Robomaster 机甲大师赛步兵车样版
Robomaster Competition Infantry Robot Demo

电子组总结报告
Summary Report by E-Group

作者：陆子祥
Email: zixianglu@qq.com
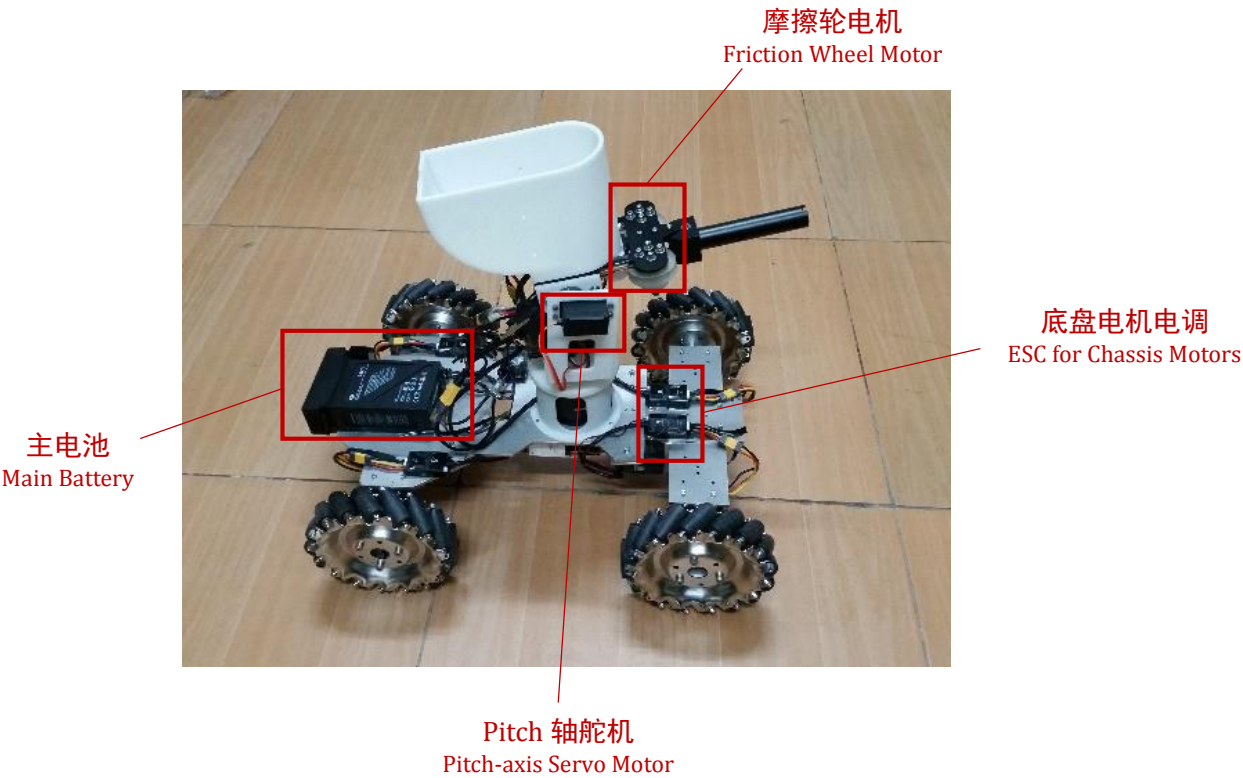
电子硬件汇总
Electronic Hardware Overview

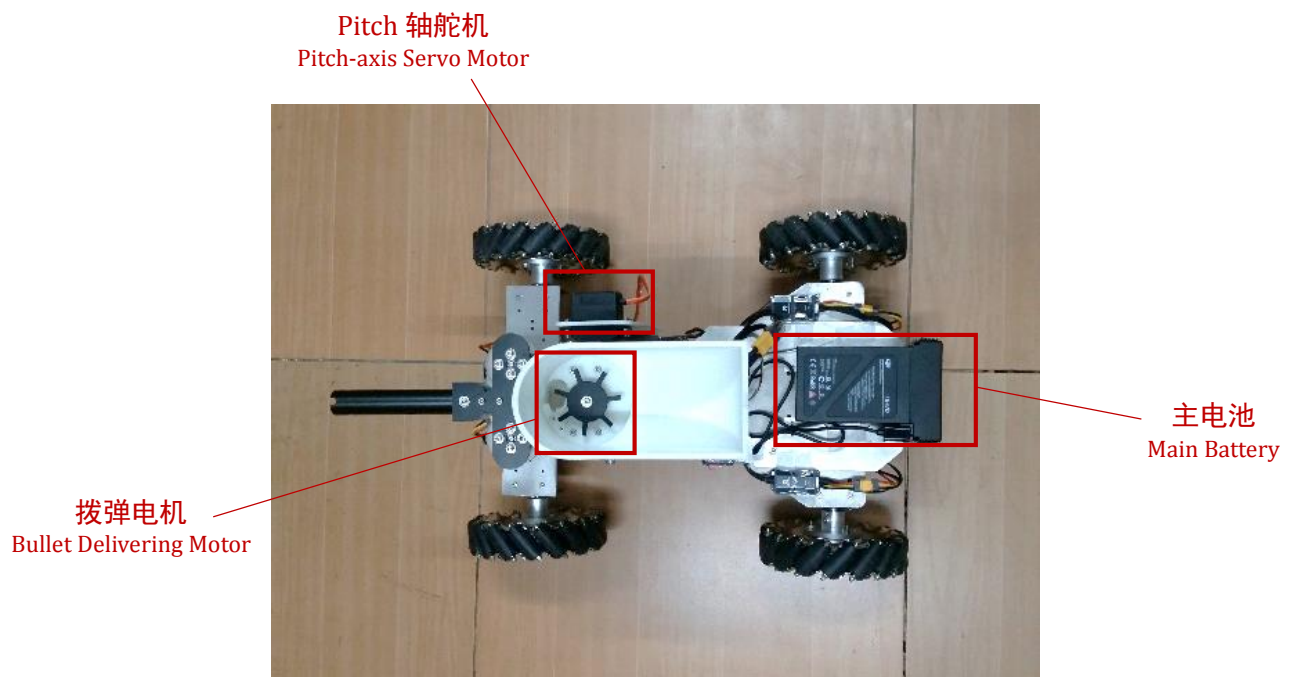|				
底盘 **Chassis**				
1	底盘电机 Chassis Motors	RM3508	x4	
2	底盘电机电调 ESC for Chassis Motors	C620	x4	注意！初次使用需配置 ID，电调上绿灯闪烁次数即为 ID 号（详见《RM C620 无刷电机调速器使用说明》） NOTE！ A unique ID have to be allocated for each ESC, the ID number is indicated by the green flashing LED on the ESC.
3	底盘主控 Chassis Controller	RM development board STM32F427IIH6	x1	
云台 **Pan-tilt**				
4	Yaw 轴电机 & 电调 Yaw-axis Motor with ESC	RM6623	x1	建议换成 GM3510 小型云台电机 Recommendation: Change to GM3510 mini pan-tilt motor
5	Pitch 轴舵机 Pitch-axis Servo Motor	DSS-M15S	x1	建议换成 GM3510 小型云台电机 Recommendation: Change to GM3510 mini pan-tilt motor
6	摩擦轮电机 Friction Wheel Motor	RM2312	x2	
7	摩擦轮电调 ESC for Friction Wheel Motor	Skywalker-30A	x2	注意！电机与电调 3 根线的连接顺序会影响电机的正反转 Note! The connection of the 3 wires between motor and ESC will affect the motor's rotary direction.
8	拨弹电机 Bullet Delivering Motor	RM2006	x1	未与弹舱底端固定，会绕线
9	拨弹电机电调 ESC for Bullet Delivering Motor	C610	x1	与 C20 使用方法类似 Similar to C20
10	云台主控 Pan-tilt Controller	RM development board STM32F427IIH6	x1	

遥控 Remote Control				
11	遥控器 Remote Controller	DT7	x1	连接电脑需要安装遥控器驱动，并手动安装 DJI USB Virtual COM 驱动 Requiring DJI WIN Driver installation and DJI USB Virtual COM Driver manual installation for communicating with PC
12	遥控接收端 Remote Control Receiver	DR16	x1	与底盘主控相连 Connecting to chassis controller board
电池 Battery				
13	主电池 Main Battery	TB470	x1	电池架暂缺 Battery Holder temporarily out of stock

结构布局
Structure Layout

侧视图
Side View

摩擦轮电机
Friction Wheel Motor

底盘电机电调
ESC for Chassis Motors

主电池
Main Battery

Pitch 轴舵机
Pitch-axis Servo Motor

俯视图
Top View

Pitch 轴舵机
Pitch-axis Servo Motor

主电池
Main Battery

拨弹电机
Bullet Delivering Motor

后视图
Rear View

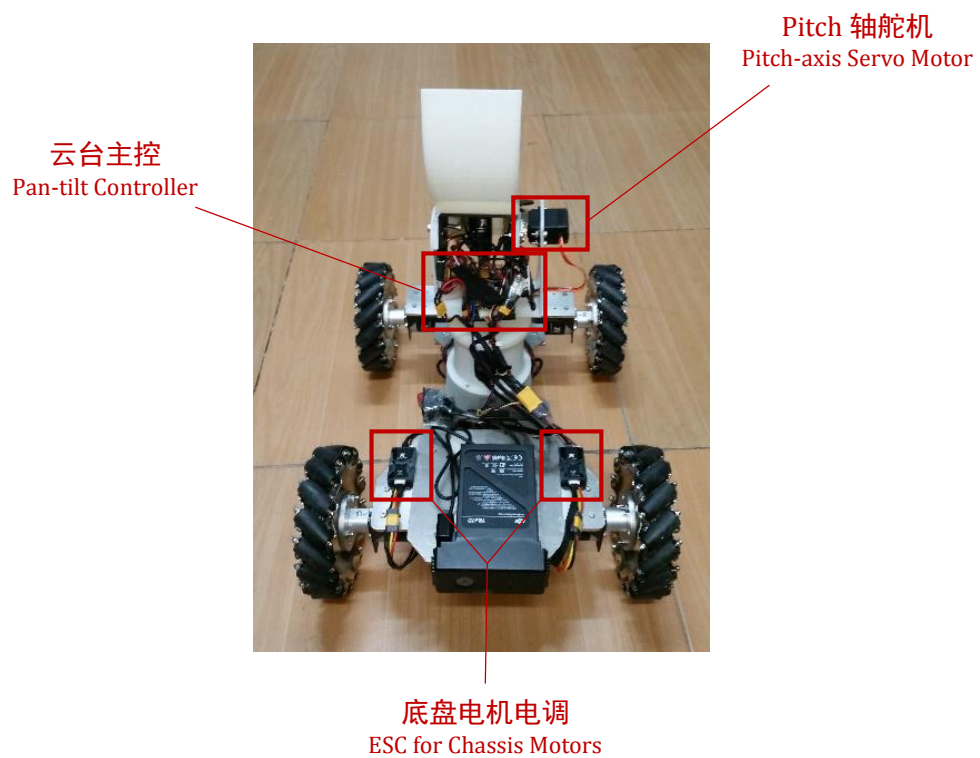Pitch 轴舵机
Pitch-axis Servo Motor

云台主控
Pan-tilt Controller

底盘电机电调
ESC for Chassis Motors
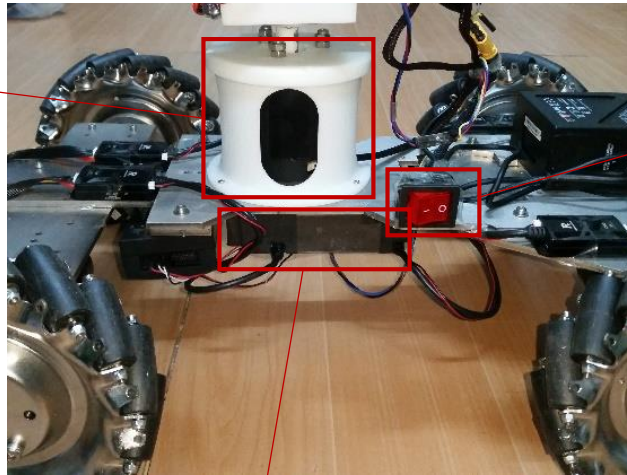
放大图
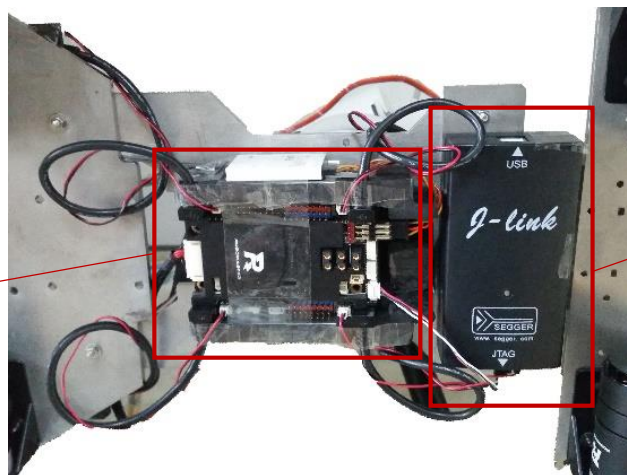Zoom-in View

Yaw 轴电机&电调
Yaw-axis Motor with ESC

电源开关
Main Switch

底盘主控
Chassis Controller

底视图
Bottom View

底盘主控
Chassis Controller

JLink 调试器
JLink Debugger

硬件连接
Hardware Connection

Pitch 轴舵机
Pitch-axis Servo Motor

DSSM15S

Yaw 轴电机 & 电调
Yaw-axis Motor with ESC

RM6623

摩擦轮电调
ESC for Friction Wheel Motor

主电池
Main Battery

摩擦轮电调
ESC for Friction Wheel Motor

C610

云台主控
Pan-tilt Controller

拨弹电机电调
ESC for Bullet Delivering Motor

主控间通信
Communication between controllers

底盘电机电调
ESC for Chassis Motors

底盘电机电调
ESC for Chassis Motors

C620

C620

遥控接收端
Remote Control Receiver

DR16

底盘电机电调
ESC for Chassis Motors

C620

底盘电机电调
ESC for Chassis Motors

C620

底盘主控
Chassis Controller