

## eBoard

Future mobility is in steady change. Due to the emissions of combustion engines, the needed parking space and the noise, cars are more and more banned from the cities. The public transport gains in importance but simultaneously the desire for individual mobility increases. This goal conflict can only be solved through so-called multimodal mobility concepts. A classic example is the commuting by train first and covering the last mile by bike. But bike carriage is often expensive or not even allowed. A solution to this problem is a small, transportable vehicle, which is supported by electric motors – a nanomobile that closes the gap between cyclists and pedestrians.

The eBoard contains an internal developed steering and braking system, which is controlled by a steering stick. The stick is ergonomically designed and is equipped with a special planned handling. Therefore it is possible to steer, accelerate, brake and put on the emergency brake with only one hand. Furthermore the user can shore up and stabilize himself through the stick.

A self-developed motor bracket and a from scratch designed skateboard axle (hanger), are more features of the eBoard. The folding mechanism at the front axle completes the internal developed design from Schaeffler.

### Internal Developed Systems:

- Steering and braking system
- Multifunctional handhold
- Motor bracket
- Adapted axle design
- Folding mechanism

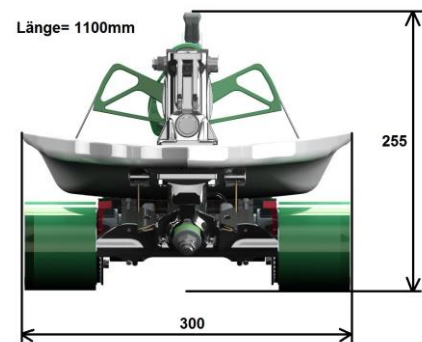


## Technical Specification

The eBoard comes with a manually operated hydraulic brake system. The rear axle is belt-driven by two electric motors. Through multiple driving modes the energy system allows a range up to 25 km. The maximum speed amounts to 25 km/h. The eBoard is covered to handle a maximum user weight up to 100 kg.

### Technical data:

- |                          |                             |
|--------------------------|-----------------------------|
| ▪ Motors                 | 2x 172 W (344 W)            |
| ▪ Drive                  | belt drive by motor         |
| ▪ Maximum Acceleration   | 1 m/s <sup>2</sup>          |
| ▪ Range                  | 25 km                       |
| ▪ Maximum Speed          | 25 km/h                     |
| ▪ Weight of Vehicle      | 10,9 kg                     |
| ▪ Maximum Weight of User | 100 kg                      |
| ▪ Brake                  | 4 hydraulic calliper brakes |



## Contact

Dr.-Ing. Marcel Ph. MAYER  
 Director SHARE at NTU  
 +65 9235 0267  
[marcel.mayer@schaeffler.com](mailto:marcel.mayer@schaeffler.com)

Jannick ALTHERR, M.Sc.  
 SHARE at NTU  
 +65 9782 9643  
[jannick.altherr@schaeffler.com](mailto:jannick.altherr@schaeffler.com)