



Open position – *Electrical Engineering*

Battery Management System

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 high-voltage battery, which we use to store solar energy. It has to meet many requirements, such as high reliability and safety, large capacity, low weight and integration, low weight and integration into the and integration into the vehicle concept. Your tasks will include:

- Working on and maintaining the battery management system, which is the central part of the battery and the safety concept of the vehicle
- Developing and improving the BMS-Software and electrical safety concepts
- Work with in-house developed circuit boards, for integration of the BMS and help with the electrical battery concept
- Manufacturing of 3 batteries as well as characterisation and verification of the battery packs

WHAT YOU BRING TO THE TEAM

- Enthusiasm for the project!
- Student in electrical engineering, computer engineering or a similar field of study
- Fun with problem solving and breaking down complex problems
- First Experience with software development in larger projects (ideally C / embedded) is an advantage
- 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 FreeRTOS, 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

