

# Helsing's 2026 "The Truth is in the Field" Challenge



Helsing is a European defence technology company building AI-enabled systems for real-world deployment. In three facets our challenge explores areas of engineering that are critical to both Formula Student and our own work when building physical products for the real world: software deployment, autonomous performance, and safety systems.

## Facet 2: Beat the Human

Achieving autonomous driving capabilities is a significant milestone, but the ultimate goal, at Helsing and in Formula Student, is to outperform the best human operators in complex, dynamic environments. For this challenge, we want to understand where your autonomous system currently stands in this race against human performance.

Your submission should be structured in two parts:

**Part 1:** Provide a data-driven performance comparison of your autonomous system with your best human driver. Begin with a brief description of your data acquisition methodology: how you gather ground truth data and control for variables. Then address:

- Where does your autonomous system excel and where does it fall short? Analyze overall lap time performance *or* focus on specific subsystems and metrics (e.g., perception latency, braking consistency, trajectory tracking accuracy, cone detection reliability).
- Provide concrete quantitative comparisons: telemetry overlays, statistical variance analysis, or specific deficits (e.g., "loses 0.2s per hairpin due to conservative friction estimation").

**Part 2:** Select one additional area from the following list to explore in depth:

- Describe one specific performance gap you've identified and worked to close (or are currently working to close). What was your hypothesis and how did you test it? What approach did you take, and what were the results?
- What is currently the primary limiting factor for your autonomous system's performance: perception, planning, control, or the physical car itself? How do you know?

We recognise that autonomous systems are at different stages of maturity. Focus on rigorous data-driven analysis rather than overall performance claims. Whether you beat human lap times or not, we value honest assessments of what your data shows, where gaps exist, and your engineering approach to closing them.

## Submission

Your submission must be a PDF file in DIN A4 format, consisting of at most three pages of text and at most three pages of supplementary material (figures, tables, pictures, etc.). The language of the report shall be English and the report uploaded to the FSG online portal **by 2026-05-03 23:59 CET**. Submissions will be treated confidentially and will not be shared outside of Helsing's jury.

## Award details

All teams registered for FSG 2026 are invited to participate. Participation is free. The teams placing first, second, and third are awarded prizes of 3000 €, 2000 €, and 1000 €, respectively.

In the first stage (2026-03-09 to 2026-05-31), teams submit written reports for three facets:

- Software Deployment and Integration (released 2026-03-09, submission deadline 2026-04-05)
- Beat the Human (released 2026-04-06, submission deadline 2026-05-03)
- Autonomous Safety Systems (released 2026-05-04, submission deadline 2026-05-31)

Each submission is scored from 0 to 100 points, unsubmitted facets score 0 points. A team's final score is the sum of their two best submissions.

In the second stage, the six teams with the highest final scores are invited to discuss their submissions with Helsing engineers during the Hockenheim event. The jury will select the best three teams and award the prizes at the awards ceremony. All decisions are final and not subject to legal recourse.

## Contact

For questions about this challenge, contact [formulastudent-help@helsing.ai](mailto:formulastudent-help@helsing.ai).