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The world's lightest electric mountain bike features maxon BIKEDRIVE AIR

With the new Lightrider E Ultimate, Swiss bicycle manufacturer Thömus is launching the world's first full-suspension cross-country electric mountain bike weighing less than 15 kilograms. This record-breaking weight is made possible by the small and efficient maxon BIKEDRIVE AIR drive in the extremely lightweight Thömus ultra-high modulus carbon frame.

The partnership between Thömus and drive specialist maxon that began in the winter of 2021 is delivering results not only in World Cup racing. Behind the scenes, a lot of work has been done on a new, ultra-lightweight electric mountain bike in recent months, which, together with the maxon BIKEDRIVE AIR drive, heralds a new era for electric mountain bikes. Weighing less than 15 kilograms in total and with a slim, rigid frame, the Lightrider E Ultimate is a real racing bike that can be maneuvered easily and agilely over any terrain.

For Thomas Binggeli, CEO and owner of Thömus, the new development is a milestone: "We developed the Lightrider E Ultimate in close cooperation with maxon and our World Cup team. The feedback we have had from training on the ride and the low weight has been amazing. The new e-bike is not designed with just professional athletes in mind, however. Every cyclist can enjoy this unique riding experience."

Perfect combination of ride and design

The barely noticeable additional weight of the maxon drive of only 3.5 kilograms, in combination with the superior carbon technology from Thömus, delivers a ride that feels as natural on the trail as on the World Cup bike of overall World Cup winner Mathias Flückiger. As soon as you begin to climb, the Lightrider E Ultimate feels as if a tailwind is gently pushing you uphill, making it perfect for training or riding in a group. The unique freewheel technology of the maxon BIKEDRIVE AIR e-bike system ensures natural transitions from supported to non-supported riding and vice versa. The result is an e-bike with the perfect balance between weight and agility that feels just like a normal bike. The Lightrider E Ultimate is also available in an extra small frame size and is therefore suitable for everyone.

maxon's experience in the development of drive motors for Mars rovers over the course of its 60-year history is reflected in the system's compact size, which allows the battery to be integrated invisibly into the frame. Only an inconspicuously integrated control element on the top tube hints at the extra power hidden in the bike. Equipped with a 250 Wh battery and an optional Range Extender with an additional 250 Wh capacity, technically challenging trails can be tackled with ease.

Swissness down to the smallest detail

Thömus has been synonymous with high-tech bicycles from Switzerland for over 30 years. Olympic medalist Mathias Flückiger has been using the brand for four years. The geometry and kinematics of the new Lightrider E Ultimate are unique and were developed in collaboration with the top riders of the Thömus maxon Swiss Mountain Bike Racing Team. In World Cup racing events, the pros ride the Thömus Lightrider. The new e-bike is heavily based on this design and enables the team to train at higher frequencies without exceeding the optimal heart rate and performance range. "We can now have much longer training sessions and therefore work more intensely on improving our technique. The Lightrider E Ultimate has the potential to be a real game changer," says Mathias Flückiger.

The new Lightrider E Ultimate with maxon drive is now available to preorder from Thömus, with prices starting at CHF 6,390.

Please contact the maxon media office for more information:

Daniela Renzo
media@maxongroup.com, +41 41 662 43 81

Technical data

Battery capacity	250 Wh (integrated battery) + 250 Wh (Range Extender)
Torque	30 Nm 40 Nm (Peak)
Maximum support	25 km/h 20 mph
Weight	from 14.8 kg
Sizes	XS/S, M/L, L/XL
Wheel size	29"
Front suspension travel	120–150 mm
Rear suspension travel	120–130 mm
Head tube angle	65.5°/66.5°
Use	Cross country/trails



Thömus Lightrider E Ultimate with
maxon BIKE DRIVE AIR drive



maxon BIKE DRIVE AIR drive

maxon: The Swiss specialist for quality drives

maxon is a developer and manufacturer of precise brushed and brushless DC motors, as well as gearheads, encoders, controllers, and entire mechatronic systems including batteries. maxon drives are used wherever the requirements are particularly high: in NASA's Mars rovers, in surgical power tools, in humanoid robots, and in precision industrial applications, for example. To maintain its leadership in this demanding market, the company invests a considerable share of its annual revenue in research and development. Worldwide, the maxon Group has more than 3000 employees at nine production sites and is represented by sales companies in more than 30 countries.