# Powertrain

## Titanium braking system

**Green Innovation meets performance**

## Our Project

Formula Electric Belgium is a team of engineering students who build a **Formula-Student racecar** 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. From next year on, we will be competing in both the **electrical** and **driverless** competition. You can join the project as a volunteer. This allows you to contribute to the next race car whilst keeping a flexible schedule**.**

## Tasks

**Performance** and **reliability** are the main focus for a racecar. In this case we'll take a look at our **braking system**. Right now we use purchased AP-racing brake callipers.

To increase performance we want to upgrade them to self-made **titanium brakes**. This could increase braking pressure as well as decrease weight which results in a better car.

The design phase of the callipers is done but they are not operational yet. Understanding, fixing and testing these brakes is the task of the volunteer.

He/she gets the freedom to work separately under supervision of a powertrain engineer but also has the chance to work together with a **thesis student** to implement the callipers into the car.

## Profile

- Knowledge about basic functions of a braking system
- Knowledge about engineering technologies in production
- Problem solving skills (creativity)
- Team player with a goal to learn

## Returns

- Full technical knowledge about a braking system
- A unique engineering experience
- Applying your engineering skills in the real world
- Developing your hard– and soft-skills in a company-like environment
- Work with the newest technologies and innovative companies
- Work in a team with young motivated engineers

## Up for the challenge?

Want to do a similar case within the team? Submit your **resume** and **motivation letter** (one page) to volunteers@formulaelectric.be