

AMZ News

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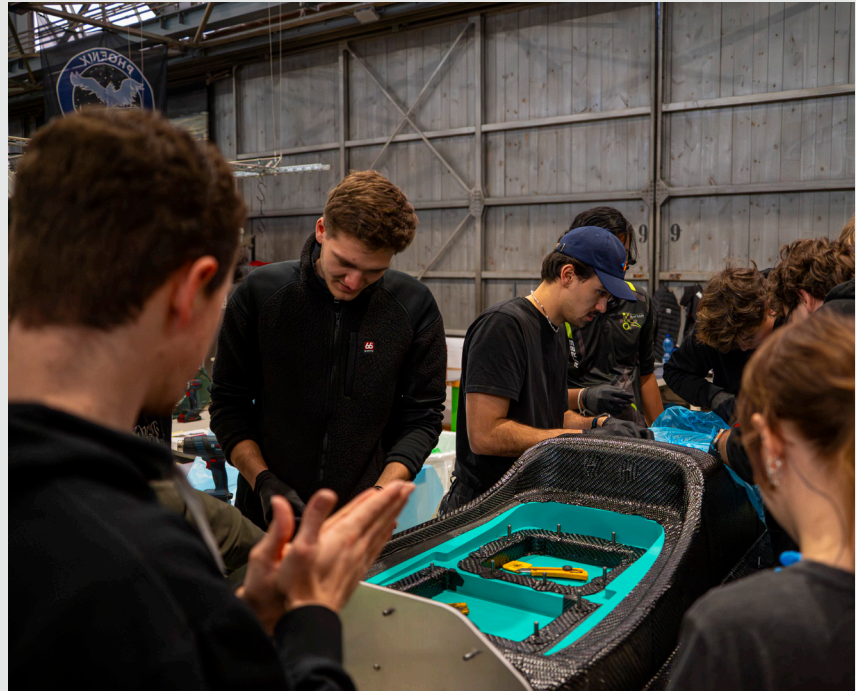
From theory to reality

As the previous year came to a close, work processes shifted. We moved from being pinned in front of a computer screen designing and calculating, to actual hands-on work in our workshop. We are now slowly seeing everything come together, a process that is not only assembling a car but also shaping the engineers of tomorrow. This is a crucial phase of the project and is only made possible thanks to the continued support of our partners.

Where talent meets experience

During the design phase, we relied on brainpower and creativity but in the manufacturing phase, we focus on adaptability, resilience, and external expertise. This transition is where theory meets its toughest critic: reality. While a computer can simulate the strength of a designed part, only the hands-on support and manufacturing know-how of our partners can make it a reality. Whether it's milling, water-jetting, or high-end 3D printing, the parts arriving at our workshop are the physical proof of our shared ambition. Designing a complex wheel hub in CAD is one thing, but holding the physical part in your hand, perfectly milled, is another.

This year, that transition was defined by our response to new regulatory constraints. The ban on our previous hydraulic setup forced a move to a different suspension concept, requiring us to refine our kinematics for more pre-



dictable, driver-focused handling. At the same time, we updated our digital architecture by core-parallelizing the Vehicle Control Unit (VCU). This change triples our computing power, allowing for more complex vehicle control algorithms. Even the aerodynamics had to be reimaged; despite tighter restrictions for the rear wing, exhaustive CFD iterations resulted in a new package that delivers a 13% increase in downforce.

The foundation

The physical manifestation of these designs begins with the monocoque. Manufacturing is a tedious and time-consuming process which requires precision, patience and teamwork. Like many parts the birth place of this part is

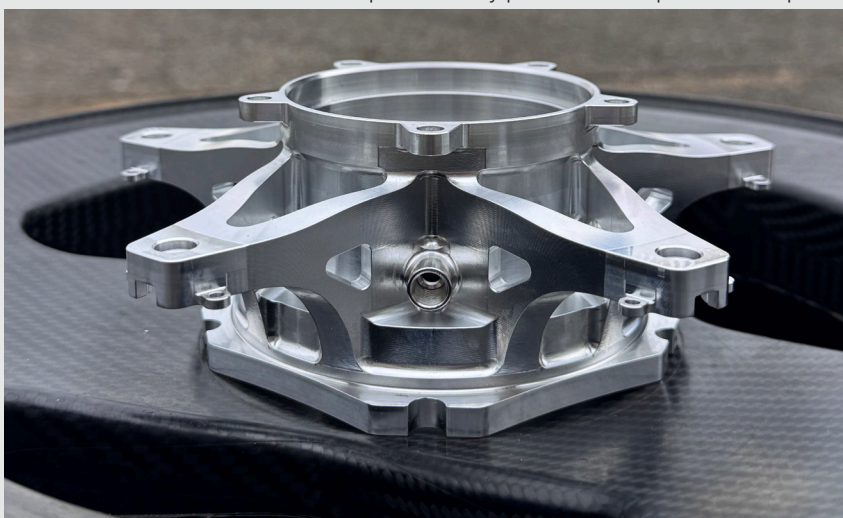
a CNC mill where our epoxy blocks are shaped in the desired form. From there on a series of sanding and laminating begins. From outer skin lamination to core fitting, a process where we place aluminium honeycomb core to achieve structural rigidity, up until placing the final layers of innerskin-carbon. All this led up to the 10th of March, the day we demoulded the final product and thus nera was born, coming in at a raw weight of 17,5 kg.

The workshop that never sleeps

The demoulding of the monocoque kickstarts the assembly phase where the workshop gets transformed into a workshop that never sleeps. Introducing shift operations to maximize efficiency, people are working day and night to bring this machine to life.

It is also a phase where the details make the difference between winning and losing. This includes trying to shave off every extra gram and keeping track of the weight of every new part that goes on the car to achieve our weight goal, or checking hundreds of cables for short circuits.

All this is bound to very tight deadlines and thanks to new parts arriving daily, assembly is going smooth so far.



Back at the top of the world rankings

At the beginning of the year AMZ officially reclaimed the number one spot in the Formula Student world rankings. This achievement, fueled by the dominant performances of our predecessors, has shifted the atmosphere in our workshop. Being ranked as the best team in

the world is an incredible honor, but it also means that for our latest project, we need to push even further to stay at top. This pursuit of excellence is a collective effort that extends far beyond the walls of our workshop. It is thanks to your support that we can not only build a race car but a race car that sits on the pinnacle of this competition. Thank you very much!

Testing

Currently we are in the middle of our testing phase. The goal is to test the car in all possible scenarios and to tune it to perfection. We are very much looking forward to the upcoming competitions starting in July and hope to continue the excellent results from the last years.

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