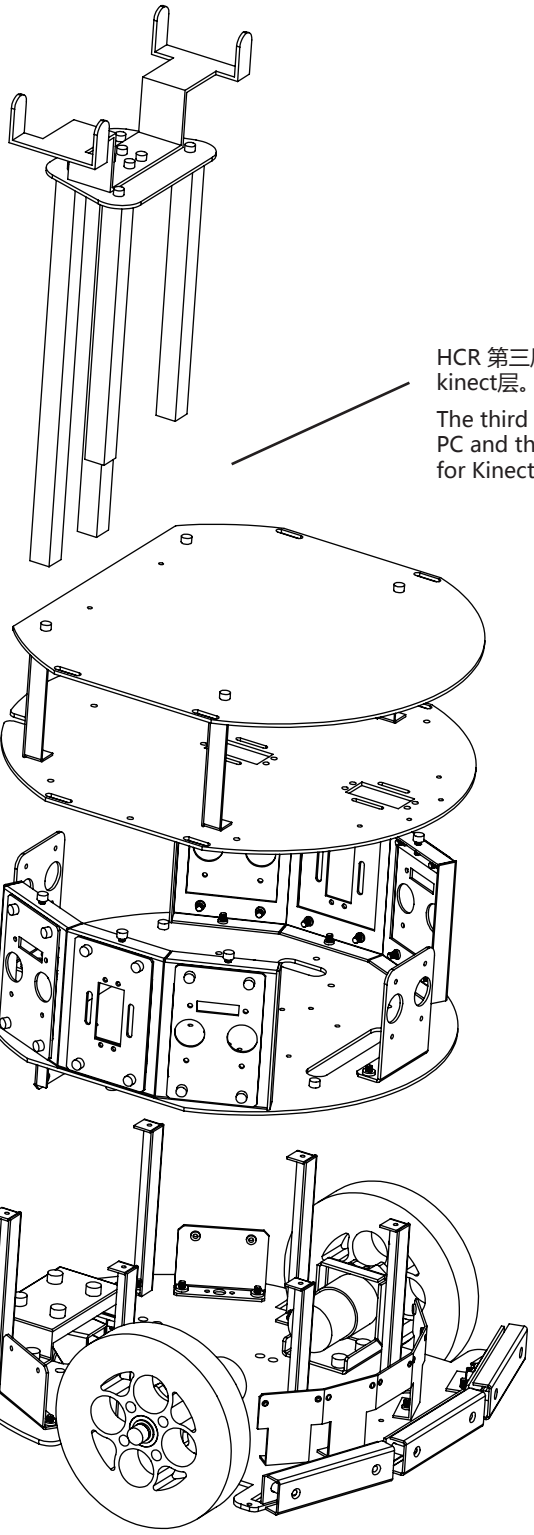
立柱 9cm
Supporting Pillars

Kinect支架装配 Kinect Level Assembly



				
M3x8mm 螺丝 M3x8mm Screw	转台支撑 Supporting Pillars	XBox 支架 XBox Mounting Bracket Bottom	立柱 19cm Supporting Pillars	立柱 28.25cm Supporting Pillars

整机组装 Final Platform Assembly



HCR 第三层和第四层是工控基层和kinect层。

The third level is used to put the PC and the fourth level is used for Kinect.

HCR第二层是电子层，用于搭建HCR电子控制系统，包括主控器和电机驱动，另外第二层配有6个方向上的超声波安装支架。另外中层配有舵机扩展安装槽位。

The second Level of the HCR is the electronic level, you can put the control system on it. Include the main controller and the motor driver. And on the second level, there are 6 URM sensor mounting brackets. And two Servo pan/Tilt brackets.

HCR 底层是用于放置电池，可以用配套的电池固定夹固定电池。

The bottom of the HCR is used to fix the bettery.

底层配有3个碰撞传感器，在车的正前方，另配7个红外测距传感器支架，可用于装配红外传感器。

At the bottom of the HCR, there are 3 bumpers and 7 Sharp IR Sensor Mounting Brackets to fix the sharp IR sensor.

零部件清单 Parts List

零件名称	Parts	数量
底板	Bottom	1
中层板	The Second Chassis	1
第三层板	The IPC Level Up Chassis	1
工控机上层板	The IPC Bottom Chassis	1
前红外安装支架	Front IR Mounting Bracket	1
后红外安装支架	Rear IR Mounting Bracket	2
开关安装支架	Power Switch Mounting Bracket	1
超声波支架	URM04 Ultrasonic Mounting Bracket I	2
舵机扩展安装板	Servo Pan/Tilt Bracket	2
中层侧板	The Second Level Side Bracket	2
URM4超声波扩展支架	URM4 Ultrasonic Mounting Bracket II	4
底板立柱 12CM	Supporting Pillars	6
工控机层立柱 9CM	Supporting Pillars	4
XBOX立柱 19CM	Supporting Pillars	2
XBOX立柱 28.25cm	Supporting Pillars	2
转台支撑	XBOX Mounting Bracket Bottom	1
Xbox 支架	XBOX Mounting Bracket	1
轮子	Wheels	2
联轴器	Coupler	2
万向轮	Castor Wheel	1
万向轮安装架	Castor Mounting Bracket	1
直流电机	DC Motors with Encoders and Cables	2
马达安装支架	Motors Mounting Bracket	2
碰撞传感器	Bumper Sensor	3
电池固定片	Battery Mounting Plate	2
M4*10内六角不锈钢安装螺丝	M4*10 Screw	80
M6*15内六角不锈钢安装螺丝	M6*15 Screw	18
铜柱螺丝包	Coin Screws	1
内6角扳手	Inner Hex Wrench	1
两头开口扳手	Two Open-end Wrench	1

家庭监护机器人基础电子配件 Home Care Robot Base electronic Parts list

- 主控器：Arduino Mega / Main control: Arduino Mega
- 电机控制：Arduino Nano / Motor control：Arduino Nano
- 电机驱动：DC Motor Driver 2×15A / Motor Driver：DC Motor Driver 2×15A

家庭监护机器人进阶电子配件 Home Care Robot Advance electronic Parts list

- 主控器：Arduino Mega / Main control: Arduino Mega
- 电机控制：Arduino Nano / Motor control：Arduino Nano
- 电机驱动：DC Motor Driver 2×15A / Motor Driver：DC Motor Driver 2×15A
- 红外测距传感器 / IR Sensor
- 超声波传感器 / URM Sensor

家庭监护机器人高级电子配件 Home Care Robot Senior electronic Part list

- 主控器：Arduino Mega / Main control: Arduino Mega
- 电机控制：Arduino Nano / Motor control：Arduino Nano
- 电机驱动：DC Motor Driver 2×15A / Motor Driver：DC Motor Driver 2×15A
- 红外测距传感器 / IR Sensor
- 超声波传感器 / URM Sensor
- Xbee通讯模块 / XBee 1mW Wire Antenna
- GamePad V2.0 / GamePad V2.0
- DF-BluetoothV3蓝牙串口模块 / DFRobot Bluetooth V3