

Construction phase 2:

The central rack is screwed to the vehicle tail according to fig. 4 with 2 screws and nuts. Please look to it that it doesn't twist or cant, both front wheels should rest flush with the surface.

The photo (to the right) shows the vehicle at the **end of construction phase 2**. The yellow and the black wire of the electric motor are braided through the chassis to the back and connected to the same-colored wires of the circuit board in construction phase 3.

Construction phase 3

Montage of the circuit board:

Through the two 2.5 mm holes of the plexiglass plate the 2 countersunk screws M2 are inserted from the top, run through the fitting holes of the bent angles of the metal chassis and simultaneously the front side of the circuit board is fixed accurately fitting with the double-faced adhesive tape (remove the red protective sheet beforehand). On the lower metal surface the screw of the circuit board is screwed on tightly with 1 nut each.

Soldering work:

The yellow wire from the switch is run to the front through a hole in the vehicle tail, possibly shortened, and soldered up with the yellow wire of the motor. The black wire of the motor is soldered up accordingly with the pushed through black wire of the circuit board. Over both soldering sites the insulation tube is pushed afterwards.

Now the vehicle is finished and ready for operation.

Both axles should rotate easily!! Possibly readjust the plugged on wheels! The axle passages can be sprayed at the metal passages with silicone spray to decrease friction.

Test drive:

From the solar filling station (optimally solar module SUSE 4.34) the positive wire is plugged into the red jack of the car, the negative wire into the black jack.

The switch is switched to CHARGING, the GoldCap is charged by the solar current of the module. To monitor the charging process a voltmeter can be connected parallel to the wires. If the solar module is now adjusted towards the sun outdoors (or to the south with a clouded sky), the GoldCap gets charged, the charging takes about 30....100 seconds.

Afterwards the wires are disconnected from the vehicle, the switch is put in the middle position, the car is placed on a smooth, flat surface, the switch is switched to DRIVE, the car will dart off fast!

Experiments:

The extensive experimentation manual *sux-SolarVehicle4* allows for multiple experiments on solar electromobility at a simple, medium and higher level.

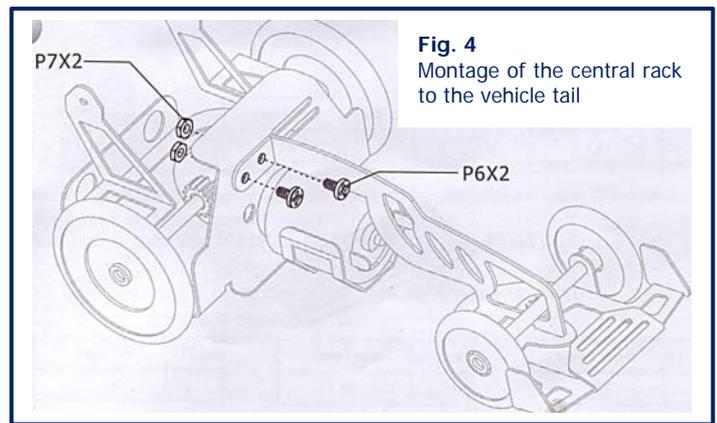


Fig. 4
Montage of the central rack to the vehicle tail



Fig. 5
The vehicle before the montage of the circuit board