

# DRIVES AND MOTORS

## POWERTRAIN

### 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 the international Formula Student competitions. This year, 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, test your systems together with a group of highly motivated, ambitious students. You will work together with your team members and numerous companies to develop new innovations.

#### Function

As a Powertrain Engineer, you will be responsible for the design and manufacture of the **drivetrain components** that convert electrical energy into mechanical energy at the wheels. The Powertrain Department is responsible for the entirety of these components.

Within the department, you will be responsible for research towards the **development of the drives** that convert energy from the battery and deliver it to the four **in-wheel motors**.

This will include testing and evaluating different drive settings for optimal performance. Additionally, you will develop settings for the control system based on the consumer profile and validate the performance of both the motors and drives. Furthermore, you will actively participate in the design and optimization of electric motors through collaboration with partners.

#### Profile

- Bachelor/Master Engineering Science, Engineering Technology or Business Engineering
- Knowledge about gears, bearings and shafts
- Knowledge about Matlab, Simulink and PID systems
- Interest in CAD design/FEM-software

#### Returns

- Hands-on experience in a competitive environment
- Gain exposure to cutting-edge technologies and industry-leading organizations
- Possibility to network and cooperate with (motorsport related) stakeholders
- A summer packed with international racing competitions!

#### Up for the challenge?



Submit your **resume** and **motivation letter** (one page) to [recruitment@formulaelectric.be](mailto:recruitment@formulaelectric.be)