



innovative Solarsysteme für Schule und Ausbildung
innovative solar- systems for school, college, technical education

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The SUSE solar boat 4

Powerful solar boat with the solar module SUSEmod6
4 solar cells in series connection, solar motor with big air-screw
2 test jacks for PV experiments
2 empty beverage bottles serve as boat hull



The **solar boat 4** consists of a plexiglass base plate, which is bent 90° at the site of the motor, where the solar electric motor, the test jacks and the big red air-screw are located.

On the horizontal plane the solar module SUSEmod6 (2.4 V / 630 mA) with 4 solar cells in intern series connection is mounted.

Two empty beverage bottles serve as a boat hull, onto which the plexiglass plate is glued with adhesive tape.

The solar module SUSEmod6 is very powerful and produces a high propeller revolution speed. The fast rotating air-screw produces an airflow and pushes the boat forward.

The module voltage is applied at the two jacks positive (red) and negative (black) below the electric motor, here measurements for experiments with voltage, current, power and current density can be conducted with lab wires and multimeter. An extensive experimentation manual is included in delivery.

Additionally this is where 2 boats can be connected to each other in series (on land) to connect a radio for example.

Because of the powerful solar cells the boat doesn't just run with bright sunshine, but also with a clouded sky.

The boat can be delivered as a complete device or as a construction kit.

The photo shows the measurement of the module voltage at the test jacks in the sunshine: 2.22 V < open circuit voltage 2.4 V, because the electric motor decreases the voltage as a load.