

# AMZ News

END OF SEASON 2024



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### Formula Student Switzerland (FSCH)

The racing calendar started with our home race in Geschinen at Formula Student Switzerland 2024. With 15 teams participating, including 5 Swiss teams and even a Canadian one, this event has grown a lot in the past years. The event began with technical scrutineering, during which the car was tested for compliance with the rules and safety. The mechanical and electrical scrutineering went smoothly and could therefore be completed quickly. This gave the team valuable testing time to optimise the car for the demanding track conditions on high altitude. At the same time, the static disciplines began, in which the team secured podium places early on by making it to the final rounds of the Engineering Design and Cost and Manufacturing events. On the fourth day, the Skidpad was on the

agenda. Thanks to a good strategy, *dufour* was able to set the fastest time just before the rain set in. The dynamic disciplines of acceleration and autocross followed on the fifth day. Here too, the team was able to impress in both disciplines by setting the best times. *dufour* thus dominated all dynamic disciplines so far and achieved excellent results. On the last day, only the endurance event was remaining, in which 22 km had to be completed in two stints. *dufour* was not only the fastest, but also the most efficient vehicle, so that the lead over the other teams could be extended even further.

Thanks to winning all dynamic disciplines and a good performance in the static events, the team dominated the event with a total of 983 out of 1000 points, marking a new AMZ record of most points scored at a single event.

### Formula Student Austria (FSA)

After the local event FSCH, the first international challenges awaited us with back-to-back competitions in Austria and Hungary. Strengthened by the victory at the FSCH, the team was able to further optimise the car in a final testing sprint and adapt it to the needs of the drivers.

Once the team arrived at the Red Bull Ring in Spielberg, the scrutineerings were passed quickly without any issues. However the rain test proved to be a challenge and was only successfully completed on the third attempt. At the same time, the team impressed in the static disciplines reaching the final in both the engineering design and the business plan event.



Once all the pre-inspections had been completed, the team competed in the dynamic disciplines of Skidpad, Acceleration and Autocross on the fourth day of the event. *dufour* reached the podium in each of these disciplines and even achieved a victory in Acceleration. In the Endurance event, however, the car was immobilised on the first lap due to an electrical problem, resulting in a DNF and also zero points in the Efficiency scoring.

Despite the good results in most disciplines, *dufour* only achieved 7th place in the overall standings due to the high points weighting of the Endurance and Efficiency events.

The team was dedicated to finding the root of the problem still in Austria as the next event in Hungary was coming up directly afterwards.

### Formula Student East (FS EAST)

After the disappointing result at FSA, the team only had one day of testing in Austria to prepare for the race in Hungary. In addition, the team had to prove their skills in the autonomous disciplines for the first time in Hungary. As the manual (EV) and autonomous (DV) categories are conducted separately at this event, there was some overlap between the disciplines. This required optimal coordination and cooperation between all team members.

Scrutineering was completed as quickly as possible, to maximize the time on the testing track. In the static disciplines of Engineering Design and Cost and Manufacturing, the team was once again able to impress and take first place in both the EV and DV category in both events.

This brought the team the overall victory in the static disciplines in both the EV and DV Cup. In the dynamic disciplines, *dufour* was able to compete at the front, but did not manage to win an event until the final day. On this day, the Endurance event was on the agenda again. Due to the participation in the EV and DV Cup, *dufour* had to race in the morning session in rainy conditions. Despite the optimal conditions in the afternoon, the competition of the EV class was unable to beat our overall time.

The strong performances in all disciplines of the event accumulated to the overall victory in the EV and DV Cup. This marks the first time in Formula Student history that the same car has won the overall victory in both categories.

The team finished FSEast with 2 overall victories, 8 gold medals, 1 silver medal and 3 bronze medals.







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### Formula Student Germany (FSG)

To conclude the 2024 Formula Student season, the prestigious Formula Student Germany race was held at the Hockenheimring. With over 80 teams from all over the globe this is by far the most competitive event.

Once again, the team impressed with a consistent performance in scrutineering and completed it in no time. This gave the team valuable time to optimise the car for the low-grip track conditions.

Many valuable points were scored in the static disciplines. The crowning glory was the clear victory in the EV Engineering Design discipline, which was

judged by over 120 judges of the industry. This shows how much knowledge and technical skills the team members have acquired over the past year.

In the first dynamic disciplines, Skidpad and Acceleration, important points were collected in the manual and autonomous competition, but it was never quite enough for first place. This streak continued in the DV Autocross, but then the victory in the EV Autocross secured us the best starting position in the Endurance and our first dynamic win. The top five teams from the EV Autocross competed against each other in an impressive Endurance final. Our choice of tyres didn't pay off in mixed conditions, but the time we set was good enough

to secure more crucial points. The outstanding performance of the driverless team was ultimately rewarded with first place in the supreme discipline, Trackdrive. The team was able to show its best performance on the most important day of the season.

The award ceremony was the conclusion of an extremely successful season. With 886.23/1000 points in the EV category and 500.22/600 points in the DV category, the team once again achieved a double victory in the overall standings for both classes. This meant that *dufour* concluded the most successful season in the association's history with 5 out of 6 overall victories across all events.





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### Successes

- |   |   |                                      |
|---|---|--------------------------------------|
| 1. 3 x Overall EV<br>(FSCH, FSEast, FSG)            | 1. 2 x EV Autocross<br>(FSCH, FSG)            | 2. 2 x EV Autocross<br>(FSEast, FSA) |
| 1. 2 x Overall DV (FSEast, FSG)                     | 1. 2 x EV Acceleration<br>(FSCH, FSA)         | 2. DV Skidpad (FSG)                  |
| 1. 2 x Endurance (FSCH, FSEast)                     | 1. EV Skidpad (FSCH)                          | 3. 2 x DV Autocross<br>(FSG, FSEast) |
| 1. DV Trackdrive (FSG)                              | 1. EV Efficiency (FSCH)                       | 3. DV Acceleration (FSEast)          |
| 1. 3 x EV Engineering Design<br>(FSCH, FSEast, FSG) | 1. 2 x Cost & Manufacturing<br>(FSEast EV&DV) |                                      |
| 1. DV Engineering Design (FSEast)                   |   |                                      |



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### Conclusion

This remarkable season was only possible because of the exceptional teamwork and co-operation within the team. Every challenge was tackled with unwavering determination and the commitment of every team member to excellence played a crucial role in our success.

However, none of this would have been possible without the unrelenting

support of all our sponsors and alumni in the association.

The successes of *dufour* would have been unattainable without you. We would like to take this opportunity to thank you for this year, for your loyalty, your support and the trust you have placed in us to make this project possible. We hope to have you on board again next year.

### Outlook

The new team has already begun its work and, with fresh vigour and tireless passion, is trying to build on and even surpass the successes of *dufour*. They will again be designing, tinkering and developing new concepts that attempt to push the boundaries of what is possible one step further.

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