



ELECTRICAL PERSONAL INDIVIDUAL CAR

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DESTINATION

The invention is meant to be an economical and environmentally friendly mean of transport in the city, where most of the time you are driving alone, so this car is replacing the classic 5 seat cars with 1 seat car, but keeping a personal comfort similar to that provided by above mentioned classic cars.

PRINCIPLES USED

- the bodywork is compact, formed from the half of an ovoid;
- the carriage is elliptical and has four wheels arranged in the peaks of a rhombus;
- the driving wheels are equipped with hub motors;
- all wheels can turn synchronously independently to achieve the direction of movement and are mounted in an identical manner, each one having a fork, suspension springs, shock absorbers and power steering;
- there is no reverse gear;
- the classic steering wheel is missing and all the driving is done from a joystick that can be controlled with one hand
- by changing the lever of the joystick ensures both changing direction, and changing the speed and braking;
- from an ergonomic control panel disposed on the support of the left hand in order to rotate on the spot, turn signal and climate control.

TECHNICAL CHARACTERISTICS

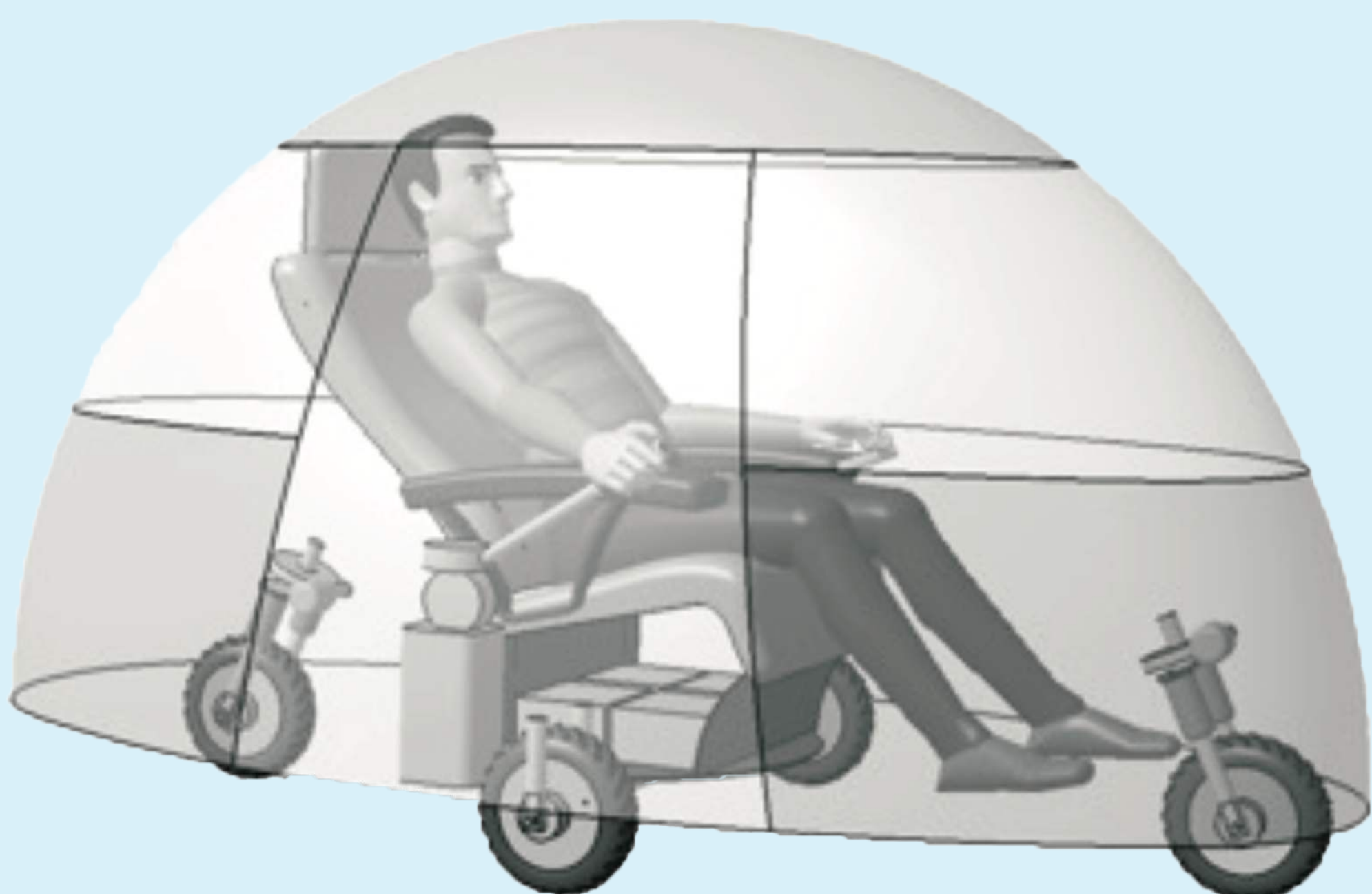
- weight: max. 250 Kg without batteries
- max. 400 Kg with batteries;
- payload: max. 150 Kg;
- maximum speed: 50 Km/h;
- length/width/height: 2.5/1.5/1.5 [m];
- autonomy: 60Km;
- battery charging time: max. 14 hours for lead batteries/min. 2 hours for lithium-ion batteries;
- electric motor power: 2 KW;
- battery voltage: 60 V;
- cost per 100 Km travelled: equivalent to 1 litre of gasoline.

ADVANTAGES

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

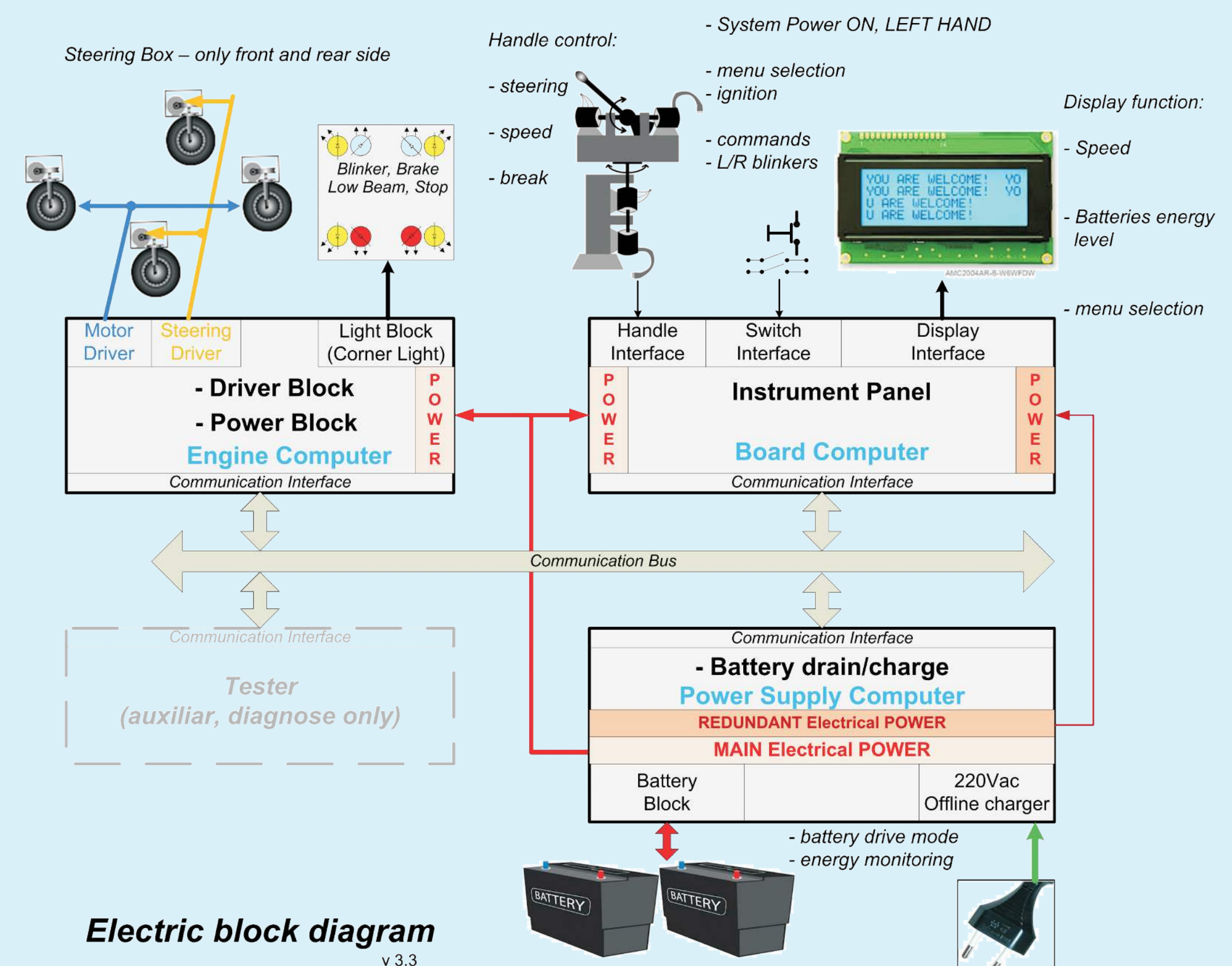
APPLICATIONS

- commuting to work and back home in the city.

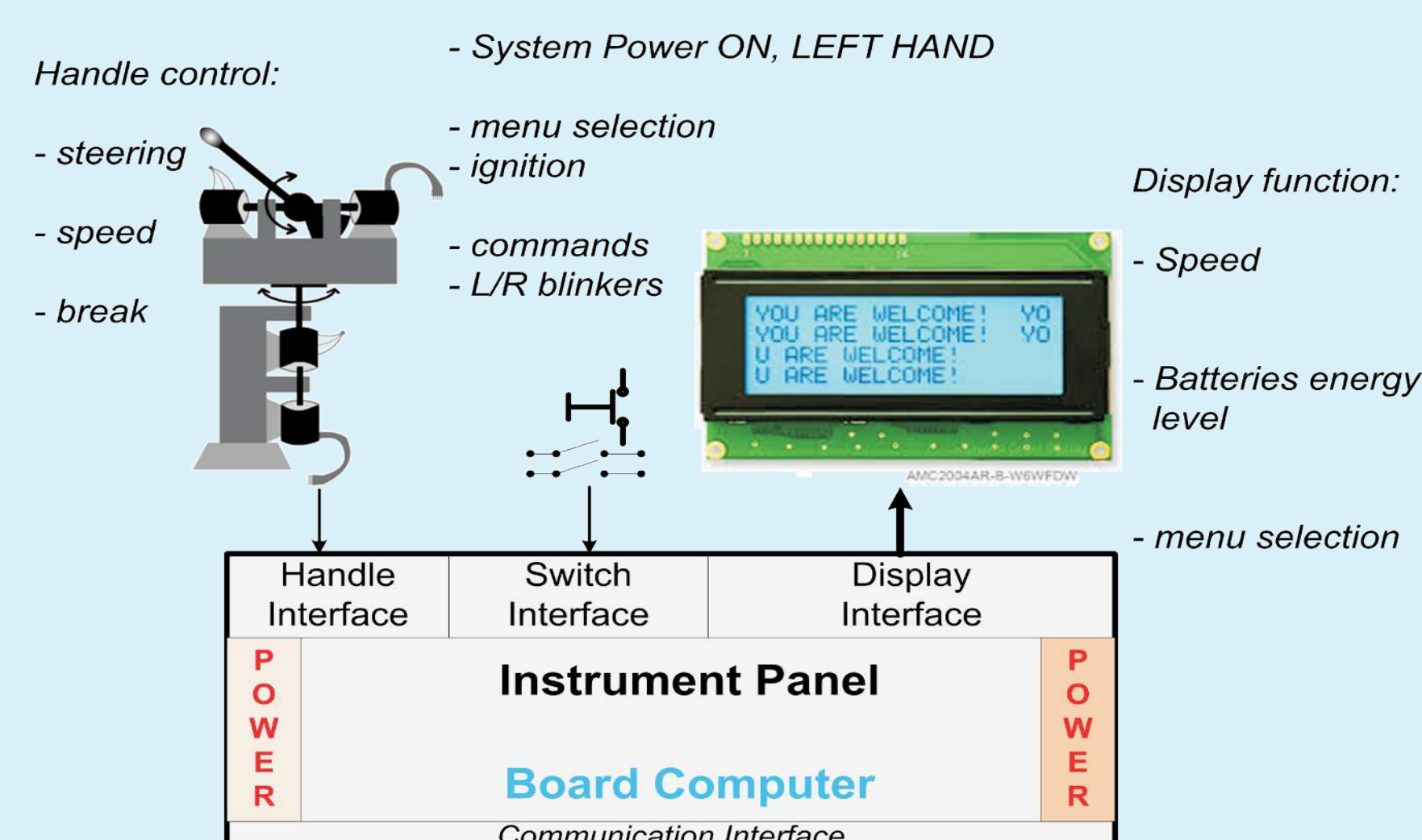


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Block diagram of the electronic and execution system implements the technology "drive by wire". It replaces traditional mechanical systems with electronic control system using electromechanical actuators (power steering) and human- machine interfaces "Human Machine Interface" (holder, switchboard).



"Board Computer", the main computer, take commands from the user via the control panel and the holder and channeling them to the execution elements through communication interface "Communication Interface" and displays the information on the display.

"Engine Computer" handles electric execution elements: order of sideways placed driving wheel, power steering, front and rear wheels and the block light.
"Power Supply Computer" manages electricity of the vehicle. The block "Main Electrical Power" (main energy source) provides electricity especially in the high electric power (engine). The Bloc "Redundant Electrical Power" provides emergency power line that fuels only the board computer and the block light. It provide battery charging from the electric grid.

