

Solar Car: Important Information and Working Steps

1. Theory: How Works a Solar Cell?



Solar cells or Photovoltaic Cells convert sunlight in electricity. The base material of a solar cell is silicon.

Photovoltaic (PV) cells are made up of at least 2 semiconductor layers. One layer containing a positive charge, the other a negative charge.

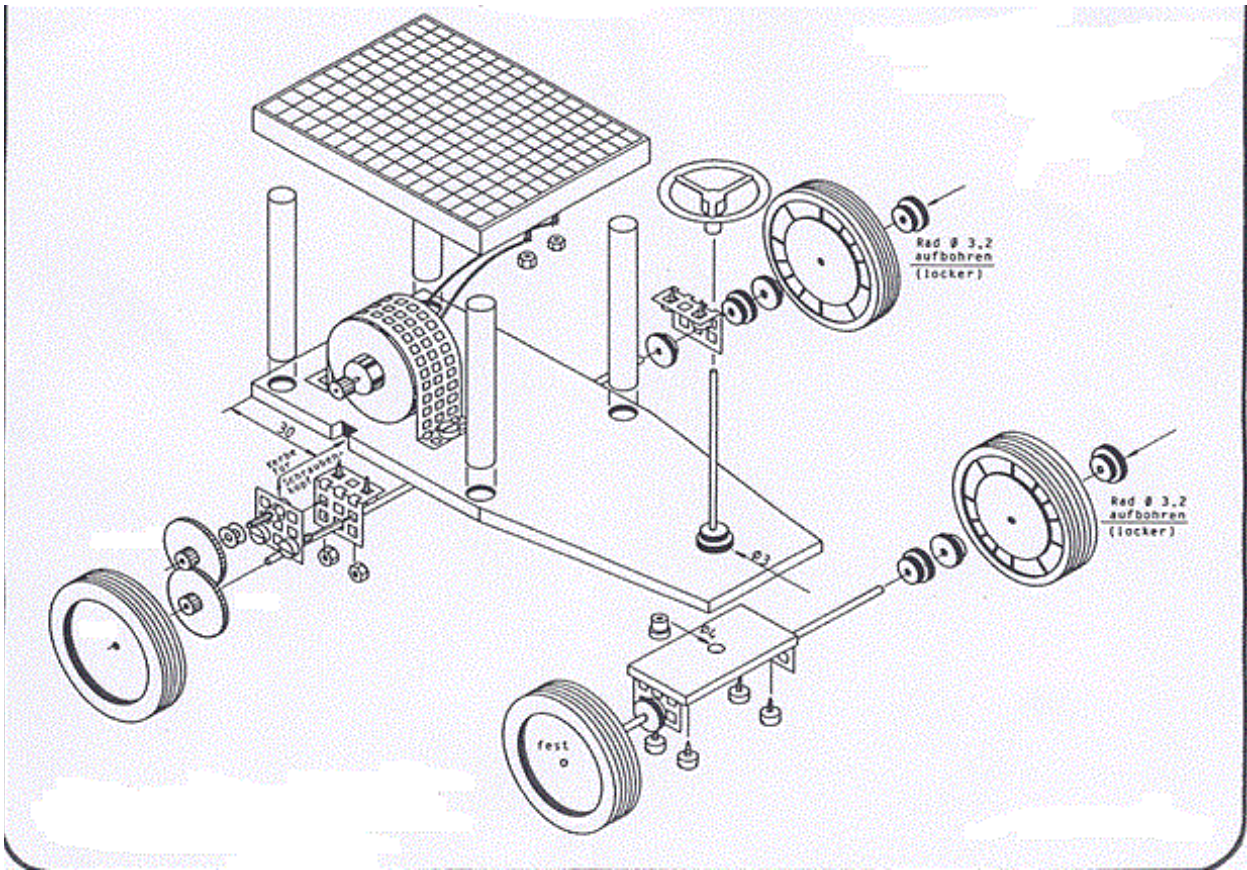
Sunlight consists of little particles of solar energy called photons. As a PV cell is exposed to this sunlight, many of the photons are reflected, pass right through, or absorbed by the solar cell.

When enough photons are absorbed by the negative layer of the photovoltaic cell, electrons are freed from the negative semiconductor material. Due to the manufacturing process of the positive layer, these freed electrons naturally migrate to the positive layer creating a voltage differential, similar to a household battery.

2. The construction plan of the solar car



Before you start with the construction, please study the construction plan accurately. If you have questions, please ask Corinna or Arno!



3. The Construction



Building the car is a little bit complicated. But don't be afraid! We make it together! But consider: There are many small components like screws and cogs. If you lose something, we can't complete the car!

4. The Car Body



At last we need a car body. For this we have different kinds of material like card boxes, plastic bottles, colors and wire

5. The Solar Car Race



At Friday we organize the „First Kenian Solar Car Race“. Hopefully we have enough sun!