

## Customer Application #11

# Höcherl & Hackl GmbH Partner of eSleek15

Hoecherl and Hackl is partner of eSleek15, an electric-powered racing car developed by students of the Baden-Wuerttemberg Cooperative State University (DHBW) in Stuttgart, Germany. In the previous season a 120 hp and only 185 kg racing car was constructed, which obtained the best results in the design competitions in the Formula Student Germany and Formula Student Spain since the foundation of the team.



Foto: FSG <http://media.formulastudent.de/FSG14/Hockenheim-2014/Autocross/i-7KQjt98> (open source)



Elektronische-Last Serie PLI mit 3200W

The race on the Hockenheimring with a fabulous 7th place out of 40 participating teams from all over the world repaid the past work. With position 5 in Barcelona on the Circuit de Catalunya a podium position was within reach.

The team of the DHBW Stuttgart currently works on the racing car for season 2015 with the aim to improve the results of the previous season. Hoecherl and Hackl supports DHBW Engineering Stuttgart e.V. with electronic loads for testing the Lithium-Polymer cells of the new racing car eSleek15. During the tests measurements are performed to obtain parameters for the creation of a battery model. This model will be used for the calculation of the batteries state of charge. In addition, the electronic load can be used to test the battery cells with different load profiles. This allows the simulation of real racing conditions.

A yearly developing of an electric racing car which meets the set of rules is the aim of the Formula Electric students. The Formula Student competition can be divided into two parts where points can be gathered. In the static events the teams must defend their concepts and the economy of their racing car against the critical questions of representatives from the industry. In the dynamic events, the properties of the vehicle like handling, acceleration or energy efficiency are assessed. The supreme discipline is the 22 km endurance race where the participants must drive as fast and energy efficient as possible. This race has already destroyed the dreams of a podium result of some teams.