



Lightweight and small

Jesper Martaeng
R&D Clean Motion AB



Why lightweight and small ?

Why move 2500kg when payload is typically 75kg ?. Clean motion have the goal to build vehicles weighing 75kg (95kg today), compared to cars at 300-400kg and busses at 140kg per passenger.

Energy efficiency: Especially for low speed (<50km/h) weight is essential for high efficiency (wh/km).

- Rolling resistance become dominant at low speeds.
- Light weight/low speed reduce inertia and braking time, reducing recuperation efficiency.

CO₂ footprint: (Manufacturing, operation and recycling)

Traffic congestion: Road and parking



Challenges

Safety

- Crash characteristics of composites is a “new”. Clean motion have crash tested the Zbee and have patent on safety features.
- Due to many vehicles in the field for many years, accidents have happened (not Zbees fault) without serious personal injuries.

Production cost

Double molding with internal core on large and complex structures is difficult, and both labor intensive and time consuming. We currently have a project with RISE to address and find ways to solve this.

Environmental concern. (Plastic and glass fiber)

Although Zbee is extremely environmental friendly, we still have some concerns regarding the use of polyester and glass fiber in our vehicle. Investigation on bio plastics and nature fibers is ongoing. Currently run a project with RISE and Juteborg AB.

Technical data

- Längd: 2,4 m
- Bredd: 1,2 m
- Höjd: 1,5 m
- Fordonsvikt: 270 kg
- Batterityp: LiFePO4
- Förbrukning: 40Wh/km
- Räckvidd: 90 km
- Laddtid: 4 h

- Lastkapacitet: 1m² och c:a 200 kg

- Klassificering: Moped 45 eller Moped 25





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