



Open position – *Electrical Engineering*

Inverter

YOUR DEPARTMENT

The electrical engineering department brings the vehicle to life. Its main area of responsibility includes the design, manufacture and integration of the electrical systems required to operate the vehicle. This includes the implementation of efficient solar cells, the integration of batteries, the powertrain and the control electronics. Reliability and energy efficiency have the highest priority to ensure smooth running of the races.

YOUR TASK

The central component is the traction inverter, which contributes to the highly efficient drive of our vehicle. A high level of reliability and safety are paramount. Your tasks will include:

- Developing and improving software and hardware as well as concepts for electrical safety
- Developing and building circuit boards with innovative power electronics
- Characterisation and verification of the drive train on the engine test bench

WHAT YOU BRING TO THE TEAM

- Enthusiasm for the project!
- Student in electrical engineering or a similar field of study
- Experience in board design, embedded development and debugging required
- Fun with problem solving and breaking down complex problems
- Initial knowledge and experience in the field of power electronics, electrical machines and simulation desirable
- Dutiful and responsible way of working

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 TI Code Composer, Vector CANoe, Altium Designer, Tracealyzer within the scope of a demanding project
- Experience with real-time systems and electromobility
- 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

