



## Open position – Structural Components

### Simulation

#### YOUR DEPARTMENT

The structural components department is responsible for the design, development and manufacturing of the solar car's load-bearing structural elements and bodywork, which not only ensure driver safety but also optimise the vehicle's performance. We select composite materials to minimise vehicle weight and ensure structural integrity, mainly through fibre composites. In addition, we take responsibility for the manufacturing of the FRP components, which is carried out entirely in-house by our team. In the structural department of Sonnenwagen Aachen, we offer you the opportunity to design your own solar racing car from scratch.

#### YOUR TASK

FEM simulations are essential to ensure the best possible protection for the riders while still keeping the weight of the components as low as possible. Your task will be to create simulations and use their evaluation to ensure that the chassis of the solar car meets its mechanical requirements. The chassis must be able to withstand the loads of the suspension as well as impact loads and provide space for the driver. To achieve this, you will work closely with the designers in the structural and chassis departments. As you will mainly be working with fibre composites in sandwich construction, you will optimise laminate structures to ensure high performance of the chassis.

#### WHAT YOU BRING TO THE TEAM

- Student in mechanical engineering, business engineering, material engineering or a comparable field of study
- High level of commitment and motivation
- Initial experience and knowledge with FEM is advantageous
- Enjoy working in a highly motivated, creative team

#### 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 Siemens NX and Siemens Simcenter 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)



Apply now!

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