



## Open position – *Mechanics*

### *Mechanisms and Steering*

#### **YOUR DEPARTMENT**

The mechanics department connects both the vehicle to the road and the various structural components. The main area of responsibility is the design and manufacture of the components between the tyres and the monocoque and the mechanisms required for the solar car. This includes the design and construction of wheel suspensions, folding mechanisms or the steering system, which have to meet all load cases and are optimised exactly to the available installation space. In doing so, the maxim is followed: "As light as possible, as stable as necessary".

#### **YOUR TASK**

A solar car consists of various movable bodywork-components that enable the driver to operate the car. This includes components like the Solararray-Lid or Wheelcovers which all need specific mechanisms to either move or lock the components when necessary. Furthermore the car requires a steering mechanism for driving. Your task will be to develop and manufacture those mechanisms in the most high performing and lightweight way while guaranteeing a high reliability. In doing so, you can demonstrate your knowledge, your creativity and especially your willingness to learn. To successfully complete these tasks, you will work intensively in CAD to carefully plan and design your assemblies. With the help of movement analyses, you will ensure that the functionality of these components is guaranteed. Furthermore, you will optimise and safely design your components on the basis of load case analyses and FEM simulations. You will take care of the manufacturing of your components and keep an eye on external manufacturing. Once manufactured, you will install your components to the car and test them thoroughly.

#### **WHAT YOU BRING TO THE TEAM**

- Enthusiasm for the project!
- Student in mechanical engineering or a comparable field of study
- High level of commitment and motivation to get to grips with complex problems
- Initial experience and knowledge with CAD is advantageous

#### **WHAT WE OFFER YOU**

- Development of one of the most efficient solar cars in the world
- Opportunity to apply your theoretical knowledge in practice and implement your own ideas in an exciting environment
- Use of CAD within the scope of a demanding project
- Contact to potential employers and the development of a professional network (in industry and research)
- THE experience of your studies!

#### **APPLICATION**

Please apply exclusively via the application form on our website:

[www.sonnenwagen.org/join](http://www.sonnenwagen.org/join)

