



competence in mechatronics  
software and systems engineering

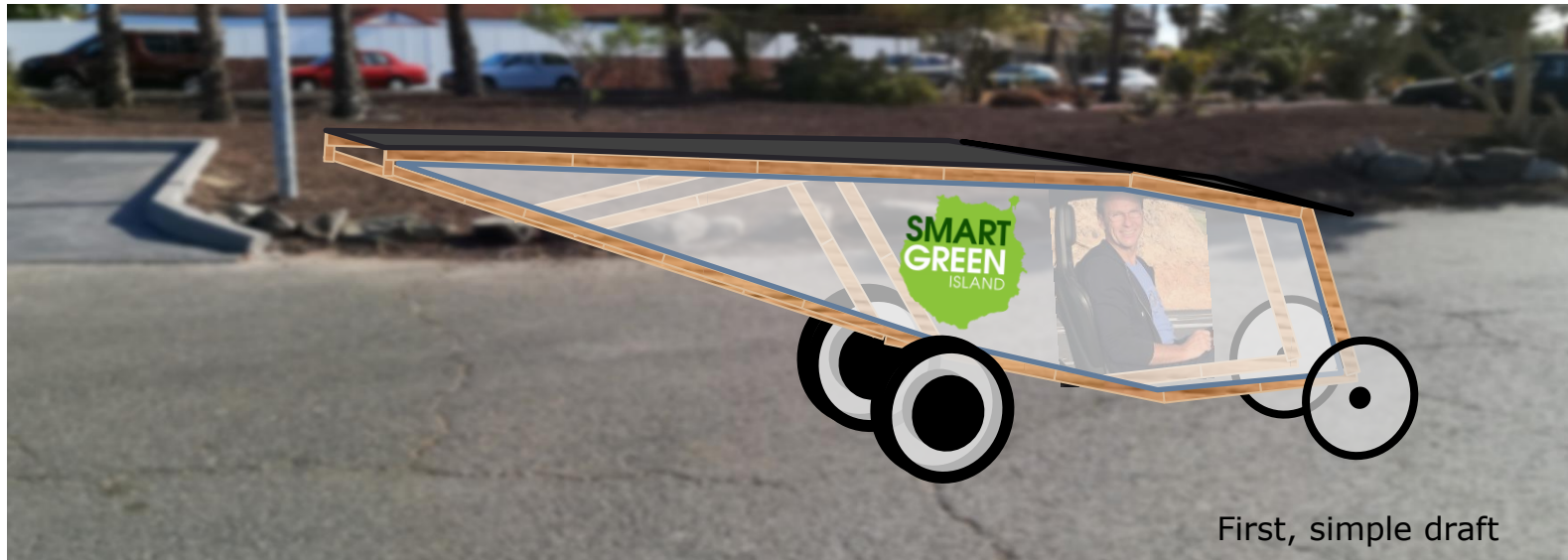
## **Solar car made in Gran Canaria (designed for Africa)**

04.03.2019

2. Draft

## Main requirements: shape, structure, price

- Shape similar to Twizy: 1-2 seats
- 4 wheels
- Max. 40 km/h
- Standard components
- Costs of components: 5.000 Euro



## Main requirements, components

- **Frame: Bamboo**



Source: [www.bambus-discount.com](http://www.bambus-discount.com)

- **Bicycle Motor: e.g. Swissdrive**



Source: [www.go-swissdrive.com](http://www.go-swissdrive.com)

- **Bicycle Brakes: e.g. Shimano XT**



Source: [de.aliexpress.com](http://de.aliexpress.com)  
(Shimano XT)

- **Steering: like Hydro2Motion**



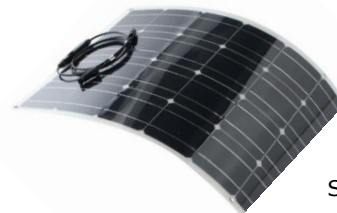
26.06.2014

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Hydro2Motion © Alair/EATC 2014

- **Flexible solar panels:**

- **3qm**



Source: [www.banggood.com](http://www.banggood.com) Elfeland-SP-39-12V-120W

## Design, Organisation, Team

- **Solar car should be designed to be rebuild anywhere (e.g. Africa)**
- **Teams may be at different places**
- **Test and Development can take place at different places**
- **Final assembling should be possible in Gran Canaria**
- **One part of the team have to be on the island**
- **Solar car should be ready for Makeathon 2020**
- ***Regulations of WSC (World Solar Challenge) should be taken into account as a guide line to learn from***



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## Outlook

## Round Trip Solar Car Rally

- **In 2022 there should be established a Solar Car Rally**
  - **Toughest Solar Car Rally of the world (through height difference)**
  
- **Round trip:**
  - **~220 km distance**
  - **~ 4.000 m height difference**
  
- **Start and Finish: Las Palmas – Playa de las Canteras**
  
  
- **Reglement of cars has to be defined**

# Route Solar Rally

Las Palmas de Gran Canaria, Provinz Las Palmas

Marente, 35450, Provinz Las Palmas

Fontanales, 35421, Provinz Las Palmas

Artenara, 35350, Provinz Las Palmas

Tejeda, 35360, Provinz Las Palmas

GC-605, 35368 Tejeda, Las Palmas

Mogán, Provinz Las Palmas

Puerto de Mogán, 35139 Lomo Quebrado, Las Palmas

Maspalomas, 35100, Provinz Las Palmas

Las Palmas de Gran Canaria, Provinz Las Palmas

über GC-500 16 Std. 57 Min.  
229 km  
Auf dieser Route liegen gesperrte oder private Straßen.  
DETAILS

↑ 4.044 m · ↓ 4.044 m  
1.541 m  
4 m

Satellit

Google

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