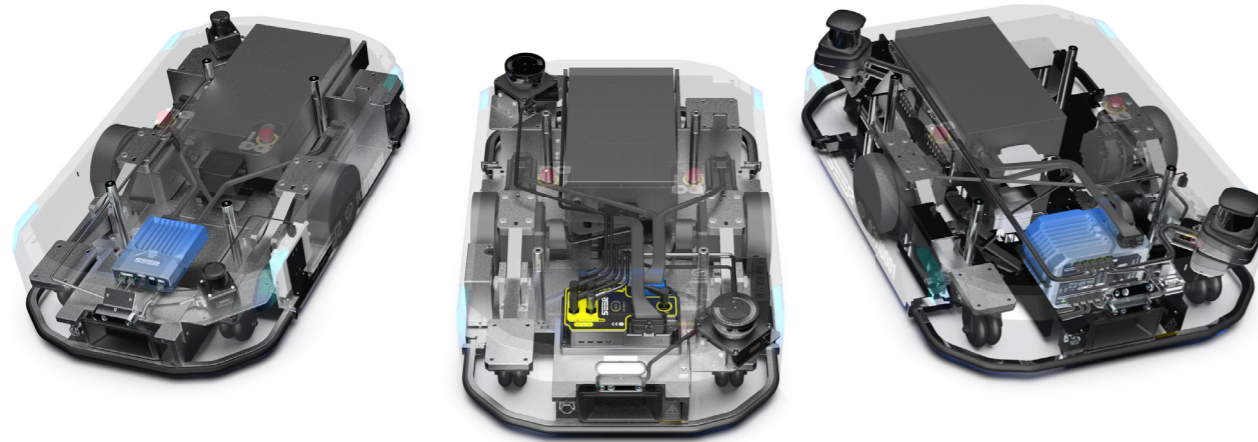


# SRC Series Core Controllers



## Entry-level Robot Controller SRC-880



- Redefine the concept of value for money, the ultimate choice for differential drive vehicles.
- Dual-band high-power Wi-Fi, upgraded to Wi-Fi 6.
- Experience the perfect 2+1 combination: dual laser and single obstacle avoidance camera.

## Controller for Pallet-handling Robot SRC-F10 / Controller for Dual-steering-wheel Robot SRC-R10



SRC-F10 SRC-R10

- 4 navigation options,  $\pm 5$  mm high precision.
- Codesys compatibility, flexible development.
- Advanced navigation algorithm, intelligent rerouting.
- CE & UL certification, worry-free global deployment.

## General-purpose Robot Controller SRC-2000-I(S)



- Overall basic functions and rich optional functions.
- Single steering wheel motion model is supported.
- Rich external interfaces and communication buses are provided.

## Specified Controller for Autonomous Forklift SRC-2000-F(S)



- It integrates all kinds of special functions of forklift, enabling rapidly building robot and fast delivery.
- It can meet the needs of carry forklifts, stacker forklifts, counterbalanced forklifts and three-way forklifts.
- $\pm 2$  mm high accuracy, accurate and stable.

## Functional Safety Robot Controller SRC-3000 Series











SRC-3000FS SRC-3000FS (Forklift)

- Functional safety design, integrated safety PLC.
- CE and UL certified, matches the needs of customers in Europe and America.
- Automatic route optimization, accurate and stable.
- High-performance 8-core ARM processor, optimal memory configuration.

## Wheeled Humanoid Chassis Controller



- Supports omnidirectional motion models to fully satisfy the mobility requirements of wheeled humanoid platforms.
- Feature-rich yet ultra-compact, it is perfectly suited for the extremely constrained spaces of wheeled humanoid chassis.
- Compatible with multiple buses like EtherCAT and CAN FD to ensure real-time motion control in complex multi-motor scenarios.
- Supports diverse navigation methods for precise positioning while featuring 360° blind-spot-free obstacle avoidance.

● Standard ○ Optional · None									
Product model		SRC-880-Q / SRC-880-T	SRC-F10	SRC-R10	SRC-2000-I(S)	SRC-2000-F(S) (Forklift)	SRC-3000FS	SRC-3000FS (Forklift)	SRC-4000
Basic parameters	Weight	0.75 kg	0.75 kg (1.65 lb)	0.75 kg (1.65 lb)	1.41 kg	1.73 kg	1.5 kg	1.8 kg	0.75 kg
	L x W x H	171 x 118.5 x 38 mm	171 x 118.5 x 38 mm (6.73 x 4.67 x 1.50 in)	171 x 118.5 x 38 mm (6.73 x 4.67 x 1.50 in)	225 x 128 x 84 mm	225.2 x 128 x 83.8 mm	218 x 140 x 64.8 mm	225 x 136 x 65.6 mm	171 x 118.5 x 38 mm
Functional safety	Safety integrity level	-	-	-	-	-	IEC 61508 SIL2 / IEC 62601 SIL2	IEC 61508 SIL2 / IEC 62601 SIL2	-
	Safety performance level	-	-	-	-	-	ISO 13849-1 Cat.3 PLd	ISO 13849-1 Cat.3 PLd	-
Digital input & output	Power DO	2-Way (24 V / 1 A)	2-Way (24 V / 1 A)	2-Way (24 V / 1 A)	8-Way (single-loaded 24 V / 2 A; 8-Way total load capacity ≤5 A)	8-Way (single-loaded 24 V / 2 A; 8-Way total load capacity ≤5 A)	4-Way (single-loaded 24 V / 1 A; 4-Way total load capacity ≤4 A)	4-Way (single-loaded 24 V / 1 A; 4-Way total load capacity ≤4 A)	8-Way
	DO	8-Way	8-Way	8-Way	2-Way (400 mA)	2-Way (400 mA)	12-Way (400 mA)	12-Way (400 mA)	10-Way
	DI	10-Way	10-Way	10-Way	11-Way (NPN)	11-Way (NPN)	24-Way (16-Way PNP+8-Way NPN / PNP optional, 7 available for detecting ossd)	24-Way (16-Way PNP+8-Way NPN / PNP optional)	2-Way
Bus interface	CAN	2-Way	2-Way	2-Way	2-Way	2-Way	2-Way	2-Way	4-Way
	RS485	4-Way	4-Way	4-Way	3-Way	3-Way	3-Way	3-Way	4-Way
	Battery communication interfaces	1-Way (RS485-0)	1-Way (RS485-0)	1-Way (RS485-0)	1-Way (RS485 / RS232 optional interface)	1-Way (RS485)	1-Way (CAN / RS485 optional interface)	1-Way (CAN / RS485 optional interface)	1-Way (RS485-0)
	Sin / Cos encoder interfaces	-	-	-	-	-	2-Way	2-Way	-
Internet interface	Ethernet	2-Way Gbps+1-Way 100 Mbps	2-Way Gbps+1-Way 100 Mbps	2-Way Gbps+1-Way 100 Mbps	6+1 Way Gbps (1 is for extended Wi-Fi client)	6+1 Way Gbps (1 is for extended Wi-Fi client)	5-Way Gbps (TSN)	5-Way Gbps (TSN)	2-Way Gbps+1-Way 100 Mbps
	Wi-Fi	Wi-Fi 6: Dual-band 2.4G / 5G 802.11ax 2T2R	Wi-Fi 6: Dual-band 2.4G / 5G 802.11ax 2T2R	Wi-Fi 6: Dual-band 2.4G / 5G 802.11ax 2T2R	Wi-Fi 6: Dual-band 2.4G / 5G 802.11ax 2T2R	Wi-Fi 6: Dual-band 2.4G / 5G 802.11ax 2T2R	Wi-Fi 5: Dual-band 2.4G / 5G 802.11ac 2T2R	Wi-Fi 5: Dual-band 2.4G / 5G 802.11ac 2T2R	Wi-Fi 6: Dual-band 2.4G / 5G 802.11ax 2T2R
Other interfaces	USB2.0	-	-	-	-	-	1-Way	1-Way	-
	USB3.0	2-Way	2-Way	2-Way	4-Way	4-Way	2-Way	2-Way	2-Way
	Audio input / output	1-Way output	1-Way output	1-Way output	1-Way / 1-Way	1-Way / 1-Way	1-Way / 1-Way	1-Way / 1-Way	1-Way output
Robot-specific functions	One-button power ON / OFF	1-Way	1-Way	1-Way	1-Way	1-Way	1-Way	1-Way	1-Way
	Battery switch	1-Way	1-Way	1-Way	2-Way	2-Way	1-Way	1-Way	1-Way
	Emergency stop input	1-Way	1-Way	1-Way	1-Way	1-Way	1-Way	1-Way	1-Way
	Emergency stop output	1-Way	1-Way	1-Way	2-Way	2-Way	2-Way	2-Way	1-Way
Performance parameters	Navigation accuracy *	±5 mm, ±1°	±5 mm, ±1° (±0.2 in, ±1°)	±5 mm, ±1° (±0.2 in, ±1°)	±5 mm, ±1°	±2 mm, ±1° (Reflector)	±5 mm, ±1°	±2 mm, ±1° (Reflector)	±5 mm, ±1° (±0.2 in, ±1°)
	Driving speed	≤2 m/s	≤2 m/s (≤6.56 ft/s)	≤2 m/s (≤6.56 ft/s)	≤2 m/s	≤2 m/s	≤2 m/s	≤2 m/s	≤2 m/s (≤6.56 ft/s)
	Map area (single frame)	-	≤400000 m <sup>2</sup> (≤4,305,560 sq.ft)	≤400000 m <sup>2</sup> (≤4,305,560 sq.ft)	≤400000 m <sup>2</sup>	≤400000 m <sup>2</sup>	≤400000 m <sup>2</sup>	≤400000 m <sup>2</sup>	≤400000 m <sup>2</sup> (≤4,305,560 sq.ft)
Function configurations	Basic functions	●	●	●	●	●	●	●	●
	Advanced motion model	-	-	● (only the dual-steering-wheel motion model)	○	-	○	-	● (4-Wheel Swerve and 4-Wheel Mecanum Motion Models)
	Advanced recognition function	○	○	○	○	○	○	○	-
	Advanced location function	-	-	-	○	○	○	○	○
	Codesys	-	●	●	-	-	-	-	-
Working environment parameters	Ambient temperature and humidity range	TEMP: -30 C to 55 C / RH: 10% to 90%, no compression, no condensation	TEMP: -30 C to 55 C / RH: 10% to 90%, no compression, no condensation (TEMP: -22°F to 131°F / RH: 10% to 90%, no compression, no condensation)	TEMP: -30 C to 55 C / RH: 10% to 90%, no compression, no condensation (TEMP: -22°F to 131°F / RH: 10% to 90%, no compression, no condensation)	TEMP: 0 C to 50 C / RH: 10% to 90%, no compression, no condensation	TEMP: 0 C to 50 C / RH: 10% to 90%, no compression, no condensation	TEMP: -30 C to 55 C / RH: 10% to 90%, no compression, no condensation	TEMP: -30 C to 55 C / RH: 10% to 90%, no compression, no condensation	TEMP: -30 C to 55 C / RH: 10% to 90%, no compression, no condensation (TEMP: -22°F to 131°F / RH: 10% to 90%, no compression, no condensation)
	Working voltage	24 V	24 V	24 V	24 V	24 V	24 V / 50 V	24 V / 50 V	24 V
	Power consumption	< 12 W (excluding DO output current)	<12 W (excluding DO output current)	<12 W (excluding DO output current)	48 W (excluding DO output current)	48 W (excluding DO output current)	18 W (excluding DO output current)	18 W (excluding DO output current)	<12 W (excluding DO output current)
	IP rating	IP20	IP20	IP20	IP42	IP42	IP52 (IP65 need to customize shell)	IP52 (IP65 need to customize shell)	IP20
Certifications	CE	Conform to CE-LVD (EN 61010-1:2010+A1, EN IEC 61010-2:2018), CE-EMC, CE-RED Standards	Conform to CE-LVD (EN 61010-1:2010+A1, EN IEC 61010-2:2018), CE-EMC, CE-RED Standards	Conform to CE-LVD (EN 61010-1:2010+A1, EN IEC 61010-2:2018), CE-EMC, CE-RED Standards	Conform to CE-LVD (EN 61010-1:2010), CE-EMC (EN IEC 61000-6-4:2019, EN IEC 61000-6-2:2019) Standards	Conform to CE-LVD (EN 61010-1:2010), CE-EMC (EN IEC 61000-6-4:2019, EN IEC 61000-6-2:2020) Standards	Conform to CE-LVD (EN 61010-1:2010+A1:2019), CE-EMC (EN 61326-1:2013), CE-RED Standards	Conform to CE-LVD (EN 61010-1:2010+A1:2019), CE-EMC (EN 61326-1:2013), CE-RED Standards	-
	ETL	UL 61010-1 UL 61010-2:201 CSA C22.2#61010-1-12 CSA C22.2#61010-2-201	UL 61010-1 UL 61010-2:201 CSA C22.2#61010-1-12 CSA C22.2#61010-2-201	UL 61010-1 UL 61010-2:201 CSA C22.2#61010-1-12 CSA C22.2#61010-2-201	-	-	UL 61010-1 UL 61010-2:201 CSA C22.2#61010-1-12 CSA C22.2#61010-2-201	UL 61010-1 UL 61010-2:201 CSA C22.2#61010-1-12 CSA C22.2#61010-2-201	-
	FCC	-	-	-	-	-	47CFR Part 15 (2020) ANSI C63.4 (2014)	47CFR Part 15 (2020) ANSI C63.4 (2014)	-

Note: Please refer to the official website of SEER Robotics for the latest parameter information.  
\*Navigation accuracy usually refers to the repeatability accuracy that a robot navigates to the station.