

The SUSE solar vehicle 1

Solar vehicle with GoldCap energy repository (without own solar cell)
to be charged at a solar filling station
 $V = 2.5 \text{ V}_{\text{max}}$ Drive through SUSE solar motor and two-step gear



Top view:

Up front the solar motor with the two-step gear on the front axis is visible.

At the top the electronic circuit board with the electrical energy repository, GoldCap, the operating switch, the two binding posts and the electric switch contacts is located. To the binding posts hookup or lab wires can be connected to charge the GoldCap.

Photo at the bottom to the right:

Charging of the GoldCap with SUSE 4.3RB.

Photo at the bottom to the left:

Students charge the GoldCap of their car with the solar modules of their solar boats.

The SUSE solar vehicle 1

The vehicle does not have an own solar cell, but is 'refueled' at a solar filling station before driving, in the process the electrical energy repository GoldCap is charged with 2.5 V DC max. and an electric energy of up to 10 J is stored.

With one filling the car drives about 30-100 m.

Depending on the light's intensity = irradiance S the charging process takes just a few minutes.

This way the vehicle can be charged under a very cloudy sky, a pure solar cell vehicle would not drive under these light conditions. With this vehicle extensive experiments (e.g. capacitor charging/discharging) can be conducted.

To charge the GoldCap lab wires, that lead to the solar module, are plugged into the jacks or hookup wire is connected in this way.



The two students charge the solar vehicle 1 with the solar cells of the solar boats. With the multimeter the charging process can be observed, the charging current or the voltage can be measured.

As a solar filling station the solar module SUSE 4.34 is ideally suited.



Charging of solar vehicle 2 with solar moduler SUSE 4.3RB (using 4 solar cells).