ELECTRICAL PERSONAL INDIVIDUAL CAR

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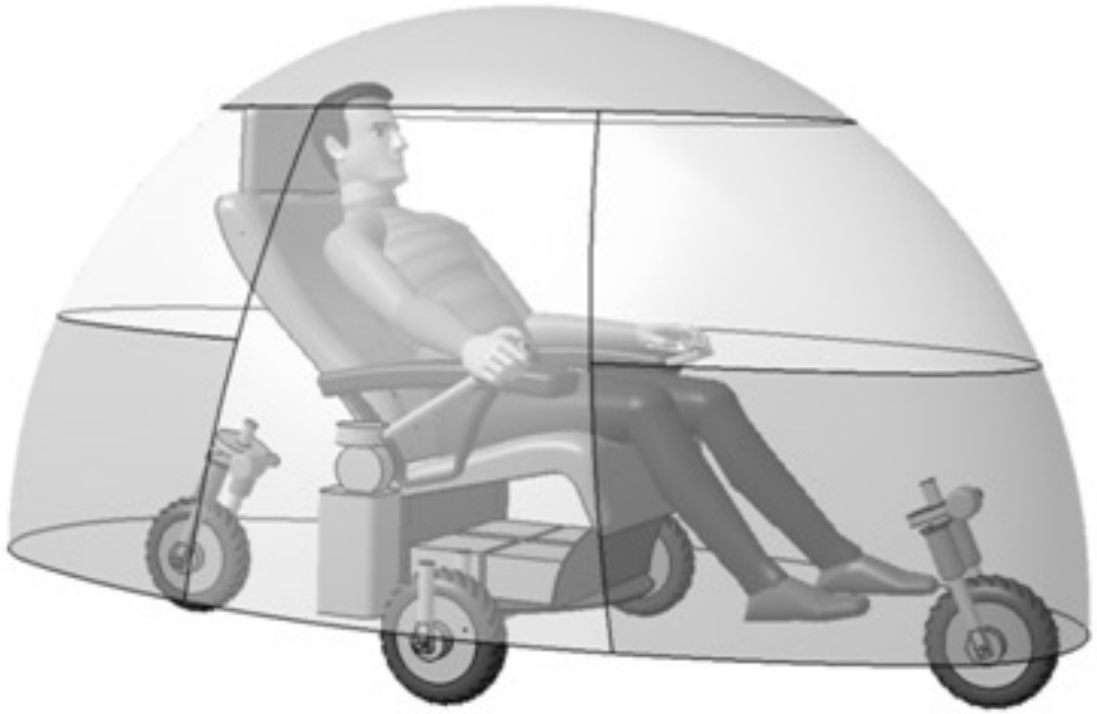
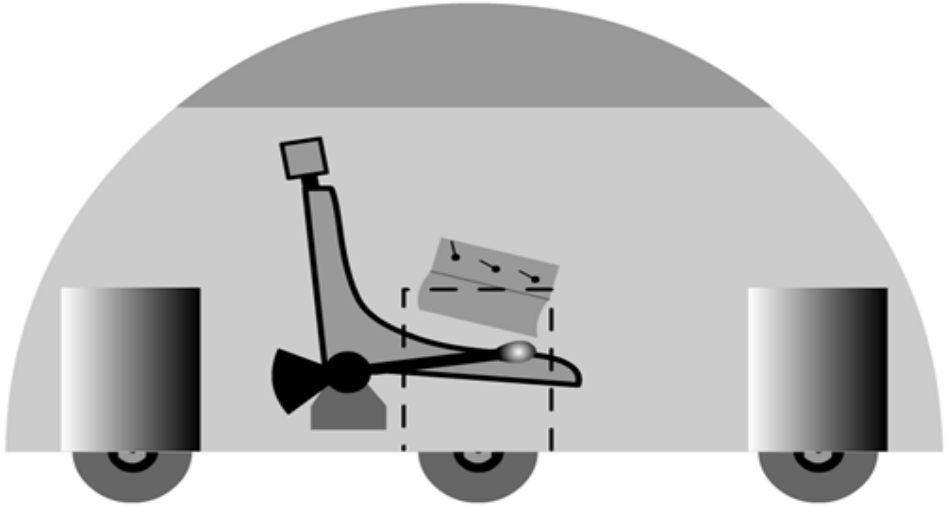
The destination of this car is:

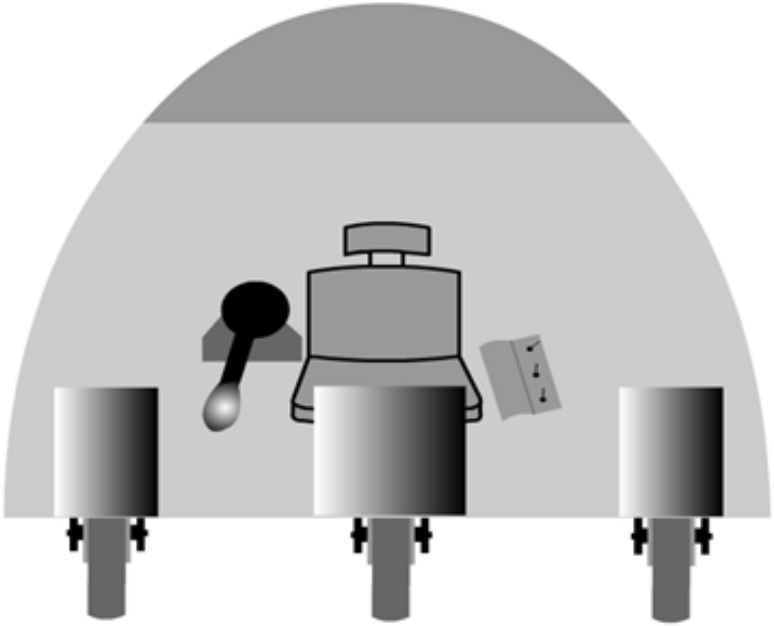
- an economical and environmentally friendly mean of transport in the city;
- satisfying the need to travel for only one person;
- offering a personal comfort similar to classic cars.



Principles used

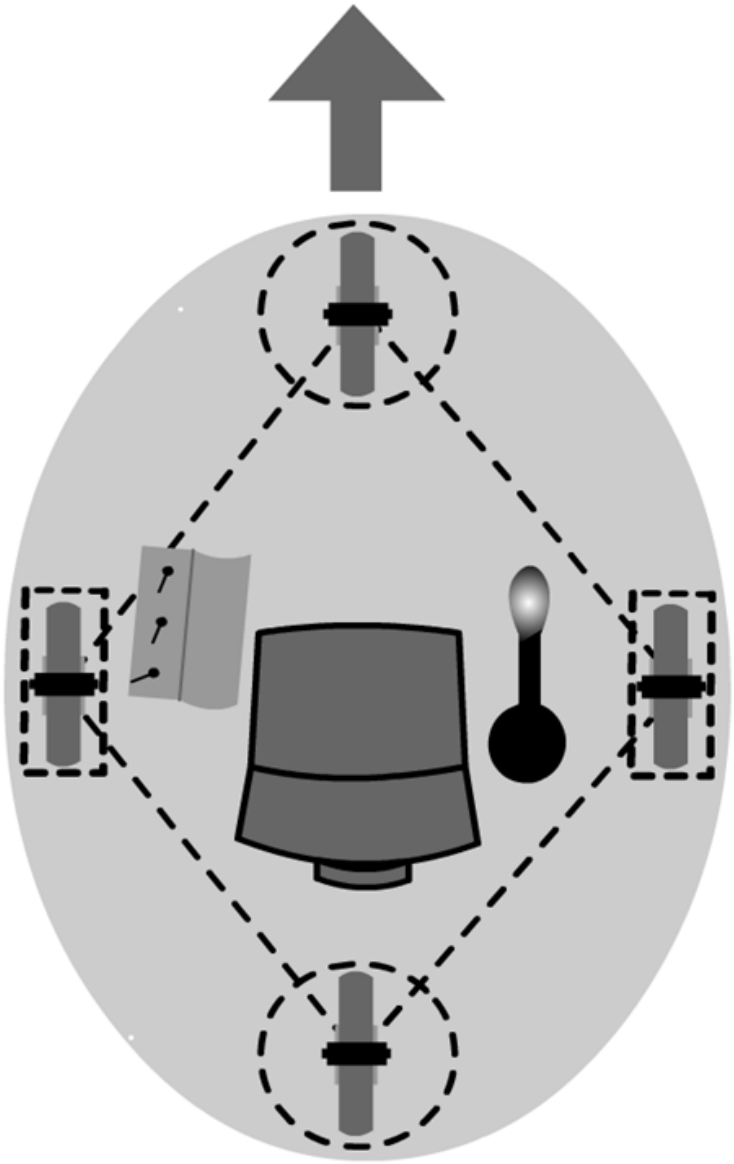


- The bodywork is compact, formed from the half of an ovoid.



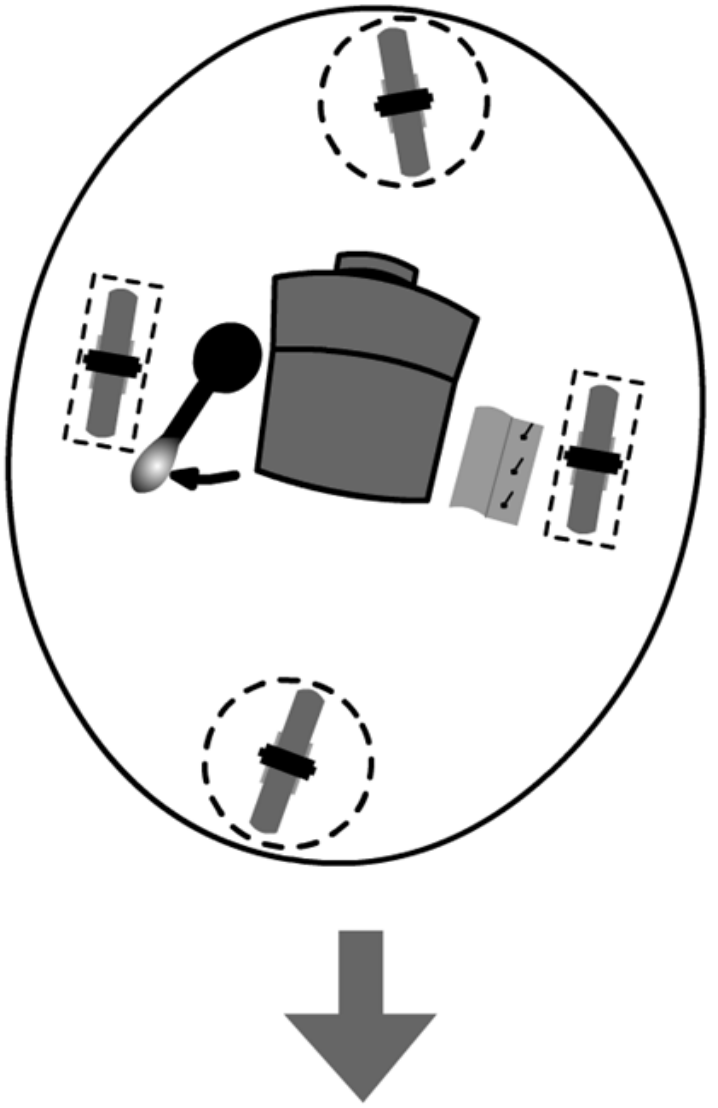
Principles used

- The carriage is elliptical and has four wheels arranged in the peaks of a rhombus with large diagonal of direction.



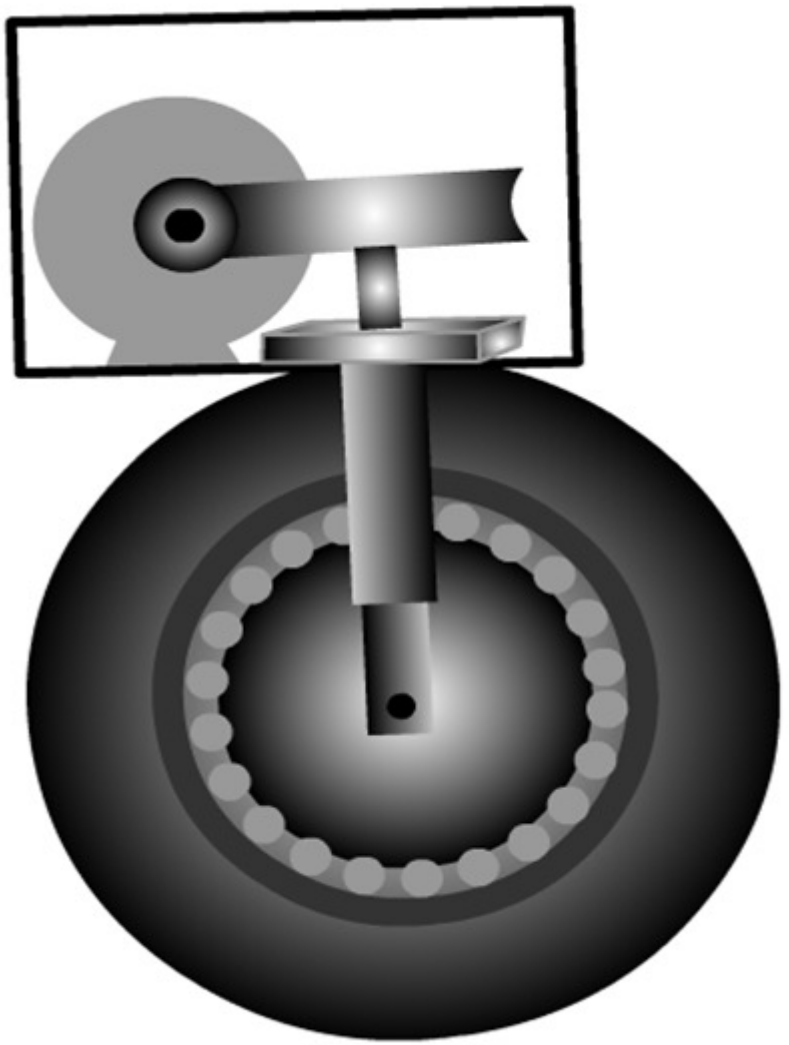
Principles used

- Lateral driving wheels are equipped with hub motors
- Front and rear wheels turn synchronously for achieving the direction of movement.



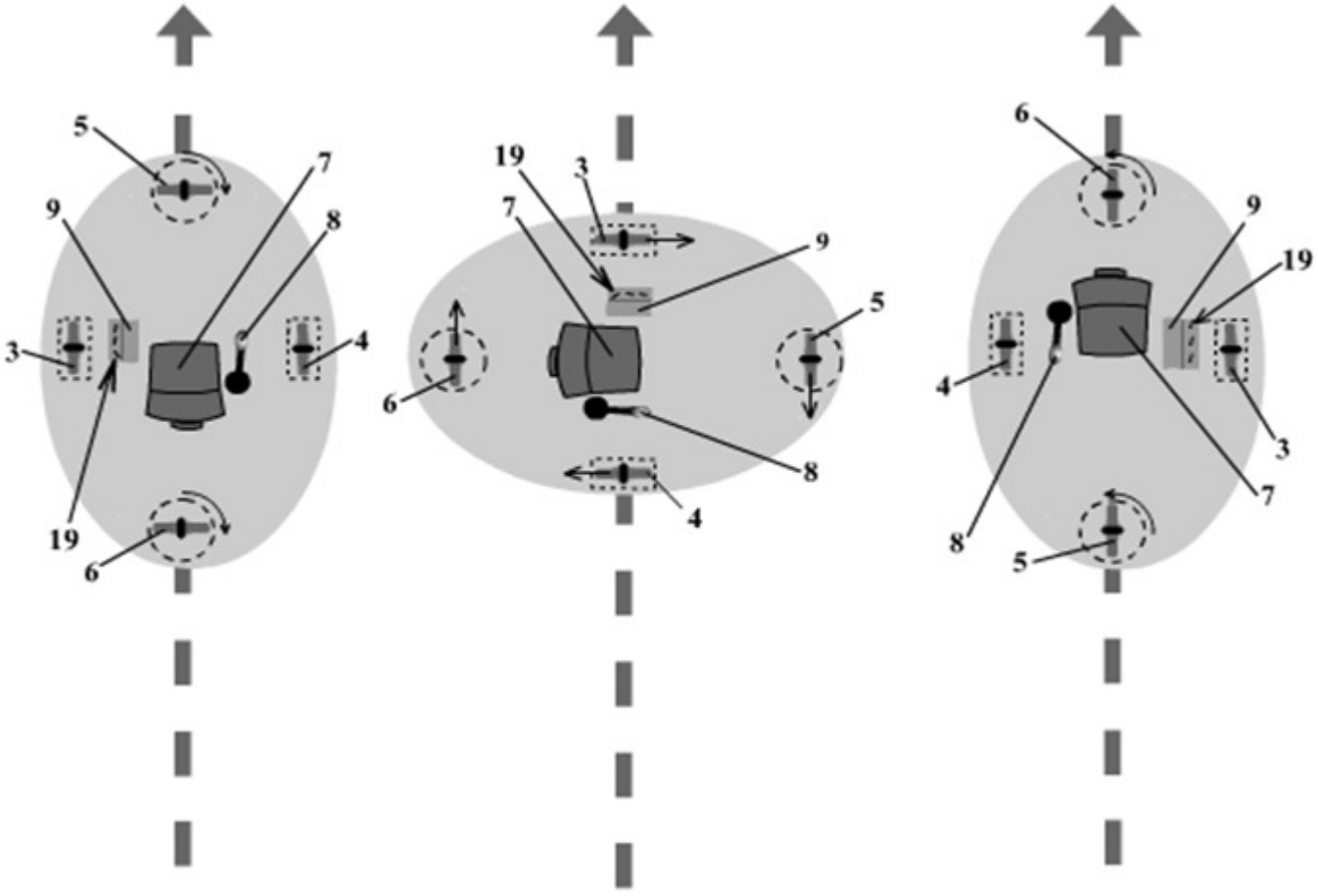
Principles used

- The wheel assembly is formed by a fork and suspension spring, shock absorber and power-assisted steering
- All the wheels are mounted in the same manner



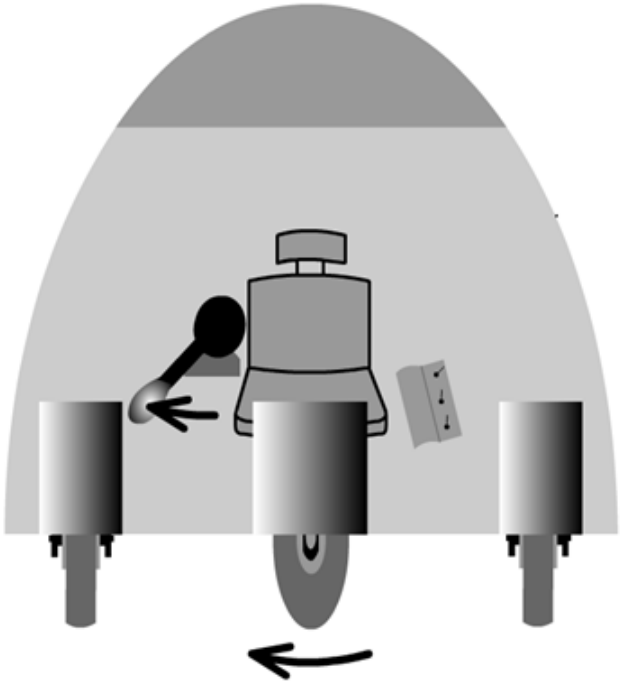
Principles used

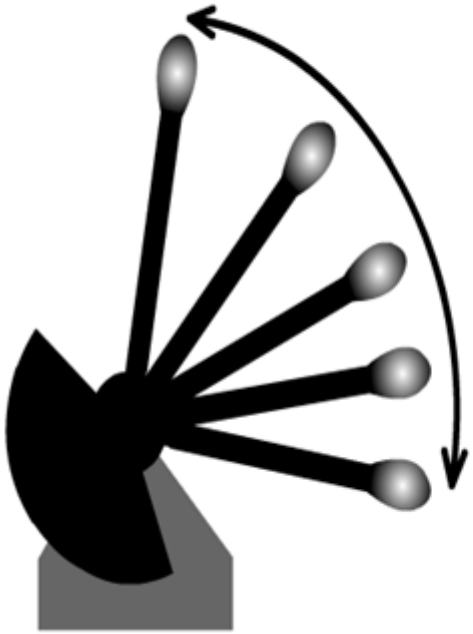
- The reverse gear is removed
- The car can turn 180 degrees on the spot



Principles used

- The classic steering wheel is missing and all the driving is done from a joystick that can be controlled with one hand
- Changing the position of the lever ensures both changing direction, speed and also braking.

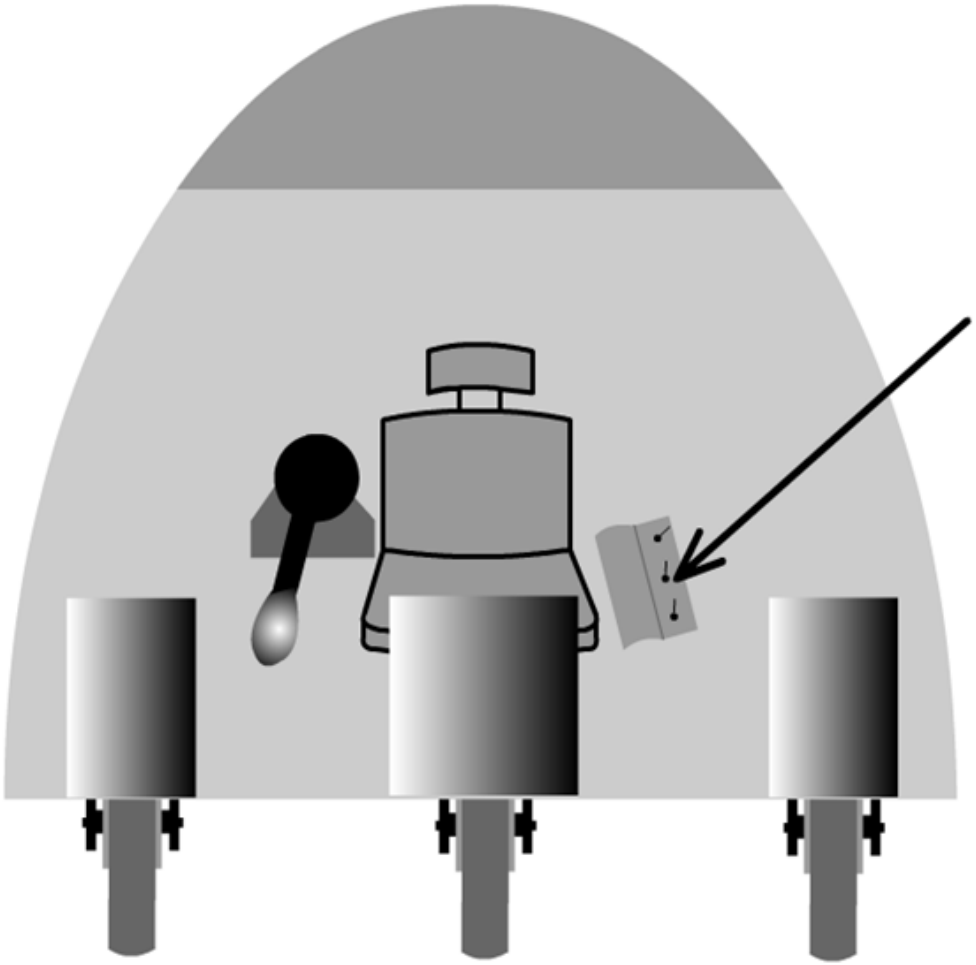




+40-60^0	30-50 Km/h
+20-40^0	10-30 Km/h
+10-20^0	5-10 Km/h
+ 5-10^0	50-10 Km/h
- 5-10^0 (brake)	0 Km/h

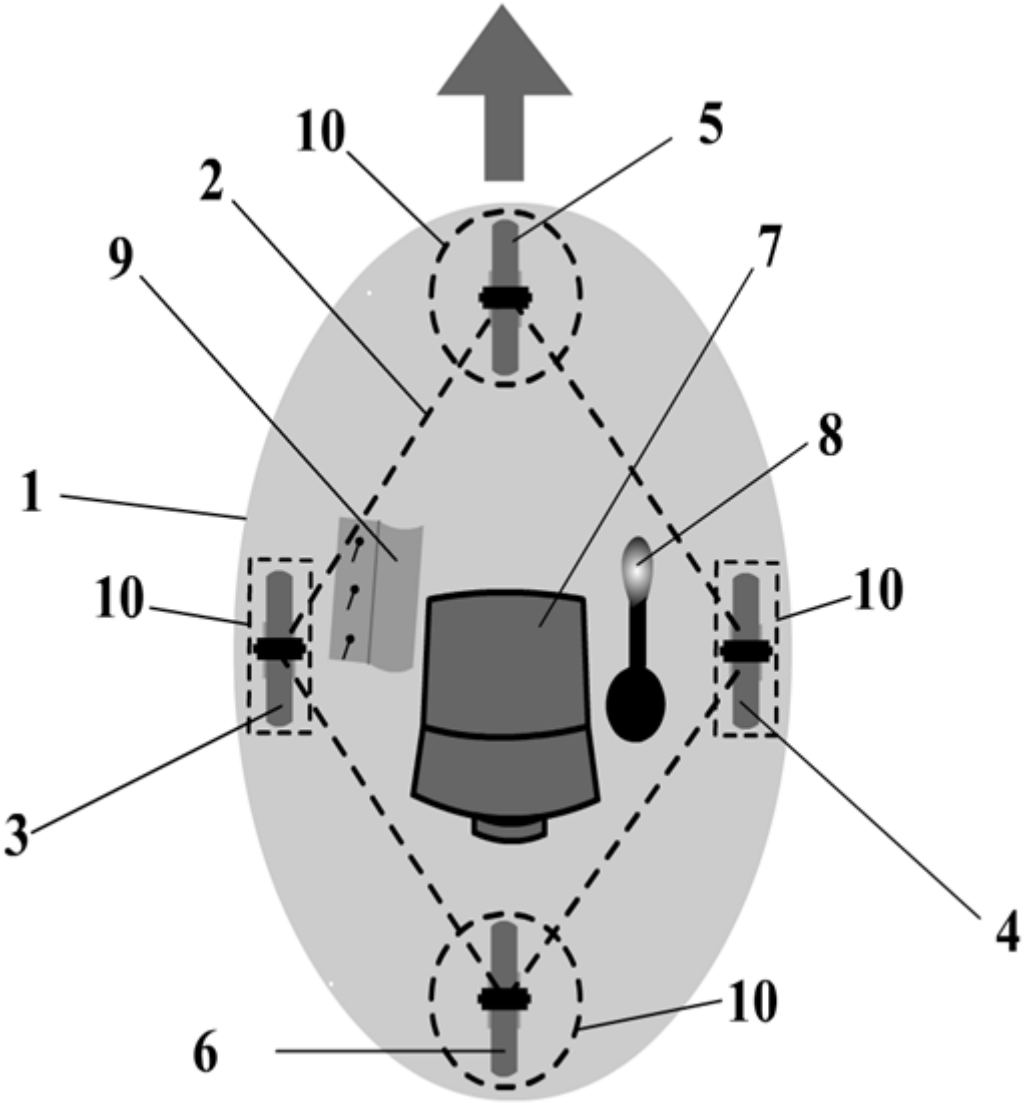
Principles used

- A ergonomic control panel is placed to be accessed with the left hand to rotate on the spot, turn signal and set the climate control.



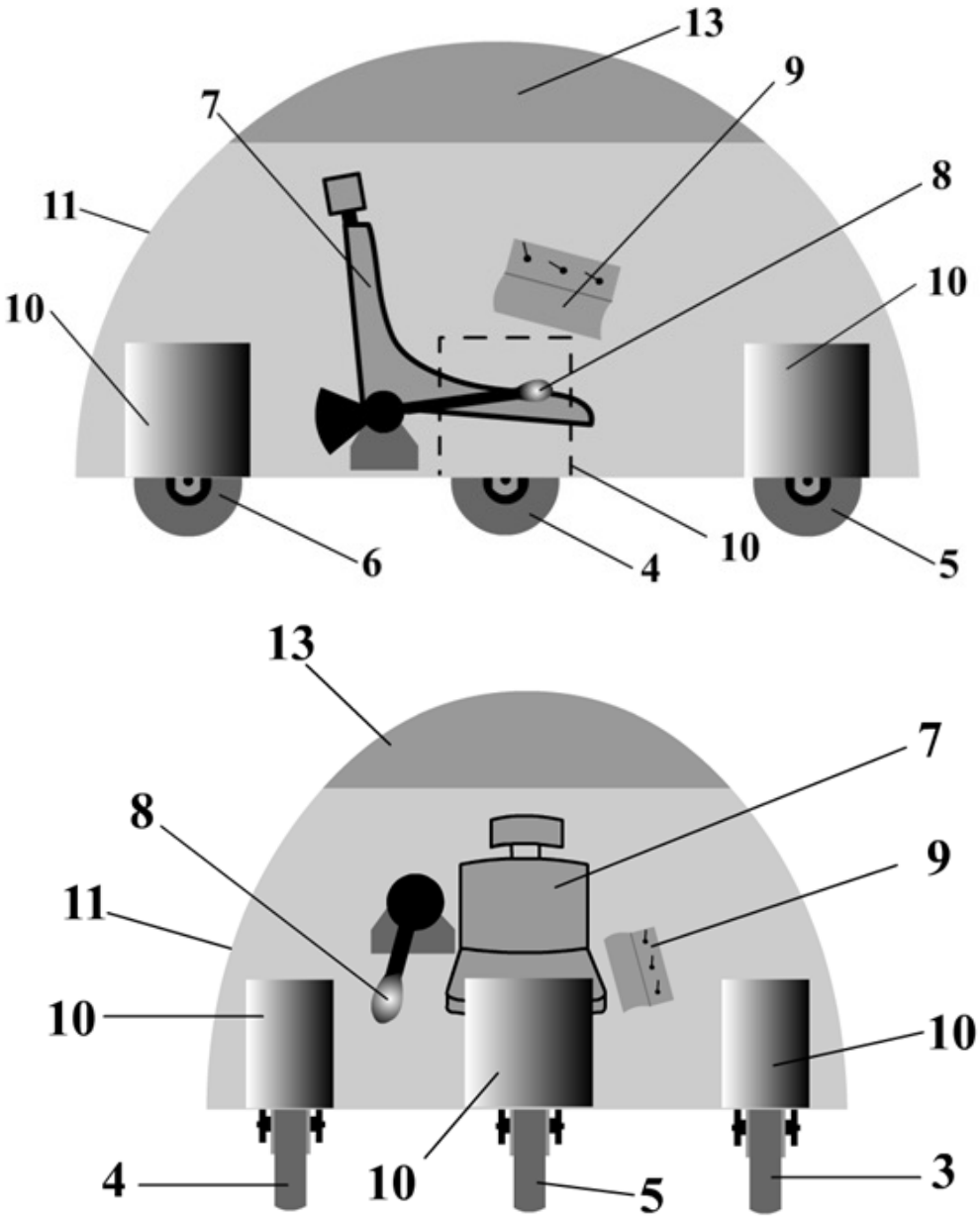
The components of the car are:

- 1. Carriage;
- 2. Wheels arrangement (rhombus);
- 3. Left driving wheel ;
- 4. Right driving wheel;
- 5. Front driving wheel;
- 6. Back bearing wheel;
- 7. Chair;
- 8. Lever;
- 9. Electric block;
- 10. Fork wheel protection bar;



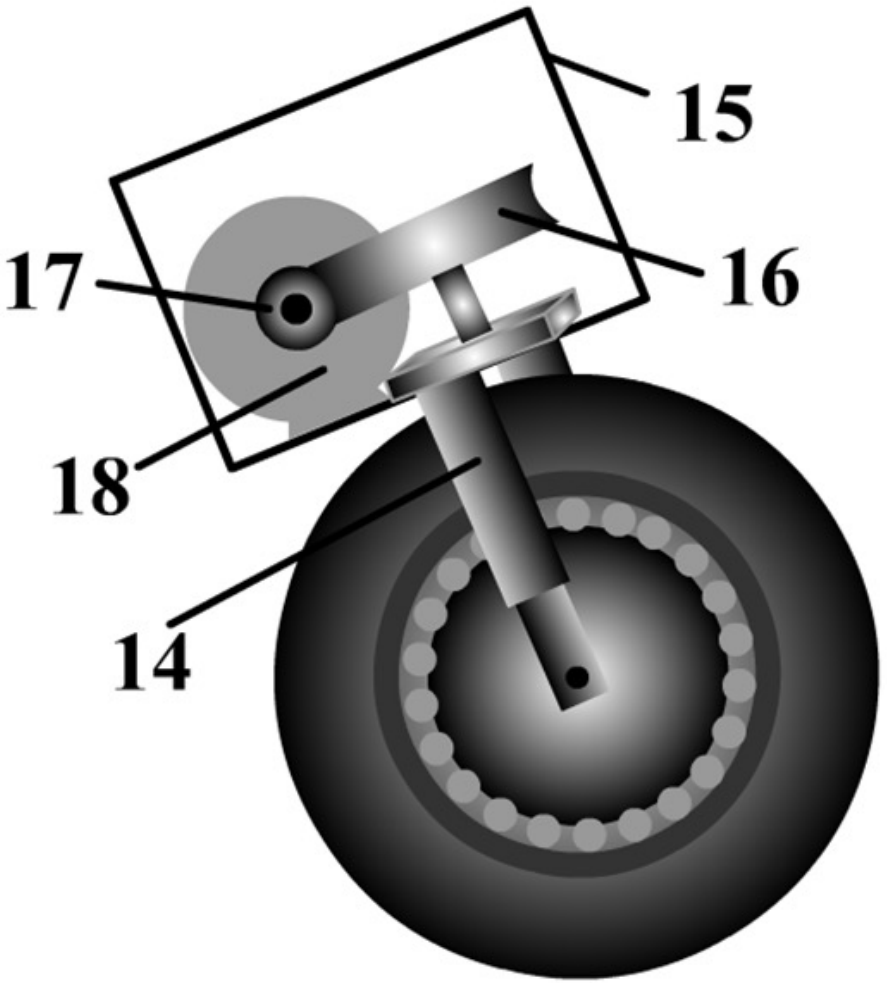
Components

- 3. Left driving wheel;
- 4. Right driving wheel;
- 5. Front driving wheel;
- 6. Back bearing wheel;
- 7. Chair;
- 8. Lever;
- 9. Electric block;
- 10. Fork wheel protection bar;
- **11. Bodywork;**
- 12. Car door;
- **13. Sunshade.**



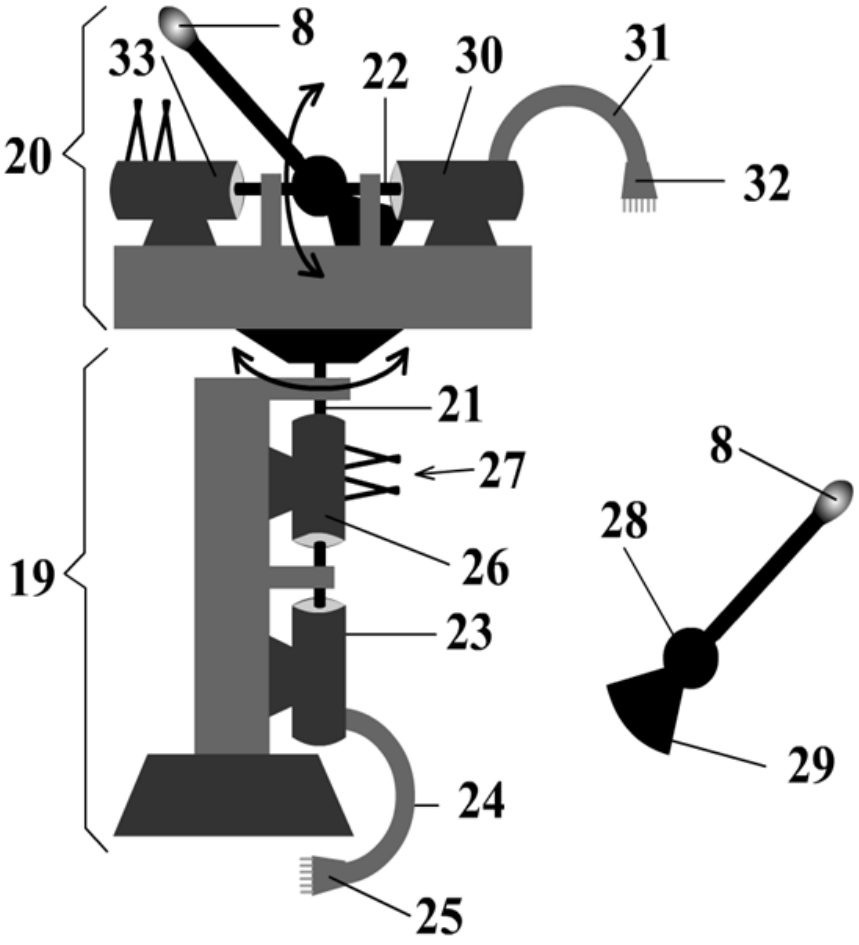
Components of the wheel assembly

- 14. Wheel fork;
- 15. Steering box;
- 16. Pinion;
- 17. Endless screw;
- 18. Servomotor;



Here are presented the components for the Lower and Upper subassembly

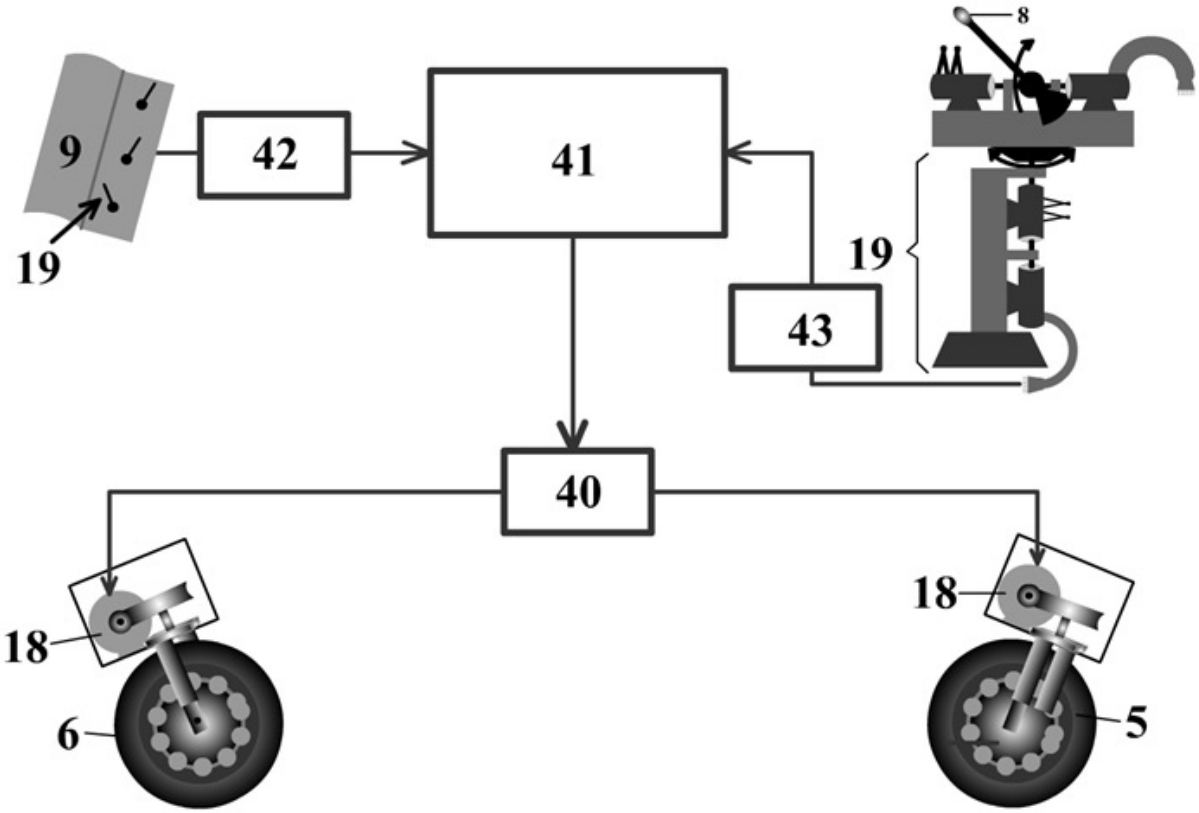
- 19. Lower subassembly;
- 20. Upper subassembly;
- 21. Lower axle subassembly;
- 22. Upper axle subassembly;
- 23. Angle transducer;
- 24. Electronic cable;
- 25. Electronic connector;
- 26. Engine;
- 27. Engine windings;
- 28. Retaining fixture;
- 29. Counterweight;
- 30. Angle transducer;
- 31. Electronic cable;
- 32. Electronic connector;
- 33. Engine;
- 34. Engine windings.



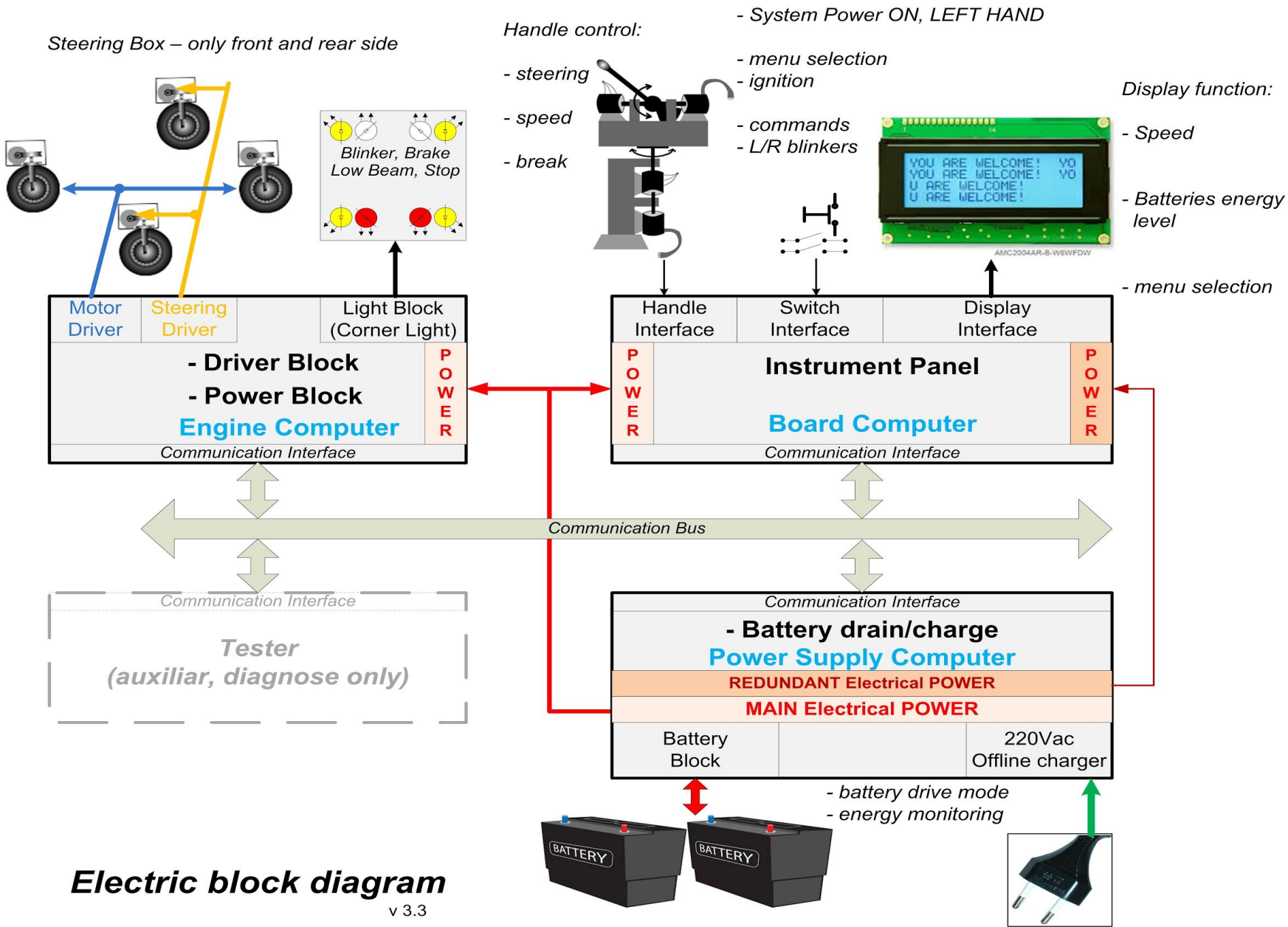
Components

The electrical block scheme is formed by:

- 40. Power block;
- 41. Board computer;
- 42. Switch interface;
- 43. Handle interface;



Electrical block diagram

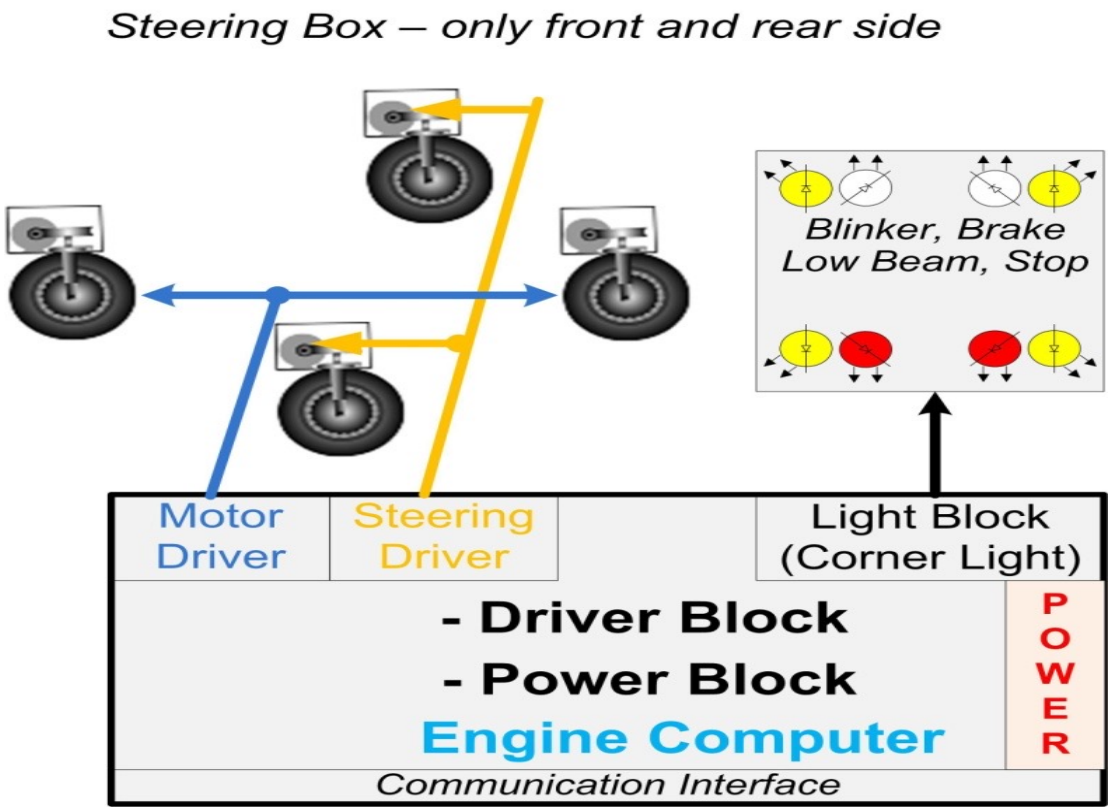


Electric block diagram

v 3.3

Electrical block

- Block diagram of the electronic and execution system implements the technology "drive by wire". It replaces traditional mechanical systems with electronic control system using electromechanical actuators (power steering) and human-machine interfaces ("Human Machine Interface") (holder, switchboard).
- "Engine Computer" handles electric execution elements: order of power wheel placed sideways, power steering, front and rear wheels and the block light.

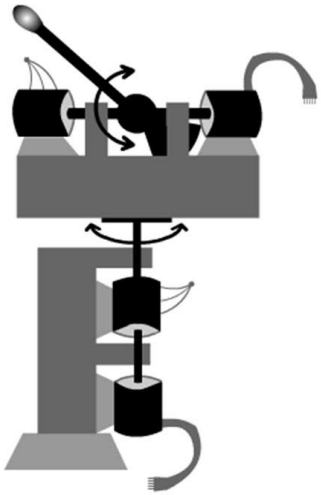


Handle control:

- steering

- speed

- break



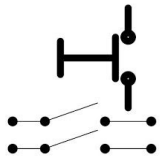
- System Power ON, LEFT HAND

- menu selection

- ignition

- commands

- L/R blinkers

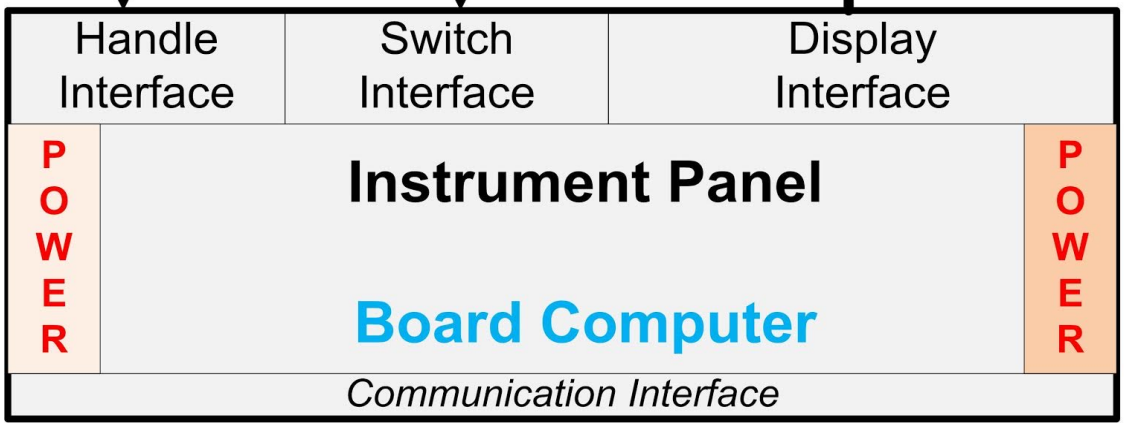


Display function:

- Speed

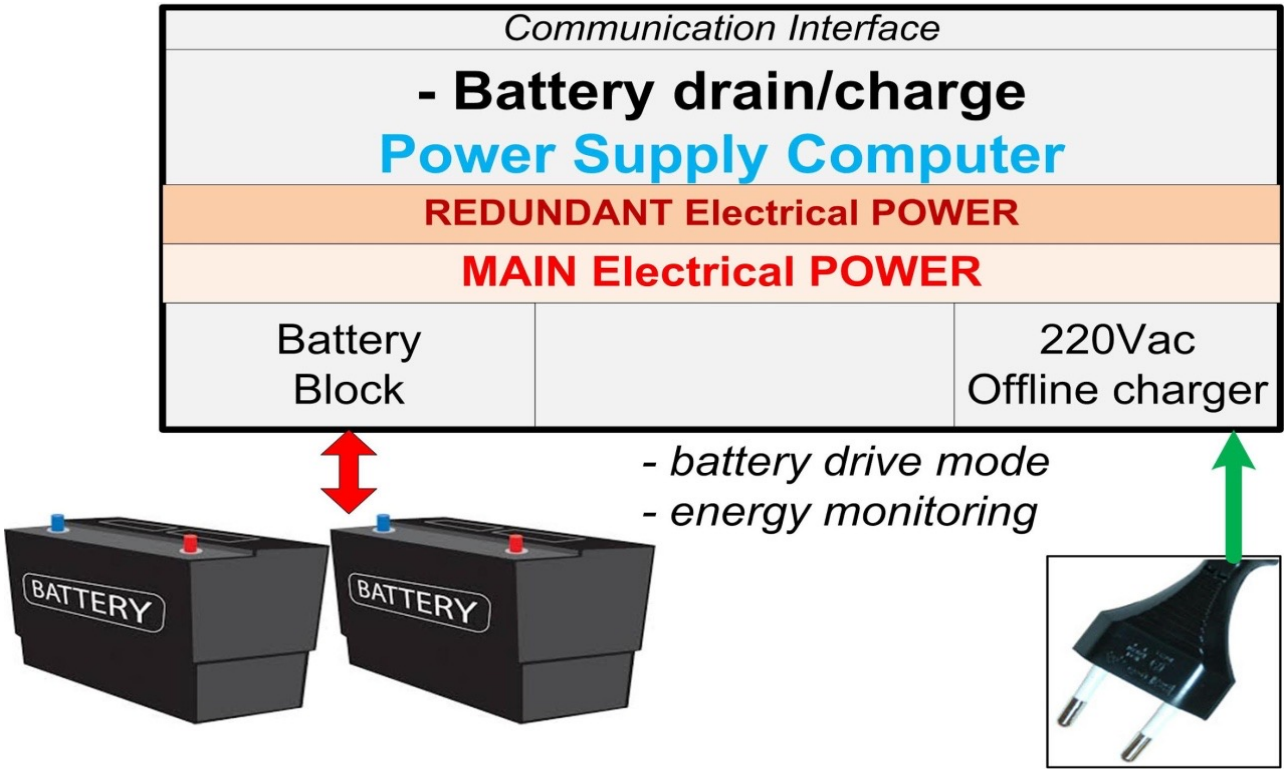
- Batteries energy level

- menu selection



Electrical block components:

- The "Power Supply Computer" manages electricity of the vehicle,
- The "Main Electrical Power" (main energy source) provides electricity especially in the high electric power (engine).
- The "Redundant Electrical Power" provides emergency power that fuels only the board computer and the block light in case of main battery complete drainage.



Technical characteristics of the car are:

- weight: max. 250 Kg without batteries - max. 400 Kg with batteries;
- payload: max. 150 Kg;
- maximum speed: 50 Km/h;
- autonomy: 60 Km;
- battery charging time: max. 14 hours for batteries with Pb (lead) and min 2 hours for lithium-ion batteries;
- electric motor power: 2 KW;
- battery voltage: 60 V;
- Cost per 100 Km : max. 6 lei = 1,34 Euro (equivalent to 1 litre of gasoline).

Advantages

- advanced support while driving;
- additional safety systems;
- ease of parking;
- low cost price per kilometre;
- environmentally friendly, zero emissions;
- quick start;
- noiseless;
- can be charged at home.

Applications

- especially for commuting to work and back home in the city.

Thank you for watching!

Contact:

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