

ROLLOUT MUC 023

The day we worked so hard for has finally arrived!

On Thursday, April 27th, we raised the curtain and unveiled muc023 to the world. We showed everyone what the future of mobility could look like. With an optimized aerodynamic shape, lightweight construction and minimal energy losses across all systems, we presented a truly hyperefficient urban vehicle.

With our previous generation concept car, we already achieved an efficiency of 271 km/kWh - by comparison, today's electric vehicles get about 5-10 km/kWh. This year we have set new standards. The chassis has been reduced by 21% and the running gear by 30%. These achievements were made possible by extensive simulations and advanced manufacturing capabilities with new partners. As a result, the car weighs only 65 kg - lighter than its driver.

Aerodynamically, we also made a giant leap forward. Building on an already impressive drag coefficient of 0.16, we optimized even further to an outstanding 0.13. Even the most optimized cars on the road can only manage to achieve values of around 0.2.

Our electric team developed a new power regulation, distribution, and logic unit, that combines the tasks that were previously performed by four different boards into one single PCB, the so-called Wonderboard. We also implemented a new, more powerful motor making the car even more efficient.

Finally, we have developed our autonomous system and equipped it with new technologies. In addition to cameras and LiDARs, we now use a depth camera and a GNSS sensor for better GPS positioning and navigation.

Now all eyes are on the upcoming competitions. In a few weeks, the team will travel to France to put our car to the test on the racetrack. At the Shell Eco-marathon at the Paul Armagnac circuit in Nogaro, we will compete against university teams from around the world to see how efficient our car actually is. In addition to the efficiency of our car, we will also test our autonomous system by taking on three challenges: Autonomous Track Driving, Obstacle Avoidance, and Parking.

We would like to thank you, our sponsors and supporters, for making muc023 possible. Only with your support over the years have we been able to develop our innovative cars and push the boundaries of technology.

We are truly grateful for the immense help, financial support, technical advice and contribution of knowledge from your personal experience. A project like ours would not be possible without you! It was a pleasure to welcome our sponsors & contributors to our launch and we are happy to have seen so many participants on this evening.

Our team will never forget this event, we hope you won't either! We hope to meet the challenges of the coming seasons with you again!

Sincerely,
TUfast Eco Team





MUC
023



Vehicle Body Total Weight

25.2

Drag Coefficient

0.13

Rear Double Wishbone
McPherson

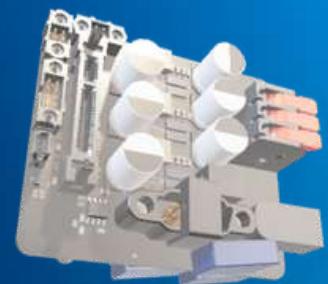


Planetary Gear System

Motor Quantity/Position
1/Rear Left

570 W/0.77 hp

Motor Power



GAN FETs Technology

Permanent Magnet Synchronous Motor

Peak Motor Torque

12.7 Nm