

SOLAR RACES - CLIMACT

Goals

Under the Interreg Sudoe ClimACT project, the Low Carbon Schools of Portugal, Spain, France and Gibraltar are challenged to build a Solar Car prototype.

Building the prototypes, the participants will address issues related to energy, geometry, the sun, speed, among others. The solar cars will be used in a race to take place in the final event of the ClimACT project.



Interreg SUDOE ClimACT

Who can compete?

For the Solar Cars competition, all schools participating in the Interreg Sudoe ClimACT project can compete. In the final event of the ClimACT project, there will be a race with all cars if the weather is favorable.

1st Category: 1st, 2nd and 3rd cycles of Basic Education

2nd Category: High School and University

Premium

1 external disk (storage) for each participating school in 2 of the challenges ClimACT 2017/18 (Solar Races, Solar Ovens, ClimACT Code).

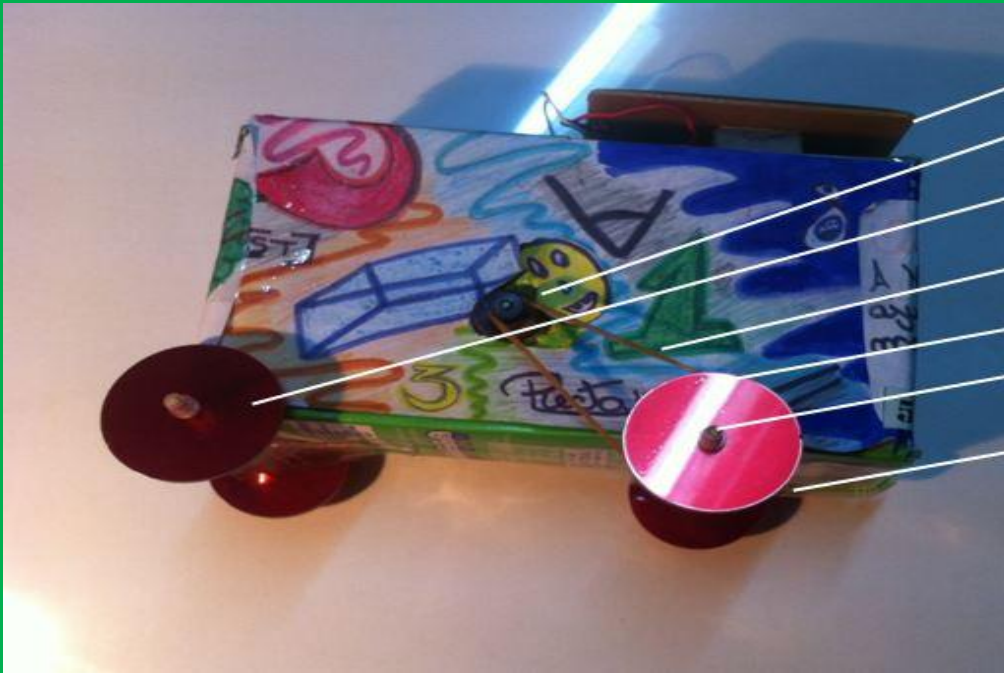
Note: Participation in this contest does not require registration.



SOLAR RACES - CLIMACT

Instructions

It should be a collective work and the involvement and participation of the students is fundamental. The materials used in the construction of solar cars were provided in a school kit.

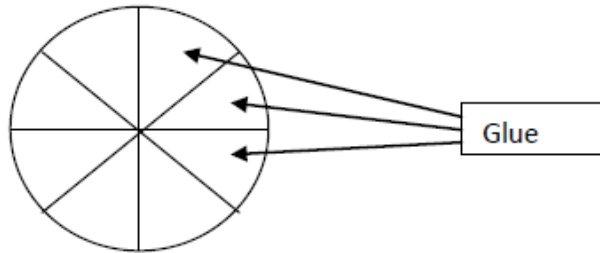


1º Placement / Assembly of the electric engine (M)

Before marking the center point for the engine (M), it is important to confirm that the tips of the leading wires touch and connect easily to the terminals of the solar photovoltaic cell (SPC).

Place the engine at the chosen point, get around the engine with a pen, then divide the circle into 8 equal parts. Using a X-Acto, cut from the outside line to the center. On the 8 triangles put liquid glue to fix the engine.

Fix the engine by gluing.



The conductive wires can be placed on the exterior or interior. To put them in the interior, it is necessary to open the package in the back. These wires can also be out of the package, which eases the assembly.

2º Position of the rear wheels (RW).

Start by placing the drive wheel on the axis, glue the large pulley (PUL) to the wheel, insert the axis into the holder (straw), place the rubber band into the concavity of the wheel pulley and also on the small pulley of the engine, and check the best tension of work. Finally fix the axis holder using painters tape.



Axis Holder

Big pulley

Wheel to axis fixator

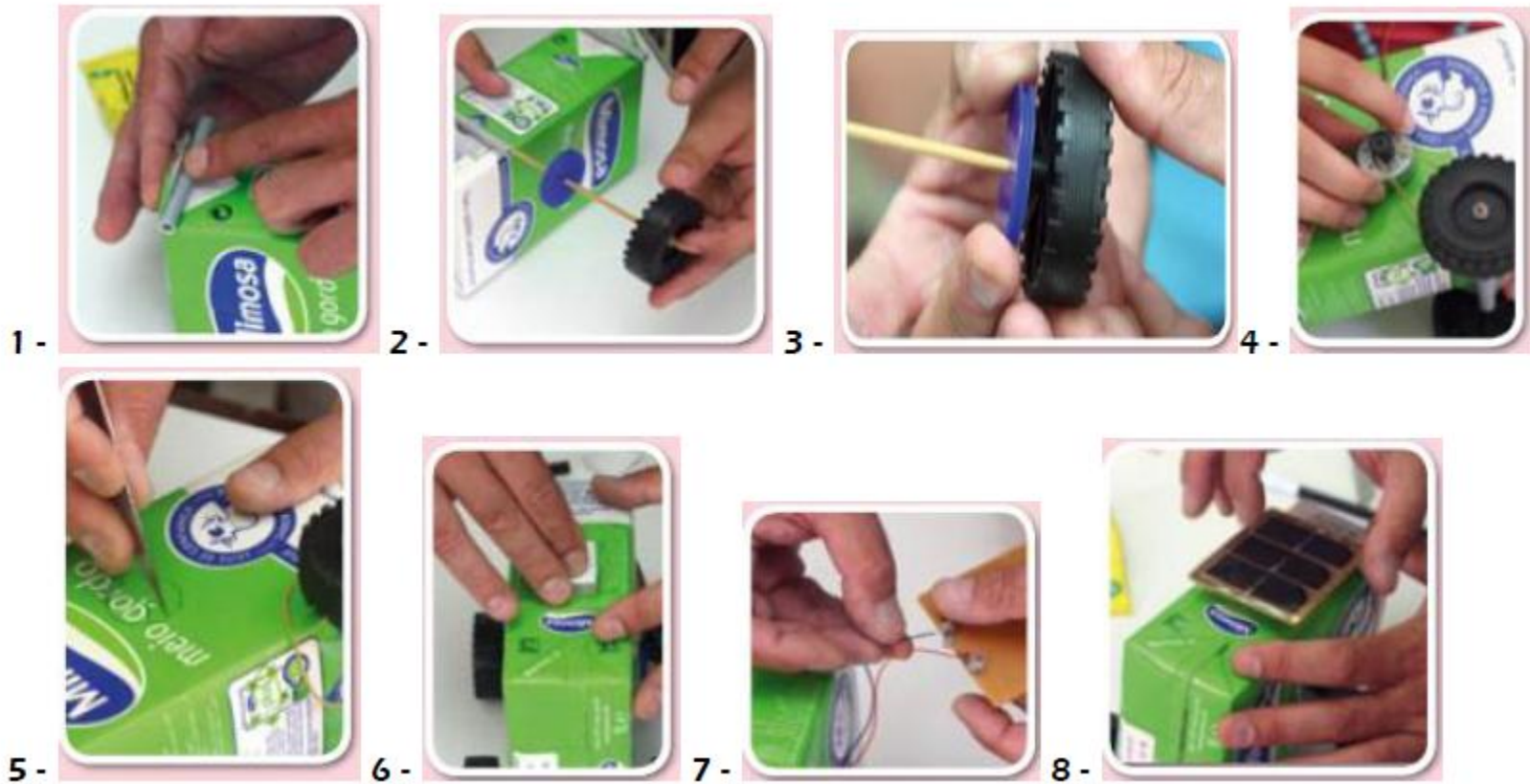


Movement transmission belt

IMPORTANT!

The work tension cannot be too strong neither too weak.





CLIMACT

Delivery

The entire construction process, as well as the final work must be recorded in photography and / or video.

The photographs and / or video should be sent by e-mail to climact@abae.pt, with the identification of all the authors (School, Teacher (s), Students), accompanied by a brief descriptive document that presents in writing the process and materials used.

Deadlines

Entries must be sent by June 23, 2018 to the e-mail address indicated.
The decision of the Jury can not be appealed.

SOLAR CARS - Escola Secundária Abel Salazar (ESAS)



[Watch video here](#)