

ROBOTOUS

Advanced Technology for Human,
Robot automation System

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PRODUCT CATALOG

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PRODUCT. 01

F/T Sensor

RFT series is a capacitive type 6-axes force/torque sensor with the lower price/performance ratio for the use with collaborate robots and industrial robots. The sensor has an innovative structure design and a robust calibration algorithm to achieve both of cost competitiveness and reliable performance. It provides users with various interface options for communication with their robots or devices. It was primarily designed to resist against an external impact or an excessive load. It is also temperature compensated for the use in various environments.



RFT80-6A02

Medium-sized model with high resolution

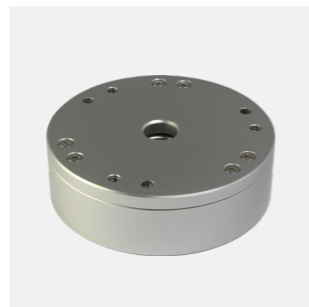
Rated Capacity
400N(force) | 20Nm(torque)
Resolution
0.08N(force) | 0.004Nm(torque)
Overload Capacity
300%FS
Temperature Compensation
Embedded EtherCAT board
Dimension & Weight
80(D)x30(H)mm | 294g



RFT64-6A01

Small-sized model with high resolution

Rated Capacity
200N(force) | 10Nm(torque)
Resolution
0.08N(force) | 0.004Nm(torque)
Overload Capacity
300%FS
Temperature Compensation
Embedded EtherCAT board
Dimension & Weight
64(D)x30(H)mm | 175g



RFT60-HA01

Small-sized model with high resolution

Rated Capacity
200N(force) | 4.5Nm(torque)
Resolution
0.15N(force) | 0.005Nm(torque)
Overload Capacity
150%FS
Dimension & Weight
60(D)x18.5(H)mm | 70g



RFT40-SA01

Mini-sized model with high resolution

Rated Capacity
100N(force) | 2.5Nm(torque)
Resolution
0.2N(force) | 0.008Nm(torque)
Overload Capacity
150%FS
Dimension & Weight
40(D)x18.5(H)mm | 60g



RFT80-6A01

Medium-sized model with high resolution

Rated Capacity
400N(force) | 20Nm(torque)
Resolution
0.1N(force) | 0.005Nm(torque)
Overload Capacity
200%FS
Dimension & Weight
80(D)x22(H)mm | 226g



RFT64-SB01

Small-sized model with a dust seal

Rated Capacity
200N(force) | 4.5Nm(torque)
Resolution
0.15N(force) | 0.005Nm(torque)
Overload Capacity
150%FS
Dimension & Weight
64(D)x20(H)mm | 140g



RFT44-SB01

Mini-sized model with a dust seal

Rated Capacity
100N(force) | 2.5Nm(torque)
Resolution
0.2N(force) | 0.008Nm(torque)
Overload Capacity
150%FS
Dust Resistant Seal
Dimension & Weight
44(D)x20(H)mm | 120g

RFT SERIES

Specification Table

Item	Unit	RFT40-SA01	RFT44-SB01	RFT60-HA01	RFT64-SB01	RFT64-6A01	RFT80-6A01	RFT80-6A02	RFTEC-02	
Dimension	Diameter	mm	40	44	60	64	64	80	80	120 x 75
	Height	mm	18.5	20	18.5	20	30	22	30	20
Data Rate	(maximum)	Hz	200	200	1,000	1,000	1,000	1,000	1,000	1,000
Load Capacity	Fx, Fy	N	100	100	150	150	200	400	400	"Robot cable (3 meters) RFTC-6AE-R3"
	Fz	N	150	150	200	200	200	400	400	
	Tx, Ty, Tz	Nm	2.5	2.5	4	4	10	20	20	
Resolution	Fx, Fy	mN	200	200	100	150	80	100	80	-
	Fz	mN	200	200	150	200	80	100	80	-
	Tx, Ty, Tz	mNm	8	8	5	5	4	5	4	-
Overload Capacity	Fx, Fy	%	150	150	150	150	300	150	300	-
	Fz+ (Fz-)	%	150 (300)	150 (300)	150 (300)	150 (300)	300 (300)	200 (400)	300 (300)	-
	Tx, Ty, Tz	%	150	150	150	150	300	200	300	-
Hysteresis	Fx, Fy	%FS	2	2.5	2.5	3	1	2.5	1	-
	Fz	%FS	0.5	1	1	2	1.5	1	1.5	-
	Tx, Ty, Tz	%FS	1	3	1	2	2	1	2	-
Cross Talk	Fx, Fy	%FS	3	3	3	3	3	3	3	-
	Fz	%FS	3	3	3	3	3	3	3	-
	Tx, Ty, Tz	%FS	3	3	3	3	3	3	3	-
Weight(w/o cable)	g	60	70	120	140	175	226	294	66	
Power Requirement	W, VDC	0.5W @5VDC (1.5W@5VDC for EtherCAT models)								2.5W @24VDC
Output Interface	optional	CAN RS232 RS422 USB EtherCAT								EtherCAT
Product Image										
Feature	Hollow Core ○ / Dust Seal ●	-	●	○	●	-	○	-	-	-
	Temperature Compensation	-	-	-	-	●	-	●	-	-
	Embedded EtherCAT Option	-	-	-	-	●	-	●	-	-

PRODUCT. 02

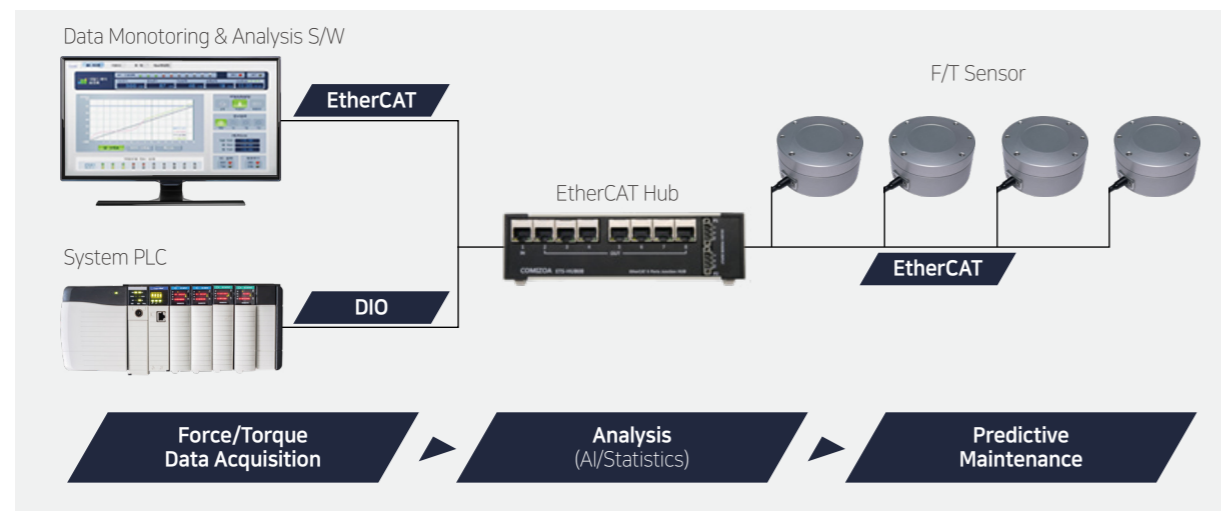
Data solution for F/T Sensor

The force/torque data acquisition & analysis solution, RFTDAQ-001, collects data from RFT series. It can also evaluate on-site process data with adjustable evaluation standards. We provides a customized solution that satisfies customers' requirement and fits into their applications.

RFTDAQ-001

Force/torque data monitoring & analysis solution

- Simultaneous data collection of multiple sensors(RFT series)
- Customizable solution in configuration, interface, UI, and so on
- Analysis based on statistics or AI techniques
- Uses for evaluation only or on-site application



PRODUCT. 03

Manual Controller for Defense industry

We have been developing haptic devices for more than 15 years while carrying out government supported projects. Haptic technology enables the user to interface with a virtual environment via the sense of touch by applying forces, vibrations, or motions to the user. We successfully finished developing a manual controller for unmanned reconnaissance vehicle with one of major defense companies in Korea. After a mass production process to meet military specs of durability, reliability, and real-time capacity, it will appear in the field with the unmanned defense system that is scheduled to be deployed in 2027.

Technology

Haptic Control Algorithm / Haptic Mechanical Design / Real-time Capacity(HW & SW) | EMI Shielding

Applications

Unmanned Vehicle Remote Control / Remote System Control / Robot Teleoperation



MANUAL CONTROLLER



MILITARY COMMAND VEHICLE
equipped with manual controllers



ROBOTIC COMBAT VEHICLES
RCVs

PRODUCT. 04

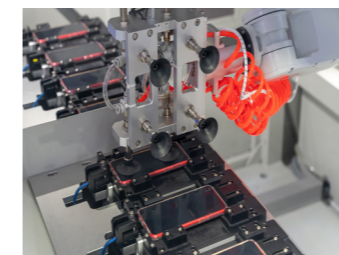
Robot automation systems

Packaging system for the smartphone production line

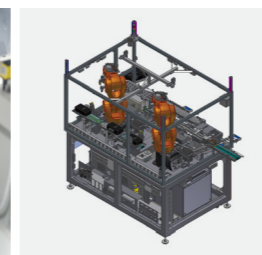
We have ever developed a robotic automation equipment for unit-box packaging of a smartphone production line. It is composed of two industrial robots and various assistant units to implement high-throughput quality control process, installed in the manufacturing line of a major smartphone maker in Korea.

Technology

Mechanism Design / Sequence control | Robot path planning / Tuning for optimized performance



Packaging system for smartphone



Filling system for the innovative inner-cell bottle

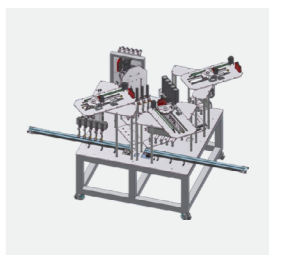
We have developed liquid filling systems for a new environment-friendly solution of the inner-cell bottle that is proposed by a Korean startup. We have been providing from semi automatic equipment to fully automated system that were customized for the company's requirements.

Applications

High-throughput box packaging / Automatic liquid filling / Multiple robots system



Liquid filling system for inner-cell bottle



Mobile robot for 3D space scanning

The mobile robot has the capability to roam around independently and collect indoor spatial data by using two LIDAR sensors, and a 360-degree camera. We have been providing the robot systems to a Korean startup who has the world's best indoor mapping solution of precisely fusing images onto 3D spatial data.

Technology

Mechanism Design / Robot motion planning and control / Handling of limp materials



Mobile robot (TeeScanner-F)

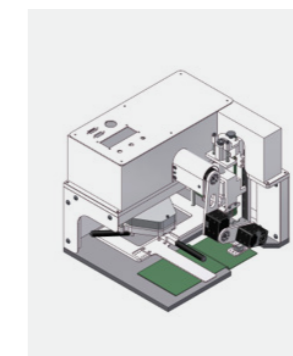


Marking system for apparel industry

The marking system is a numbering machine that marks a serial number on fabric patterns to use the same fabric in sewing process. The core technology is to handle limp fabric patterns at a high speed. We have ever provided a prototype to a major clothing manufacturer.

Applications

Mobile hardware platform / High speed marking / Automation for apparel industry



Automatic marking system



PRODUCT. 05

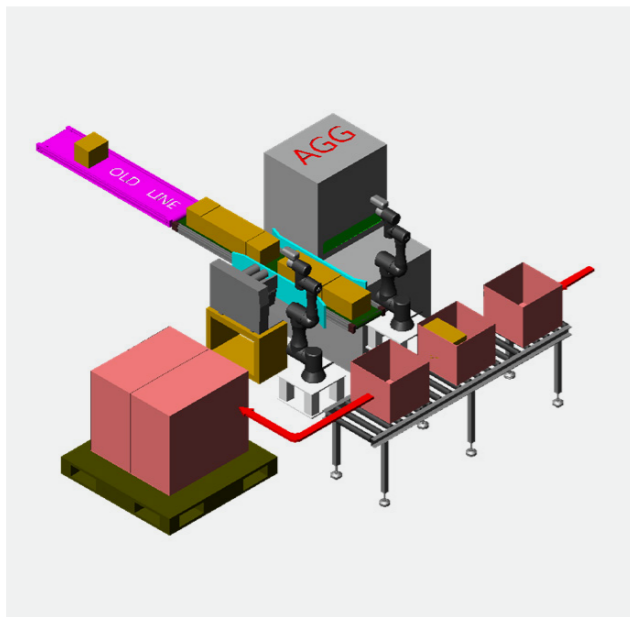
Smart factory (automatic packaging system)

Aggregation & packaging system for pharmaceutical industry

The automation system uses two cobots to automate the aggregation and packaging processes that have manually operated by several laborers in small and medium sized pharmaceutical companies. It is composed of a vision recognition unit for aggregation and a palletizing unit for box packaging.

Technology

Mechanism Design / Sequence control | Easy-to-use UI / Tuning for optimized performance



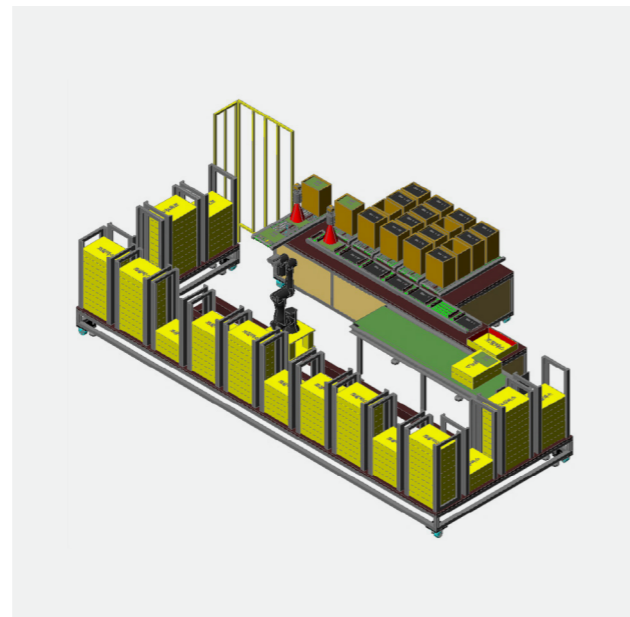
Packaging system for pharmaceutical industry

Packaging system for COVID-19 mask production line

The automation system is capable of loading and packaging multi-variety product using order information. It consists of a box loading unit and a individual product loading unit, and manual packaging unit.

Applications

Aggregation & packaging for pharmaceutical industry / Loading & packaging of multi-variety product



Packaging system for mask production line

About ROBOTOUS

Robotous opens new paradigm for automaton control

Business field

Robot business

1. Capacitance 6-axis force/torque sensor
2. Ministry of National Defense's unmanned search vehicle remote control system
3. Mobile robot platform (autonomous driving)
4. Robot Automation System
5. Smart Factory (Pharmaceutical, Mask Factory ...)
6. Other Application Product Development (ODM, OEM) & Services

Microbubble business

1. Applications other than microbubble generators
2. Microbubble shower, Clean filter, etc.

Information

Company name
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CEO
Hong-Yeon Moon

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Establishment
Nov-01, 2004

Subsidiary company
Pfelle Co., Ltd.

CTO

