

PLiBOT™

Pliability Robotics Platform

OPPEENT

ADVANCED MOTION TECHNOLOGY

MOBILE ROBOTS

複雑な運行状況下でも優れた走行性能と高い安全性を実現。
病院の食事やリネン搬送で実績を積んだEVO cartシリーズは物流業や製造業にも展開。
300～2,500kgの幅広い製品群が搬送ソリューションの選択肢を広げます。



EVOcart™ 1



EVOcart™ 2



EVOcart™ 3



EVOcart™ 3+



EVOcart™ 4



EVOcart™ 5



EVOcart™ 6



EVOcart™ 7



EVOcart™ 8



EVOcart™ 9

EVO cart Family Datasheet

	EVOcart™ 1	EVOcart™ 2	EVOcart™ 3	EVOcart™ 3+	EVOcart™ 4
DIMENSIONS (LxWxH)	1657x602x354 mm	1588x662x343 mm	1058x625x355 mm	1350x625x365 mm	2000x1200x380 mm
PAYLOAD	<ul style="list-style-type: none"> Nominal: 500 kg Max.: 700 kg 	<ul style="list-style-type: none"> Nominal: 500 kg Max: 700 kg 	<ul style="list-style-type: none"> Nominal: 380 kg Max: 450 kg 	<ul style="list-style-type: none"> Nominal: 380 kg Max: 450 kg 	<ul style="list-style-type: none"> Nominal: 2000 kg Max: 2500 kg
SPEED RANGE	0,1 m/s – 1,4 m/s	0,1 m/s – 1,4 m/s	0,1 m/s – 1 m/s	0,1 m/s – 1 m/s	0,1 m/s – 1,4 m/s
KINEMATICS AND DRIVE	Diamond Bidirectional	Diamond Bidirectional	Diamond Bidirectional	Diamond Bidirectional	Double Trike Omnidirectional
BATTERY	<ul style="list-style-type: none"> LiFePO4 24V 120Ah LeadGel 24V 140Ah PureLead 24V 120Ah 	<ul style="list-style-type: none"> LiFePO4 24V 120Ah LeadGel 24V 140Ah PureLead 24V 120Ah 	<ul style="list-style-type: none"> LiFePO4 24V 60Ah PureLead 24V 60Ah 	<ul style="list-style-type: none"> LiFePO4 24V 60Ah PureLead 24V 60Ah 	<ul style="list-style-type: none"> LiNMC 24V 370 Ah
AUTONOMY	<ul style="list-style-type: none"> 10 hours 5 hours 7 hours 	<ul style="list-style-type: none"> 10 hours 5 hours 7 hours 	<ul style="list-style-type: none"> 6 hours 4 hours 	<ul style="list-style-type: none"> 6 hours 4 hours 	<ul style="list-style-type: none"> 12 hours
LIFT PLATFORM	Stroke 100mm	Stroke 100mm	Stroke 60mm	Stroke 100mm	Stroke TBD

Common features

MINIMUM BENDING RADIUS

The vehicle turns on its vertical axis

ACCURACY

X, Y: ± 10 mm - Yaw: ± 1°

SAFETY DEVICES

- Sick S300 laser scanner (x2)
- Sensitive board
- E-stop button (x2)
- Safety control central unit

NAVIGATION

Natural Navigation

EVO cart Family Datasheet

	EVOcart™ 5	EVOcart™ 6	EVOcart™ 7	EVOcart™ 8	EVOcart™ 9
DIMENSIONS (LxWxH)	1600x560x230 mm	800x600x500 mm	1300x900x380 mm	1350x590x335 mm	1500x800x400 mm
PAYLOAD	<ul style="list-style-type: none"> Nominal: 400 kg Max: 500 kg 	<ul style="list-style-type: none"> Nominal: 300 kg Max: 350 kg 	<ul style="list-style-type: none"> Nominal: 500 kg Max: 700 kg 	<ul style="list-style-type: none"> Nominal: 500 kg Max: 700 kg 	<ul style="list-style-type: none"> Nominal: 1500 kg Max: 1800 kg
SPEED RANGE	0,1 m/s – 1 m/s	0,1 m/s – 1,5 m/s	0,1 m/s – 1,4 m/s	0,1 m/s – 1,0 m/s	0,1 m/s – 1,2 m/s
KINEMATICS AND DRIVE	Diamond Bidirectional	Differential Bidirectional	Differential bidirectional	Differential Bidirectional	Omnidirectional
BATTERY	<ul style="list-style-type: none"> LiFePO4 24V 50Ah PureLead 24V 60Ah 	<ul style="list-style-type: none"> LiFePO4 24V 50 Ah 	<ul style="list-style-type: none"> LiFePO4 24V 120 Ah 	<ul style="list-style-type: none"> Li-ion 24V 100 Ah 	<ul style="list-style-type: none"> LiFePO4 24V 100 Ah
AUTONOMY	<ul style="list-style-type: none"> 5 hours 3,5 hours 	<ul style="list-style-type: none"> 6 hours 	<ul style="list-style-type: none"> 10 hours 	<ul style="list-style-type: none"> 7 hours 	<ul style="list-style-type: none"> 6 hours
LIFT PLATFORM	Stroke 60mm	Stroke TBD	Stroke 100mm	Stroke 100mm	Stroke TBD

Common features

MINIMUM BENDING RADIUS	The vehicle turns on its vertical axis
ACCURACY	X, Y: ± 10 mm - Yaw: ± 1°
SAFETY DEVICES	<ul style="list-style-type: none"> Sick S300 laser scanner (x2) Sensitive board E-stop button (x2) Safety control central unit
NAVIGATION	Natural Navigation

EVO cabinetは、ヘルスケアにおけるサンプル、試験管、薬物、材料の取り扱いのための新しいソリューションです。

DIMENSIONS (LxWxH)	1058 x 625 x 1545 mm
PAYLOAD	<ul style="list-style-type: none"> Nominal: 300 kg Maximum: 350 kg
SPEED RANGE	0,1 m/s – 1 m/s
ACCURACY	<ul style="list-style-type: none"> X, Y: ± 10 mm Yaw: $\pm 1^\circ$
KINEMATICS AND DRIVE	Diamond, bidirectional
MINIMUM BENDING RADIUS	The vehicle turns on its vertical axis
BATTERY	<ul style="list-style-type: none"> LiFePO4 24V 60 Ah PureLead 24V 60 Ah
AUTONOMY	<ul style="list-style-type: none"> 6 hours 4 hours
SAFETY DEVICES	<ul style="list-style-type: none"> 2 Sick S300 laser scanner 2 Sick TIM361S laser scanner 2 E-stop button Safety control central unit Sick Flexi
NAVIGATION	Natural
EQUIPMENT	2-door cabinet double access



引き出しと棚に分割されたモジュラー構造のおかげで、EVO cabinetは輸送中特に注意が必要な小さなコンポーネント、ツール等を収納することができます。

DIMENSIONS (LxWxH)	1058 x 625 x 1545 mm
PAYLOAD	<ul style="list-style-type: none"> • Nominal: 300 kg • Maximum: 350 kg
SPEED RANGE	0,1 m/s – 1 m/s
ACCURACY	<ul style="list-style-type: none"> • X, Y: ± 10 mm • Yaw: ± 1°
KINEMATICS AND DRIVE	Diamond bidirectional
MINIMUM BENDING RADIUS	The vehicle turns on its vertical axis
BATTERY	<ul style="list-style-type: none"> • LiFePO4 24V 60 Ah • PureLead 24V 60 Ah
AUTONOMY	<ul style="list-style-type: none"> • 6 hours • 4 hours
SAFETY DEVICES	<ul style="list-style-type: none"> • 2 Sick S300 laser scanner • 2 Sick TIM361S laser scanner • 2 E-stop button • Safety control central unit Sick Flexi
NAVIGATION	Natural
EQUIPMENT	2-door cabinet double access



優れた位置決め精度と高い安全性

EVO rollerはコンベアシステムと連携して、製品受け渡しの自動化を実現します。



EVOroller™ 1



EVOroller™ 2



EVOroller™ 3



EVOroller™ 4



EVOroller™ 5



EVOroller™ 6



EVOroller™ 7

EVO roller Family Datasheet

	EVOroller™ 1	EVOroller™ 2	EVOroller™ 3	EVOroller™ 4	EVOroller™ 5	EVOroller™ 6	EVOroller™ 7
DIMENSIONS (LxWxH)	1400x662x850 mm	1400x662x800 mm	1150x625x1340 mm	1300x900x380 mm	2000x1200 mm	800x600x380 mm	2980x2014x647 mm
PAYLOAD	<ul style="list-style-type: none"> Nominal: 150 kg Maximum: 180 kg 	<ul style="list-style-type: none"> Nominal: 2 x 150 kg Maximum: 2 x 180 kg 	<ul style="list-style-type: none"> Nominal: 4 x 60 kg Maximum: 4 x 80 kg 	<ul style="list-style-type: none"> Nominal: 500 kg Maximum: 700 kg 	<ul style="list-style-type: none"> Nominal: 2000 kg Max: 2500 kg 	<ul style="list-style-type: none"> Nominal: 300 kg Max: 350 kg 	<ul style="list-style-type: none"> Nominal: 700 kg Max: 1000 kg
SPEED RANGE	0,1 m/s – 1 m/s	0,1 m/s – 1 m/s	0,1 m/s – 1 m/s	0,1 m/s – 1,2 m/s	0,1 m/s – 1,4 m/s	0,1 m/s – 1,5 m/s	0,1 m/s – 1 m/s
KINEMATICS AND DRIVE	Double Trike Omnidirectional	Double Trike Omnidirectional	Diamond Bidirectional	Differential Bidirectional	Double Trike Omnidirectional	Differential Bidirectional	Double Trike Omnidirectional
BATTERY	LiFePO4 24V 120Ah LeadGel 24V 140Ah PureLead 24V 120Ah	LiFePO4 24V 120Ah LeadGel 24V 280Ah PureLead 24V 240Ah	LiFePO4 24V 60Ah PureLead 24V 60Ah	LiFePO4 24V 120 Ah	LiNMC 24V 370 Ah	LiFePO4 24V 50 Ah	LiNMC 24V 370 Ah
AUTONOMY	9 hours 4 hours 6 hours	8 hours 8 hours 10 hours	6 hours 4 hours	8 hours	12 hours	6 hours	14 hours
EQUIPMENT	Powered Roller	Double Powered Roller	4x Powered Rollers on two levels	Powered Roller	8x Powered Rollers on two levels	Powered Roller	Powered Roller

Common features

MINIMUM BENDING RADIUS

The vehicle turns on its vertical axis

ACCURACY

X, Y: ± 10 mm - Yaw: $\pm 1^\circ$

SAFETY DEVICES

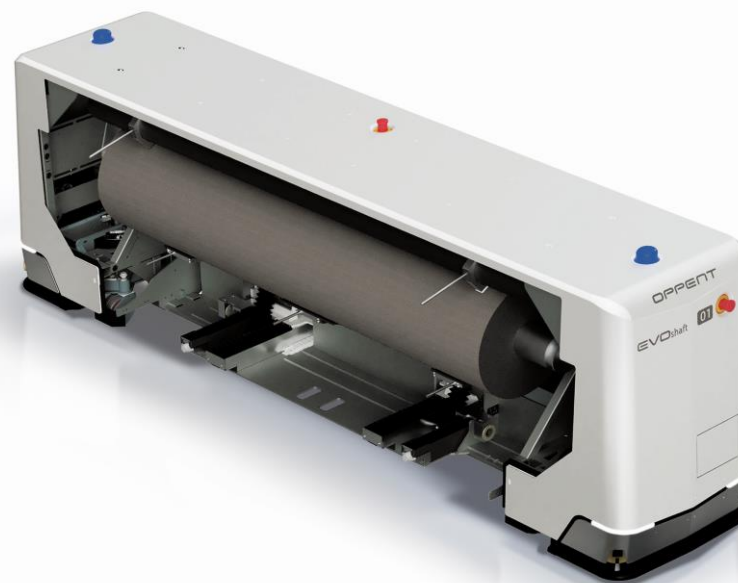
- 2 Sick S300 laser scanner (PLd)
- E-stop button (x2)
- Safety control central unit Sick Flexi (Ple)

NAVIGATION

Natural Navigation

布ロールのような重くてかさばるアイテムを小スペースで扱うために特別開発されたのがEVO textileです。
繊維産業特有のニーズを満たし、生産性の向上とサイクルタイムの短縮を実現します。

DIMENSIONS (LxWxH)	3465 x 662 x 1045 mm
PAYLOAD	<ul style="list-style-type: none"> • Nominal: 100 kg • Maximum: 150 kg
SPEED RANGE	0,1 m/s – 1 m/s
ACCURACY	<ul style="list-style-type: none"> • X, Y: ± 10 mm • Yaw: $\pm 1^\circ$
KINEMATICS AND DRIVE	Double Trike, Omnidirectional
MINIMUM BENDING RADIUS	The vehicle turns on its vertical axis
BATTERY	Pure lead 24V – 240Ah
AUTONOMY	10 hours
SAFETY DEVICES	<ul style="list-style-type: none"> • Sick S300 laser scanner (x2) • Sensitive board • E-stop button (x3) • Safety control central unit Sick Flexi
NAVIGATION	Natural
EQUIPMENT	Customised Bucket Mechanism



ユニバーサルロボットとのコラボレーションで、ピック&プレースのニーズに対応します。EVO cobotは要求された動きを非常に小さな誤差範囲で繰り返し、精度を損なうことなく最大10kgのタスクを自動化します。

DIMENSIONS (LxWxH)	1400 x 662 x 730 mm (robot basement)
PAYLOAD	<ul style="list-style-type: none"> Nominal: 300 kg Maximum: 360 kg
SPEED RANGE	0,1 m/s – 1 m/s
ACCURACY	<ul style="list-style-type: none"> X, Y: ± 10 mm Yaw: $\pm 1^\circ$
KINEMATICS AND DRIVE	Double trike, Omnidirectional
MINIMUM BENDING RADIUS	The vehicle turns on its vertical axis
BATTERY	<ul style="list-style-type: none"> LiFePO4 24V – 120Ah Lead Gel 24V – 280Ah Pure Lead 24V – 240Ah
AUTONOMY	<ul style="list-style-type: none"> 8 hours 8 hours 10 hours
SAFETY DEVICES	<ul style="list-style-type: none"> Sick S300 laser scanner (x2) Sensitive board (front/rear) E-stop button (x2) Safety control central unit Sick Flexi
NAVIGATION	Natural
COBOT	UR e-series



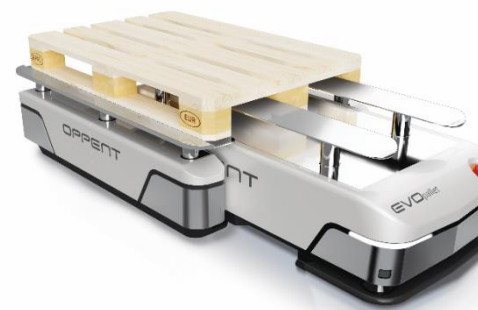
組み立て、テスト、パッケージング、マテリアルハンドリングの為のソリューションです。
 ABB製デュアルアームYuMiの高精度で素早い作業が人で行っていた作業を自動化します。

DIMENSIONS (LxWxH)	1058 x 625 x 800mm (robot basement)
PAYLOAD	<ul style="list-style-type: none"> Nominal: 300kg Maximum: 350 kg
SPEED RANGE	0,1 m/s – 1 m/s
ACCURACY	<ul style="list-style-type: none"> X, Y: ± 10 mm Yaw: $\pm 1^\circ$
KINEMATICS AND DRIVE	Diamond Bidirectional
MINIMUM BENDING RADIUS	The vehicle turns on its vertical axis
BATTERY	<ul style="list-style-type: none"> LiFePO4 24V – 120Ah Pure Lead 24V 120Ah
AUTONOMY	<ul style="list-style-type: none"> 8 hours 5 hours
SAFETY DEVICES	<ul style="list-style-type: none"> Sick S300 laser scanner (x2) Sensitive board E-stop button (x2) Safety control central unit Sick Flexi
NAVIGATION	Natural
COBOT	ABB – YuMi (H = 550 mm)



EVO palletは、特別に設計されたパレットステーションと連携し迅速かつ正確な搬送を可能にします。

DIMENSIONS (LxWxH)	1588 x 662 x 490 (forks top) mm
PAYLOAD	<ul style="list-style-type: none"> Nominal: 500 kg Maximum: 700 kg
SPEED RANGE	0,1 m/s – 1,4 m/s
ACCURACY	<ul style="list-style-type: none"> X, Y: ± 10 mm Yaw: $\pm 1^\circ$
KINEMATICS AND DRIVE	Diamond Bidirectional
MINIMUM BENDING RADIUS	The vehicle turns on its vertical axis
BATTERY	<ul style="list-style-type: none"> Lead Gel 24V – 140Ah Pure Lead 24V – 120Ah LiFePO4 24V – 120Ah
AUTONOMY	<ul style="list-style-type: none"> 5 hours 7 hours 10 hours
SAFETY DEVICES	<ul style="list-style-type: none"> Sick S300 laser scanner (x2) Sensitive board E-stop button (x2) Safety control central unit Sick Flexi
NAVIGATION	Natural
EQUIPMENT	Lift platform c/w pallet forks



頑丈な筐体、優れた位置決め性能、汎用性を備えたEVO baseはあらゆるニーズを満たす為の開発用ベース車体です。



EVObase™ 1



EVObase™ 2



EVObase™ 3



EVObase™ 4



EVObase™ 5



EVObase™ 6

EVObase Family Datasheet

	EVObase™ 1	EVObase™ 2	EVObase™ 3	EVObase™ 4	EVObase™ 5	EVObase™ 6
DIMENSIONS (LxWxH)	1400x662x500 mm	1300x900x380 mm	2000x1200x380 mm	800x600x380 mm	1500x800x400 mm	1620x1100x354 mm
PAYLOAD	<ul style="list-style-type: none"> Nominal: 300 kg Maximum: 360 kg 	<ul style="list-style-type: none"> Nominal: 1500 kg Max: 1800 kg 	<ul style="list-style-type: none"> Nominal: 2000 kg Max: 2500 kg 	<ul style="list-style-type: none"> Nominal: 300 kg Max: 350 kg 	<ul style="list-style-type: none"> Nominal: 1500 kg Max: 1800 kg 	<ul style="list-style-type: none"> Nominal: 1200 kg Max: 1500 kg
SPEED RANGE	0,1 m/s – 1 m/s	0,1 m/s – 1,2 m/s	0,1 m/s – 1,4 m/s	0,1 m/s – 1,5 m/s	0,1 m/s – 1,2 m/s	0,1 m/s – 1,2 m/s
KINEMATICS AND DRIVE	Double trike Omnidirectional	Differential Bidirectional	Double Trike Omnidirectional	Differential Bidirectional	Omnidirectional	Four trike, omnidirectional
BATTERY	LiFePO4 24V 120 Ah	LiFePO4 24V 120 Ah	LiNMC 24V 370 Ah	LiFePO4 24V 50 Ah	LiFePO4 24V 100 Ah	LiFePO4 24V 50 Ah
AUTONOMY	9 hours	6 hours	12 hours	6 hours	6 hours	5 hours

Common features

MINIMUM BENDING RADIUS

The vehicle turns on its vertical axis

ACCURACY

X, Y: ± 10 mm - Yaw: $\pm 1^\circ$

SAFETY DEVICES

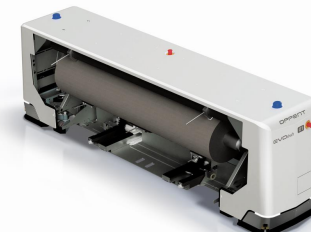
- 2 Sick S300 laser scanner (PLd)
- E-stop button (x2)
- Safety control central unit Sick Flexi (PIe)

NAVIGATION

Natural Navigation

広がる無限の可能性 Oppent EVO シリーズ

Oppent だから提供できる幅広い搬送ソリューション





Pliability Robotics Platform

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お問い合わせ・カタログのダウンロードは
QRコードから当社HPへアクセス下さい

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MOBILE ROBOTS

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