

Toyota Launches the C⁺walk τ in Japan, a New Form of Walking-Area Mobility

An easy-to-use, three-wheeled standing-type BEV

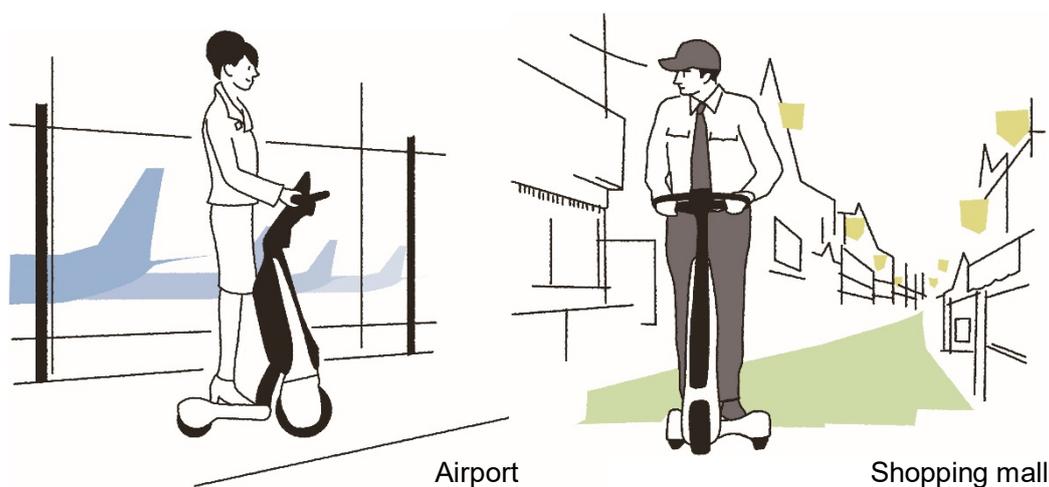
Toyota City, Japan, October 1, 2021—Toyota Motor Corporation (Toyota) announced today that it will release the C⁺walk τ , a standing-type model in the new C⁺walk walking-area^{*1} mobility series. The C⁺walk τ ^{*2} will go on sale at Toyota automobile dealers and offered at rental and leasing stores from October 1, 2021^{*3}.



C⁺walk τ "Safety support" (Options shown)

The C⁺walk τ is an easy to operate, three-wheeled standing-type BEV. It features a low, flat base just 150 mm high for easy boarding and alighting. It is designed so that it is comfortable to use in walking areas, facilitating side-by-side travel and communication with fellow pedestrians. Indeed, in addition to being environmentally friendly, the vehicle takes up a similar amount of space as a single person, and travels at typical human walking speeds^{*4}. The C⁺walk τ is also equipped with obstacle detection functions that help avoid collisions with obstacles or pedestrians ahead.

In terms of potential corporate usage scenarios, the C⁺walk τ can be used to travel across large-scale facilities or to ease the burden of walking on elderly users engaged in security work, and can also be used on activity tours that take place inside parks and other facilities. In addition, with growing numbers of amendments being made to applicable laws and regulations, the C⁺walk τ can also be expected to be cleared for use on public roads in the future; in this case, the vehicle will be able to provide support to people who find it hard to walk long distances, and contribute to expanding their spheres of activity.



Toyota offers wide-ranging mobility choices with the twin goals of providing freedom of movement to all and realizing an even better mobility society. The C+pod^{*5} and C+walk series are designed to expand the spheres of activity of their users, bring them joy, support them at different stages in their lives, and propose unprecedented new forms of mobility value.

By continuing to deliver modes of mobility that are easy to use and inspire a desire to travel, Toyota intends to bring happiness to as many people as possible.

Toyota is currently developing seated-type and wheelchair-linked-type models in the C+walk series, with a view to their future commercialization.

- *1 In urban environments, "pedestrian zones" are contrasted with "traffic zones." Pedestrian zone is a blanket term for routes and areas designed with the health and safety of pedestrians in mind.
- *2 As of October 2021, under existing laws, the C+walk τ is not permitted to be ridden on public roads or sidewalks. For further information on where the C+walk τ can be ridden, please contact a local Toyota automobile dealer or Toyota rental or leasing stores.
- *3 The C+walk τ will not be carried at select stores.
- *4 Users can set the C+walk τ 's maximum traveling speed via a speed adjustment switch. The C+walk τ features five different speed settings, ranging from 2 to 6 km/h, with an additional 10 km/h setting for experienced users.
- *5 The C+pod is an ultra-compact two-seater BEV that launched in December 2020.

Production Plant

Toyoda Iron Works Co., Ltd.

C+walk τ Manufacturer's Suggested Retail Prices

	Motor	Battery	Driveline	Price* (Japanese yen)
—	Brushless DC motor	Lithium-ion battery	Front-wheel drive (FF)	341,000
"Safety support"				354,200

* Includes consumption tax.

©: Model as shown in photo (excluding options)

Overview of the C⁺walk τ

1) Convenient and simple operation characteristic of the C⁺walk series

- Accelerator levers on either side of the C⁺walk τ steering wheel can be used to control departure, acceleration, deceleration, and stopping. Simply squeeze the lever to accelerate, and release the lever to come to a stop. Brake levers situated on either side of the steering wheel can be used to provide greater deceleration when required, while pressing the reverse button enables the vehicle to reverse.
- The vehicle's controls have been ergonomically designed—from the angle of the steering wheel and the shape of its grips to the location of the levers and buttons—to enable intuitive operation.
- The status display panel allows battery levels and speeds to be seen at a glance.
- The vehicle operating system is activated by holding a special-purpose key^{*1} over the recognition area, after switching the battery on.
- The removable lithium-ion battery can be fully charged in approximately 2.5 hours using the included AC 100 V charging device.



Steering wheel (Options shown)



Lithium-ion battery unit

*1 A master key and a secondary key are included as standard

2) Riding performance designed to be in harmony with nearby pedestrians

- The C⁺walk τ uses in-wheel motors: a brushless DC motor is located in the front wheel, enabling smooth acceleration, deceleration, and turning. At typical human walking speeds, the vehicle is capable of traveling approximately 14 km on a single battery charge^{*2}.
- The vehicle has one front wheel and two rear wheels. When its steering wheel is turned a maximum of 90 degrees, the vehicle is capable of on-the-spot turning, with a minimum turning radius of just 0.59 m.

*2 According to in-house measurements; distance covered at a temperature of 20°C, with a user weight of 70 kg, and an average traveling speed of 6 km/h on flat roads.

3) Compact form ideal for use in walking-area

- The C⁺walk τ takes up a similar amount of space to a single person, with a total length of 700 mm—roughly the length of a single human step—and a total width of 450 mm—roughly the width of a human waist; its low, flat standing base is just 150 mm high. The vehicle is designed to be ridden standing-up for easy person-to-person communication, and adopts a modern form that minimizes feelings of stress for people nearby.
- The steering stem—the part that connects the top of the front fork to the bottom of the steering wheel—joins seamlessly to the resin body, which features a removable battery that can be attached or removed with a single action.
- The vehicle features a two-tone color scheme, with a primarily black body complemented by the warm grey of its resin parts.

4) Safety and Security Functions

- The C⁺walk τ is equipped with obstacle detection functions that help avoid collisions with obstacles or pedestrians ahead^{*3}. When the periphery detection sensor at the front of the vehicle detects a person or obstacle, the operating system issues both a visual alert on the display panel and an audio alert, and decelerates the vehicle to approximately 2 km/h^{*4*5}, so providing support for safe riding.
- The vehicle comes as standard with a turning speed control function that detects steering angles and limits moving speeds accordingly. It is also equipped with a steep slope detection function that automatically decelerates the vehicle on steep downhill^{*3}, thereby providing users with peace of mind.
- The vehicle is fitted with puncture-proof tires that eliminate worries about puncturing.



Periphery detection sensor (Options shown)

- *3 Equipped as standard as part of C+walk τ Safety Support
- *4 The function is capable of detecting people and obstacles roughly 2.5 to 3 meters ahead. It decelerates the vehicle to a maximum of approximately 2 km/h, depending on traveling speeds and distances to the person or obstacle ahead. When potential collisions have been avoided, the function's speed limitations are removed.
- *5 Necessary functionality may not be achieved depending on weather and road conditions.

Please see the following link for more details on the new C+walk τ :

<https://toyota.jp/cwalkt/>

Main specifications of the C+walk τ

		(Standard)	Safety support
Length x Width x Height (mm)		700 x 450 x 1,210	
Base height (mm)		150	
Vehicle weight (kg)		29	
Minimum turning radius (m)		0.59 (capable of on-the-spot turns)	
Maximum number of riders (people)		1 User height limit: 140-185 cm User weight limit: 100 kg ^{*1}	
Motor	Type	Brushless DC motor	
	Rated output (kW)	0.25	
	Maximum output (kW)	0.35	
Main drive battery	Type	Removable lithium-ion battery	
	Capacity (Ah)	10.8	
	Total voltage (V)	25.2	
	Total electrical energy (kWh)	0.27	
Continuous riding range (km)	Approx. 14 ^{*2}		
Charging time	Normal charging	Single-phase 100 V/6 A	Approx. 2.5 hours (to full charge) ^{*3}
Maximum speed settings (km/h)		2, 3, 4, 5, 6, 10 ^{*4} (user-settable)	
Maximum rideable slope angle (uphill and downhill) (°)		6	
Maximum ascendable step-height difference (mm)		25	
Maximum descendable step-height difference (mm)		50	
Maximum passable gap length (mm)		100	
Operating method		Steering wheel	
Brakes		Fr: Drum-type Rr: none	
Tire size (in)		Fr: 10 Rr: 6 (fitted with puncture-proof tires)	

*1 According to in-house measurements; weight includes rider weight and the weight of luggage and other items.

*2 According to in-house measurements; distance covered at a temperature of 20°C, with a user weight of 70 kg, and an average traveling speed of 6 km/h on flat roads.

*3 Charging time is intended as a rough guide; charging times vary according to temperatures and power sources used.

*4 The 10 km/h setting is for experienced users.

SUSTAINABLE DEVELOPMENT GOALS

Toyota Motor Corporation works to develop and manufacture innovative, safe and high-quality products and services that create happiness by providing mobility for all. We believe that true achievement comes from supporting our customers, partners, employees, and the communities in which we operate. Since our founding over 80 years ago in 1937, we have applied our Guiding Principles in pursuit of a safer, greener and more inclusive society. Today, as we transform into a mobility company developing connected, automated, shared and

electrified technologies, we also remain true to our Guiding Principles and many of the United Nations' Sustainable Development Goals to help realize an ever-better world, where everyone is free to move.

SDGs Initiatives: <https://global.toyota/en/sustainability/sdgs/>

SDGs goals that this project makes particular contribution to:

