

# Design of a planetary gearbox for a formula student racecar

## OUR PROJECT

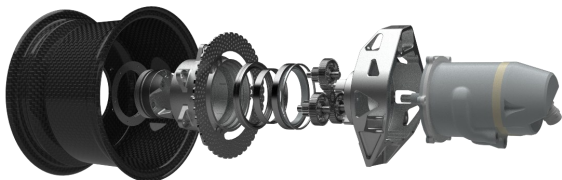
Formula Electric Belgium is a student-run electric race team which competes in Formula Student, the world's largest competition for engineering students. We aim to push the limits of performance, innovation and sustainability within electric racing every year, which is only possible with the help of our Thesis students. These pioneers are responsible for performance-defining innovations within the team, and we would love for you to join our team of highly ambitious and motivated engineers. As a Thesis student, you will research, design, prototype and test your innovations alongside the full-time members which make sure the team pushes itself and the car to new heights.

### AIM AND OBJECTIVE

Our formula student racecar has a 4-wheel drive, where each wheel has a motor and internal gearbox. Currently we have been using the same compound planetary gearbox for multiple years. The aim of this thesis would be to develop a new gearset. This will be done in KISSsoft, the industry standard software for gear design. Afterwards a new planet carrier and wheel hub should be designed according to these new gears.

Key objectives would be:

- Determining the requirements and necessary gear-ratio
- Learning the KISSsoft software for gear design
- Designing the new gearset
- Design of the new planet carrier and wheel hub



### INTERESTED?



Send us your contact details and field of interest to

[recruitment@formulaelectric.be](mailto:recruitment@formulaelectric.be)

### PROFILE

- (electro) mechanical engineer
- Experience in Siemens NX for modelling and FEA
- Eager to learn new software (KISSsoft)
- Be able to think outside of the box

### RETURNS

- Practical experience in a high-end engineering context
- Work with the newest technologies and innovative companies
- Developing your hard- and soft-skills in a company-like environment
- Participation in the biggest student competition in the world