

Powertrain

HV engineer: motor & drives



Green innovation meets performance

Our Project

Formula Electric Belgium is a student-based race team that pushes green innovation to performance. We design and build our own electric race car each year to participate in international Formula Student competitions. We are looking for pioneers to challenge the status quo and bring our top-notch electric race car to the next level. As a postgraduate student, you will research, design, and test your systems together with a group of highly motivated students. You will innovate together with your team members and numerous companies to develop our next generation formula student race car.

Function

As a HV Engineer, you will be responsible for the design and manufacturing of the drivetrain components that convert electrical energy into mechanical energy at the wheels.

Within the department, you will be responsible for research **on the development of the drives** that convert the DC power of the battery into 3-phase currents and deliver it to the four in-wheel motors. Next year, you will help implement a new drive package that adds controllability and dramatically reduces the car's weight.

Alongside the implementation of the inverters, you will be responsible for the mechanical **design of our in-wheel motors**. Taking into account the various loads of the application, you must come up with a thermal-effective solution that can be packaged in a compact space.

Up for the challenge?

You think you're the right person for this job? Don't hesitate to submit your resume and cover letter at our website:

<https://formulaelectric.be/join-us-postgraduate/>

Profile

- Bachelor/Master in Engineering Science, or Engineering Technology
- Knowledge about electrical motor design and the development of advanced drive systems
- Experience with Matlab, Simulink and PID systems
- Interest in with CAD/FEM-software

Returns

- A unique engineering experience
- Developing your hard- and soft-skills in a company-like environment
- Work with the newest technologies and innovative companies
- Work in a team with a network of well over 120 partners
- A summer season packed with competitions all over Europe
- An experience of a life-time!