



Vehicle Dynamics

Suspension Mechanical Design Engineer

Green innovation meets performance

Our Project

Formula Electric Belgium is a team of engineering students who build a **Formula Student race car** to compete in international competitions. We design and build a brand-new car every year and compete with other teams in multiple worldwide competitions during the summer months. Formula Student is by far the biggest **engineering competition** in the world and continues to grow. Next year, we will be competing in both the **electrical** and **driverless** competition. You can join the project during one or two years by applying for the '**Postgraduate in Innovation and Entrepreneurship in Engineering**'.

Tasks

As part of the Vehicle Dynamics department you are responsible for the physical implementation of the suspension system, more specifically the implementation of the **semi-active suspension system** and **kinetic anti-roll**. These include the development of the **valveblocks** for the **semi-active valves**, the **shock absorbers**, **rockers** and the **connections** between these components.

You have to make **design choices** with regards to constraints from the competition rules and KPIs from the other engineers in the team. Furthermore, you will closely work alongside the vehicle dynamics controls engineer to bring the semi-active **suspension** system to life.

In the second semester, you will **assemble** the newly developed parts and develop testing methods that allow you to **test** the newly-made race car.

Profile

- Bachelor/Master Engineering Science, Engineering Technology or Business Engineering
- Basic knowledge about vehicle dynamics
- Experience with CAD-software and FEM-simulations
- Interest in advanced suspension systems (semi-active, active, kinetic, ...)

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 lifetime!

Up for the challenge?



Submit your **resume** and **motivation letter** (one page) to
<https://formulaelectric.be/vacancies-theses/>