

AMZ News

MANUFACTURING PHASE



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The team working on the chassis
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Manufacturing Phase

With the design phase completed at the end of last year, we started this year's manufacturing phase in January. On the one hand, this involved organizing the manufacturing processes together with production partners, but on the other hand it also involved the independent production of a wide range of carbon parts, above all our monocoque, which is manufactured entirely in-house.

Chassis manufacturing in record breaking time

Again this year, this was made in a three-step process. A negative mold was

laminated from an epoxy positive pattern using special tooling carbon, onto which the first layers of the actual monocoque - the outer skin - were laminated. In a second step, aluminum honeycomb core and carbon inserts - which serve as reinforcement for the loads acting on the monocoque - were fitted and bonded. The third, final step consisted of laminating the inner skin, which completed the manufacturing chain.

We are very proud to announce that this year's monocoque was demolded on 08.03.2023 - earlier than ever before in AMZ history. Not only the use of the in-house autoclave and the improvement of the insert concept, but also the great

willingness of the team contributed significantly to this first success.

Part manufacturing

Apart from independently manufactured carbon parts, the manufacturing phase means that over 500 parts are produced externally by our manufacturing partners. From turning and milling, to water jetting and eroding, to various 3D printing processes, a wide variety of manufacturing processes are used to produce our parts.



Wheel hub manufacturing
© Sauter, Bachmann AG

New main sponsor

Sauter, Bachmann AG has been supporting our team for over 10 years with the production of gears, this year for the first time as a main sponsor.

Each wheel requires a stepped planetary gearbox for the direct drive, which is manufactured by Sauter Bachmann. This year,

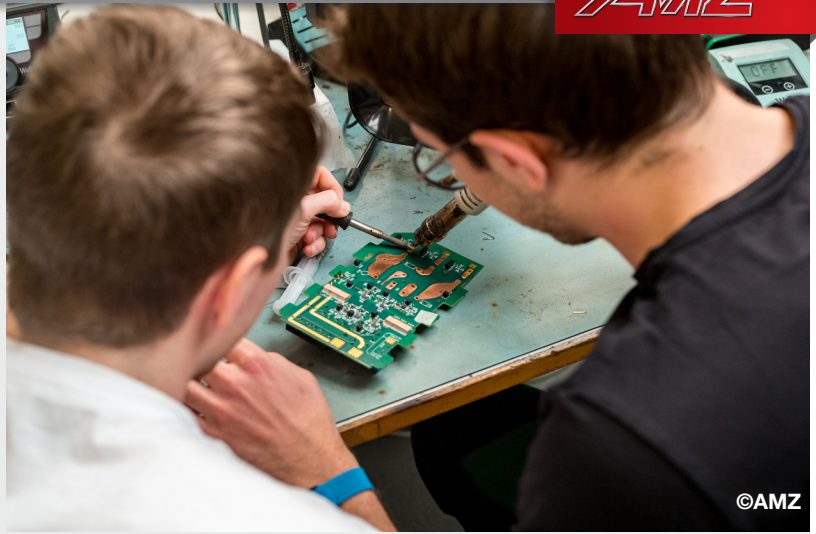
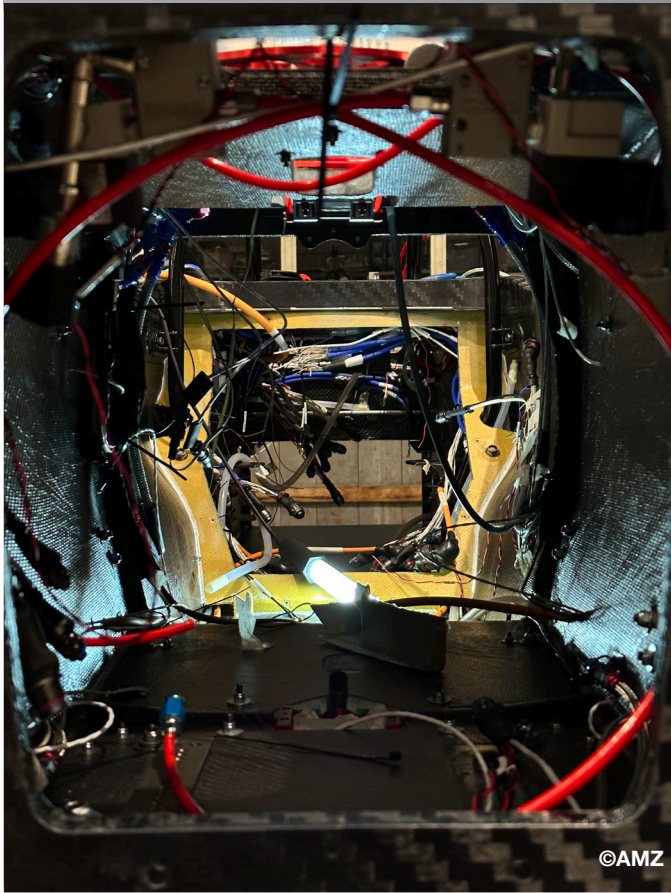
the wheel hub, which realizes the connection between gearbox and tire as a multifunctional component, will also be manufactured on one of their 5 axis machines.

Events

At the end of January the registration quizzes for this year's Formula Student events took place. With intensive preparation we could qualify for all desired events. We are happy to announce that this year we will compete with *castor* in Switzerland, Austria, Hungary and Germany against the best student teams in the world.

Finished wheel hub
©AMZ





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Outlook

At this point we would like to take this opportunity to thank all sponsors very much. Without your support, a project like this would never be feasible for us students, which we appreciate very much.

We look forward to presenting *castor* to you at our rollout in May!

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