# Electronics Sensor Nodes

# 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

**Electronics** is an important part of the car. Without it you will be able to roll the car but you can't drive it. In order for the car to perform at the absolute **limit**, the team needs a lot of data.

We use sensor nodes which are placed around the car where the team can connect there sensors on. And these nodes will convert the analogue voltage of the sensors to a **digital** which will be put on the CAN bus.

You're task would be to improve the **software** of these Sensor Nodes so that we can **configure** them via CAN, this way we can add a new sensor and reconfigure the sensor nodes without having to reconnect your laptop to the node itself all the time.

He/she gets the freedom to work separately under supervision of an electronics engineer.

# Up for the challenge?

### Profile

- Knowledge and small experience about sensor processing
- Knowledge about general software
- Problem solving skills (creativity)
- Team player with a goal to learn

### Returns

- A unique engineering experience
- Contact with companies at the leading edge of technology
- Applying your engineering skills in the real world
- Developing your hard– and soft-skills in a company-like environment
- Work in a team with young motivated engineers



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