OMRON TM
Collaborative Robot
TM S Series

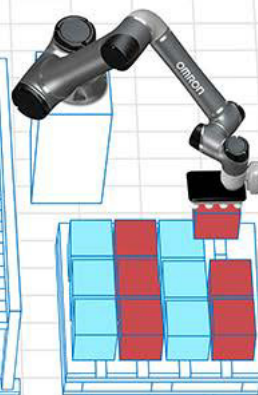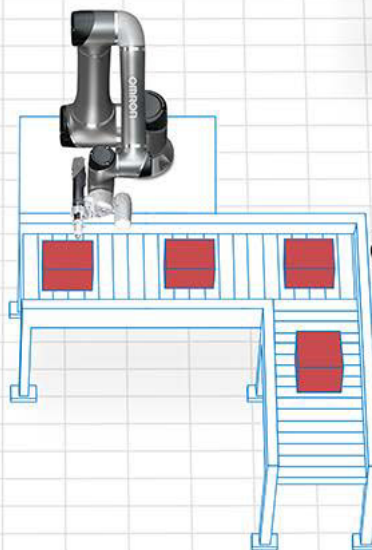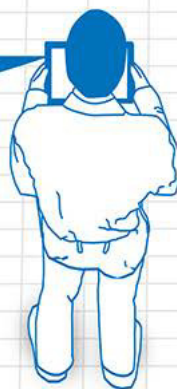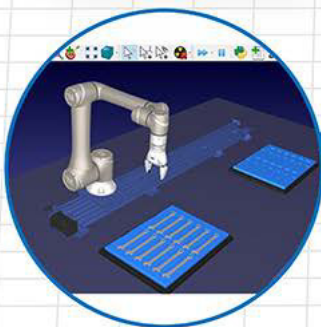## Compatible Plug & Play Kits

Grippers

Applications

Connectivity

More
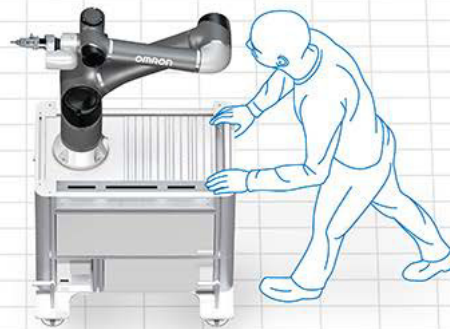
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OMRON ROBOTICS AND SAFETY TECHNOLOGIES

OMRON has partnered with a select number of companies to offer a wide variety of peripherals that quickly and easily integrate with our cobots, allowing for a faster deployment and return on investment. Collectively referred to as Plug & Play devices, they are designed to serve a broad range of customer applications. OMRON recommends the devices and software listed in this compatible list for our OMRON TM Cobot S Series including TM5S, TM7S, TM12S, and TM14S.

All listed devices are ready-to-use solutions that will help you speed up the automation process. The listed devices may need specially designed software to link to OMRON Cobot arms. Please check the device supplier's website for the most up-to-date version.

Compatible Plug & Play Hardware

Category	Appearance	Manuacturer	Product Name	SKU Number*	Description
Grippers		OnRobot	RG2 Gripper	102012	Electric 2-finger gripper. Each kit includes: - RG2 Gripper - Fingertip adapters (pre-mounted) - Integrated Quick OnRobot Changer (tool side) - Torx key
			RG2-FT	102075	The RG2-FT has 2 force/torque sensors and 2 time-of-flight-based proximity sensors integrated in the fingertips. It is a state of the art gripper with added sensing and intelligence, capable of controlling the robot and itself to achieve what the operator would like it to do, even when the exact parameters cannot be programmed in advance. It includes: - RG2-FT Gripper - Fingertip adapter (pre-mounted) - Cable - Cable holder and screws Required for mounting on the robot: - single Quick OnRobot Changer (robot side) - dual Quick OnRobot Changer (robot side) - HEX QC Required for connecting to the robot: - connection kit with compute box
			RG6 Gripper	102021	Electric 2-finger gripper with larger stroke. Each kit includes: - RG2 Gripper - Fingertip adapters (pre-mounted) - Integrated Quick OnRobot Changer (tool side) - Torx key
			VG10 Electric Vacuum Gripper	101661	Flexible and adjustable electrical vacuum gripper. Each kit includes: - VG10 Gripper - 30 mm dia. suction cups x 16 (pre-mounted) - Integrated Quick OnRobot Changer (tool side) - 40 mm dia. suction cups x 4 - 15 mm dia. suction cups x 4 - Blind screws x16 - Positioning arrows - Torx key
			Robot Kit	113761	This kit must be purchased for the use of OnRobot grippers on OMRON TM collaborative robot. Each kit includes: - Compute Box - Power supply - Adapter plate (included in all kits but only necessary for VG10 and Gecko grippers) - USB stick with software components and User Manual - Device cable 5 m - UTP cable 0.5 m - I/O cable 0.3 m - Cable management hook/loop
			Gecko Gripper	104086 SP1 104087 SP3 104088 SP5	Compact, lightweight Gecko Single Pad Gripper requires no cables, electricity, air or programming. The Gecko SP is available in 3 sizes; SP1, SP3, and SP5 named after the gripper payload in kilos, featuring the ability to lift a wide range of flat, smooth, shiny or perforated surfaces. Options are: - Gecko SP1 (with 35 mm pad) - Gecko SP3 (with 60 mm pad) - Gecko SP5 (with 75 mm pad)
			3FG15-3 Finger Gripper	103666	The 3FG15 is ideal for gripping a wide range of cylindrical objects in machine-tending applications such as CNC lathe machines. The gripper design automatically centers workpieces, with payload up to 15 kg. It includes: - 3FG15 - Torx Key T20 - 3 x Steel Fingertip 13 dia. - 3 x Rubber Fingertip 16.5 dia.

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Grippers		OnRobot	Soft Gripper	103546 SG Base Part 103689 SG-a-H 103860 SG-a-S 103691 SG-b-H	This is available with three interchangeable silicon-molded cups to handle a wide array of irregular shapes and delicate items, making it ideal for pick-and-place applications in food and beverage and other "clean" production applications. The silicon cups are dishwasher-safe and comply with FDA 21 CFR (for non-fatty items) and EC 1935/2004 for food handling. Maximum payload of 2.2 kg, and grip dimensions range from 11 mm to 118 mm, depending on cup used.
			2FG7 Parallel Gripper	106376	This parallel gripper is used for tight spaces and demanding payloads. Ready for use almost anywhere, with IP67 rating for harsh environments and ISO Class 5 certification for cleanroom use.
			VGC10	102844	This flexible electric vacuum gripper has changeable suction cup options for unlimited customization possibilities. It's smaller and half the weight of VG10 but with the same payload. It includes: - 40 mm dia. Vacuum Cups - 30 mm dia. Vacuum Cups - 15 mm dia. Vacuum Cups - Fittings - Push-in fittings - M6 x 10 mm Screws - Blind Screws - Torx T30 - 3 mm hex keys - Adapter Plate - Extension pipe 50 mm
		Robotiq*	Adaptive Gripper 2-Finger 85/140 for OMRON TM robot	85 kit: AGC-OMRON-KIT-85 140 kit: AGC-OMRON-KIT-140	A 2-finger adaptive gripper that can adapt to parts of various shapes and sizes. Comes in two stroke options – 85 mm and 140 mm. Each kit includes: - End effector coupling kit - 10 m communication cable - RS485 to RS232 converter - RS485 to USB converter - Screw kit - Quick start guide
			Hand-E gripper for OMRON TM robot	HND-OMRON-KIT	A 2-finger parallel gripper with an IP67 rating. 50 mm stroke. Each kit includes: - Fingertip starting kit - End effector coupling kit - 10 m communication cable - RS485 to RS232 converter - RS485 to USB converter - Screw kit - Quick start guide
			EPick for OMRON TM robot	VAC-OMRON-EPICK-KIT1 VAC-OMRON-EPICK-KIT2 VAC-OMRON-EPICK-KIT4	A vacuum gripper that uses an integrated vacuum generator. Each kit includes: - Basic gripper unit - End effector coupling kit - 10 m communication cable - RS485 to RS232 converter - RS485 to USB converter - Quick start guide - Vacuum cup(s): 1.5 bellows, 55 mm dia. KIT1 includes 1 vacuum cup KIT2 has a suction system for 2 cups KIT4 has a suction system for 4 cups
			AirPick for OMRON TM robot	VAC-OMRON-AIRPICK-KIT1 VAC-OMRON-AIRPICK-KIT2 VA-OMRON-AIRPICK-KIT4	A vacuum gripper that uses an external pneumatic supply. Each kit includes: - Basic gripper unit - Tubing 8 mm x 8 m - End effector coupling kit - RS485 to RS232 converter - RS485 to USB converter - Quick start guide - Vacuum cup(s): 1.5 bellows, 55 mm dia. KIT1 includes 1 vacuum cup KIT2 has a suction system for 2 cups KIT4 has a suction system for 4 cups
			I/O Coupling	IO-CPL-OMRON-KIT	Component that connects the Robotiq adaptive/vacuum gripper to the wrist of the OMRON TM robot to eliminate the need for an external serial communication cable. Each kit includes: - I/O Coupling - Screw kit - Micro-USB to USB cable - 16G USB Stick
			Dual-Grip Adapter Plate	AGC-APL-159-002	Adapter plate and mounting screws to mount two grippers onto the OMRON TM robot.

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Grippers		Robotiq*	2F-85 Dual kit for OMRON Robots 2F-140 Dual kit for OMRON Robots HAND-E Dual kit for OMRON Robots	OMRON-DUAL-AGC-85 OMRON-DUAL-AGC-140 OMRON-DUAL-HND	Kit that enables dual gripper setting. Each kit includes: - Chosen gripper x 2 - Mechanical coupling x 2 - USB to RS485 Adapter - Communication Cable - M12 5 Pins Splitter - Dual-Grip Adapter Plate - Screw kit x 2
Tool Changers		OnRobot	Quick OnRobot Changer Robot side 4.5 A	104277	Manual tool changer to attach on the robot's end-of-arm. Either the Quick OnRobot Changer (robot side) or the Dual Quick OnRobot Changer must be purchased for use of all OnRobot grippers. Each kit includes: - Quick OnRobot Changer robot side - Screws - Torx key
			Quick OnRobot Changer - Tool side	102014	Manual tool changer to attach on the tool side. (All OnRobot grippers have this component integrated, so this is only necessary when user is developing their own tool.)
			Quick OnRobot Changer Kit 4.5 A	105925	Each kit includes: - Quick OnRobot Changer (robot side) x 1 - Quick OnRobot Changer (tool side) x 2 - Torx key - Screws and pins
			Dual Quick OnRobot Changer 4,5A	104293	Manual tool changer to attach on the robot's end-of-arm for dual gripper configuration. Either the Quick OnRobot Changer (robot side) or the Dual Quick OnRobot Changer must be purchased for use of all OnRobot grippers. Each kit includes: - Dual Quick OnRobot Changer - Screws - Torx key
Screw Driving			Screwdriver	103961 105121 104363 104374 105870	Smart screwdriver with screw feeder easily automates multiple screw driving processes with no downtime for manual changeovers. Precise torque control and intelligent error detection ensure quality and consistency. The following accessories are required depending on the screw size. - Screwdriver Accessory Kit Metric: Screwdriver bits system for various screw types and sizes - Screw Feeder M1-6: Automatic feeder for M1 to 6 size screws - Screw Feeder M2-6: Automatic feeder for M2 to 6 size screws - Angle Bracket
Sanding and Polishing			Sander	104876	Complete electric random orbital sander for a wide range of various automated surface finishing applications - from sanding and buffing to polishing and cleaning. The Sander comes with everything out of the box, and operates without external air supply. Each kit includes: - Sander - Power supply - Tool cable M12 - Polishing pad - 2x grits 80, 120, 220, 400 - Pad wrench 24 mm (Works with optional automated Grit Changer accessory kit SKU # 105125)
Vision		Basler	GigE camera, color, 5 MP, CMOS 2/3 inch, 23 fps	acA2440-20gc, Global Shutter	External camera for eye-to-hand robot applications.Maximum 2 external cameras per robot.
			GigE camera, mono, 5 MP, CMOS 2/3 inch, 23 fps	acA2440-20gm, Global Shutter	
			GigE, camera, color, 10 MP, CMOS 1/2.3 inch, 10 fps	acA3800-10gc, Rolling Shutter	
			GigE, camera, mono, 10 MP, CMOS 1/2.3 inch, 10 fps	acA3800-10gm, Rolling Shutter	
			GigE, camera, color, 12.2 MP, CMOS 1/1.7 inch, 8 fps	acA4024-8gc, Rolling Shutter	
			GigE, camera, mono, 12.2 MP, CMOS 1/1.7 inch, 8 fps	acA4024-8gm, Rolling Shutter	
			GigE camera, color, 5 MP, CMOS 1/2.5 inch, 14 fps	acA2500-14gc, Rolling Shutter	External camera for eye-to-hand robot applications.Maximum 2 external cameras per robot.
			GigE camera, mono, 5 MP, CMOS 1/2.5 inch, 14 fps	acA2500-14gm, Rolling Shutter	
			GigE camera, color, 5 MP, CMOS 1 inch, 21 fps	acA2500-20gc, Global Shutter	
			GigE camera, mono, 5 MP, CMOS 1 inch, 21 fps	acA2500-20gm, Global Shutter	

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Force Sensor		OnRobot	HEX-E/H	- 100551 HEX-H w/ EtherCAT Converter & Flange A - 100535 HEX-E w/ EtherCAT Converter & Flange A	HEX six-axis force torque sensors use a unique, optical principle to detect the smallest forces acting on the tool, with EtherCAT communication. The OnRobot force control software package is optimized for these sensors. It includes: - HEX-E or HEX H - Mounting plate - Screws - Cable - Torx key Required to connect the sensor to the robots: - Connection kit with Compute Box
		ATI	Axia80	9105-TM-Axia80	Six-axis force/torque sensor with EtherCAT communication. Each kit includes: - Interface plate - Power and Ethernet cable - Digital delivery of calibration documents and user manual
		Robotiq	FT-300	FTS-300-OMRON-KIT	Six-axis force/torque sensor with RS485 Serial Communication. Each kit includes: - Coupling - RS485 to RS232 converter - Power and communication cable with USB adapter - Screw kit

Manufacturer SKU numbers are not OMRON part numbers. Refer to the manufacturer for more information.

* All Robotiq grippers must be used together with the I/O Coupling kit to be compatible with the OMRON TM S series.