Picking Robots Parameter

●Standard ○Optional —None




	Product model	SPK-HAI-A42M-3	SPK-HAI-A42-3	SPK-HAI-A42-5	SPK-HAI-A42-7
Basic parameters	Navigation method	Laser SLAM	Laser SLAM	Laser SLAM	Laser SLAM
	Drive mode	Two-wheel differential	Two-wheel differential	Two-wheel differential	Two-wheel differential
	Pickimg method	Rotating fork hug + 2D vision correction + Guide bar	Rotating fork hug + 2D vision correction + Guide bar	Rotating fork hug + 2D vision correction + Guide bar	Rotating fork hug + 2D vision correction + Guide bar
	Shell color	Blue + White / Glossy	Blue + White / Glossy	Blue + White / Glossy	Blue + White / Glossy
	L*W*H (mm)	1300*800*2100	1600*1000*2220	1600*1000*3420	1600*1000*4220
	Rotation diameter (mm)	1300	1600	1600	1600
	Weight (with battery) (kg)	330	400	440	480
	Maximum load of material box (kg)	30	30	30	30
	Overall maximum load of robot (kg)	150	150	150	210
	Basket number	3	3	5	7
	Applicable material box size (mm)	450*380*300	600*400*300	600*400*300	600*400*300
	Minimum picking height (mm)	400	400	400	400
	Maximum picking height (mm)	1740	1860	3060	3860
Performance parameters	Minimum passable width (mm)	1000	1200	1200	1200
	Navigation location accuracy (mm) *	±10	±10	±10	±10
	Navigation angle accuracy (°) *	±1.0	±1.0	±1.0	±1.0
	Navigation speed (m/s)	⩽1.3	⩽1.3	⩽1.3	⩽1.3
	Maximum lifting speed (m/s)	0.5	0.5	0.5	0.5
	Fork rotation 90° time (s)	2	2	2	2
	Average picking / placing time of external shallow location (s)	7.5/7.5	7.5/7.5	7.5/7.5	7.5/7.5
	Internal average picking / placing time	4.0/4.0	4.0/4.0	4.0/4.0	4.0/4.0
Battery parameters	Battery specifications (V/Ah)	48/35 (Lithium Iron Phosphate)	48/35 (Lithium Iron Phosphate)	48/35 (Lithium Iron Phosphate)	48/35 (Lithium Iron Phosphate)
	Comprehensive battery life (h)	8	6	6	6
	Charging time (10-80%) (h)	⩽1.5	⩽1.5	⩽1.5	⩽1.5
	Charging method	Automatic	Automatic	Automatic	Automatic
Configurations	Lidar number	2 (SICK nanoScan3 + OLEI LR-1BS2)	2 (SICK nanoScan3 + OLEI LR-1BS2)	2 (SICK nanoScan3 + OLEI LR-1BS2)	2 (SICK nanoScan3 + OLEI LR-1BS2)
	E-stop button	●	●	●	●
	Speaker	●	●	●	●
	Ambient light	●	●	●	●
	Bumper strip	●	●	●	●
	Lifting limit protection	●	●	●	●
	Lifting anti-falling	●	●	●	●
	Motor shaft lock protection	●	●	●	●
	Adjustable tray	○	○	○	○
Functions	Wi-Fi roaming	●	●	●	●
	Automatic charging	●	●	●	●
	2D recognition for picking / placing material box	●	●	●	●
	Bar code recognition of material box	●	●	●	●
	QR code navigation	○	○	○	○
Certifications	EMC/ESD	●	●	●	●
	UN38.3	●	●	●	●

* Navigation accuracy usually refers to the repeatability accuracy that a robot navigates to the station.