长沙拓欧科技有限公司

产品单页

Product profile

TOP-Auto
拓欧科技

TOP-AUTO

全球领先的自动化解决方案提供商

Supplier of
Global Advanced
Automatic **MEWP** Solutions










长沙拓欧科技有限公司
Changsha Top-Auto Technology Co., Ltd



企业介绍 / Company Introduction

长沙拓欧科技有限公司成立于2016年，专注高空行业10年，集研、产、销、服务于一体，业务辐射全球。公司目前150余名员工，核心研发人员40余名，占比约30%；公司核心团队均为高级工程师，博士、硕士研究生学历。我司拥有Ⅰ类发明专利11项，软件著件权及新型专利共40余项，涵盖剪叉、臂车、车载、叉装车全系列电控产品，高空作业平台物联网远程管理平台等，是国内首家具有全系列高空作业平台电控系统整体解决方案的 国家级高新技术企业 。

Changsha Top-Auto Technology Co., Ltd. was established in 2016 and has been dedicated to the aerial work platform industry for over a decade. The company integrates R&D, production, sales, and service, with its business reaching a global scale. Currently, Top-Auto employs more than 150 staff, including over 40 core R&D professionals, accounting for approximately 30% of the workforce. The core team consists of senior engineers and holders of doctor and master degrees.

Top-Auto possesses 11 Type I invention patents, along with more than 40 software copyrights and utility model patents. Its intellectual property portfolio covers the entire range of electrical control products for scissor lifts, boom lifts, truck-mounted platforms, and forklifts, as well as IoT remote management platforms for aerial work platforms. As a national high-tech enterprise, Top-Auto is recognized as China’s first company capable of providing comprehensive electrical control system solutions for the full spectrum of aerial work platforms.



International Logistics Office-Supply chain
国际物流-办事处-供应链

成立于
2016年
Established in 2016

注册资本
1200万元
Registered capital
12 million RMB

生产场地
4000平方
Production area:
4000 square meters

电控的产能具备年产
20万套
Annual production capacity
of electronic controls:
200000 sets

产品通过
CE认证
The product has achieved
CE certification

国家级高新
技术企业
National high-tech
enterprise

国家级专精特新
“小巨人”企业
National "Little Giant"
Enterprise

公司通过ISO9001质量 ISO14001环境 ISO45001职业健康管理体系
The company has achieved ISO9001, ISO14001,ISO45001 certification

企业优势 /Company advantages

更懂客户

深耕高空作业平台行业十余年，具备丰富的产品及系统开发经验。

Understand customers well: We have been deeply involved in the aerial work platform industry for more than ten years and have rich experience in product and system development.

性价比更优

从设计-贴片-组装-测试全面自主设计生产。

Better cost-effectiveness: Fully independently designed and produced from design, paster , assembly, and test.

质量更可靠

具备严格的生产和质量保障体系。

Reliable quality: With strict production and quality assurance system.

服务更优

专业的服务团队，全方位的保障。

Good service: Professional service team, comprehensive guarantee.

荣誉与资质 /Honor and Qualification







































企业介绍

2016-2025

「产品型号」
{Product model}

T300
TAECU-30



T400
TAECU-40



T500
TAECU-50



TAECU-52



「参数地图」
{Parameter Table}

系列	Series	T300	T400	T500
型号	Model	TAECU-30	TAECU-40	TAECU-50/52
工作电压范围	Working voltage range	9-32V	9-32V	9-32V
IO数量	Quantity	30	30	42
工作温度	Working temperature	-30℃-70℃	-30℃-70℃	-30℃-70℃
存储温度	Storage temperature	-40℃-85℃	-40℃-85℃	-40℃-85℃
防护等级	Protection grade	IP65	IP65	IP67
通讯接口	Communication interface	CAN	CAN	CAN
按键数量	Buttons quantity	0	7	7
OTA升级	Upgrade	支持	支持	支持
显示方式	Display mode	数码管 LED digital	LED数码管/LCD显示屏(可选) LED digital/LCD display screen(Optional)	LCD显示屏 LCD display screen
尺寸规格(mm)	Dimensions(mm)	132*115*51	132*115*51	184*122*44

「产品特性」
{Product Features}

更可靠 HIGH RELIABILITY

- 电源和通讯口防反接，DO短路/开路诊断。
- >=IP65防护，装机数量20W+。
- 严苛的EMC检测。

- Anti reverse connection of power and communication ports, DO short circuit/open circuit diagnosis,
- >=IP65 protection, more than 200000 installed quantity ,
- rigorous EMC testing.

强适应 STRONG ADAPTABILITY

- IO数量覆盖广、复用度高。
- CAN/RS232接口（二选一）。
- 用户二次开发（IEC61131-3）。
- OTA升级保障。

- Wide coverage of IO quantity, high reusability,
- CAN/RS232 interface (optional),
- user secondary development (IEC61131-3),
- OTA upgrade guarantee.

更兼容 HIGH COMPATIBILITY

- 适用各种剪叉式高空作业平台。
- 可作为移动工程机械PLC主控或IO扩展。

- Suitable for various scissor lift aerial work platforms;
- It can be used as a mobile construction machinery PLC controller or IO extension.

稳集成 INTEGRATED

- 支持IOT模块和倾角传感器（可定制）。
- LCD屏灵活配置，稳定运行。

- Supporting IOT modules and tilt sensors (customizable);
- Flexible configuration and stable operation of LCD screen.

「命名规则」
{Naming rules}

ECU assembly

主控总成 TAECU - 30 - 00 - 01

TAECU	30	00	01
Series number 系列号	Product specifications 产品规格	hardware configuration 硬件配置	Appearance configuration 外观配置
ECU 主控制器 Electronic control unit	记号 mark / 类型 type	记号 mark / 类型 type	记号 mark / 类型 type
	30 T300	00 标准配置 Standard configuration	00 标准配置 Standard configuration
	40 T400	01 含IOT Include IOT	01 标配无logo Standard configuration no logo
	50 T500（竖屏） Vertical screen	02 含倾角 Include tilt sensor	02 定制logo Customized logo

「产品型号」
{Product model}



TAPCU-T9



TAPCU-T14



TAPCU-T1



TAPCU-T2

「参数地图」
{Parameter Table}

型号 Model	TAPCU-T9	TAPCU-T2(2排)	TAPCU-T1(1排)	TAPCU-T14
工作电压范围Working voltage range	9-36V	9-36V	9-32V	9-32V
工作温度Working temperature	-30℃-70℃	-30℃-70℃	-30℃-70℃	-30℃-70℃
存储温度Storage temperature	-40℃-85℃	-40℃-85℃	-40℃-85℃	-40℃-85℃
防护等级Protection grade	Ip65(面板以上)	Ip65(面板以上)	Ip65(面板以上)	Ip65(面板以上)
通讯接口Communication interface	CAN	CAN	CAN	CAN
显示方式Display mode	LED数码 LED digital	LED数码 LED digital	LED数码 LED digital	LED数码 LED digital
OTA升级OTA upgrade	支持 Support	支持 Support	支持 Support	支持 Support
Dimensions(L*W*H(mm))	259*132*197	259*123*209	195*126*244	218*218*295

「产品特性」
{Product Features}

更兼容
HIGH RELIABILITY

- 即插即用，与行业主流品牌电气接口一致，
- 适用于各种剪叉式高空作业平台。

- plug and play; Consistent with mainstream brand electrical interfaces in the industry,
- suitable for various scissor lift aerial work platforms

更可靠
HIGH RELIABILITY

- 电源和通讯接口防反接。
- 端口过压过流保护。
- IP65防护，严苛EMC检测。

- Anti reverse connection of power and communication interfaces,
- port overvoltage and overcurrent protection,
- IP65 protection, EMC testing rigorously

更智能
HIGH INTELLIGENT

- 足(够)智能。
- 支持一键调平。
- 支持智能语音功能。

- Fully intelligent,
- supporting one click leveling,
- and supporting intelligent voice function

「命名规则」
{Naming rules}

Platform Control box assemly

上控总成 TAPCU - T1 - 02 - B01 - 00

Series number 系列号	Product specifications 产品规格		Hardware configuration 连接器配置		Product configuration 产品配置		Appearance configuration 外观配置	
PCU 平台控制器 Platform controller	记号 mark	类型 type	记号 mark	类型 type	记号 mark	类型 type	记号	类型
	T1	1排4键 4 buttons	02	5芯公壳公芯 5 core male shell male core	B01	标准KND+WG手柄 Standard knd+wg joystick	00	标准配置 Standard configuration
	T9	9键 9 buttons	06	7芯公壳公芯 7 core male shell male core	B02	标准KND+ZZ手柄 Standard knd+zz joystick	01	标配无logo Standard configuration no logo
	T14	14键 14 buttons	14	6芯DT公头 6 core DT male head	D01	定制SND+WG Customized snd+wg	02	定制logo Customized logo

「产品型号」
{Product model}

TADC-1204M
直流电机驱动器
DC Motor Controller



TADC-1216M
油泵电机驱动器
Motor Controller



TADC-1A1D
三合一驱动器
Three-in-one motor controller



「参数地图」
{Parameter Table}

型号 Model	TADC-04	TADC-16	TADC-1A1D
电机类型 Motor type	串励有刷 Series brushed motor	串励有刷 Series brushed motor	永磁有刷+串励有刷 Permanent magnet brushed motor and Series brushed motor
控制电机数量 Control motors quantity	1	1	3
电压等级 Voltage level	24V	24V	24V
2分钟额定电流(有效值A) 2-minute rated current (effective value a)	275	275	300
1h额定电流 Rated current	125	125	120
通讯接口 Communication interface	串口 Serial port	CAN	CAN/RS485
结构尺寸 Structure size	146*194*77	146*149*72	180*138*67

「产品特性」
{Product Features}

高精度霍尔传感器电流采集和校准算法，
实现设备精准驱动。

High precision Hall effect sensor, current acquisition and calibration algorithms and achieving precise control of equipment.

多MOS管并联技术，电流均衡，提升关键器件寿命。
新工艺小内阻MOSFET，
叠加高导热铝板，提升产品可靠性。

Multi MOS transistor parallel technology, current balancing, improving the lifespan of key devices.
The new process of small internal resistance MOSFET, combined with high thermal conductivity aluminum plate and enhancing product reliability.

低成本维护升级，
支持CAN在线升级及状态监控，
远程OTA。

Low cost maintenance upgrade, supporting CAN online upgrade and status monitoring, remote OTA.

完善的故障检测及诊断功能。
具备场景式保护功能，蓄电池过压和欠压保护，
电机短路保护，输出过流保护和温度保护功能。

Complete fault detection and diagnostic functions.
It has scene protection function, battery overvoltage and undervoltage protection, motor short-circuit protection, output overcurrent protection and temperature protection function.

状态指示简洁。
功能全兼容，即插即用。

The status indication is concise.
Fully compatible with all functions, plug and play.

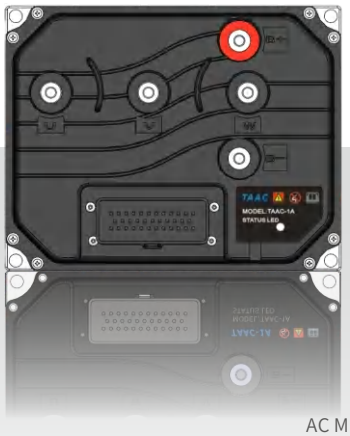
「命名规则」
{Naming rules}

Motor Controller assembly

驱动器总成 TADC - 04 - 24 - 35

	Series number 系列号	Product specifications 产品规格	Voltage level 电压等级	Current configuration 电流配置
	DC 直流驱动器 Platform controller	记号 mark / 类型 type	记号 mark / 类型 type	记号 mark / 类型 type
		04 1204款 1204 model	12 12V	35 350A
		31 三合一 Three -in- one	24 24V	40 400A
		16 1216款 1216 model	36 36V	45 450A

「产品型号」
{Product model}



TAAC-1A
交流驱动器
AC Motor Controller

「参数地图」
{Parameter Table}

型号 Model	TAAC-1A
电压等级 Voltage level	24V
2min最大电流 Maximum current	350
60min最大电流 Maximum current	170
工作环境温度 Ambient Operating Temperature	-30-50°C
通讯接口 Communication interface	CAN
结构尺寸 Structure size	180*142*68

「产品特性」
{Product Features}

最优FOC矢量+电流转矩比控制，
实现灵动控制，提升驱动系统效率。

Optimal FOC vector+current torque ratio control, achieving agile control and improving the efficiency of drive motor system.

死区补偿机制，
降低5次和7次谐波，
抑制NVH噪声。

Dead zone compensation mechanism, reducing 5th and 7th harmonics and suppressing NVH noise.

支持参数自学习，
快速方便实现电机适配。

Supporting parameter self-learning, achieving motor adaptation quickly and conveniently.

完善的告警保护功能，
欠压、过压、过流、过载等保护功能，
保障系统可靠工作和减少维护强度。

Complete alarm protection functions, including undervoltage, overvoltage, overcurrent, overload, etc., ensuring reliable system operation and reducing maintenance intensity.

模块装配式的软件分层设计架构，
掌握核心底层算法，
快速满足客户定制需求。

Modular modular software layered design architecture, mastering core underlying algorithms, and meeting customer's customization needs quickly.

「命名规则」
{Naming rules}

Drive motor assembly

驱动器总成 TAAC - 1A - 24 - 35

Series number 系列号

AC 交流驱动器
AC Motor Controller

Product specifications 产品规格

记号 mark	类型 type
1A	单交流 One AC Motor Controller

Voltage level 电压等级

记号 mark	类型 type
12	12V
24	24V
36	36V
48	48V

Current configuration 电流配置

记号 mark	类型 type
35	350A
40	400A
45	450A
27	275A

「产品型号」
{Product model}



TAMC-1D
驱控一体机

AC Integrated Motor Drive and Controller

「参数地图」
{Parameter Table}

型号 Model	TAMC-1D
电压等级 Voltage level	24V
2min最大电流 Maximum current	350
60min最大电流 Maximum current	170
工作环境温度 Ambient Operating Temperature	-30-50°C
通讯接口 Communication interface	CAN
结构尺寸 Structure size	146*149*76mm

「产品特性」
{Product Features}

- 完善的过流保护，温度保护，保证可靠稳定的输出。
- Complete overcurrent protection and temperature protection ensuring reliable and stable output.

- 电机短路保护功能，防止烧坏驱动部件。
- 可靠的蓄电池欠压保护和过压保护。
- Motor short-circuit protection function to prevent burning out of drive components.
- Reliable battery undervoltage protection and overvoltage protection.

- 大功率低内阻MOSFET管驱动，工作更高效，更安静。
- 高兼容性，功耗小，效率高。
- High power, low internal resistance MOSFET driver, high-frequency, efficient, and quiet working mode.
- High compatibility, low power consumption, and high efficiency.

- 具备驱动短路，开路检测，调速器输入自检。
- Equipped with drive short circuit, open circuit detection and self-test speed regulator input

- 支持CAN总线读写数据，升级固件。支持远程OTA。
- Supporting CAN bus RW data,upgrade firmware and supporting remote OTA.

- 集驱动和控制一体，结构紧凑。安装接线简单方便。
- 成本优势显著。
- It combined drive and control with a compact structure.
- The installation and wiring is simple and convenient with significant cost advantage

「命名规则」
{Naming rules}

Drive motor assembly

驱动器总成 TAMC - 1D - 24 - 35

Series number 系列号

MC	复合型驱动器 Composite motor controller

Product specifications 产品规格

记号 mark	类型 type
1D	直流控制一体机 DC controller Integrated machine
1C	交流控制一体机 AC controller Integrated machine

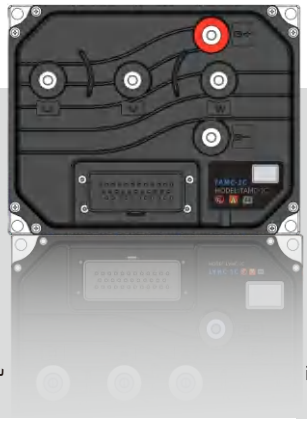
Voltage level 电压等级

记号 mark	类型 type
12	12V
24	24V
36	36V
48	48V

Current configuration 电流配置

记号 mark	类型 type
35	350A
40	400A
45	450A
27	275A

「产品型号」
{Product model}



TAMC-1C
交流驱控一体机

Drive control
integrated machine

「参数地图」
{Parameter Table}

型号 Model	TAMC-1C
结构尺寸 Structure size	180*142* 68mm
电压等级 Voltage level	24V/48v
PWM频率 PWM frequency	4KHz
防护等级 Protection grade	IP65
工作环境温度 Ambient Operating Temperature	-30℃~50℃
1h电流等级 1 current level	170A
2min电流等级 2min current level	350A
通讯方式 Communication method	CAN
冷却方式 Cooling method	自冷

「产品特性」
{Product Features}

- 内部集成整车控制器(ECU)
  internal integration vehicle control unit (ECU)
- 可实现远程自主OTA功能
  With remote autonomous OTA function
- 最优FOC矢量+电流转矩比控制，实现灵动控制，提升驱动系统效率
  The optimal FOC vector and current torque ratio control realize flexible control and high efficiency
- 具备完善的温度保护功能，实现产品热保护和保证产品稳定输出
  Complete temperature protection function and thermal protection ensure stable output of the product
- 完善的告警保护功能，欠压、过压、过流、过载等保护功能，保障系统可靠工作和减少维护强度
  The perfect alarm protection function including undervoltage overvoltage overcurrent and overload protection ensures the reliable operation of the system and cut down maintenance cost.
- 死区补偿机制，抑制奇次谐波，提升电源效率
  Odd harmonics and improves power supply efficiency
- 模块装配式的软件分层设计架构，掌握核心底层算法，快速满足客户定制需求。
  The software adopts a modular assembly hierarchical design architecture, the core underlying algorithms quickly meets the customized demands of customers

「命名规则」
{Naming rules}

Drive motor assembly

驱动器总成 TAMC - 1C - 24 - 35

Series number 系列号

MC:复合型驱动器
Composite motor controller

Product specifications 产品规格

记号 mark	类型 type
1D	直流控制一体机 DC controller Integrated machine
1C	交流控制一体机 AC controller Integrated machine
3D	三路直流控制一体机 Three-way DC control all-in-one machine

Output format 输出形式

记号 mark	类型 type
12	12V
24	24V
36	36V
48	48V
72	72V

Electric current configuration 电流配置

记号 mark	类型 type
35	350A
40	400A
45	450A
27	275A
30	300A

「产品型号」
{Product model}



TAMC-3D
驱控一体机

Drive control
integrated machine

「参数地图」
{Parameter Table}

型号 Model	TAMC-3D
结构尺寸 Structure size	180*142* 68mm
防护等级 Protection level	IP65
工作电压等级 Rated Voltage Range	24V/36V
工作环境温度 Operating temperature	-30℃~50℃
储存温度 Storage temperature	-40℃~85℃
空载功耗 No-load power consu	< (4W)

「产品特性」
{Product Features}

- IEC61131-3 标准环境开发
- developed in IEC61131-3 standard environment
- 支持2路 CAN2.0B 接口
- Support 2 CAN.0B
- 多达 1 8 路独立输入输出，端口复用率高，支持正交编码输入，输出可直接驱动电磁阀、比例阀，并具备端口故障诊断功能(短路和断路)
- Up to 18 independent input and output with high port reuse rate.Supports orthogonal coding input Output can directly drive solenoid valves and proportional valves Has port fault diagnosis function (short circuit and open circuit). Supports 2 CAN2.0B interfaces
- 单 MCU，快速 IO 响应
- Single MCU, IO response quickly
- 高可靠性：电源短路保护、电源反接保护、通信线短路保护、通信线反接保护、电机过压过温保护、电机短路保护、电池欠压和过压保护。
- High reliability: Power short-circuit protection, power reverse connection protection, communication line short-circuit protection, communication line reverse connection protection, motor overvoltage and over-temperature protection, motor short-circuit protection, battery undervoltage and overvoltage protection.

「命名规则」
{Naming rules}

Drive motor assembly

驱动器总成 TAMC - 3D - 24 - 35

Series number 系列号
MC：复合型驱动器
Composite motor controller

Product specifications 产品规格

记号 mark	类型 type
1D	直流控制一体机 DC controller Integrated machine
1C	交流控制一体机 AC controller Integrated machine
3D	三路直流控制一体机 Three-way DC control all-in-one machine

Output format 输出形式

记号 mark	类型 type
12	12V
24	24V
36	36V
48	48V
72	72V

Electric current configuration 电流配置

记号 mark	类型 type
35	350A
40	400A
45	450A
27	275A
30	300A

「产品型号」
{Product model}



「参数地图」
{Parameter Table}

型号 Product Model	TAJC-40
工作电压 Working voltage	DC 9V-32V
防护等级 Protection grade	前面板IP67 后面板IP65 Front panel IP67 Back Panel IP65
工作温度 Working temperature	-30℃--75℃
存储温度 Storage temperature	-40℃--85℃
通讯接口 Communication interface	CAN*1
通讯速率 Communication speed	250K(默认default)
数字输入/输出/IO数量 Digital input/output/IO quantity	40路 40 channels

「产品特性」
{Product Features}

- 丰富IO功能，40路IO，端口类型可定制。
  Rich IO functions: 40 IO channels, port types can be customized
- 工况可视，人机交互友好。
  Visual working conditions , human-computer interaction friendly
- 面板可定制，满足个性化需求。
  The panel can be customized to meet personalized needs
- 集成简单可靠，支持can/串口通讯。
  Simple and reliable integration: supporting CAN/serial communication
- 1路USB接口，便于数据传输。
  1 channel usb interface

「命名规则」
{Naming rules}

Integrated panel assembly

集成面板总成 TAJC - 40 - 14

Series number 系列号
JC 集成显示面板 Integrated display panel

IO total count IO总数

记号 mark	类型 type
00	无IO No IO
24	24路 24 channel
36	36路 36 channel
40	40路 40 channel

Number of LED lights LED灯数

记号 mark	类型 type
14	14路 14 channel
21	21路 21 channel
24	24路 24 channel
30	30路 30 channel

「产品型号」
{Product model}



TATY
操作手柄

Operation
Joystick

「参数地图」
{Parameter Table}

型号 Series	TATY10-1A-01	TATY40-2A-01	TAWX10-3A-07
电源电压 Supply voltage	5V	5V	5V
工作温度 Working temperature	-30℃-70℃	-30℃-70℃	-30℃-70℃
存储温度 Storage temperature	-40℃-85℃	-40℃-85℃	-40℃-85℃
结构尺寸 Structure size	180*138*67	180*138*67	180*138*67
操作方式 Operation method	单轴 Single axis	双轴 Dual axis	万向 Universal
使用寿命 Service life	>300万次 >3 million times	>300万次 >3 million times	>300万次 >3 million times

「产品特性」
{Product Features}

- 全兼容市面同类产品。
  Fully compatible with similar products in the market
- 电气接口保护能力，高于竞品。
  The electrical interface protection capability is higher than competitors
- 结构皮实耐造。
  Durable and sturdy structure
- 稳定可靠，操作便捷。
  Stable and reliable, easy to operate
- 接口可定制。
  The interface can be customized

「命名规则」
{Naming rules}

Operation Joystick assembly

操作手柄总成 TATY - 10 - 1A - 01

Series number 系列号

记号 mark	类型 type
TY	操作手柄 Operation Joystick

Product specifications 产品规格

记号 mark	类型 type
TY10	剪叉类 Scissor lift type
TY11	臂车类 Boom lift type

Operation type 操作类型

记号 mark	类型 type
1A	单轴方式操作 Single axis operation
2A	双轴十字 Dual axis cross
3A	万向方式操作 Universal operation

Connector type 连接器类型

记号 mark	类型 type
01	2.54 14P杜邦连接器 DuPont connector
02	2.54 9P杜邦连接器 DuPont connector
07	德驰6芯PTM公头 Deutsch 6 core PTM male head

「产品型号」
{Product model}



TALD
小时计仪表 Hour Meter

「参数地图」
{Parameter Table}

型号 Model	TALD - H1 - 01 - B01
工作电压范围 Operating Voltage Range	DC 9V - 32V
防护等级 Protection grade	IP67
工作温度 Work temperature	-30℃ - 75℃
存储温度 Storage temperature	-40℃ - 85℃
通讯接口 Communication interface	CAN*1、串口*1(预留) CAN*1 Serial Port *1(Reserved)
通讯速率 Communication speed	250K(默认) 250K (Default)

「产品特性」
{Product Features}

- 电量/工作模式/工作小时数/ECU或驱动器故障显示。
  - Battery level/working mode/workinghours/ECU or driver fault display.
- 1路继电器输入输出(预留)。
  - 1 relay input and output(reserved).
- Rs232输入(预留)。
  - RS232 input (reserved).
- CAN通讯接口。
  - CAN communication interface.
- 可在-30℃低温下正常工作。
  - It can work normally at low temperature of -30'C.

「命名规则」
{Naming rules}

Hour Meter assembly

小时计仪表总成 TALD - H1 - B01

Series number 系列号

LD	小时计仪表 Hour Meter

Product specifications 产品规格

记号 mark	类型 type
H1	小时仪表 Hour Meter

Product Configuration 产品配置

记号 mark	类型 type
01 标准版 Standard	CAN总线线型 CAN Bus
02 定制版 Customization	串口总线型 Serial Port Bus

「产品型号」
{Product model}



TATS
倾角传感器

TATS High-performance
Tilt Sensor

「参数地图」
{Parameter Table}

型号 Series	TATS-2D-C
工作电压范围 Operating Voltage Range	9-32V
功耗 Power consumption	300MW,12MA@24V
启动时间 Start time	<1S
工作温度 Working temperature	-30°- 70°C
防护等级 Protection grade	IP67

「产品特性」
{Product Features}

高动态 HIGH DYNAMIC
- 内置抑制零漂和温漂算法，应对高动态响应场景。
- Built-in suppression of zero drift and temperature drift algorithms to cope with high dynamic response scenarios.

高抗扰
HIGH ANTI-INTERFERENCE
- 软硬件防抖，兼顾精度及响应速度。
- Software and hardware stabilization, balancing accuracy and response speed.

高可靠 HIGH RELIABILITY
- EMC性能符合GB/T 17626。
- 环境适应满足GB/T2423。
- EMC performance meets GB/T 17626,
- environmental adaptability meets GB/T2423.

高精度 HIGH PRECISION
- 采用特有温度补偿。
- Using unique temperature compensation.

稳集成 INTEGRATED
- 接口功能丰富，支持CAN总线、开关量输出或电压模拟量输出。
- Stable integration with rich interface functions:supporting CAN bus, switch output and current or voltage analog output.

「命名规则」
{Naming rules}

Tilt sensor assembly

倾角传感器总成 TATS - 2D - C - 01

Series number 系列号

TS	倾角传感器 Tilt sensor

Product specifications 产品规格

记号 mark	类型 type
1D	一轴 One axis
2D	两轴 Two axes
3D	三轴 Three axes

Output format 输出形式

记号 mark	类型 type
D	开关量输 Switching output
C	CAN 总线 Can bus
A	0-5V输出 Output

Connector type 连接器类型

记号 mark	类型 type
00	无连接器 No connector
01	德驰DT4芯公头 4 core male head
02	德驰DT3芯公头 3core male head

「产品型号」
{Product model}



TAYY
语音报警模块

TAYY High-performance
Tilt Sensor

「参数地图」
{Parameter Table}

型号 Model	TAYY-01-C
工作电压范围 Operating Voltage Range	DC9-32V
防护等级 Protection grade	IP65
音量 Sound volume	95dB高音量、高音质语音报警 95dB High volume, high-quality voice alarm
EMC指标 Emc indicators	EMC性能符合国标GB/T17626 EMC performance meets the national standard GB/T17626
环境指标 Environmental indicators	环境适应指标满足国标GB/T 2423 The environmental indicators should meet the national standard GB/T 2423
通信接口 Communication interface	CAN2.0B总线 CAN 2.0B bus

「产品特性」
{Product Features}

- 采用32位高效ARM处理器。
- Adopting 32-bit high-efficiency ARM processor.
- 采用专用语音合成芯片。
- Using a dedicated speech synthesis chip.
- 可定制播放语音。
- Customizable voice broadcasting.
- 支持CAN总线，RS232总线控制语音播放。
- Supporting CAN bus and RS232 bus to control voice broadcasting.
- 可支持中文、英文等，多语种语音播报。
- Supporting voice broadcasting in multiple languages such as Chinese and English.
- 端口防呆，具有短接与反接保护。
- Port foolproof with short-circuit and reverse protection.

「命名规则」
{Naming rules}

Voice module assembly

语音模块总成 TAYY - 01 - C - 00

Series number 系列号

YY 语音播报器
Voice broadcast

Product specifications 产品规格

记号 mark	类型 type
01	内置版本 Built-in version
02	外置版本 External version

Output format 输出形式

记号 mark	类型 type
U	串口 Serial port
C	CAN总线 CAN Bus

Connector type 连接器类型

记号 mark	类型 type
00	无连接器 No connector
01	DT4芯公头 DT4 core male head

「产品型号」
{Product model}

臂车平台控制柜
TAZBS-28
Boom lift platform control cabinet

臂车转台控制柜
TAZBX-28
Boom lift turntable control cabinet



「参数地图」
{Parameter Table}

系列 Series	臂车转台控制柜 Boom lift turntable control cabinet	臂车平台控制柜 Boom lift platform control cabinet
型号 Model	TAZBX-28	TAZBS-28
防护等级 Protection grade	IP66	IP66
工作温度 Working temperature	-30~70℃	-30~70℃
外形尺寸 External dimensions	350*400*135（不含安装板） (excluding installation board)	600*290*150
	430*400*135（含安装板） (include installation board)	

「产品特性」
{Product Features}

- 集成黑匣子。
- Integrated black box.

- 结构设计紧凑，依热流场仿真，散热优，保证部件工作可靠。
- Compact structural design, based on thermal flow field simulation, excellent heat dissipation, ensuring reliable component operation.

- 功能区域模块化，易于扩展。
- Functional area modularization, easy to expand.

- 防护等级，IP66。
- Protection grade:IP66.

「命名规则」
{Naming rules}

Boom lift assembly

臂车总成 TAZBS - 28

Product type
产品类型

记号 mark	类型 type
ZBX	直臂车下控总成 Straight boom lift ECU Assembly
ZBX	直臂车下控总成 Straight boom lift ECU Assembly
ZBD	直臂车电控系统总成 Straight boom lift electric control system Assembly
QBS	曲臂车上控总成 Curved boom lift platform control box

Product specifications
产品规格

记号 mark	类型 type
28	28米 meter
26	26米 meter
16	16米 meter
14	16米 meter

「IOT远程物联网云平台」

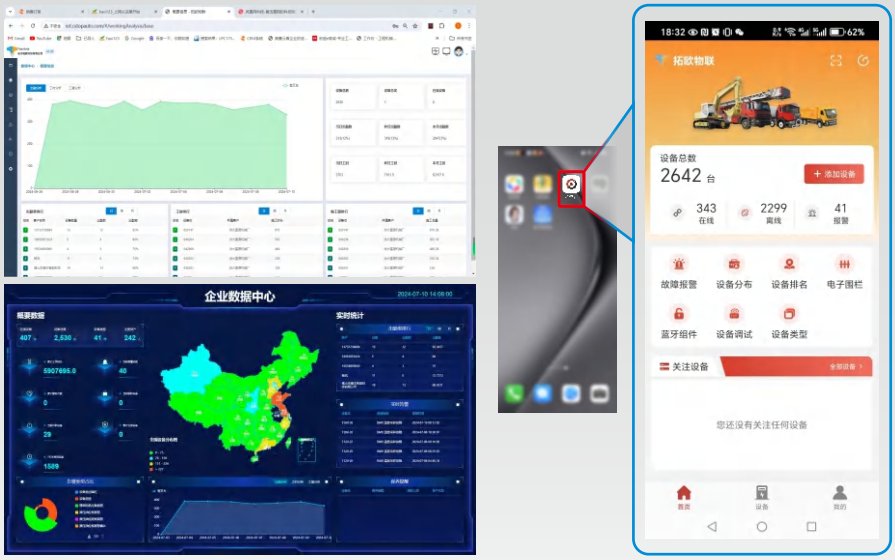
{Remote IoT platform}

产品图片+手机app

Product images+mobile app

拓欧科技依托自主研发的控制类/驱动类核心产品，应用物联网技术，将现场设备运行数据采集至属地数据服务器，通过边缘计算，运用大数据处理和分析技术，挖掘数据价值，帮助客户动态管理设备和数据资产。

Top-Auto relies on self-developed control/drive motor products, applies the Internet of Things technology and collects field equipment operation data to local data servers.It helps customers dynamically manage equipment and data assets by edge computing and big data processing and analysis technology to tap data value.



「平台构成」

{platform composition}

应用层：提供丰富的基于物联网的应用，
包括设备管理、数据分析、流程管理、财务管理、风控管理等模块。

Application layer:Providing rich applications of IoT, including device management, data analysis, process management, financial management, risk management and other modules.

平台层(PaaS)：基础设施层，提供计算机基础的操作系统、数据库、网络架构、硬件等支持，为应用层提供底层支持

Platform layer(PaaS):The infrastructure provides basic support for computer operating systems, databases, network architecture, hardware, and provides underlying support for the application layer.

采集层：主要是实现信息的传递。

Collection layer : mainly responsible for transmitting information.

设备层：识别物体，采集信息。

Device layer : Identify objects and collect information.

「远程物联网云平台功能」

{Functions of Remote IoT cloud platform}

实现数据资产管理 Achieving data asset management

实现对设备的强管控可随时获取设备的信息，实现对设备的全方位监控，
有效实现设备锁机/解锁等功能。

Achieving strong control of devices and accessing device information at any time, achieving comprehensive monitoring of devices achieving functions such as device locking/unlocking effectively .

实现分时租赁模式 Achieving time-sharing leasing model

基于设备的强管控，租赁模式可实现由原来的固定租赁时间计费模式
到灵活分时租赁计费模式。

Based on the strong control of device, the leasing model can achieve a transition from a fixed leasing time billing model to a flexible time-sharing leasing billing model.

实现设备远程故障诊断和功能升级 Achieving remote fault diagnosis and function upgrade of device

可远程对设备进行诊断，降低售后服务难度和成本，同时，支持设备点对点或自动批量升级，
大幅降低服务管理成本。

Remote diagnosis of devices can be performed, reducing the difficulty and cost of after-sales service. Meanwhile, it supports point-to-point or automatic batch upgrades of devices, reducing service management costs greatly

「优 势」

{Advantages}

- 安全，
  IoT各数据节点交互合法安全。
- Safety, the interaction between IoT data nodes is legal and safe.

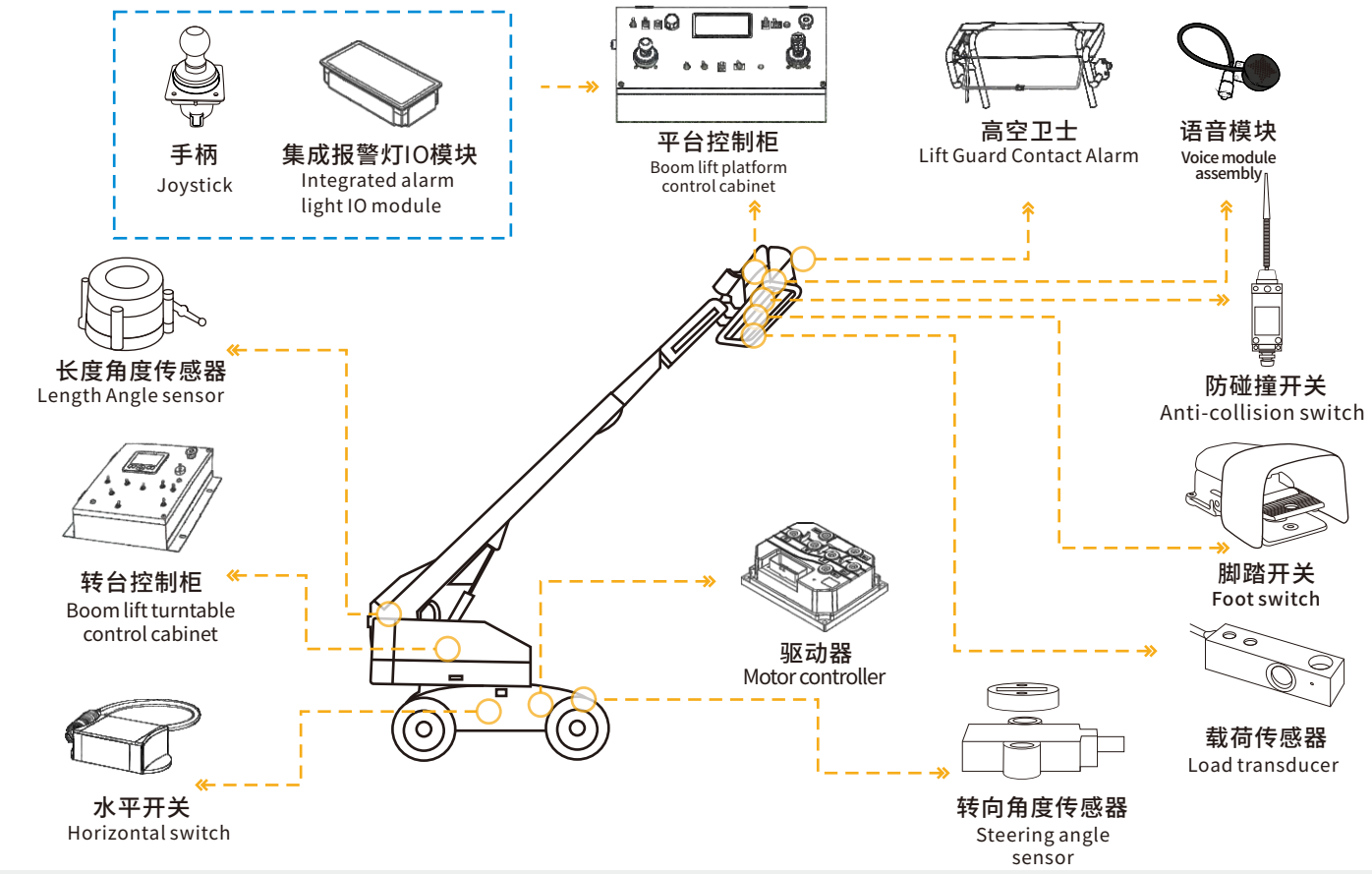
- 人工智能，
  AI技术应用降本增效。
- Human intelligence,
  the application of AI technology reduces costs and increases efficiency.

- 快速部署，组件及服务灵活配置，
  可部署到IoT设备、边缘设备和基础云上。
- Rapid deployment, flexible configuration of components and services,
  It can be deployable to IoT devices, edge devices,
  and foundational clouds

- 互联互通，适用于不同类型、
  不同协议、不同硬件的设备互联。
- Interconnection, suitable for device interconnection of different types, agreements, and hardware

直臂车 TELESCOPIC BOOM LIFT SERIES

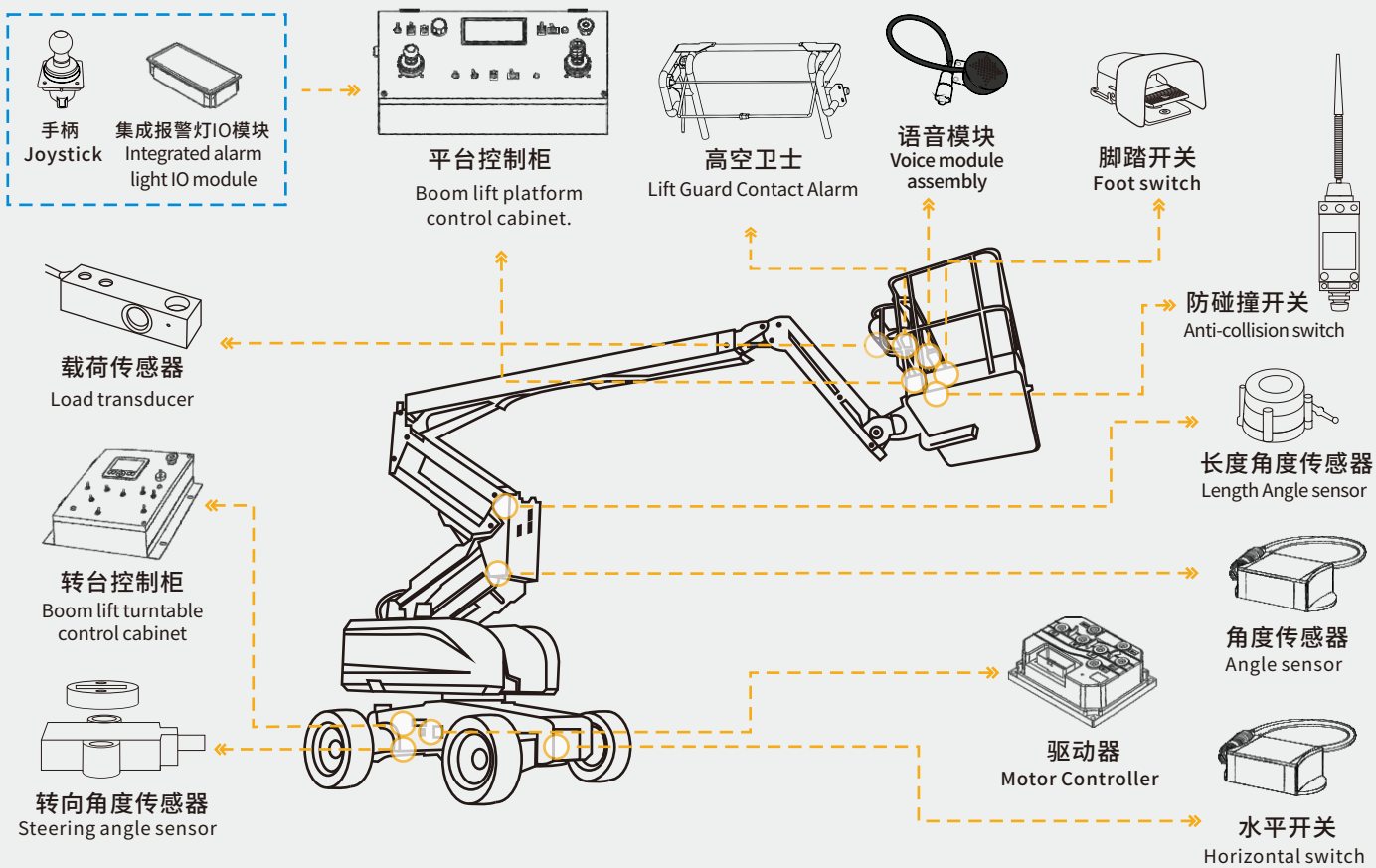
成套系统解决方案 Control System Solution



曲臂车 ARTIGULATING BOOM LIFT SERIES

全球领先的自动化解决方案提供商
TOP-Auto 拓欧科技

成套系统解决方案 Control System Solution

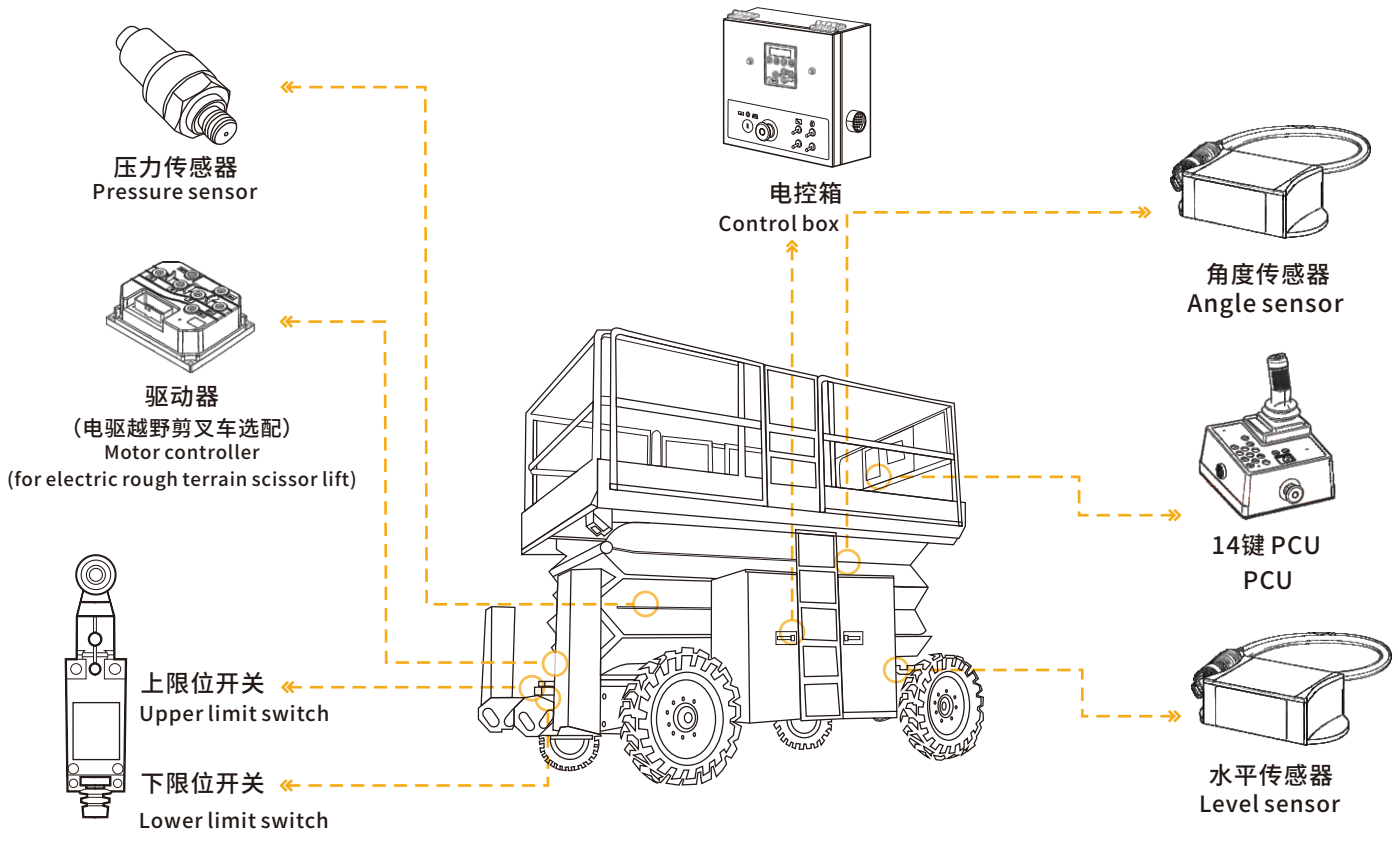


越野剪叉车 RT SCISSOR LIFT SERIES

全球领先的自动化解决方案提供商

TOP-Auto 拓欧科技

成套系统解决方案 Control System Solution

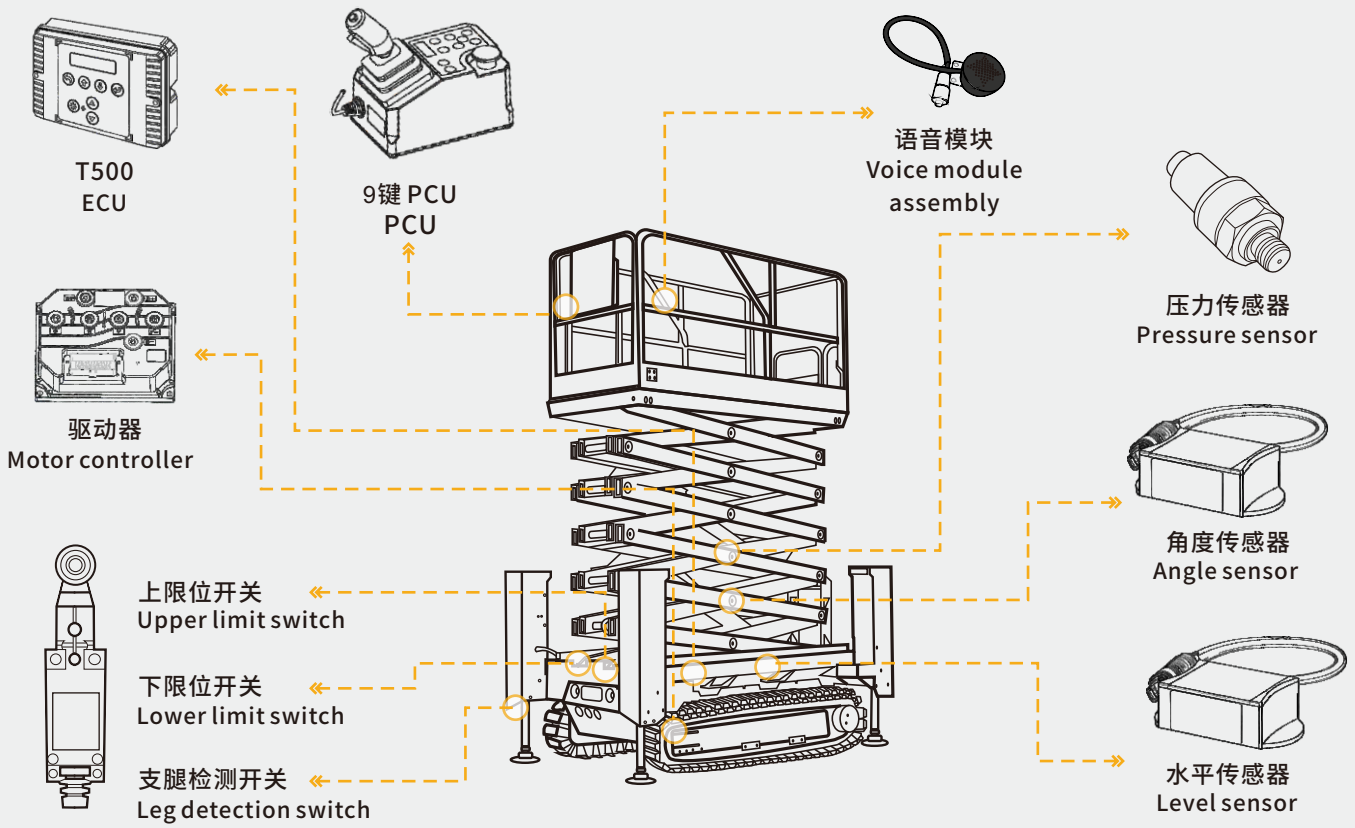


履带剪叉车 TRACKED SCISSOR LIFT SERIES

全球领先的自动化解决方案提供商

TOP-Auto 拓欧科技

成套系统解决方案 Control System Solution

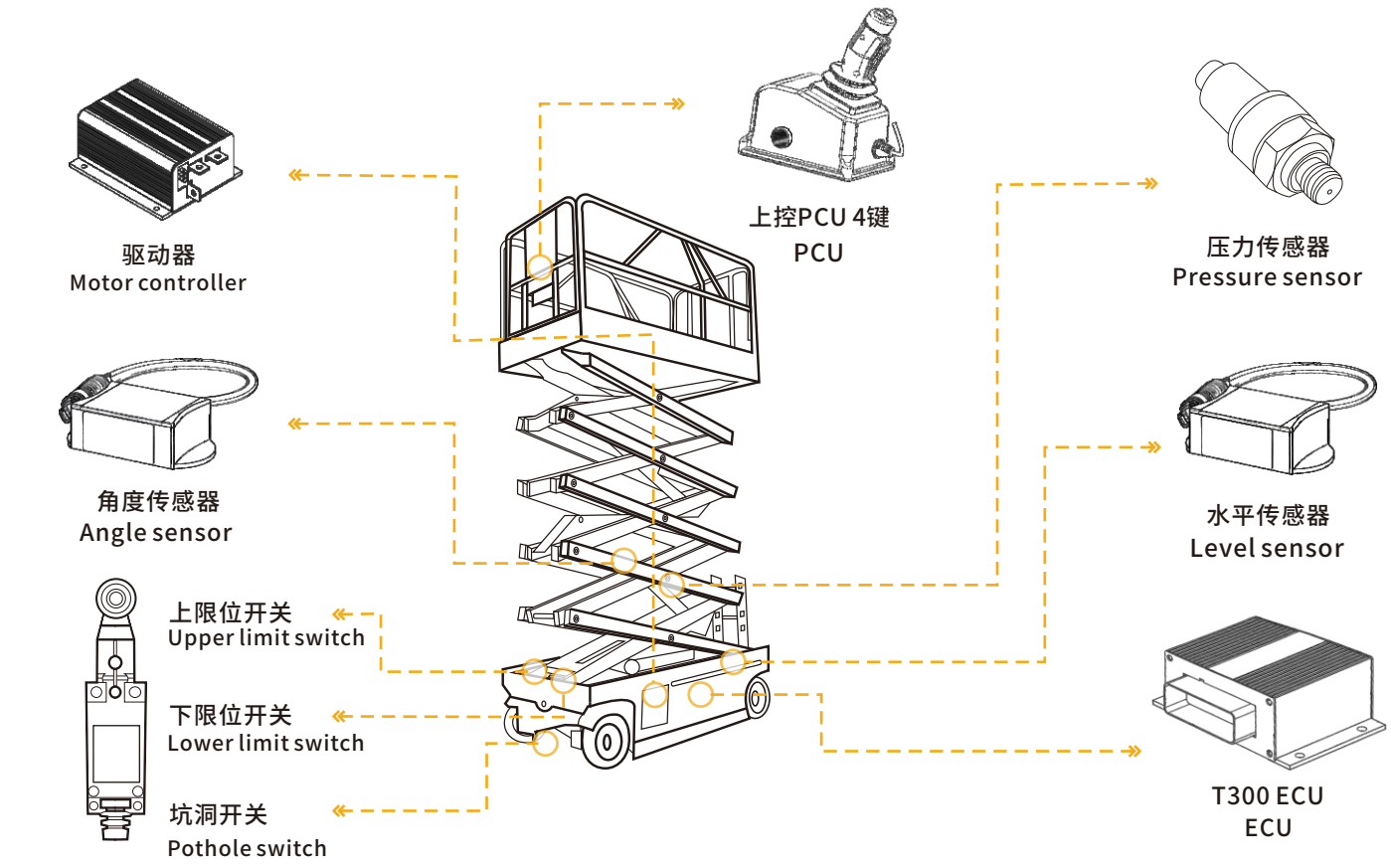


轮式剪叉车 SCISSOR LIFT SERIES

全球领先的自动化解决方案提供商

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TOP-Auto 拓欧科技

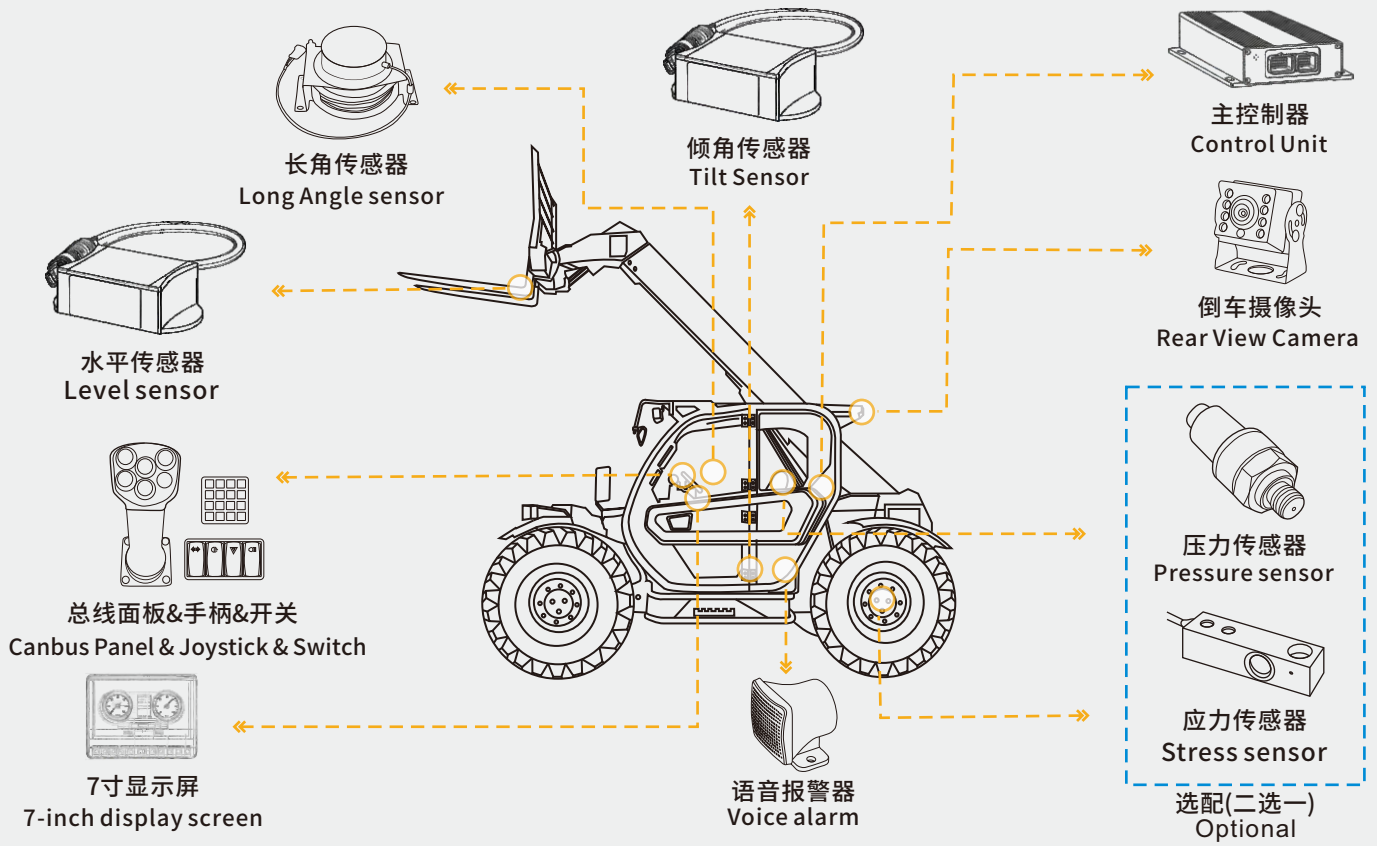


伸缩臂叉装车 TELEHANDLERS SERIES

全球领先的自动化解决方案提供商

成套系统解决方案 Control System Solution

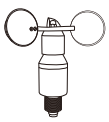
TOP-Auto 拓欧科技



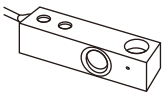
车载臂车 TRUCK-MOUNTED BOOM LIFT SERIES 全球领先的自动化解决方案提供商

成套系统解决方案 Control System Solution

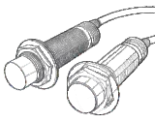
TOP-Auto 拓欧科技



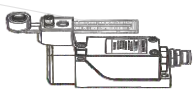
风速仪
Anemometer



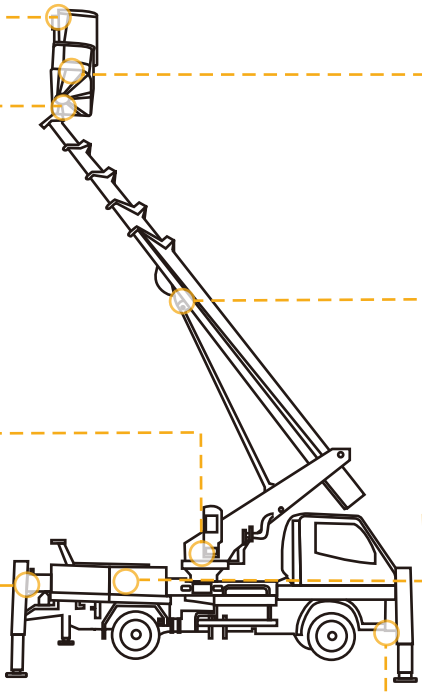
载荷传感器
Load sensor

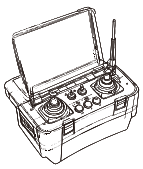


回转限位开关
Outrigger ground contact detector

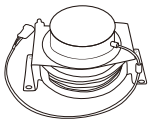


支腿接地检测
Load sensor

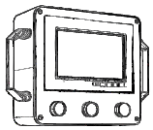




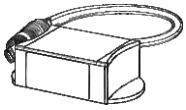
无线遥控器
Wireless Remote Control



长角传感器
Length Angle Sensor



车身控制柜
Body Control Module

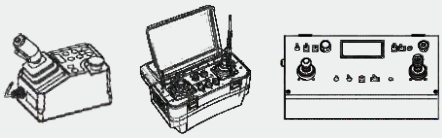


水平传感器
Level sensor

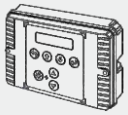
桅柱车 VERTICAL MAST LIFT 全球领先的自动化解决方案提供商

成套系统解决方案 Control System Solution

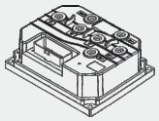
TOP-Auto 拓欧科技



上控PCU&无线遥控器&平台控制器（选配）
PCU/wireless remote control/ platform control box（Triple Choice）



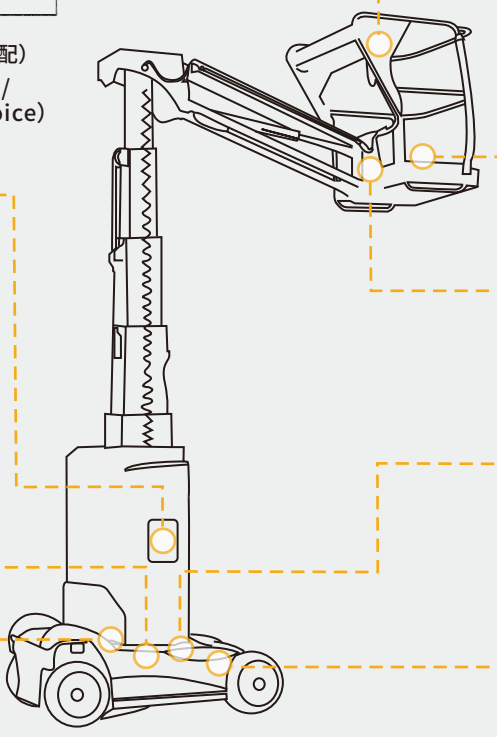
主控ECU
ECU

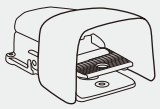


驱动器
Motor controller

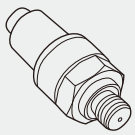


下限位开关
Lower limit switch

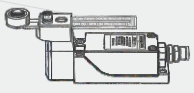




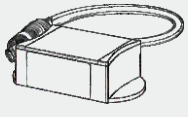
脚踏开关
Foot switch



称重传感器
Load sensor



回转限位开关x2
Rotary limit switchx2



水平传感器
Level sensor

创新卓越

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