

AMZ News

CHRISTMAS 2024



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Season's Greetings from AMZ Racing

As the festive season approaches, our hearts race with excitement reflecting on an extraordinary year brimming with speed, passion, and triumph!

Christmas isn't just a time to celebrate—it's a moment to express our deepest gratitude. We are incredibly thankful for your unwavering support, which ignites our drive to push the boundaries of innovation and performance in Formula Student.

Here's to a joyful holiday season and an even more exhilarating year ahead! Thank you for being an essential part of our journey.

A new peak to be climbed

We're excited to announce the new name of our car. Continuing our tradition of naming our cars after Swiss mountain peaks, *aurona* is inspired by the majestic Punta d'Aurona. The peak is located on the border between the canton of Ticino and the canton of Valais as a mountain of the Lepontine Alps, standing at 2,984 meters above sea level.

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Let's get the team together

Over the past months, the team has been assembled consisting of over 90 students from various Swiss universities, with the majority coming from ETH Zurich and University of Applied Sciences Lucerne. Of these 90 students, 19 chose to continue with the project and are now guiding our new members by leading the team and its various modules. 19 students focus on the project as the central part of their studies, while an additional 30 members actively support the team as freelancers. The autonomous driving functionality of *aurona* is being developed by 26 team members, primarily ETH master's students.

With many different personalities joining from all over the globe, we are united by our passion and desire to build a competitive and reliable car.

Shaping our vision

The newly assembled team commenced their work by conducting a comprehensive analysis of the strengths and weaknesses of last season's car, *dufour*. This initial step enabled the team to gain a deeper understanding of the previous concepts, providing a robust foundation for the design process. The team places great emphasis on the importance of continuous improvement in order to maintain a competitive edge at the highest level. This commitment drives them to think creatively, challenge conventional approaches and reassess even previously successful design decisions in order to unlock new performance potentials.

In addition to their individual contributions within their respective modules, the entire team of focus students convened on three weekends to align their concepts and consolidate their efforts. In terms of fostering cross-module collaboration, the design weekends proved invaluable.

After each design weekend, the team presented their concepts in a structured sequence, starting with the general concept, progressing to the detailed concept and ending with the final concept. Alumni, who receive detailed weekly updates from each



module, were present at these key events to provide comprehensive feedback. Their input during the design weekends is particularly important, providing detailed insights, reinforcing innovative ideas and critically evaluating concepts. Alumni play a crucial role in the AMZ ecosystem. Their collective experience, both successes and challenges, is a valuable asset in guiding the next generation and ensuring the continuous development of the team's expertise.

Throughout this process, the team has demonstrated increased cohesion, with members bonding through shared objectives and collective problem-solving. The interdependence of all car systems requires careful consideration of trade-offs between modules, presenting challenges that have served as opportunities for growth. These experiences have fostered a unified team with a common objective: to construct the optimal overall vehicle. With the presentation of the Final Concept on 30 November 2024, the team is now focusing on implementing final adjustments and refining the details. As the design phase draws to a close, they have produced a comprehensive digital model of the car. The team is confident in their

design and looks forward with anticipation to the next stage of the project.

Meanwhile, the driverless team is already looking for new potential in the autonomous system for *aurora*. Similar to the focus students, they will go through several reviews with alumni, where they will present their new concepts until the final implementation in the car. The team's innovations will be tested on *dufour* and then refined on *aurora* once the car is ready to race.

Currently the entire team is working on two different timelines and in completely different fields, but throughout the season they will need to merge into a single unit.

Gearing up for the next phase

Looking ahead, the team is taking a brief moment to rest and reflect with their loved ones before moving into the next critical phases of the project. A "Boot camp" will be held just after the Christmas break to fine-tune the final concept, with the design freeze planned for the start of the New Year. Once the design is finalised, January will be a period of relative calm in the project, as

many students will also be focused on their exams. However, this is the quiet before the storm, as the manufacturing phase will begin in early February. With the theoretical groundwork completed, the team's energy will be focused on manufacturing and assembling what they hope will be a race-winning car.

The team's motivation remains unwavering as they push forward, turning their vision into reality and striving for excellence at every step.

Thank you!

The entire AMZ Racing team wishes you happy holidays, a wonderful time with your loved ones and a great start to the New Year. We're looking forward to the next chapter of our journey with your support, especially at this crucial stage of the project. We can't wait to keep you updated on our production progress.

Thank you for being part of our journey - and have a wonderful holiday season!





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