

Customized connectors allowed unu to develop an innovative electric scooter that's easy to recharge and built for urban life.



## Powering Clean Urban Transportation

Electric scooters have the ability to transform urban transportation. They offer convenient mobility with a negligible carbon footprint. But to reach their full potential, they need innovative charging solutions to power them. Charging solutions that work simply, charge efficiently, and make life easier for riders.

## Taking Charge of the Future

What if you could design a scooter that could be charged at home or work? If you could just take out the battery and charge it with a regular power outlet like a cell phone or laptop? That's the question that pioneering German startup unu asked while working on their second-generation, fully electric scooter. And with ITT Cannon's help, the answer is "you can."

## Startup Vision Meets Global Activation

unu approached ITT Cannon with their vision of making urban mobility effortless, clean and accessible with a portable scooter battery. Working closely with their Berlin-based engineering team, ITT Cannon's German team adapted proven EV-charging technology to craft a custom connector solution specifically designed to overcome the challenges of urban life.

unu needed specialized connectors that fit their unique design specifications and could stand up to the rough handling of busy city riders. ITT Cannon was the natural choice, thanks to its extensive experience in EV charging, a century of connector expertise and global manufacturing capabilities.

## Customer Problem

unu wanted to create a user-friendly scooter battery that simplified EV charging. Removable, so it could be charged separately from the scooter. Compact, for easy portability. Streamlined, for hassle-free charging at any regular power outlet. And robust, to handle any bumps, scrapes and drops it encounters along the way. This way, anyone could enjoy the freedom of EV mobility and experience more in their city.

To make this battery a reality, they needed a customized connector solution that encompassed the scooter, the removable batteries and the battery charging dock. But that's not all. Unu Motors also wanted the contacts to be manufactured near their production site in China to simplify the assembly process.

unu challenged ITT Cannon to develop a next-generation solution worthy of their next-generation scooter.

## How We Solved It

ITT was tasked with designing a sleek, compact interconnect system that fit the unique form factors of the battery, scooter and charging dock. This wasn't possible with existing off-the-shelf designs - it required a custom development.

Tapping into their deep experience in EV charging and custom engineering, ITT Cannon's German-based team worked in close collaboration with ITT colleagues in China and the unu engineering team in Berlin to craft a unique set of connectors. Derived from the leading ITT Cannon range of EV-charging products, this bespoke solution featured high-performance canted coil socket contacts for the battery and corresponding pin contacts for the scooter and charging dock.

Once the design was complete, all manufacturing - including the value-added cable assembly process of crimping the cables onto the connectors - took place at an ITT Cannon facility in China near unu's manufacturing partner.

## Immediate Impact

unu's second-generation, fully electric scooters are now available to order in Germany, Austria, the Netherlands and France, with plans to expand to wider markets in Europe and overseas.

With their reliable, easy-to-use, hassle-free design, ITT Cannon developed a solution that could find a home in rugged applications the world over - from power tools like chainsaws to new, pioneering electronic applications.

**"With ITT Cannon, we found a partner who knows how to combine a sensitivity for design, the accuracy of German engineering and the efficiency of manufacturing in China. This excellent understanding and manufacturing expertise has continued throughout our whole journey together, enabling us to offer the best user experience for our users by designing a connector from a blank page."**

Mathieu Caudal, Co-Founder and COO, unu.

## The Power of Collaboration

EV expertise, custom engineering and global support aren't the only reasons unu chose to partner with ITT.

The tipping point was the culture of collaboration at ITT. The company works side-by-side with partners on every project to evaluate their challenges firsthand. This way, it can evaluate the full extent of the need and develop an ideal solution that increases performance where it matters most.

It's the secret ingredient that helps big ideas have a massive impact.

