

The solar vehicle solar runabout turbo

Simple beginner's solar vehicle for primary school and lower secondary school



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The basis for the vehicle is the construction kit for the solar runabout. With the version „turbo“ a bigger and more powerful solar module with twice the area and twice the power is used, mounted on a spacer block. Thus we reach a higher speed with bright sunshine and even a drive under a slightly clouded sky becomes possible. The positive and negative connections to the electric motor and solar module are soldered to 2 soldering eyelets M3, here the voltage of the solar module can be measured with a voltmeter.

Technical data:

Vehicle

Vehicle length: 80 mm
 Vehicle width: 65 mm
 Vehicle height: 43 mm

Drive

Mini electric motor with
 reduction gear

Solar module

Module dimensions: 60 x 30 mm
 2 solar cells in internal series connection
 $V_{oc} = 1,2 \text{ V}$ $I_{sc} = 170 \text{ mA}$

At standard testing conditions
 $S = 1000 \text{ W/m}^2$, $T = 25^\circ\text{C}$, $AM = 1,5$

The vehicle is available for delivery as a construction kit

Required tools for the construction kit:

Cross tip screwdriver (included in construction kit), long-nosed pliers, soldering station with lead free tin solder.